



Infor XA – Material Requirements Planning User's Guide

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To the reader

This book contains the information you need to understand and run this application. The information in this book applies only to XA.

Before you begin

If you are not familiar with the System i, please complete the System i education for the basic operating concepts of the System i.

What this book contains

Chapters 1 and 2 acquaint you with the application. Use these chapters to understand how this application works and what you need to know to manage it.

The next group of chapters describes the options on the MRP menus. For example, Chapter 3 contains information about option 1 of the Main Menu. Each chapter includes information about how to use the panels associated with the options. The last chapter describes the reports and forms for this application.

Use the appendixes to understand more complicated topics needed to implement MRP.

Summary of changes

The following changes have been made to this application:

Enhanced calendar support provides the ability to define and identify multiple calendars and then associate a particular calendar to a warehouse or production line. By warehouse, a user will now be able to designate a production calendar and a receiving calendar, in addition to a shipping calendar. By production line, a user will be able to designate a production calendar.

If EPDM is installed, the Material Requirements Planning 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*.

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Chapter 1. Introducing Material Requirements Planning

This chapter contains general information about Material Requirements Planning.

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Some concepts and features that are common to most of the XA applications are discussed in two other books: *Getting Started with XA* and *Planning and Installing XA*.

- Menus and displays
- Group Job support
- Master file searches
- Audits and controls
- Security.

What Material Requirements Planning does

Computerized material requirements planning has earned its reputation as an extremely effective production management tool. The speed with which a computer can scan the current on-hand balance of inventory items far surpasses most manual inventory tracking methods. But its popularity also has its drawbacks. The main drawback is that no two material requirements planning systems work alike, yet most use the same terms, phrases, and jargon. The differences in the meaning of words such as forecast, requirement, master scheduling, firm planned order—the list is almost inexhaustible—requires a conscientious effort to be as precise as possible in presenting these terms.

A substantial effort on your part is also required. You must, in almost every circumstance, attempt to forget whatever you have heard about other planning systems as you read this manual. If you do not, you may assume that Material Requirements Planning (MRP) does certain tasks for you when in fact it may not, or, on the other hand, you may easily overlook the value of an MRP function that is not available with other systems.

To use this manual, read this section very carefully, referring to the glossary if you need clarification on a word or phrase. Do not attempt to read the other sections of this book until you fully understand this section, which describes the MRP application. After reading this overview, you will know how the pieces of MRP relate to each other, and you can continue with the other sections.

The MRP process consists of three basic tasks:

- Specifying requirements for master level items on the master level item schedule
- Initiating an MRP planning run which creates planned orders
- Release the planned orders to the Inventory Management application to build the needed items and replenish their component parts.

Specifying requirements

MRP projects when to produce or purchase materials and specifies how many items are needed. This projection, called the plan, is made for all items that are coded in the Inventory Management (IM) application as belonging to a planning warehouse. You can set up any number of planning warehouses. The multi-warehouse function allows MRP to plan for multiple warehouses. Additionally, the MRP planning run is able to view, or group, multiple warehouses together and plan requirements for all grouped warehouses in one planning warehouse. See “Multi-warehouse planning” on page 2-17 of this manual for more information on the multi-warehouse capability. Once the plan is established (it is initially created when MRP is installed), you maintain and update the plan to reflect current conditions. If installed, InterSite Logistics (ISL/MISL) passes requirements from one planning warehouse to another.

The control of the plan is called master level item scheduling. In master level item scheduling, you specify to the computer how many end-items or service parts you need and when you need them. MRP then uses the bills of material specified in the Product Data Management application to examine each component part and recommends replenishment orders for each part as necessary.

Your first task in master level item scheduling is to identify which items you want to control through master scheduling and which items you want MRP to control. The end-items and service parts—those items for which you can identify external demand (that is, items you supply to your customers) are master level items. You need to have them coded as such in the Inventory Management application. Items that are not coded as MLI (master level item) do not appear on the master level item schedule. MRP plans these items based on the Order Policy code you assign to them.

Stating that you need a given MLI quantity on a particular (explicit) date on the master level item schedule is called an MLI requirement. The MLI requirements you specify are the primary input to MRP's planning process.

You can manually enter these requirements. Or, the system can create these requirements in an MRP planning run based on the forecast parameters supplied by you or added by the Forecasting (FCST) application. Additionally, based on the plan customer order parameters, the MRP application can generate requirements for customer order demand. Based on the plan expected customer order parameters, the MRP application can generate requirements for expected customer order demand that you specify.

Initiating an MRP planning run

The planning run examines the balance of each inventory item, starting with end-items. If the requirements you entered for these end-items exceed the quantity on hand and on order, a planned order is created. A planned order is MRP's recommendation that you should start to build or purchase a given quantity of an item at a particular date. The quantity of the planned order is the amount needed to bring inventory's on-hand balance to a level at least high enough to meet the requirement you entered for the item. The start date for the item is calculated from the lead times specified for the item in the Item Balance record (a record in Inventory Management's Item Balance file). All start dates are calculated using actual work days, which are established when you build the Calendar file using Calendar file maintenance.

As each planned order is created for an item, the planning run creates a requirement for each component of that item. These are called generated requirements. A generated requirement is a statement that a certain number of components are needed on a given date. It differs from the MLI requirement you entered on the master level item schedule only in that these component parts are needed to produce the requirements specified by internal demand—planned orders for items higher in the product structure—rather than external demand, such as sales orders. Each component item is examined, and planned orders are created when needed to meet these generated requirements. The planning run continues this process until all component parts of all items have been examined.

The plan that is created is basically a collection of the requirements, both MLI and generated, and the resulting planned orders for items that need to be replenished. The planned orders are a tentative production and purchasing schedule.

Releasing planned orders

A list of planned manufacturing and purchase orders in itself is not very helpful without a means of changing them into actual manufacturing and purchase orders. This change is accomplished through MRP's order review and release or through Order-Based Production Management's (OBPM) order review and release.

Order release has two steps. You review the planned orders, individually selecting and approving those you want to release. After you have approved the orders, you start a computer task called "order release." Your approved orders are then processed by Inventory Management. An open purchase or manufacturing order is created for each approved order and components are allocated to the manufacturing orders. When Inventory Management finishes its processing, the planned orders are no longer planned orders: they are open manufacturing and purchase orders.

If installed, InterSite Logistics (ISL/MISL) allows MRP to flag Intersite orders for release. Upon order release an Intersite order is created as a scheduled receipt in the requesting planning warehouse and as demand in the producing warehouse.

MRP's order review and approval not only permits you to release orders to Inventory Management, it also allows you to change the dates and quantities of those orders as you approve them. MRP recommends what quantities you should produce, but it does not assume control of production. That task belongs to you.

The MRP Main Menu

```
AMMM00                      Material Requirements Planning          *****
                               Main Menu

Type option or command; press Enter.

  1. Demand Management >>
  2. Planning Run Options >>
  3. Planning and Financial Reports >>
  4. Order/Schedule Release and Review >>
  5. Work with Calendars

==> _____

F3=Exit      F4=Prompt    F9=Retrieve   F10=Actions
F11=Job status  F12=Return   F22=Messages
```

Option 1. Demand Management. Used to manipulate factors that drive the MRP planning generation.

Option 2. Planning Run Options. Used to change or view the horizon values or the period intervals and to request a planning run. From this option you may also add, change, or delete warehouses.

Option 3. Planning and Financial Reports. Used to request reports reflecting the planning run and one of the six versions of the Manufacturing Cash Flow Analysis reports for the planning run.

Option 4. Order/Schedule Release and Review. Used to approve orders for release, request a shortage report, and release orders.

Option 5. Work with Calendars. Used to see a list of the available calendars. Also used to add new calendars or change, copy, delete, or display an existing calendar.

With the exception of option 5, you must have the proper level of security for a warehouse to perform any of the tasks associated with warehouses.

How the information flows within Material Requirements Planning

This section discusses how information flows through the Material Requirements Planning application.

You can manage forecasts, master level item requirements, firm planned orders, order releases, reschedules, planning reports, and inquiries through the work station. Requirements and planned orders for subassemblies, parts, and materials are established by the planning runs. You can also start planning runs and release stock replenishment orders, and make inquiries into the data base.

You have extensive control over the frequency and nature of the planning cycle and the format of the planning reports. Following is one of the ways you might operate:

- After you complete the planning cycle, you can request that the MLI Versus Forecast/Orders report be printed.
- You can then review this report, make changes, and rerun this step until you are satisfied with your master production schedule. See "Automatic rescheduling" on page 2-50 for alternate methods in scheduling a planning run.

When you are satisfied with the master production schedule, you can start a full planning run to establish the plan for the subassemblies, parts, and materials. The application prints (on request) the Order/Schedule Recommendation report, the Master Items Planning Report, the Purchase Planning Report, or the Requirements Planning Report, which describe the recommended actions to be taken as a result of the master production schedule.

You can determine the course of action to follow by reviewing these reports. By creating firm planned orders, releasing orders, and changing open orders or substituting materials where required, you are able to make the adjustments needed to ensure that the production schedule is met.

The application prints the Order Shortage Report, the Item Shortage Report, and the Order Action Detail report, which serve as guides to order release actions. Management reports including the Manufacturing Cash Flow Analysis reports and the MLI Resource Report are printed on request.

System reports are also printed as audits and controls. The Planning Run Status report, the Planned Order Error List, Reschedule Activity report, Order Action Summary report, Order Review Status report, and the Auto Release Error List report are automatically printed as various application functions are run.

Most of the information on the reports mentioned above can be reviewed at your work station using the inquiry function. Therefore, much of the printing and use of reports can be reduced as you become familiar with the application. However, some reports and inquiries should be used together in order to effectively plan materials.

You can also inquire about master schedule information, calendar and planning horizons, order information, and master level items or all items, as well as more specific order information by planner.

How the information flows between MRP and other applications

The Material Requirements Planning application uses detailed information from other XA applications. MRP cannot be installed until Inventory Management (IM) and either Enterprise Product Data Management (EPDM) or Product Data Management (PDM) are installed. To use MRP's order release, Inventory Management's order tracking must be active.

If EPDM is installed and activated, and MRP is enabled to EPDM by assigning a warehouse to a specific EPDM site, then MRP uses EPDM data rather than PDM data.

MRP requires you to:

- Use PDM's or EPDM's bills of material and item data.

Note: When you perform Product Structure maintenance on an item, the requirements generated by that item for its components are flagged as having Product Structure maintenance. The next MRP planning run changes them. PDM's Product Structure Maintenance updating takes longer when MRP is installed and interfacing and the questionnaire response for Net Change Planning is Y (Yes). This is due to an additional procedure that maintains the requirements and planned order files to reflect product structure changes to ensure net change planning works correctly. Not using Net Change Planning speeds up PDM maintenance.

- Use IM's item inventory data such as on-hand, on-order and allocated balances, due dates for scheduled receipts, unit of measure, purchase and manufacturing order information, and calendar records.
- For customer orders entered in COM using the Knowledge Based Configurator (KBC) and not released to manufacturing, MRP extracts a customer order as a planned order and uses its KBC generated components to explode requirements instead of using the Product Structure file.

MRP gives you the option to:

- Initiate order release to IM if you request that interface when you answer the MRP questionnaire and activate the interface. All manufactured items planned in MRP should be released from the MRP application in order to properly update the MRP files.
- Update Master Production Schedule Planning's (MPSP) planned orders to a released status if master scheduled orders are released (if MPSP is installed and interfacing). MRP also receives planned and firm planned orders for master scheduled items from MPSP to use in its planning runs.
- Use the Purchasing's (PUR) purchase order data base to plan requirements.

- Receive forecasts and requirements for master level items if Forecasting (FCST) is installed and interfacing. You can also use a propagation technique in MRP to generate forecasts and requirements or enter forecasts manually.
Note: If you propagate forecast for an item and use the Forecasting application to forecast an item, you may double your desired forecast for the item.
- Use EDI 830/DELFOR transactions transmitted from your trading partners by the Electronic Commerce (EC) application, if it is installed, as expected customer orders to assist in planning requirements. You can also use EC to send purchase planning schedules to your trading partners.
- Use Customer Order Management's (COM) customer order information and optionally create requirements, if it is installed and interfacing and if you choose to use that information when you answer the MRP Questionnaire. In this manual, customer order information is referred to as backlog.
- Use InterSite Logistics (ISL/MISL), if it is installed, to plan and execute transfers across multiple planning warehouses.
- Use MRP's Order review and release to change planned manufacturing and purchase orders into actual manufacturing and purchase orders. This can also be accomplished by using Order-Based Production Management (OBPM) which provides a client view of MRP's Order Review screens.
- Provide the Capacity Requirements Planning (CRP) application with planned and firm planned orders for work center loading during CRP's planning run, if CRP is installed and interfacing and planned order work load was selected during CRP's work load extract.
- Provide the Repetitive Production Management (REP) application with planned and firm planned orders which REP can use as net demand to plan schedules. When a schedule is entered or changed, REP sends this information back to MRP's Order Review file and consumes or changes MRP's planned or scheduled receipts starting with the schedules due date.

Material Requirements Planning interfaces

MRP sends information to ...

APPR (MMS)	Purchase orders and purchase requisitions for approval.
CRP	Planned and firm planned orders for work center loading.
EC	Purchase planning schedules can be sent to vendors you have set up as trading partners in the EC application.
IM	Planned orders tagged for release; updates orders that should be rescheduled.
ISL/MISL	Planned demands against supplying warehouses, and released orders, resulting in actual demand against supplying warehouses.
MMS	Purchase orders requiring approval.
MPSP	Planned orders that are tagged for release in MRP's order review to update master schedules.
OBPM	Order-Based Production Management provides a client alternative to reviewing and releasing MRP orders and scheduled receipts.
PUR	Purchase requisitions and purchase orders for release via purchasing auto release or order release. Purchase planning schedules requiring buyer review.
REP	Planned and firm planned order which REP uses as net demand to plan its schedules.

MRP receives information from ...

COM	Customer orders in the form of KBC planned orders that are manual and informational requirements, and for released intersite orders against the supplying warehouse.
EC	Expected customer orders can be received from customers you have set up as trading partners in the EC application.
EPDM or PDM	Item process and bill of material information and item characteristics.
FCST	Forecast and requirements for master level items.
IM	On-hand, on-order, and allocation data; lead times, planning process codes, and calendar information. Signals MRP to replan when certain changes are made to ITEMBL.
ISL/MISL	Planned demand from requesting warehouses, and intersite order balances and status for open orders that are scheduled receipts.
MPSP	Master production schedules for MRP scheduling activities.
PUR	Scheduled receipts for purchased parts.
REP	Planned and released schedules for schedule controlled items that are used in the planning run. Updates to MRP planned orders and scheduled receipts based on scheduled maintenance activity in REP.

Common XA concepts

Master file searches

XA has master file searches that you can use to look up information in various master files. To begin a search, type a question mark [?] in a field that supports searching.

After you type a question mark in an eligible field, use **Field Exit**, and then press **Enter**. A display appears on which you describe the type of search you want and what you want to find.

Searches will search either EPDM or PDM files depending on whether or not the warehouse is enabled to EPDM.

Files

Three kinds of files are described in this section: the System Control file, master files, and work files.

System Control file

The System Control file provides a place to store information that is used by more than one procedure or program.

Master files

Some information in master files is relatively unchanging and is used repeatedly in inquiries and reports. For example, a planned order is stored in the Planned Order file for use by any task that requires that information. Some of the information in a file, however, is changed frequently. An order in the Order Review file is an example.

Files used exclusively by MRP:

- Order Review file (ORDREV)
- Period Interval file (PERINT)
- Planner Sequencing file (PLNSEQ)
- Purchase Planning Profile file (PUPLPR)
- Release Detail file (RELDTL)

Files shared with other applications:

- Calendar Header file (CALHDR)
- Calendar Table file (CALTAB)
- Demand Reference file (DMDREF)
- Expected Customer Order header/detail files (EXPCOH/EXPCOD)
- Feature/Option Item (MBACREP)
- Item Balance file (ITEMBL)
- Item Master file (ITEMAS)
- Item Plan file (ITMPLN)
- KBC Open Order (TCFOHM)
- KBC Open Order Bill of Material (TCFOBM)
- Line Item (MBCDREP)
- Manufacturing Order Master file (MOMAST)
- Manufacturing Order Detail file (MODATA)

- MRP Control file (MRPCTL)
- Planned Order file (PLNORD)
- Planning Information file (PLNINF)
- Product Structure file (PSTRUC)
- Purchase Order Master file (POMAST)
- Purchase Order Item Detail file (POITEM)
- Purchase Order Blanket Release Detail file (PfcOBLKT)
- Purchase Planning Schedule header/detail files (PUPLSH/PUPLSD)
- Purchase Planning Schedule send files (Send Vendor-EDIPSSA, Send Item-EDIPSSB, and Item Detail-EDIPSSC)
- Quote/Order Header (MBC6REP)
- Release (MBADREP)
- Release Feature/Option (MBF1CPP)
- Requirements file (REQMTS)
- Warehouse Master file (WISMST).

MRP files

Order Review file. The Order Review (ORDREV) file contains all released and planned orders that have been selected for review or release based on the release and review horizons. If EPDM is activated, this file also contains site and item process information.

Period Interval file. The Period Interval (PERINT) file contains the dates and intervals specified on the maintain period intervals function. Each planning warehouse contains three sets of period interval records, totalling sixty records per planning warehouse.

Planner Sequencing file. The Planner Sequencing (PLNSEQ) file contains various status information about items, planned orders, and requirements. Status information about an item may be obtained from one record in this file, as opposed to many records in the Planned Order (PLNORD) file, Order Review (ORDREV) file, or Requirements (REQMTS) file. You can not view or directly alter this file.

Purchase Planning Profile file. The Purchase Planning Profile (PUPLPR) file contains your definitions for purchase planning profiles you create.

Release Detail file. The Release Detail (RELDTL) file contains items from the Order Review file that have been selected for update. Orders from the Release Detail file are used by the IM order release program.

Shared files

Calendar Header file. The Calendar Header (CALHDR) file is used to calculate dates from lead times. It contains the workdays for a five-year calendar that you defined using Calendar file maintenance. MRP builds this file from the date and year information you enter in Calendar file maintenance.

Calendar Table file. The Calendar Table (CALTAB) file contains a record for each of the five years in the calendar. The year is identified and each day in the year is coded: “-” as workday, N as nonworkday, or H as holiday.

Demand Reference file. The Demand Reference (DMDREF) file contains all independent sources of demand for an order, and allows tracking through to the manufacturing order, purchase order, or purchase requisition.

Expected Customer Orders files. The Expected Customer Orders header (EXPCOH) and detail (EXPCOD) files contain records for expected customer orders received as EDI 830/DELFOR transactions from trading partners using the Electronic Commerce (EC) application.

Feature/Option Item. The Feature/Option Item (MBACREP) file contains the product structure selected for customer order line items with S-number configurations.

Intersite Order file. The Intersite Order file (XFRORD) contains one record for each released intersite order. The record includes such information as requesting and supplying warehouse, item and order number, scheduled date, and quantity ordered. MRP shares this file with IM, ISL/MISL, and MPSP.

Intersite Transfer Requirements file. The InterSite Transfer Requirements file (XFRMST) contains one record for each planned intersite order as generated by ISL/MISL. MRP uses this information to load forecasted requirement records into the Requirements file (REQMTS) at the beginning of a planning run. MRP shares this file with MPSP and ISL/MISL.

Item Balance file. The Item Balance (ITEMBL) file contains one record for each unique item number per warehouse. Each record includes data for managing inventory, such as quantity on hand, quantity on order, historical usage, and lead time.

Item Master file. The Item Master (ITEMAS) file contains at least one physical file (ITEMASA) containing only A-records for each unique item number. The A-record has two types of information: general item and pricing information. The general item information includes fields such as item description, item type, and stocking unit of measure. The pricing information includes fields such as base price and price unit of measure. If product costing was selected during the installation of EPDM or PDM or if MRP is installed, the Item Master file has a second physical file (ITEMASB) containing only B-records. If the Purchasing application is installed and interfacing, the Item Master file has a third physical file (ITEMASC) containing only C-records.

The C-records contain information relating to the Purchasing application. The Item Master file is used by the FCST, IM, REP, PM&C, MPSP, MRP, COM, EPDM or PDM, PC&C, SA, and PUR applications. In this manual, ITEMAS A-records are referred to as ITEMASA, ITEMAS B-records as ITEMASB and ITEMAS C-records as ITEMASC.

Item Plan file. The Item Plan (ITMPLN) file contains one record for each Item Balance (ITEMBL) record. Each record contains planning information that relates to the item, such as the forecasting code and the demand time fence. The ITMPLN file is maintained through Item Balance (ITEMBL) maintenance.

Line Item. The Line Item (MBCDREP) file contains one record for each line item of a customer order.

KBC Open Order file. The COM KBC Open Order file contains customer orders extracted from the Knowledge Based Configurator (KBC) application. MRP extracts KBC orders from COM and creates planned orders from them. (This differs from the normal process, in which MRP treats customer orders as an MRP requirement and nets the requirement to create planned orders.)

KBC Open Order Bill of Material file. The COM KBC Open Order Bill of Material file contains bill of material information from the KBC application. MRP extracts this information from COM and creates dependent demand for the KBC components. (This differs from the normal process, in which MRP explodes planned orders against the Product Structure file to determine dependent demand for components.)

Manufacturing Order Master file. The Manufacturing Order Master (MOMAST) file contains one record for all released manufacturing orders. Each record includes such information as item number, description, quantity ordered, quantity scrapped, quantity completed, and schedule date.

Manufacturing Order Detail file. The Manufacturing Order Detail (MODATA) file contains one record for each open blanket purchase release and each manufacturing component material allocation. Each record includes such information as manufacturing component item number, description, quantity required, quantity issued, and required date. If COM is installed and interfacing, this file also contains sales order detail data.

MRP Control file. The MRP Control (MRPCTL) file contains one record for each planning warehouse. Each record contains data which is selected by planning warehouse, such as planning run execution options, horizon dates, and planning run report options. These records are automatically created and deleted by the system. This file is used by MPSP and MRP.

Open Order Bill of Material. The Open Order Bill of Material (TCFOBM) file contains all of the components specified by the KBC configuration of a customer order.

Planned Order file. The Planned Order (PLNORD) file contains one record for each released, planned, and firm planned order. The information for scheduled receipts is copied from the open order files: manufacturing orders from Manufacturing Order Master, purchase orders from Purchase Order Master, purchase releases for blanket orders from Manufacturing Order Detail, and intersite orders from the Intersite Order file. If MPSP is installed and interfacing, planned and firm planned orders for master scheduled items are transferred from the master scheduled orders file to the planned orders file. If EPDM is activated, item process information is added to this file.

Planning Information file. The Planning Information (PLNINF) file contains one record for each planning warehouse. Each record contains information which is selected by planning warehouse, such as horizon values. These records are automatically created and deleted by the system.

Product Structure file. The Product Structure file (PSTRUC) contains one record for each parent/component relationship in product structures. The Product Structure file supplies MRP with the current adjusted quantity per, which is calculated using the operation yield.

Purchase Order Master file. The Purchase Order Master (POMAST) file contains information for each purchase order. It uses the order number as key.

Purchase Order Item Detail file. The Purchase Order Item Detail (POITEM) file contains information for all purchased items that are on order. It is sequenced by order number, item number, and warehouse.

Purchase Order Blanket Release Detail file. The Purchase Order Blanket Release Detail (POBLKT) file contains released purchased items that are on order. It is sequenced by order number for purchase orders, where the purchase order is completed in stages of quantities and/or by order number, item number, warehouse, and blanket sequence.

Purchase Planning Schedule files. The Purchase Planning Schedule header (PUPLSH) and detail (PUPLSD) files contain the purchase planning schedules you have created to send to suppliers.

Purchase Planning Schedule send files. The Purchase Planning Schedule send files (EDIPSSA-Send Vendor, EDIPSSB-Send Item, and EDIPSSC-Item Detail) contain header and detail records for the planning schedules you send as EDI 830/ DELFOR transactions to trading partners using the EC application.

Quote/Order Header. The Quote/Order Header (MBC6REP) file contains one record for each open customer order.

Release. The Release (MBADREP) file contains one record for each customer order release.

Release Feature/Option. The Release Feature/Option (MBF1CPP) file contains release specific information (quantity, date, etc.) for structures of customer order line items with S-number configurations.

Requirements file. The Requirements (REQMTS) file contains the following records: MLI requirements (manual, held, and propagated) as well as forecast (manual and propagated), generated requirements, customer orders (blanket and backlog) copied from the Customer Order Master, selected expected customer orders copied from the Expected Customer Order files, forecast and requirements records for planned demand from planned intersite orders in other warehouses against a specified warehouse, and Future Allocations from the Manufacturing Order Detail files. If FCST is installed and interfacing, it adds forecasts for master level items to this file. If MPSP is installed and interfacing, the MRP programs ignore any requirements or forecasts that you enter in MRP for master scheduled items. Since master scheduled items are planned in MPSP, you should not add forecasts or requirements for them in MRP.

Warehouse Master file. The Warehouse Master (WHSMST) file contains one record for each unique warehouse. Each record contains information about how the warehouse is defined, such as controlled or uncontrolled, selling or non-selling, and planning or demand and the warehouse security group. If EPDM is activated, the specific site is also included.

Work files

Work files are created by MRP to hold information for processing, such as proposed planned orders. These files include:

- Allocation work file
- Planned order work file
- Requirements work file
- Customer Order work file.

MRP copies its orders to be released into a special member of the Order Data (ORDATA) file. IM uses this file to release orders. You cannot directly alter this file.

Major reports

MRP offers options you can use to get reports with only selected information. See Chapter 8 for more detail.

The main reports printed by this application are:

- The MLI Versus Forecast/Orders report shows the master production schedule. It shows all master level item (MLI) requirements and compares them to the forecast. If Customer Order Management is installed and interfacing, it includes the backlog (customer orders). This report is the printed version of the master level item schedule displays.
- The Requirements Planning Report or Master Items Planning Report shows all requirements and released and planned orders for an item and calculates the item's availability by date. It shows item information such as costing detail, lot sizes, and lead times, and shows the source of the requirements (Peg to). This report is the printed version of the item requirements inquiry displays. It is called Master Items Planning Report if you request the report to include only master level items.
- The Purchase Planning Report lists, in sequence by vendor, the items for which you have planned purchases. It shows each item's planned purchases projected into the future and shows totals in terms of stocking unit of measure (for example, square meter) as well as purchase conversion units (for example, kilos or tons). It provides information that helps in making decisions about price breaks, carload lots, or reorders for related items.
- The Order/Schedule Recommendation reports list MRP's recommendations to release, defer, cancel, or expedite orders. They can be printed in item or exception sequence.
- The shortage reports analyze a group of orders being considered for release and highlight the material that will not be available in time before they are actually released. There are two shortage reports: the Item Shortage Report and the Order Shortage Report. If Customer Order Management is installed and interfacing, customer backlog is included.
- The Order Action Detail report lists the actions Inventory Management should take to support the manufacturing plan. These include maintenance to manufacturing and purchase orders, release of orders with features, and creation of purchase order documents to send to vendors.
- The MLI Resource Report is a one-page management report that is printed with the MLI Versus Forecast/Orders reports. It highlights potential capacity or resource limitations over the next 12 months. Both MRP and MPSP data is used.
- The Manufacturing Cash Flow Analysis report is also a one-page management report. It compares the potential income as expressed by MRP's master level item plan and MPSP's demand against the planned acquisitions (labor, overhead, and material) to support this plan.
- The Source of Demand for Scheduled Receipts report provides details of the sources of demand for existing manufacturing and purchasing scheduled receipts.
- The Purchase Order Revisions report provides details of purchase orders automatically rescheduled during a MRP planning run or as part of the automatic rescheduling process in order release.
- The Reschedule Activity report provides details of potential and actual automatic rescheduling activity from the last planning run.

- The Expected Customer Orders report lists a user selection of expected customer orders received as EDI 830/DELFOR transactions from trading partners using the Electronic Commerce (EC) application.
- The Purchase Planning Schedule report contains purchase planning schedules for suppliers, which you can fax, mail, or send electronically as EDI 830/DELFOR transactions to trading partners using the Electronic Commerce (EC) application.

Inquiries

In addition to reports, you can have certain current information shown at your work station. An action that causes information to appear is called an inquiry. In MRP, you can inquire about:

- The calendar and the planning horizons and period intervals
- Master level items or all items
- Detailed planning information or master schedule information
- Order information
- Order information by planner by item
- Forecast compared to internal and external demand.
- Expected customer orders received electronically from buyers
- Purchase planning profiles used to create purchase planning schedules
- Purchase planning schedules to be sent electronically to suppliers

Note: Order-Based Production Management provides a client alternative to reviewing and releasing MRP orders and scheduled receipts.

In addition, you can also interrupt what you are doing when you are planning master level items, forecasting, or releasing orders to find more information about an item.

Automated job submission

XA provides the ability to execute XA batch jobs from outside of the XA menu structure for Material Requirements Planning (MRP) application tasks listed below:

Task	Menu and Option
Maintain MRP Horizon Values	AMMM20-01
Initiate MRP Planning Run	AMMM20-06
MRP Order Release	AMMM40-05
MRP Order Release with Shop Packet	AMMM40-06
MRP Purchase Order Auto Release	AMMM40-07
MRP Purchase Planning Schedules	AMMM40-11

XA provides the necessary architecture modules to enable application tasks to be initiated from sources other than the XA menu system and to be initiated in a batch subsystem. In order to provide the most flexibility, the Cross Application Support (CAS) portion of this activity is done using a series of Application Program Interfaces (APIs). The end user cannot execute these APIs at an System i command line; they must be called by a batch or interactive program. See Appendix E for more information on APIs.

MRP concepts

Forecasting

A basic premise of master level item scheduling is that the planner should know:

- How many of what items you need
- When you need the items
- Whether your production facilities are capable of building to your schedule.

MRP does not have a capacity planning function. It assumes that all requirements can be produced. However, MRP produces a report called the MLI Resource Report which shows you totals-by-month information about the master level items being produced: quantity, cost, price, weight, and labor cost. This information may assist you with a rough cut of production capacity planning. Also included is a tool that helps you decide how many MLI requirements you need. This tool is the forecast.

Forecasting master level items is done by the Forecasting (FCST) application, if installed and interfacing. The forecast, which is usually developed by the marketing department, appears on the master level item schedule for analysis. Its appearance, however, is for your information only. You must enter the requirements into the Master Level Item (MLI) schedule, or you can supply them using the Forecasting application. Requirements, not forecasts, are the input to the planning runs. The forecast is presented to you as an estimate of the external demand for this item.

If the Customer Order Management (COM) application is installed and interfacing, the customer orders that have been entered by COM also appear on the master level item schedule. The forecast is compared to these customer orders, and a running balance showing which is the greater of the two—forecast or customer orders (called backlog)—is presented to you. You therefore have a measurable target to achieve while you are scheduling: the forecast or the backlog, whichever is greater.

If the Electronic Commerce (EC) application is installed and you are receiving planning schedule (ANSI 830 or EDIFACT DELFOR) transactions from your customers, they are stored in MRP as expected customer orders. These transactions also appear on the master level item schedule and are included in the calculation of backlog, giving you an extended view of planned customer requirements.

If production constraints prohibit you from producing all the requirements needed to meet the forecast or backlog, you must communicate this to marketing and determine an appropriate resolution, whether it be to defer your customer's orders, begin overtime production, or take some other action to resolve the problem.

Forecasts can be created in several ways:

- You can enter the forecast manually from whatever forecast information you have.
- It can be calculated by the Forecasting application, if installed and interfacing
- It can be created (propagated) for you by the MRP planning run on a straight-line (same amount in each period), item-by-item basis of X quantity, Y number of days apart, for Z number of periods, based on the historical usage of the item.

- Since propagated requirements are created again during each planning run, the propagated requirements must be indirectly maintained. This is accomplished by manually adding a positive or negative requirement for the same date as the target propagated requirement. This, in effect, adjusts the total requirement quantity for that date.

You can change, delete, or add new forecasts as conditions change.

There is a special type of forecast, the propagated forecast, recommended for service parts to avoid manually entering requirements for these items (for example, parts such as spark plugs that you use in your product at the rate of 10 cases a month). These items can be designated as items whose propagated forecast is to become the requirement for the item. Thus, requirements are generated automatically for these items in quantities equal to your forecast for these items. If the Forecasting application is installed and interfacing, you should not use the propagated forecast/requirement technique since this could cause a duplication of forecasts and requirements coming from the Forecasting application.

If a master level item happens to be a component part, generated requirements (internal demand) appear on the master level item schedule along with external demand (the forecast and the customer backlog). This internal demand consumes inventory and is shown on the display to aid you in decisions about scheduling.

Component items, therefore, can have two sources for requirements:

- The generated requirements to meet the internal demand for use of the item as a component part.
- The MLI requirements entered to meet the forecast for external demand for replacement parts. For these components, use an MLI code of M to indicate multiple sources of requirements.

Both MLI and generated requirements cause orders to be planned for these items.

In special circumstances, you can designate that a component item should have only one source of requirements—MLI requirements. You can do this for options or for very expensive components, such as precious metals or costly precision parts. For these components, requirements are generated from parent items, but these generated requirements are not considered as demand in the planning run.

Instead, the generated requirements are presented on the master schedule as if they were customer orders, and they are included in the greater of forecast or backlog comparison totals. The planner, therefore, has complete control and responsibility for the scheduling of these items and enters MLI requirements to direct their production. To indicate you want a component item to have a single source for its MLI requirements, use an MLI code of S. Your forecast for these items should include internal (generated requirements) as well as external demand, although it is not essential.

Planning horizons

MRP is time-dependent. Master level item scheduling, the planning run, and order release are all concerned with the passage of time.

You specify the passage of time to MRP by entering the current date. MRP uses a calendar of workdays that spans five years. The current date you enter is the calendar workday that represents today's date.

You also specify the planning horizon, a range of days from the current date that you want MRP to use. The planning horizon includes an overdue horizon, a release horizon, and a review horizon. The plan generated from requirements you enter into the master level item schedule is directly impacted by these horizons.

See Chapter 4, "Planning Run Options" on page 4-1, for more on the planning horizon, and Chapter 7, "Work with Calendars" on page 7-1 for detailed information about creating and maintaining the calendar.

All MLI requirements on the master level item schedule are automatically dropped from the schedule by the planning run as soon as they pass the current date. MRP assumes that these aging requirements have already been shipped to satisfy customer orders.

If, in fact, the customer orders have not been shipped but are overdue, you must indicate on the master level item schedule that the corresponding requirement is not to be dropped by the planning run. You do this by marking the requirement as held. A held requirement is not dropped until it passes the overdue horizon, which is determined by the difference between the start date and the current date you enter.

The passage of time also affects propagated forecast and requirements records. As the oldest of these propagated records falls overdue, it is dropped from the plan. A new record is then created and added at the end of the existing set of propagated records so that you always have the forecast or requirements spanning the number of periods you have specified.

The release and review horizons are used by MRP to determine which planned orders are candidates for release to production. Because the calendar spans five years, the planning run can potentially create planned orders that fall due throughout the five-year period. Reviewing and approving orders would be an arduous task if you had to sift through five years of orders to find those few orders that you need to release today.

The release and review horizons ease this task. The release and review horizons restrict the orders to those that exist within the immediate (release horizon) or near (review horizon) future.

- All orders found by the planning run that are within the release horizon are highlighted with a planning exception to indicate that they should be approved for release to Inventory Management (IM). MRP then places these orders in the Order Review file. See "Planning exceptions" on page 2-48 for a list of the planning exceptions for orders that fall within the release horizon.
- All orders found that are within the review horizon are also placed in the Order Review file, but they are not highlighted. Those orders are the planned orders that can be released to Inventory Management.

The planning run creates a planned order based on the requirement entered in the master level item schedule and the projected on-hand balance for the item. This planned order, if it is within the release or review horizon, is a candidate for release to Inventory Management. If the order is released early, the components for this order are allocated prematurely. If the order is not released, later planning runs may cause the planned order to shift in time or quantity.

If you know you want to release a planned order at a specific quantity on a particular date, yet you do not want to release it prematurely or have the order changed by the next planning run, you can firm the planned order. A firm planned order is not changed by a planning run, unless specified in automatic rescheduling, regardless of the requirement changes made on the master level item schedule. The firm planned order remains in the plan until it is released or deleted or until it becomes older than the overdue horizon.

Order review REP considerations

For scheduled items, schedules can be entered or maintained only from REP. As schedules are entered and maintained in REP, REP correspondingly consumes planned orders starting with the schedule's due date. If a schedule quantity is reduced, a corresponding schedule receipt quantity is increased. Multiple changes to a schedule quantity need to be avoided between planning runs because there is no guarantee that a reduction in a schedule quantity will recreate a planned order on the appropriate date, especially if the original transaction consumed multiple planned orders. If this situation occurs, the next planning run will recreate the planned order on the appropriate date.

Order release

Orders released to IM, whether through order release in MRP, PUR, ISL/MISL, or IM, are input to MRP's planning runs. If a scheduled receipt of a production order, purchase order, or intersite order covers the quantity of a requirement, a planned order does not need to be created.

Note: Order-Based Production Management provides a client alternative to reviewing and releasing MRP orders and scheduled receipts.

These scheduled receipts, whether manufacturing, purchase, or intersite, are very important to MRP. Therefore, they are extracted from IM and carried in MRP as an integral part of MRP's requirements plan. They are examined along with the firm planned orders, and can be highlighted with planning exceptions—such as cancel, defer, or expedite—as these conditions are encountered.

Scheduled receipts are also included in the Order Review file and you change them as necessary. When you use MRP's order release, the changes you recommend for these scheduled receipts are printed on the Order Action Detail Report (AMM631).

You can run order release for a range of planners within a range of warehouses.

For more information on the function of order release in this and other XA applications, see Appendix C.

Developing your plan

The MRP cycle of scheduling master level items, performing a planning run to generate requirements and planned orders (based on the requirements entered on the master schedule), and approving and releasing these planned orders to production is a reiterative process. The first few times you go through this cycle, you are likely to see a number of planning run exception messages saying to cancel this order, expedite that order, and so on. Those exceptions can be systematically cleared on each reiteration of the cycle. The best way to clear them is to concentrate first on only the exceptions that occur at the highest level in the product structure, the end-item. If, for example, an end-item with 50 component parts is not needed, the message “cancel” appears on the open order for the end-item. By canceling the order for the unneeded end-item, you eliminate allocations for the 50 components, which may eliminate exception messages for the components. After the exceptions on the end-items are resolved, do the same for the items on the next lower level in the product structure.

Caution should be used during the planning cycle. MRP creates the plan based on the MLI requirements you enter, the on-hand balance information contained in Inventory Management’s Item Balance file, and the product structures created and maintained by Product Data Management. The orders and actions that MRP recommends are based entirely on this information. If MRP’s recommendations are unreasonable to you, you must investigate the cause and correct it, whether it is an inaccurate bill of material, an invalid quantity in an Inventory Balance record, or a misstated requirement on the master level item schedule. MRP creates a plan, but the plan is only as valid as the information it uses. It is the planner’s responsibility to challenge the accuracy of that information if the plan seems unreasonable.

The MRP planning cycle itself is basically a simple process. MRP provides, whenever possible, tools and features to help you at each of the decision points. These tools, all of which are explained in detail in the remainder of this manual, include multiple reports, such as the Purchase Planning Report and Manufacturing Cash Flow Analysis report, and inquiries into the requirements plan, the master level item schedule, and the Order Release file. These inquiries include inquiry (upward) into parent items for generated requirements and inquiry (downward) for an availability check of component items. Shortage reports (which include time-phased allocations, such as when each allocation is required) are recalculated on demand in either order or item sequence.

MRP and MPSP

Installation of the Master Production Schedule Planning (MPSP) application affects MRP. Although MPSP and MRP are closely related applications, each has distinctive and important functions in planning production for your business. MPSP lets you generate master production schedules for end items, component parts, and assemblies, and check the schedules to see if they can be met. The approved master production schedules from MPSP provide the input for MRP’s scheduling activities. MRP is a scheduling tool that generates time-phased orders for the components needed to complete orders for the master scheduled items.

When implemented, the master schedule planning activities in MPSP take over all MLI planning activities from MRP except for master level items that are not important enough to master schedule. A master level item whose planned and firm planned orders are planned by MPSP is called a master scheduled item. In addition, MPSP uses MRP’s order review and release function to release the orders created in MPSP.

MRP and ISL/MISL

MRP interfaces to ISL/MISL for planning items normally transferred between distribution and/or production warehouses. ISL/MISL helps plan and control the transfer of items between requesting and supplying warehouses. Both the requesting and supplying warehouses must be defined as planning warehouses in XA.

In MRP for a requesting warehouse:

- The MRP planned orders for items identified in ISL as intersite items are extracted by ISL/MISL. They are passed to the supplying warehouse identified in ISL as time-phased projected demand, for use in MRP or MPSP, in that warehouse, depending on which application plans the intersite item in that warehouse. Each intersite item in a warehouse can have only one identified supplying warehouse, but different items in a warehouse can have different supplying warehouses.

Following a planning run, planned and firm planned orders for items identified in ISL/MISL with either a planner default warehouse or an item default warehouse are made available for the supplying warehouse. In ISL, they are extracted by ISL when needed in MRP or MPSP in the supplying warehouse. In MISL, the requirements for the planned orders against warehouses in other environments are extracted into the InterSite Transfer Requirements file, and sent to the other environments.

- MRP order review and release functions provide the review and release of intersite orders sent to ISL/MISL, which passes actual demand to the supplying warehouse. The supplying warehouse can be changed or overridden at order review/approve, and you can release an intersite order for an item not normally an intersite item.

When an order is approved for release as an intersite order (order type = I) in order review, the intersite order number (Xnnnnnn) is assigned, and a record is added to the ISL/MISL Intersite Order file. When order release is run, a customer order is created in the supplying warehouse, using off-line files, to represent that demand. The intersite order is updated with the COM customer order number. The intersite order is a scheduled receipt to MRP until it is received at the requesting warehouse using an ISL/MISL menu option.

In MRP for a supplying warehouse:

- The projected demand on a warehouse from planned intersite orders in requesting warehouses is passed by ISL/MISL to MRP in the supplying warehouse as requirements, and thus included in planning.

The projected demand from planned intersite orders on the supplying warehouses is extracted at the start of the planning run into the Requirements (REQMTS) file, where it is stored both as a forecast (RQSOR = 5) and a requirement (RQSOR = 6). This passes the demand directly into MRP for planning, and also shows it as forecast demand, to minimize the disruption to the Plan Vs. Demand comparison. The forecast demand shows in Maintain Forecast (AMMM10, option 1). The forecast and requirement show in Maintain Master Level Item Schedules (AMMM10, option 3) and on the MLI Versus Forecast/Orders report (AMM221). The requirement shows in Item Requirements Inquiry (AMMM10, option 4, etc.) and on the Requirements Planning Report (AMM3A1).

- The actual demand on a warehouse from released intersite orders in requesting warehouses is stored in the supplying warehouse as COM customer orders, and thus used as demand whenever COM orders are extracted into MRP.

The actual demand from released intersite orders on the supplying warehouse, stored as customer orders, is handled in MRP the same way other customer orders are handled. The customer order remains open until the order is shipped from the requesting warehouse using an ISL/MISL menu option.

Using eWorkPlace XA documentation

eWorkPlace (eWP) is the Microsoft®, Windows™-based graphical user interface for XA. The eWP windows co-exist with the XA character-based displays, called Host screens. If you are using eWP, you can view the corresponding Host screen for any eWP window, if necessary.

Note: If you have modified a Host screen, the GUI default is used. The default GUI feature can be enabled or disabled.

The user’s guides and help text contain instructions that reference the host XA screens (called panels and displays) rather than the eWP windows.

To understand how a Host screen instruction relates to an action on a eWP window, it is helpful to look for text on a window control that corresponds to the instruction. For example, **Cancel** on a button and on a File pull-down corresponds to the user guide instruction “use **F12=Cancel** to return to the previous display”.

Note: For the instruction “press **Enter**”, the corresponding control on an eWP window is an **OK** button.

The following table shows other examples of instructions from the documentation and the corresponding actions you take on the eWorkPlace window.

Documentation instructions	eWorkPlace actions
To change the details of a vendor, type 2 next to the vendor and press Enter .	Select a vendor, then select Change or type C from the List menu or select Change using the right mouse. Click the OK button.
To create a vendor, use F6 .	Select Create on the Functions menu or click the Create button.
Position to command. If you want to skip to a particular command, type the full or partial command.	Type the full or partial command in the position to entry field and click the Position button.
Type the information requested and press Enter .	Type values in or select values for the entry fields and click the OK button.
Type the information requested and use a function key.	Type values in or select values for the entry fields and click a button or select an action on the Functions pull-down.
Use the Item Master maintenance display to.....	Use the Item Master maintenance window to.....

For more information about eWP, see *Getting Started with eWorkPlace*.

Chapter 2. Managing Material Requirements Planning

This chapter describes the processes and calculations required to manage the Material Requirements Planning (MRP) application:

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Before you begin Material Requirements Planning operations

Before beginning MRP you should do the following:

- Analyze the tasks involved in managing this application.
- Understand how MRP works and what the features and limitations of the application are.
- Schedule your planning and order release runs.

Determine the tasks

First examine how you want to use MRP, divide the work into several main tasks, and decide who is to do them. This activity helps you organize your entire operation so that you can focus on one task at a time.

Security is at the menu option level, so users can assign authority to individual menu options. Appendix B reflects the security areas for this application. See the *Cross Application Support User's Guide* for more information on other security features.

Security also allows operational characteristics regarding the preferred date format and maximum number of groups jobs to be assigned by user. You now can assign individual users to a user group. Clearances for a user group are passed down to users within the group.

A warehouse security feature allows you to secure functions by user within warehouse. If your installation is utilizing the warehouse security feature, you must be authorized by warehouse to the appropriate task (inquiry or update) to perform many MRP menu options.

Set the sequence

You must first install the Inventory Management and Enterprise Product Data Management or Product Data Management applications before you can use MRP. If EPDM is activated, and you are enabling MRP to EPDM, you will need to understand warehouse relationships. To understand the features and calculations of IM, EPDM, and PDM, read the user's guides for those applications.

Schedule the work

Some MRP tasks, such as the planning runs and order release, require the dedicated use of MRP's files. You cannot maintain the master level item schedule or maintain order release entries for a warehouse while releasing orders or doing a planning run for that warehouse.

MRP calculations and other features

This section presents key calculations and features of the MRP application to help you understand and make better judgments concerning your operations.

Types of orders

There are four basic types of orders in the XA application system: customer orders, expected customer orders, open orders (manufacturing, purchasing, and intersite), and planned orders. When you use MRP, you always see the planned and open orders, but you see customer orders only if the Customer Order Management (COM) application is installed and interfacing, and if you chose to see them when you answered the MRP questionnaire. You see expected customer orders when the following is true:

- Electronic Commerce (EC) is installed.
- You are receiving planning schedule transactions from your customers.
- You chose to include planning schedule transactions in MRP planning, using the plan expected customer order parameters.

Customer orders

If COM is installed, you can see customer order backlog. Backlog is a firm customer order. MRP handles releases against a blanket customer order as backlog. Customer orders are shown by MRP for your use in master level item scheduling and order review and release for items with S-numbers in master level scheduling. When executing a planning run, you have the option whether or not you want to combine customer orders. If you selected Yes for combining customer orders, customer orders which are for the same item on the same date are combined into one record. Items may be selected to have customer order manual requirement automatically created in Item Balance maintenance.

If ISL/MISL is installed, intersite orders at the supplying warehouse are stored as customer orders.

Expected customer orders

If EC is installed, and you are receiving planning schedule (ANSI 830 or EDIFACT DELFOR) transactions from your customers, you can include some or all of them in your MRP planning, along with customer orders. You choose which expected orders you want to include by means of the plan expected customer order parameters, which you can specify at both the warehouse level and at the Item Balance level. Selected expected customer orders are included as backlog, and are shown along with customer orders. If you have chosen to combine customer orders for the same date (as discussed above), the selected expected customer orders also are combined (but shown separately from customer orders). If you have chosen to have manual requirements automatically generated from customer orders (as discussed above), manual requirements are also generated from the selected expected customer orders.

Open orders

An open order (or released order) is an order that is in the process of being issued or has already been issued to the shop floor, a vendor, or a supplying warehouse. Once issued, it is a commitment that can only be canceled or rescheduled through negotiation. MRP can determine whether the orders are coming in too soon or too late, and whether they are needed to handle the present requirements, and can recommend action. See “Automatic rescheduling” on page 2-50 for additional information.

If you are using the Wonderware Maintenance Management System (MMS) Approval (APPR) application to approve purchase orders and purchase requisitions, a purchase order or requisition may be “released” from MRP to IM or Purchasing, but not yet issued to the vendor because it has not yet been approved. For planning purposes, MRP considers such purchase orders or requisitions actually released to the vendor, so that duplicates are not planned.

Two types of planned orders

There are two types of planned orders: planned and firm planned orders. The planned orders are managed completely by MRP, and the firm planned orders are managed by you with guidance from MRP. MRP assists you in planning the release of orders so that when it comes time to pass from planning to execution of the plan, you have the materials necessary to make the order.

Planned orders. Customer orders deplete inventory when they are shipped, and manufacturing, purchase, and intersite orders replenish inventory when they are filled. MRP works with these replenishment orders while they are still in the planning stage before they have been released to the plant for manufacture or released to the vendor or supplying warehouse for delivery. These orders are called planned orders before they have been released. One of MRP’s main functions is to create planned orders in sufficient quantity and at the proper time to meet the requirements for each item in the system, and to keep those planned orders matched up to the requirements as conditions change. Once the orders are released, they are maintained and updated through the Inventory Management, Purchasing, or InterSite Logistics applications. Manufacturing orders also can be updated in the Production Control and Costing application.

Firm planned orders. When requirements change for an item with planned orders, MRP automatically replans the planned orders as necessary. If you do not want MRP to automatically replan planned orders (for example, planned major production runs for finished products) but you want to stabilize them without releasing them, you can use a special kind of planned order: a firm planned order. A firm planned order is not known to the Inventory Management application because it is not a released order. It also is not automatically replanned by MRP. MRP only recommends actions as it does for released orders. This lets you control firm planned orders: you firm them, make any changes necessary to them, and if they are no longer needed, you must cancel them. Although MRP does not automatically replan firm planned orders, MRP helps you manage them in the same way it handles released orders—by issuing exception messages and by recommending expediting, deferring, or canceling the order. But you must enter that action yourself. For firm planned orders, the action you take is known only to MRP since the order is for planning purposes only and does not affect Inventory Management. With the advent of the function to automatically reschedule scheduled receipts and firm planned orders, firm planned orders can be rescheduled. See “Automatic rescheduling” for additional information.

Note: Requisitions are represented in the MRP data base as a firm-planned order. Unreleased schedules entered in REP are treated in a similar way to firm planned orders and are designated by a 'U' in the first position of the order number.

Releasing planned and firm planned orders

You enter and maintain planned and firm planned orders using the review/approve function in MRP. All transactions concerning MRP's orders are entered using MRP's order release.

Note: Order-Based Production Management provides a client alternative to reviewing and releasing MRP orders and scheduled receipts.

Planned orders can be released to become open manufacturing, purchase, and intersite orders (if ISL/MISL is installed) unless they are a scheduled planned order from the Repetitive Production Management application. Planned orders can be firmed to become firm planned orders. Firm planned orders can be released the way planned orders can.

For requisitions, you create a purchase order through the Purchasing application. You can change the order quantity, start date, due date, or type of order (manufacturing or purchase) when you firm or release the order.

When you create a firm planned order in MRP's order review and release function, you must eventually use the MRP order release option to propagate that firm planned order into the planned order file. If you do not follow through with order release, the change is ignored. When any change is made to a planned or firm planned order, MRP order release must be run to make the change permanent.

Auto-release of orders

You can also automatically convert planned orders to purchase orders or requisitions (auto-release) when certain conditions are met. For example, items must be flagged for auto-release in the Item Plan file. They must either have established time fences or exception codes of RELEASE or EXPEDITE. If contracts are required, valid contracts must exist, with order quantities and dates not exceeding those in the contracts. If flagged as requiring fixed blankets, fixed blankets must exist with order quantities and dates not exceeding those in the releases for the blankets.

You can run auto-release immediately after a planning run completes. Or you can run it as a separate menu option any time after the planning run. You can update scheduled receipts during this process. For details, see "Option 7. Auto-Release Purchase Orders (AMMM40)".

Consolidating items into one purchase order

MRP allows you to consolidate all the items released for a vendor into a single purchase order during order release and auto-release. To activate the function, set the allow multiple items on a purchase order flag to yes in the vendor master. Once set to yes for a vendor, all items for the vendor in a specific order release or auto release will be consolidated to a single purchase order. This gives you the option to control this function at the vendor level.

Accessing information

Doing the materials planning for a company is a very challenging assignment. The plan is always changing—it is not easy to execute the plan and meet the shipping schedule week after week. In order to be able to react to a crisis when it occurs (make the best choices from the available alternatives) and do a thorough job of planning by anticipating problems and preventing crises, you need rapid and simple access to the volumes of information available to you. You need to retrieve specific information directly from the file when required to handle problems and have the ability to systematically scan (review) the items you are responsible for to spot future potential problems.

To solve a critical problem, you can see all the specific information for a particular part, assembly, or product by using item requirements inquiry. Item requirements inquiry helps you answer questions such as: how many items are in stock, when is the next order due, how many do we need, for what, and when they are needed. MRP's item requirements inquiry shows the quantity on hand, activity this period to date, the total quantity (requirements) allocated to released manufacturing orders but not yet issued, and scheduled replenishments, as well as the planning parameters (lot size, lead-time, safety stock) specified for the item. Further details, such as what released orders require this item and the specific status (for example, location) of replenishment orders for the item are available in the Inventory Management and Production Control and Costing applications.

You also need information to spot potential problems ahead of time to prevent them from becoming crises. MRP enables you to review items where potential problems exist so that you or the planner can take action early. You can make an inquiry using the item number or the planner number. If you use the planner number, you can review sequentially all the items with detail, that planner is responsible for. You can see all items with detail, only those items planned active in the last planning run, or only those items that MRP has noted with an exception in the last planning run.

Each planner can omit from review those items with messages to defer, expedite, or reschedule orders for an insignificant number of days, such as 1 or 2. Each planner can specify the number of days that are significant. MRP also offers you the option to identify reviewed items and skip these items in future reviews.

Note: Because you can perform sequenced inquiry for all the items for a planner and see those items within a vendor for that planner, you might consider carefully how you want to assign your items to planners and vendors. If your planners have responsibility for large numbers of items, you might want to assign each planner a series of numbers that they can use to subdivide their items as they find convenient. If a planner uses numbers 10 through 19, they can have 10 categories of items. Your purchasing department could set up the vendor numbers using the same scheme you have worked out for planners. Vendor number provides an access sequence for items. This number can be used for either vendor class or purchasing class. The actual vendor can be assigned to the order when it is released, that is, once it has actually been placed with the vendor.

Forecasting

A forecast is an estimate of future sales. It is made by the marketing organization. Some type of forecasting is necessary to be able to plan production when it takes you longer to build a product than your customers can afford to wait for delivery of the product. Forecasts should be used only when there is no better information available. A customer order is better information than a forecast. MRP lets you see the customer orders that have been entered through the COM application and compare them to the sales forecast you have made.

Propagating forecasts

If the forecast for an item is steady over time (the same quantity each month, or quarter, whatever your forecasting interval), you can have MRP propagate the forecast out into the future for a specified length of time. Enter a 1 into the Master Level Forecast Code (MLFC) field in the Item Plan (ITMPLN) file and then enter the forecast data into the following three fields. (ITMPLN is maintained via item balance maintenance):

- Forecast quantity per period (FRQT) (Item Balance file)
- Number of days in a forecast period (PDDY) (Item Plan file)
- Number of forecast periods (FRPD) (Item Plan file).

The application generates (propagates) forecast records to cover the time period you specify. For example, if you enter 10 for forecast quantity, 22 for number of days in a period, and 12 for number of periods, the application creates 12 forecast records, the first one on the MRP Current Date and the rest at 22 day intervals, each for a quantity of 10. Thus a forecast of 10 per month is propagated by the application for 12 months. If the forecast for the item changes, you need only change the data in the three fields as appropriate. (Typically only the quantity changes.) During the next planning run, the application propagates the forecast according to the new data.

Note: If the Forecasting application is installed and interfacing, forecasts should be generated through the Forecasting application.

MRP propagates the forecast during a planning run, and it automatically updates the forecast as time passes to keep it current. The application measures the passage of time by its Current Date, which you supply using the Maintain Horizon Values display (AMM110). See “Working with dates” on page 2-35 and “AMM110—Maintain Horizon Values” on page 4-5.

When you perform a planning run with a new Current Date, the application updates the forecast for the passage of time. Following are two cases that illustrate the previous example of a monthly forecast for quantity of 10:

- Case 1. You perform planning once a month, resetting the Current Date to the first of the month each month. (This technique is merely for illustration: planning once a month is normally not frequent enough to maintain an accurate plan.) When you perform the first planning run, the forecast is propagated: 12 records are generated, one for each month, each for a quantity of 10. When you perform the second planning run, a month later (and let's assume that the month had exactly 22 working days), the first forecast record would be dropped and an additional record added at the end, for what has become the twelfth month, containing a quantity of 10.

- Case 2. You perform planning once a week, resetting the Current Date to the first day of the week each week. When you perform the first planning run, the forecast is propagated just as in Case 1. When you perform the second planning run, a week later (assume 5 working days per week), the first forecast record would be adjusted for the passage of 5 out of the 22 days in the period. The forecast date, for the first forecast record only, is shifted by 5 days, so that it now falls on the new Current Date. The forecast quantity for the first period is calculated as that percent of the forecast period remaining (17 out of 22 days times a quantity of 10); the new prorated forecast quantity is 8. When the first forecast period has been completely exhausted, an additional forecast record is added so that there are always 12 forecast records. When the new record is added, it is also for a quantity of 10.

Note: Only propagated forecasts are prorated in this way. If you enter individual forecast records manually, using the Review Forecast/Orders display (AMM451), they are dropped entirely as they become older than the Current Date. (Because the forecast may be seasonal or may reflect a trend, MRP has no means to prorate the forecast records.)

Propagating requirements

The propagated forecast for an item can serve a dual purpose: as a sales forecast and as a planning requirement. You can propagate requirements for service parts or other items, if you want the sales forecast to be used directly by the MRP planning programs as requirements. You specify this by entering a 2 into the Master Level Forecast Code (MLFC) field in the Item Plan (ITMPLN) file, and then entering the forecast data into the same three fields mentioned under "Propagating forecasts." The generated records then serve both as forecasts and as requirements and are also updated as time passes, as described above. This is a very convenient way of entering a steady demand for an item into the planning process.

Note: If MPSP is installed and interfacing and you are using Master Scheduled Items in the Forecasting application, do not propagate requirements for master scheduled items in MRP. This could lead to duplicate requirements and forecasts.

Forecasting groups of items

If you have many finished products that you must forecast, entering a forecast for every item can be time consuming, especially if those forecasts cannot be propagated because of seasonal variations or other variable factors. If you can identify groups of items with the same sales patterns, you can save time by forecasting groups of items. These groups can be product lines, product families, or parts of product lines or families; or they can be items all sold to the same marketplace. So long as items have similar sales patterns, they can be grouped, regardless of their other characteristics (with one exception: items with standard features and options, which are addressed separately).

The technique is:

1. Create a group item master record (Order Policy Code A, discrete; item type 0, phantom).
2. Build a product structure for the group, entering all the items in the group as components of the group item. Two methods are available for relating the items in a group:

- a. The group can be the whole, with each item in the group representing a portion of the whole. This method would be used for a product line where the forecast for the whole line might be 1000 units one month, 1500 the second, and so on., and each item in the group would carry a percentage of the group sales. The percentage for each item becomes its quantity per item in its structure record linking it to the group. For example, if a product line had only six items in it, and one item was responsible for half the sales of the product line, and the other five items divided the other half of the sales equally, the quantity per would be 0.5 (representing 50%) for the first item and 0.1 (representing 10%) for the other five items.
 - b. The group record can be the prototype and each item can be related to the prototype. Consider, for example, the task of forecasting wheels, rims, hubcaps and lugnuts. If the prototype forecast were for how many "wheel group" units will be sold, the wheel, rim, and hubcap would have a quantity per of 1, but the lugnuts would have a quantity per of 5 (assuming 5 lugnuts per wheel).
3. Enter the group forecast as requirements for the group item. You can propagate requirements, or you can enter manual requirements by specific date, if the forecast is not steady over time. Since the group item has no "inventory," any requirement creates a planned order for the item, which in turn generates requirements for each of its components. (In the item balance record for the group item, leave the **Lead Time** fields zero, and enter a Lead Time code of M, manufactured.) Thus MRP carries down the calculated requirements to all the items in a group during the planning run.
4. Code the items in a group as Master Level Item code M or S, depending on whether you want the generated requirements to be used by MRP in planning the items in the group. A code of M causes the generated item quantities to be used by the MRP planning programs as requirements. This is standard MRP handling of generated requirements. But in this case, it really amounts to treating a forecast as requirements, since these generated quantities came from a forecast. A code of S causes the generated item quantities to be ignored by the MRP planning programs while planning the item. The generated quantities appear with asterisks on the MLI Versus Forecast/Orders report (AMM221), the Requirements Planning Report or the Master Items Planning Report (AMM3A1), the Master Level Item Schedule display (AMM351), and the Item Requirements Inquiry displays (AMM511/AMM512). The asterisks indicate that the generated quantities were not used by the planning programs in planning the item. You must enter requirements directly for the item by reviewing the item's total demand and entering that demand as manual requirements. The only kinds of requirements used by the planning programs for planning S items are manual, held, and propagated. Generated requirements for S items can be considered a kind of forecast that needs to be reviewed since they appear on the reports and displays you use and are not used by the planning programs.

The reason group forecasting does not work for items with standard features and options is that those items must be end products in the product structure file; they cannot be a component of another item. Thus they could not be entered as a component of the group.

Forecasting standard options for items

If you manufacture products to order with standard options, you can structure your products using the feature/options capability in the Enterprise Product Data Management (EPDM) or Product Data Management (PDM) application. You can further use the capability in the Customer Order Management (COM) application to enter a customer order for a product specifying the options desired, and the capability in the Inventory Management application to release a manufacturing order for the product from the customer order booked in COM.

There are two methods available for forecasting the options for items structured in this manner:

1. Each option's direct sales may be forecasted individually from its sales history in COM. This method is simple and merely amounts to treating each option separately, tracking its sales, and forecasting it, entering the forecast directly for the option item. The forecast can be propagated, as described under "Propagating forecasts" on page 2-7 if appropriate.
2. The final assembly forecasts for the options can be tied to the forecast of the end product or model lines. This method is very similar to the technique described under "Forecasting groups of items" on page 2-8. The options are already in a product structure as members of a group, since the options are all components of a feature of the end product.
 - a. Use the technique described in step 2a under "Forecasting groups of items" and treat the options as portions of the whole. The percentage for each option is entered into the product structure record linking it to its feature. In this case the percentage is entered in the **Feature/Options Planning Factor** field (FOPPF) instead of the **Quantity Per** field (QTYPR). The Quantity Per field is needed to specify the quantity of this item that comprises the option: for example, an option on a car might be whitewall tires, and the quantity per would be 4 (or 5 counting the spare tire). If the forecast is that 60% of future orders for cars will specify whitewall tires, then you would use 0.6 as the planning factor for this option.
 - b. As in the discussion under "Forecasting groups of items", enter the product forecast as requirements for the end product. These requirements result in the creation of requirements for the options according to the percentages specified in the planning factor field for each option.
3. The logic is very similar to that described previously. Since the end product is manufactured only to customer order, with a specified set of options, once it is built it is shipped.
4. The applications have no way of identifying what set of options is present on an end product in inventory. On-hand inventory is identified only by item number and warehouse, not by S-number. If you stock certain configurations of a product, a separate end product item number must be assigned to allow you to identify what configurations are in stock. With no inventory on hand, all requirements for the end product directly create planned orders for the item, which in turn generates requirements for the components, including in this case all the features of the end product. The features are dummy items (not involved in any inventory transactions); thus requirements for the features also directly create planned orders, which in turn generate requirements for the options for each feature, according to the planning factor specified for each option.

5. Use order policy A (discrete) for both the end product and feature items. Use a lead-time of zero for features, but in the end product item balance record, enter the final assembly lead-time for the item. This offsets the requirements for the options to allow for the additional time needed to release the manufacturing order for final assembly. Thus MRP carries down the calculated requirements to all the options (factored by their planning percentages) during the planning run.

As discussed previously, you can handle each option either as an M or an S item and the same considerations apply. However, the order planning is different for each option. To decide whether an item is an M or S item, you should evaluate the control that you want to give the item:

- If you code an item with an MLI code of S, then you need to look at both the generated and the service part demand for the item. You also need to create manual requirements to satisfy that demand before any planned order is created.
- If you code the item with a MLI code of M, the planned orders are created automatically. When planning option items, the percentage factor of the feature option may influence whether you code the option as an S or M. If the option percentage factor is not stable through time, code the item as an S item. Otherwise, an M may be more appropriate.

Following are some examples:

Case 1. An example of option demand for an MLI M item follows. The total independent demand for the item appears in the Greater Demand column, and you must enter manual requirements to satisfy this demand. On each date of the forecast period, MRP compares the forecast with the accumulated backlog in the forecast period and assigns the greater value of the two as the greater demand. This value is the highest demand for direct sales (forecast or customer orders) on that date. On the first day of the forecast period, MRP assigns 100 units to the Greater Demand column because the forecast exceeds the backlog on that day. The 100 units are the expected direct sales for this item during the forecast period. Direct sales are the customer orders without asterisks. This example shows 3 direct sales orders on the backlog (60, 30, and 20). The customer orders with asterisks are options ordered on the sale of an end configuration or model line. MRP does not use these orders in any calculations because they are represented in the generated requirements coming from the end item (*PG). These requirements represent forecasts of final assembly demand on the option item. On day 4, MRP assigns 110 units to Greater Demand because the total direct sales (60+30+20) exceeds the forecast. At this point, the greater demand shows that you may want to place manual requirements of 100 on day 1 and 10 on day 4 or perhaps all 110 units on day 4.

Date	Greater Demand	Forecast	Backlog
M/01/Y	100	100	C - - - - - -60
M/02/Y			*PG - - - 10
M/03/Y			*PG - - - 20
M/03/Y			C - - - - - - 0
M/04/Y	110		C - - - - - -20
M/05/Y			*C - - - - -
			40

Table 2-1. Example of option demand for an MLI M Item

Case 2. An example of option demand for an MLI S item follows. The total demand for the item appears in the Greater Demand column, and you must enter manual requirements to satisfy both direct sales and final assembly demand. MRP handles customer orders and direct sales in the same manner. However, it adds generated requirements to Greater Demand on the date they occur. Then you can have an accurate representation of the total demand for the item on any given day. Another major difference is that it is easier to find generated requirements on S items because their literals have asterisks before and after the requirement (*PG or *PF). MRP generates *PF requirements coming from a feature and *PG requirements coming from a nonfeature. MRP separates these requirements in case the feature option percentage is not stable and you want to compare a customer order option with the portion of the generated requirements from a feature item. If the final assembly options ordered are greater than the generated requirements from a feature item, you may have to enter additional manual requirements to the Greater Demand.

Date	Greater Demand	Forecast	Backlog
M/01/Y	100	100	C - - - - - 60
M/02/Y	110		*PG - - - 10
M/03/Y	130		*PG - - - 20
M/04/Y			C - - - - - 30
M/05/Y	140		C - - - - - 20
M/06/Y			*C - - - - - 40

Table 2-2. Example of option demand for an MLI S Item

Forecasting service parts

You can forecast, and enter requirements for, parts at any level in your product structure by identifying them as master level items: assigning them a Master Level Item code of M or S.

The simplest approach to entering a service parts forecast as independent demand is described here:

- Code the item as an M. This automatically includes any production requirements for the item in its plan.
- Propagate requirements for the item. As described above, this enters the sales forecast directly into the plan for the item as requirements.

If service demand for the item is seasonal or is trending up or down, either forecasts or requirements can be entered individually for the item, instead of propagating them. If one person does the service part forecasting and the production planning for the item, typically the MLI Requirements VS Forecast/Orders display (AMM351) is used, and requirements are entered directly. If separate departments are responsible for forecasting and production planning, then the forecasters can use the Review Forecast/Order display (AMM451) to manage the forecast, and you can use the Master Level Item display to enter the production requirements. If the item is very expensive or critical, it may be coded as an S item, and only manually entered requirements for the item are used by the planning programs.

Once you have forecast the requirements to meet your projected sales, you must reconcile the forecast projection with what you can produce. This process is called developing the master level item schedule.

Forecasting application interface

If the Forecasting application (FCST) is installed and interfacing it sends forecasts and requirements to MRP (depending on the planning zones in the horizon).

The Forecasting (FCST) application may interface with MRP at the warehouse level. Forecasting is tailored to calculate forecasts based on demand placed on specific warehouses. These forecasts are passed to the appropriate MRP planning warehouse based on the same rules that control customer order input. They are seen as forecasts, or actual requirements, depending on how the controlling fields in Forecasting are set up.

You can use MRP to propagate your forecast for any master level items and return later to update it with any changes, or you can enter the forecast yourself using the forecast displays that are explained in "Option 1. Maintain Forecast (AMMM10)" on page 3-3.

Master level item schedule

Developing the master level item schedule is one of the most important business processes. The master level item schedule serves as the basic justification for the procurement and use of the resources of the business. Customer orders (backlog), forecasts, and your business policies and goals are considered in this process. The MLI schedule serves as an agreement between production, marketing, and others as the best way to achieve the committed marketing plan. The booked MLI schedule is usually the result of several iterations.

The following steps provide a guideline for conducting this process:

1. Ensure that the forecast has been accurately established, based on expected sales.
2. Request the MLI Versus Forecast/Orders Report (AMM221) and compare the customer orders with the forecast. This report reflects how you expect to produce your orders.

If Electronic Commerce (EC) is installed, you also can manually compare information about expected customer orders received electronically from trading partners with the information on this report. To work with these orders, see "Option 6. Maintain Expected Customer Orders (AMMM10)" on page 3-93.

3. Take the report to the planning groups or planners and ask them to assign quantities and dates for master level items (including service parts).
4. Use the displays that appear when you choose option 3, Maintain Master Level Item Schedule, from menu AMMM10 to enter the quantities and dates the planners or planning groups give you.
 - a. For master level items, you can enter those values using the master level item displays.
 - b. For service parts, you can use the forecast code in the ITMPLN file to indicate you want requirements propagated over a period of time.
5. Enter the information the planners supply as planner requirements on the MLI Requirements VS Forecast/Orders (AMM351) display.
6. Request a master level planning run with generation (option 6 from menu AMMM20). After that run, the MLI report shows planned orders, forecast, requirements, and generated requirements.

7. Make any corrections necessary to the master level item schedule.
8. Request a full planning run with generation (option 6 from menu AMMM20). Up to five reports are printed depending on how you specified the planning run report options. The reports include: the Requirements Planning Report (AMM3A1), the Master Items Planning Report (AMM3A1), the Order/Schedule Recommendation by Exception report (AMM3C1), Order/Schedule Recommendation by Item report (AMM3C1), and the Resource Planning Report (AMM222-last page of the MLI report). The full generation planning run assumes that the lead-times, item balances, and bills of material are accurate.
9. Review these reports with the planners, checking for reasonableness.
10. Cancel or defer the orders not needed.
11. Request a net change full planning run (option 6 from menu AMMM20).
Note: Any recommendation that MRP's planning system makes must be tested for reasonableness, and if it is not reasonable, the recommendation must be traced to determine what prompted it. Some of the causes of such recommendations may be: product structure errors, inventory count errors, inaccurate lead-times, unreasonable MLI schedule, overdue customer order commitments or early release of manufacturing orders.
12. After the net change run, ask for two reports again: Requirements Planning Report (AMM3A1) and the Order/Schedule Recommendation by Exception (AMM3C1).
13. Address the orders that need to be expedited.
14. If necessary, repeat a net change planning run to see the effects of any additional changes you or the planners have made.
15. Check and recheck the schedule until you are satisfied with it. Once you have developed the master level item schedule, you need only maintain it by making changes as you need to.

Determining source of demand

Demand can be dependent or independent.

- Dependent demand, such as the demand for components and subassemblies, is an internal need and is reflected in the generated requirements. Planned orders create generated requirements. When you ask for a full planning run, the report shows all requirements, including dependent demand.
- Independent demand, such as forecast or customer orders, is external and is also reflected in a planning run.

Planned orders satisfy requirements, whether they are dependent or independent demand. When you ask for an MLI planning run, the report shows only items designated as master level items. However, the requirements on this report reflect both dependent and independent demand.

A planning run with generation replans all the requirements in MRP's planning system. A planning run with net change replans only those requirements that have had activity by MRP, MPSP, EPDM or PDM, IM, COM, or EC since the last planning run.

Note: Non-master level items are not planned by MRP unless they are components of Master Level Items.

The function, "Source of Demand," allows you to track and review which customer orders, forecasts, or manual requirements of the end item ultimately drive the requirement for the manufacturing or purchasing order, production schedule, or purchase requisition of the component. This can be helpful in determining which customer orders may be impacted by material shortages and in assisting the planner in rescheduling the higher level item. To implement source of demand, you must respond to the Maximum demand sources to track field on the Planning Run Execution Options display.

When MRP combines some requirements, each component requirement may be an accumulation of a number of different parent items which, in turn, may each be driven by different sources of demand. For example, the requirement of the same due date of one component may be driven by higher level items with ten different customer order numbers. In this case, if the planner evokes the source of demand function in MRP, the ten customer order numbers will be listed with the item number ordered, requirement due date, and quantity required, if the maximum demand to track is set to ten or greater.

Requirements planning

After you make your forecast and refine your master level item schedule, MRP generates component requirements over your planning horizon. It translates your plan into the component requirements and planned orders to meet sales. The biggest benefit of MRP's requirements planning to you is two-fold:

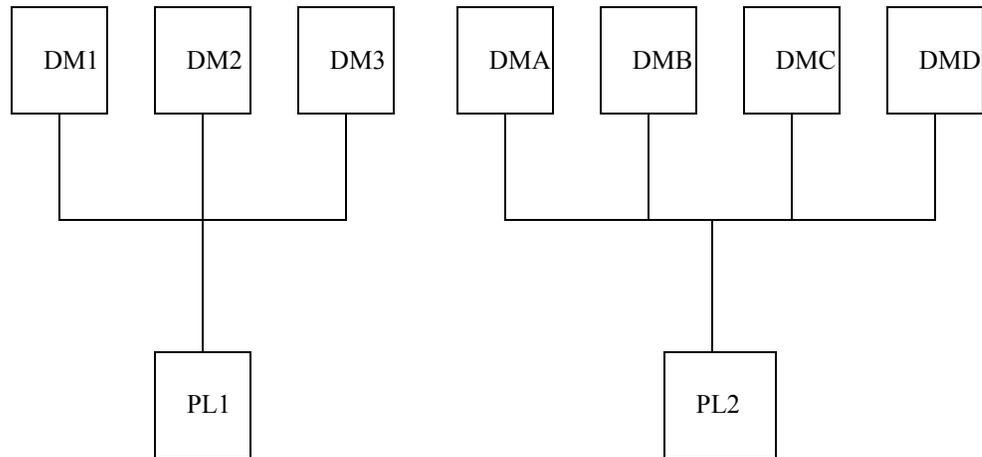
- MRP reacts to changes as soon as they are entered.
- Orders are recommended for release only when they fall within the lead-time.

You do not have to maintain your generated requirements.

Planning and demand warehouses

A warehouse is defined as either a planning warehouse, or a demand warehouse via the Work With warehouses function. The MRP planning system assumes that all manufacturing occurs in planning warehouses, and that no manufacturing occurs in demand warehouses. If a warehouse is defined as a planning warehouse, then you may perform MRP functions against this warehouse (initiate a planning run, MLI scheduling, etc.). MRP will not allow you to perform MRP functions against a demand warehouse. For example, if you have three manufacturing plants, then the warehouse records for these three manufacturing plants should define them as planning warehouses.

Demand warehouses may be associated with planning warehouses. This relationship is established in the work with warehouses function. A planning warehouse may have several demand warehouses associated with it, but a demand warehouse may only be associated with one planning warehouse (see the Item override section of this manual for additional flexibility at the item level). The following example, which is used in subsequent discussions, show a potential configuration of planning warehouses and demand warehouses.

**Notes:**

1. PL1 and PL2 are planning warehouses
2. DM1, DM2, DM3, DMA, DMB, DMC, and DMD are demand warehouses.

The association of demand warehouses to planning warehouses serves two purposes.

One purpose is to provide a source of demand for a given planning warehouse. All of the customer orders and selected expected customer orders for demand warehouses are viewed by their associated planning warehouse. If the item is coded properly in the Item Plan (ITMPLN) file, customer order manual requirements will be created automatically when the independent demand (customer orders and expected customer orders) is extracted into the requirements file. The extract independent demand function can be executed from a menu option, or it can be selected as a run time option to the planning run.

The other purpose of associating demand warehouses with a planning warehouse is to define the supply network for a given planning warehouse. All of the inventory for demand warehouses will be viewed by their associated planning warehouse. If item X has an on hand quantity of 100 in planning warehouse PL1, and 50, 50, 50 in demand warehouses DM1, DM2, and DM3 respectively, then for planning purposes, item X has an on hand quantity of 250 (100 + 50 + 50 + 50).

You can choose to override the consolidation of a demand warehouse's inventory by a code specified in the Item Balance (ITEMBL) file. This code defaults to 1 (1=Yes include inventory) for all items. If this code is changed to zero (0=Do not include inventory), then the inventory for the item selected in the warehouse selected will not be consolidated for planning purposes. The result of this, however, will result in a potential overstating of the items net requirements.

Multi-warehouse planning

Only planning warehouses can be planned by a planning generation. Demand warehouses cannot be planned directly. However, if they have a primary planning warehouse (specified in work with warehouses), they will be planned with that planning warehouse.

The planning system assumes that all manufacturing and purchase orders will be scheduled through a planning warehouse. All planned orders will be generated for the planning warehouse and they can be released only to the planning warehouse. Scheduled receipts and manufacturing allocations in demand warehouses will not be visible to the planning generation.

Only items which have an item balance record in the planning warehouse will be planned on a planning generation. In the multi-warehouse planning environment several demand warehouses may be associated with one planning warehouse. When planning for an item, all of the item balance records for an item (the planning warehouse and the associated demand warehouses) is considered. For example, if item X has an on hand balance of 100 in the planning warehouse and 50, 40, and 30 in the associated demand warehouses, for planning purposes, the onhand balance is 220 (see "Include/exclude inventory" later in this chapter). This field is considered a consolidated field. Other fields will just take on the value of the planning warehouse record, such as the item class (there is no logical way to consolidate the item class field). The following is a list of fields which will be consolidated from the Item Balance file.

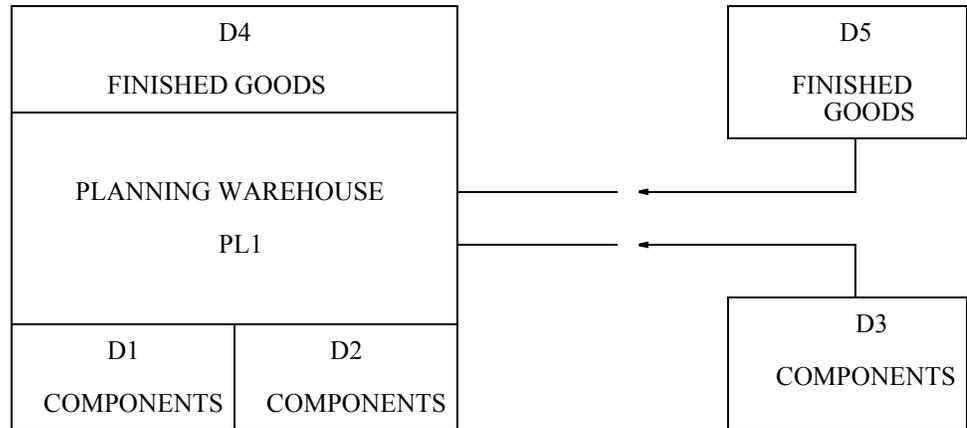
MOHTQ	On hand total quantity
SAFTY	Safety stock
FRQTIB	Forecast quantity
RPFLG	Requirements planning activity flag

With the exception of the above listed consolidated fields, all planning parameters specified in demand warehouses (such as order policy code, minimum order size, multiple order size, etc.) are not considered in the planning generation. Only the planning parameters from the planning warehouse are used for planning purposes.

Defining component warehouses as demand warehouses

If you supply your manufacturing location from multiple parts warehouses, you may define them as demand warehouses connected to the particular planning site. MRP will then see the inventory in those warehouses and accept it as part of the plan.

The following example illustrates the flow between one planning warehouse, multiple finished goods and component warehouses.



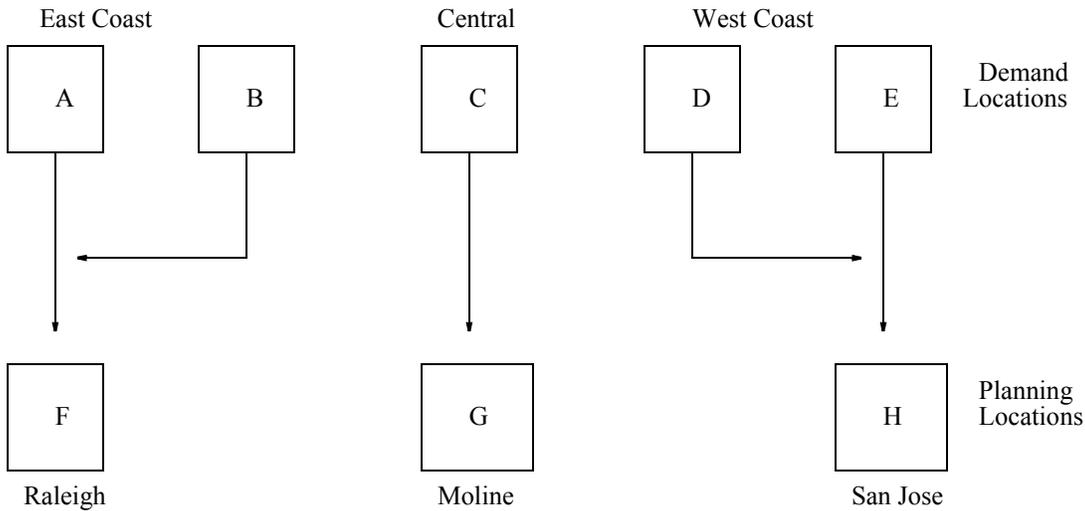
Notes:

1. PL1 = Planning warehouse
2. D1, D2, D3 = Component warehouses
3. D4 and D5 = Finished goods, service parts warehouse.

Multiple planning warehouses

Multi-warehouse supports either a “product” organization where all of item 123 is built, for example, at a plant in Moline, IL (regardless of where the demand originates), or “geographic” organization, where the product 123 could be built, for example, at a plant in San Jose, CA (if demanded from the West coast) or Raleigh, NC (if demanded from the East coast).

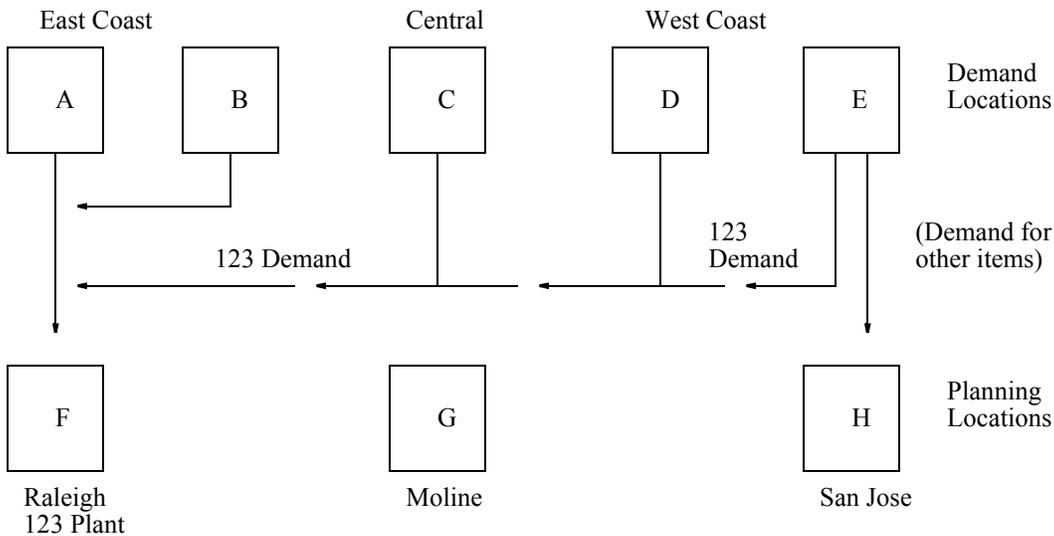
The example that follows illustrates the flow between multiple planning warehouses and multiple finished goods warehouses.



Item override

You can override the above relationship on an item by item basis to provide a product driven organization. You can say that product 123 is driven to any manufacturing warehouse we choose. Also, you can operate a mixed organization, with some parts of the product line focused on individual plants.

You can also go one step further. For instance, if item 123 is demanded from warehouse E, then make it in manufacturing location H. But in other cases, have it manufactured in F.



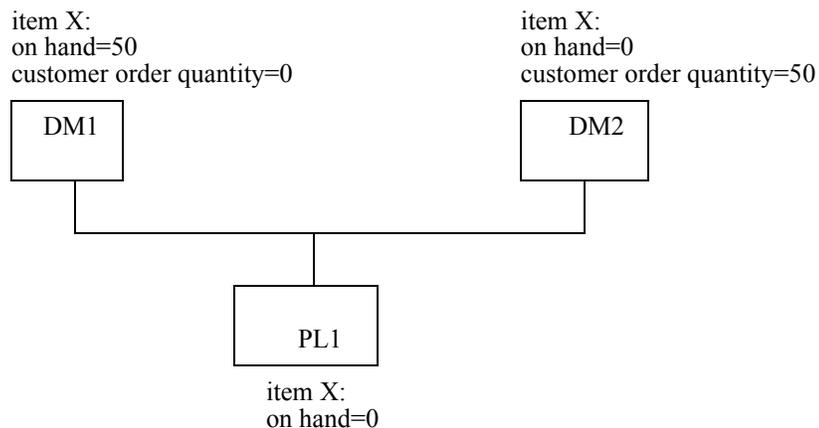
Inventory movement

The planning system assumes that all manufacturing and purchase orders will be scheduled through a planning warehouse. All planned orders will be generated for the planning warehouse and they may only be released to the planning warehouse. Scheduled receipts in demand warehouses will not be visible to the planning generation.

Because all manufacturing occurs in the planning warehouse, inventory mobility is the planners responsibility. An order may be created to cover net requirements in a demand warehouse, but the order will be scheduled in the planning warehouse and it is the planners responsibility to transfer the inventory after the order has completed. The planning generation will consolidate all of the inventory for the planning warehouse and it's associated demand warehouses. This consolidated inventory will be used to net requirements. As a result of this consolidation process, the planning generation views one pool of available inventory, and inventory movement may be necessary to cover all of the net requirements.

You may wish to use InterSite Logistics (ISL/MISL) to assist you in planning and performing inventory movement between warehouses.

The following example illustrates that demand warehouse DM1 may have no gross requirements and an available inventory of 50. Demand warehouse DM2 may have gross requirements of 50 and no available inventory. The planning generation will consolidate the figures which will constitute an available inventory of 50 and gross requirements of 50. As a result the net requirements are 0, but the planner has the responsibility of moving 50 units of inventory from warehouse DM1 to warehouse DM2 to satisfy the demand.



If customer orders are treated as requirements, the following planning conditions exist.

On hand = 50	(50 from DM1 plus 0 from DM2)
Requirement = 50	(50 from DM2)
Net requirement = 0	(requirement 50 minus on hand 50)

Note: The planning system assumes you may move the inventory from warehouse DM1 to warehouse DM2 to satisfy the requirement. There is no logic in the planning system to advise on inventory movement. Inventory movement is the planner's responsibility.

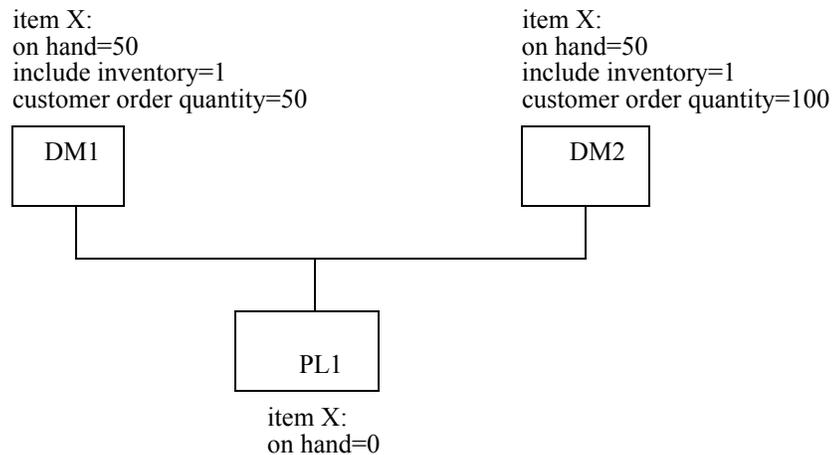
Include/exclude inventory

The definition of a grouping of demand warehouses that supply a particular planning warehouse implies that items may be shipped from any of those demand warehouses in response to a customer order. In some cases, this may not be true. You may want to exclude material that resides in certain demand warehouses, since that material may already be committed to a higher level plan or it may be impractical to move it.

You can accomplish this action through the use of the Include Inventory Flag in the Item Plan (ITMPLN) file. This flag is automatically set to 1, meaning that any balances for the item are available as far as MRP is concerned. If you change the flag to "0" (zero), then any balances are invisible to MRP and additional orders are planned as if the excluded inventory did not exist.

Examples 1, 2, and 3 illustrate the planning process and the use of the Include Inventory field in the Item Balance file.

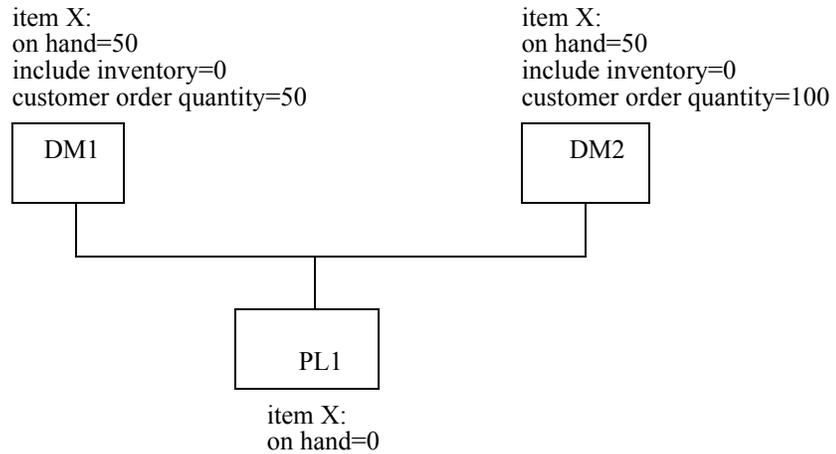
Example 1:



If customer orders are treated as requirements, then the following planning conditions exist.

On hand = 100	(50 from DM1 plus 50 from DM2)
Requirement = 150	(50 from DM1 plus 100 from DM2)
Net requirement = 50	(requirement 150 minus on hand 100)

Example 2:

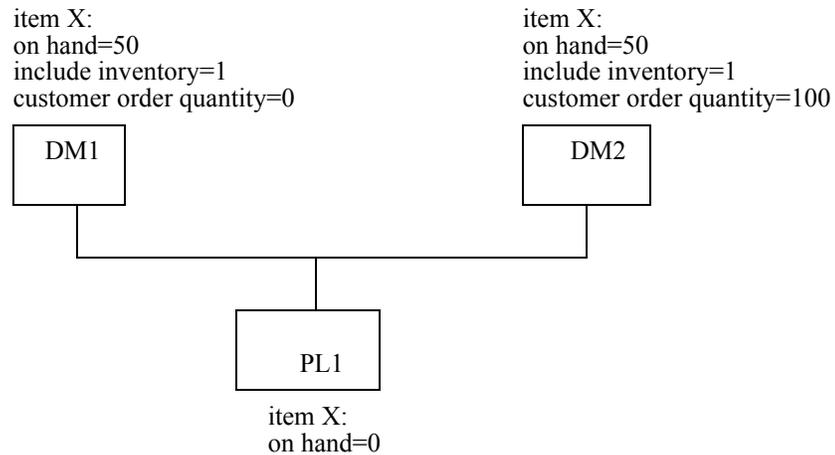


If customer orders are treated as requirements, then the following planning conditions exist.

On hand = 0	(50 from DM1 and 50 from DM2 are not included)
Requirement = 150	(50 from DM1 plus 100 from DM2)
Net requirement = 150	(requirement 150 minus on hand 0)

Note: Even though there is a quantity of 50 on hand in warehouse DM1 and 50 on hand in warehouse DM2, the planning system ignores these quantities because of the include inventory flags set equal to 0 (zero). The result is an overstatement of net requirements (a net requirement of 150 is generated when the net requirement potentially should be 50).

Example 3:



If customer orders are treated as requirements, then the following planning conditions exist.

On hand = 100	(50 from DM1 plus 50 from DM2)
Requirement = 100	(100 from DM2)
Net requirement = 0	(requirement 100 minus on hand 100)

Note: The planning system assumes you may move the inventory from warehouse DM1 to warehouse DM2 to satisfy the requirement. There is no logic in the planning system to advise on inventory movement. Inventory movement is the planner's responsibility.

Warehouse security

Data level security is available for sites and warehouses. If warehouse security is being used, a user must be authorized to inquiry or update tasks for the specified warehouse in order to display or update information for that warehouse information in the MRP menu options. On the Work With Warehouses menu options on menus AMMM10 and AMMM20, a user must be authorized to the menu option in order to create, change, or delete warehouse information. Once in the menu option, the user has authority to all fields and functions, including the setup and use of warehouse security. See the *CAS User's Guide*, as well as Appendix B for more information.

Planning run

All versions of the planning generation (full, net change, MLI full, and MLI net change) are fully restartable. The generation breaks down into segments which are checkpointed as they are completed. Each segment may be restarted from the beginning if it fails to complete normally. If either of the net change planning runs are restarted, they are restarted as a full planning run. The reason for this is the integrity of the replan flags can not be assured throughout all portions of the planning cycle. The segments are:

- Plan setup/development (execution of programs AMM31, AMM32, AMM34 and AMM37).
- Plan development (execution of programs AMM34 and AMM37).
- Plan implementation (execution of program AMM38).

Note: This segment may not be cancelled. If this segment of the planning run is cancelled, the status of the PLNORD and REQMTS files is unknown.

- Order review reconstruction (execution of program AMM61).
- Report submissions.
- Purchase auto-release.
- Job clean up.

The planning run setup and the plan development is the most time consuming segments of any planning run.

The planning run output, or the new plan, is developed in work files (PLNORW and REQMTW). Until the plan implementation segment, the original plan remains in the master files (PLNORD and REQMTS) completely intact. As a result inquiries and reports may still be executed against these files, viewing the previous plan. In fact, all of the MRP functions which deal with the planned order and requirements files are fully functional during a planning generation. The maintenance functions, however, are not functional. This will prevent you from adding forecasts or manual requirements in a file which is going to be replaced with a new page.

If you run item requirements inquiry during a ten hour planning generation you could have the following occurrences:

- Eight hours of viewing the old plan.
- Thirty minutes of having items with either old plan records or no records. (As old plan is removed from master files).
- Thirty minutes of having items with either no records or the new plan records. (As new plan records are moved to master files).
- One hour of viewing the completed new plan.

You will have no way of knowing what segment the planning run is in. Maintenance functions against the planned order and requirements files for the warehouse being planned are not available during any phase of the planning generation. This assures data integrity.

During a planning run, MRP does the following:

- Creates purchase and manufacturing scheduled receipts from Inventory Management and Purchasing.
- Creates customer backlog records if Customer Order Management is installed and interfacing, and you selected extract independent demand as a run time option. This step also creates backlog records for expected customer orders, if EC is installed, and you have chosen to include selected expected customer orders in planning.

- Creates new planned orders and requirements, and rebuilds data in four files.
 - Order Review
 - Planned Order
 - Planner Sequencing
 - Requirements.
- Creates requisition records, if Purchasing is installed and interfacing, and you select to use requisitions in your planning. The option to extract requisitions is set in the Planning Run Execution Options for the planning warehouse. The options are:
 - Do not extract requisitions
 - Extract requisitions created through MRP only
 - Extract all requisitions regardless of where they were created.
- Submits the following selected reports to print (selected from planning run report options).
 - MLI Versus Forecast/Orders report (AMM221)
 - Requirements Planning report (AMM3A1)
 - Purchase Planning report (AMM3B1)
 - Order/Schedule Recommendation by Item (AMM3C1)
 - Order/Schedule Recommendation by Exception (AMM3C1).

Net change planning run

Net change planning works very similar to a full planning run with the exception of what items get replanned. On a full planning run, all items are considered active and are replanned. In a net change planning run, only items which have a value other than blank in their replan flag (stored in the Item Balance file) are considered active and therefore replanned.

Components of items with activity are also replanned in a net change planning run. Their replan flag, however, is set on by a pre-processing program in the planning cycle, therefore you will not be able to examine component level items replan flags.

Two factors which play a major role in determining the run time length of a net change run are the amount of activity which occurs in the system between generations, and the nature of that activity. The determining factor on the length of the net change generation is the percentage of items to be replanned and the level in the bill of material of the items to be replanned. If MRP determines a substantial number of items should be replanned, net change planning takes longer to calculate differences than it would take to run a full generation.

The replan flag is set in several applications including MRP, MPSP, EPDM or PDM, IM, REP, PUR, PC&C, PM&C, FCST, COM, and EC. If the net change planning run is not replanning an item which you believe has had activity, you may check the replan flag for that item before you begin a net change planning run to see if the replan flag has been set to a 1.

It is important to note that some of the fields which are used in the MRP planning algorithm do not trigger replanning. For example, a change to the quantity scrapped on a manufacturing order may not cause an item to be replanned. Modifications to the system such as, scrap, causes unnecessary, time-consuming calculations to be performed which increase the overall run time of the system. Scrap can be compensated for by using the shrinkage field.

Additionally, there are global attributes which may be changed which do not enforce replanning. Global attributes (such as the time-phased allocation option or Warehouse Master maintenance) do not set any replan flags. When global options such as these are maintained, it is the user's responsibility to execute a full generation instead of a net change generation. Replan flags are set only when item level information changes.

Before a planning run is executed all replan flags should have a value of either Blank or 1. During the first phase of a net change planning run, all items are examined and if they need some action taken during the planning cycle, their replan flag is altered.

There are two functions which revolve around the replan flag which occur in a pre-processing program prior to the planning cycle.

1. All items with a replan flag equal to 1 have their single level where used retrieved and each parent has its replan flag set equal to 9.

If during this process a parent is encountered with a replan flag of 9, that parent is not altered. The purpose is to identify all of the highest level items in the bill of material. These items (with 9 replan flags) are not being replanned, but because of the way bills of materials may be structured, and the way requirements may be combined, their planned orders are re-exploded to create new dependent requirements for the components which are being replanned.

For example, a case where an item (X) which is being replanned has two parents (Y and Z). One of the two parents (Y) is being replanned, but the other parent (X) is not being replanned. It is possible for the dependent requirements for X which came from parents Y and Z to be combined in one requirement record. In order to accurately replan item X, the dependent requirements for Y and Z must be recreated. Y's dependent requirements are recreated by virtue of the fact that item Y is being replanned. Z's dependent requirements are recreated only because the replan flag has been set to 9.

2. All items with a replan flag equal to 1 have their full bill of material exploded, and each component has its replan flag set equal to 2.

If during this process a component is encountered with a replan flag of 1 or 2, the downward explosion stops. (If a component has a replan flag of 1, it has either already been exploded or it is exploded later. If a component has a replan flag of 2, this component has already been processed by this program, and therefore all of its components have already been processed by this program).

If during this process a component is encountered with a replan flag of 9, the components replan flag is changed to a 2, and the downward explosion continues. (If a component has a replan flag of 9, it was previously considered the highest level in the bill of material by this program. At this point the item is no longer the highest level in the bill for this structure.

After the replan flags have been altered to include components and parents of items being replanned, the planning cycle is ready to begin. Any item with a replan flag equal to 1 or 2 is considered active, and is replanned. Any item with a replan flag equal to 9 has dependent requirements for all of its planned orders regenerated. Items with a replan flag of 9 are not replanned themselves.

At the end of any planning run, all items which were replanned will have their replan flags set to blank.

Note: You cannot use net change planning if you answered N (No) to the question on net change planning in the MRP questionnaire.

Flagging changes

If you did not select Net Change Planning as an option during application tailoring, any time EPDM or PDM, IM, MPSP, REP, PUR, PC&C, PM&C, FCST, COM, ISL, or EC (if they are installed and activated) changes the requirements for an item, Bill of Material, manufacturing/purchase orders or expected or actual customer demand respectively, MRP requirements files are updated during the full generation planning run.

If you selected Net Change Planning as an option during application tailoring, anytime EPDM or PDM, IM, MPSP, REP, PUR, PC&C, PM&C, FCST, COM, ISL, or EC (if they are installed and activated) makes a change, the requirements are updated during the application batch update. MRP requirements are flagged as having been changed for the net change planning run.

Clear quantity sold with extract

Quantity sold is normally cleared when the current date changes in MRP. The theory is that the current horizon date reflects the start of a new period in time. During that period, you want to know how sales are doing in relation to demand. Subsequent inquiries and planning runs will add back sales to projected inventory and subtracts period receipts so that projected available represents the projected available at the time the current horizon date was initially changed for a new planning period. The default to this question is to have the period quantity sold to date field and period received to date field work as described. A one indicates that the quantity sold to date field will be zeroed on every planning run.

Iterative steps of a planning run

1. Establish the horizon dates. Specifically set the **Current date** and then specify the offsets (days) that establish the **Start**, **Release**, **Allocation**, and **Review** dates.

Note: MRP does not plan with the system date.

2. If Customer Order Management (COM) is installed and interfacing, and you answered Y (Yes) to the interface with COM question on the MRP Questionnaire, you must:

- a. Enter, in COM, any customer orders to be used by MRP.
- b. Execute the extract independent demand to copy COM's customer orders to the Requirements file to enable MRP to use them along with your forecast data.

Note: Customer orders from COM do not drive MRP unless coded to do so in Item Balance maintenance. They are presented as backlog in relationship to what you are forecasting to sell. If you properly code an item in the Item Plan (ITMPLN) file (Plan customer order field) customer order manual requirements are created which will drive MRP.

3. Review the manually entered and/or propagated forecast and adjust as necessary. See "Forecasting" on page 1-16 and "Option 1. Maintain Forecast (AMMM10)" on page 3-3.

4. Enter requirements for MLIs in the MLI schedule.

Note: Manually entered requirements, customer order manual requirements and propagated requirements drive MRP. Customer order backlog and forecast data are shown on the MLI schedule for information only. To generate requirements from customer orders and propagated requirements, the items must be specially coded in item balance maintenance. The planner must understand:

- The plant's production capacity
- Management's desired (Master) production schedule (per week or month).

5. Execute a planning run. There are four planning runs to choose from: two for MLIs only (net change or generation) and two for full, or all items (net change or generation).

Notes:

1. An MLI planning run is faster than the full planning run because of the fewer number of levels planned. Use the MLI run to see the effect (generated requirements and planned orders) on the upper levels. When you are satisfied with the effect on the upper levels, use the full generation run to see the effect (generate requirements that plan orders) on all levels of the product structures.
2. Planning run generation starts anew each run, that is, generated requirements (for items affected) are regenerated, and planned orders (for items affected) are regenerated and planned orders (for items affected) are replanned. A net change may or may not be faster than a generation, depending upon the number of changes you have made that affect planned orders, open orders, and requirements. If you have made few changes the net change run is faster. If you have made a lot of changes (determined from experience) the generation run is faster.

6. Run Order/Schedule Release and Review (AMMM40) as follows:

- Use option 1 or option 2 to review items. Respond to all exceptions, and tag for release those planned orders that are to be converted to Manufacturing or Purchase orders.
- Execute order release from MRP (not IM). MRP's order release, option 5 or option 6 on the Order/Schedule Release and Review menu, only picks up those planned orders which have been tagged for release in MRP's Review/Approve.

Note: IM's order release never picks up any planned orders; it only picks up orders entered in IM.

7. Repeat steps 5 and 6 until you are satisfied with the results.

Note: If this is the first planning run, clean up the exceptions and release orders for the highest level (low level code = 00). Then replan, clean up the exceptions, and release orders for next highest level, and so on. This cleans up a large number of exceptions that occur during the installation period.

8. Complete the cycle by responding to the Order Action Detail report which prints from MRP's order release:

9. Make the recommended changes to existing Manufacturing and Purchase orders in IM's and/or Purchasing's file maintenance:

- Cancel the order.
- Defer the order (change due date to later).
- Expedite the order (change due date to earlier).

Note: The above changes are not made automatically in MRP's Order Release/Approve.

Special considerations

Planning runs take a lot of time. Many factors influence these run times. Net change planning, for example, is adversely affected by activity. File maintenance to the Item Master (ITEMAS), Item Plan (ITMPLN), Item Balance (ITEMBL), Requirements, and Product Structure files, and the order release process all serve to activate an item for replanning. If a substantial number of items have been activated, net change planning takes longer to calculate differences than it would take a full generation run to replan these items. If a small percentage of the items are active, however, net change planning is substantially faster than a full generation run. Where activity occurs also influences the net change or full generation decision. If only a few of items are active, but each of these is an end-item, the activity causes the entire bill of material for these end-items to be replanned in net change.

Combining requirements and use of the Order Policy codes F and I (part period balancing) can slow the planning process, as they force the use of time-consuming routines that are otherwise unneeded.

Notes:

1. The planning run results do not differ between a full generation or a net change planning run. If your files are stable, net change planning normally should be faster than a full regeneration.
2. If you are using MRP but not PC&C, take into consideration how you plan to:
 - Accomplish MRP's suggested expedites, defers, and/or cancellations of existing manufacturing orders.
 - Get feedback into XA for MRP, for example, scrap at a certain operation.

Enablement to EPDM

If EPDM is activated, and a site is specified for the warehouse, MRP accesses effective EPDM engineering records based on need dates. Need dates apply to planned order start dates and to which item revision master is used to print for a report heading.

In the planning run the following changes have been implemented:

- A planned order's start date is used to determine the effective item revision record and item process for each planned order. The item process ID is stored with each planned order and indicates the bill of material to use when exploding the planned order to lower level component requirements.
- Report headings for an item are based on the MRP function being planned and the horizon current date used with the function.
- If yield is used for the component being processed, the adjusted quantity per of the component is calculated.

- Warning messages are issued for manufactured items that have no item process record or if item master records are not found in PDM. All items in the planning run must be in both PDM and EPDM until all non-enabled manufacturing applications are enabled.

Item process information can be overridden in the MPSP and MRP Order Review functions if an alternate bill of material or routing is desired. You can display the processes available and then select which is desired. Changing a planned order's item process to another automatically firms the order and updates the planned order in the other application

Changes unique to the MRP Order Review and Approve process are:

- **Order Review** fields that specify product structure yes/no are replaced by item process information; i.e., alternate bill of material ID, routing ID, and routing version and primary/alternate process code.
- **Availability Check** uses the item process defined in the planned order.
- If a component has yield information specified, its component requirement is based on a calculated adjusted quantity per.
- Order Release is fully enabled for the release of manufacturing orders to IM (and PCC) using site and the specified item process. For an order to be released, its implementation status code must be set to allow release.
- Alpha search is enabled to EPDM or PDM based on whether or not EPDM is activated and a site is specified in the planning warehouse record that is selected.

Standard batch quantity

The standard batch quantity is the amount of an item that is used to calculate the required quantities for components. The quantity can represent the normal output or a production goal. It can also serve as a multiplier to reduce the level of precision required for components which are used in very small quantities relative to one unit of the end item.

Standard batch quantity can provide the basis for a bill of material for an item with a quantity other than one. For example, if a parent item is produced in batches of five gallons, the quantity requirements for components (quantity per) are based on producing five gallons of the parent instead of one gallon.

The following example shows how MRP uses the standard batch quantity in the planning of materials:

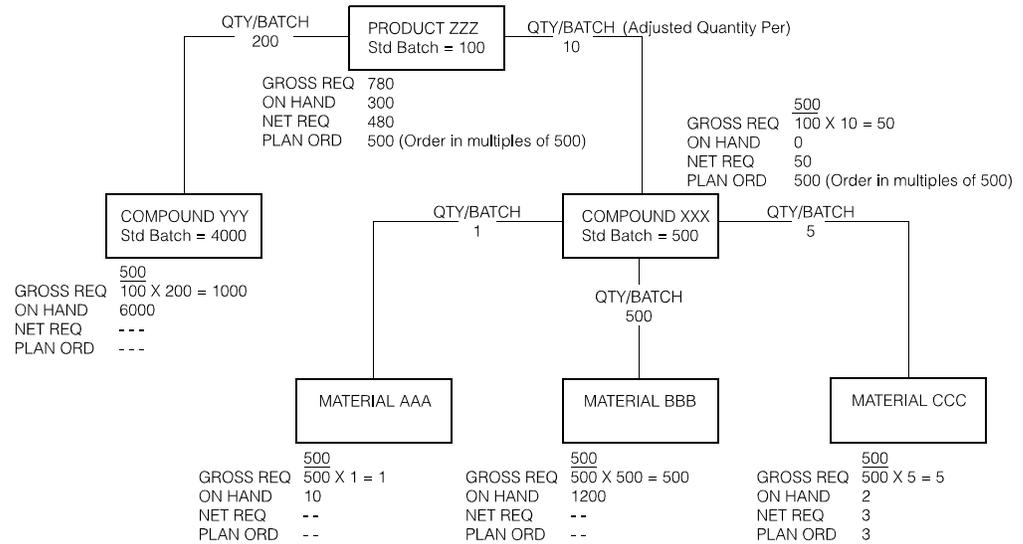


Figure 2-1. Using Standard batch quantity to plan materials in MRP.

The calculation used for determining the requirements of a component, when releasing a manufacturing order, is as follows:

Gross Req Qty = Planned Order Qty for Parent x Adjusted Qty Per for Component (Qty/Batch) divided by Standard Batch Quantity for Parent

Quantity-based lead-times

Quantity-based lead-times are lead-times that change based on the planned order quantity of manufactured items. They are beneficial when the order quantity affects the lead-time significantly.

A lead-time that changes with quantity helps you to find out with more accuracy when the material is required.

MRP calculates the quantity-based lead-time automatically if:

- Lead time code is 'M'.
- B records exist in the Item Master file.
- The Standard Lot Size field (LOTSZ) is not zero.
- The Variable Lead Time field (LTVAR) is not zero.
- The planned order quantity is not equal to the Standard Lot Size field (LOTSZ).

MRP calculates the quantity-based lead-times as follows:

- It calculates a base lead-time (not quantity-dependent) by adding the standard and adjustable manufacturing lead-times and subtracting the variable lead-time.

$$\text{Base lead-time} = \text{Standard} + \text{Adjustable} - \text{Variable}$$

- It calculates a quantity-dependent lead-time by dividing the planned order quantity by the standard lot size and then multiplying the result by the variable lead-time.

$$\text{Quantity-dependent lead-time} = (\text{Planned order quantity} / \text{Standard lot size}) \times \text{Variable}$$

- It calculates the quantity-based lead-time by rounding off the quantity-dependent lead-time and adding it to the base lead-time.

$$\text{Quantity-based lead-time} = \text{Quantity-dependent lead-time} + \text{Base lead-time}$$

Order release

Order release is the action that moves orders from the planning system (MRP) to the execution system (Inventory Management, Repetitive Production Management, InterSite Logistics, and/or Purchasing). The objective of order release is to provide a smooth transition between planning and execution. Your company's priorities should not change or be disrupted just because a planned order has become a real production schedule, manufacturing or purchase order. The MRP Order Release function gives you enough information to decide which orders to release and allows you to easily change plans when necessary. MRP helps you make judgment calls, avoid problems, and answer questions such as:

- How far ahead of time must you release manufacturing orders and schedules to assure your shop of component parts availability?
- Do you stage your orders or physically withdraw the parts from inventory to find out if all the components are available?
- When an order is released, do you often have to steal parts from other staged orders to be able to complete the order?
- Is the most important document in your manufacturing plant the shortage report or a "hot list"?

Other applications involved in order release

MRP works with IM, MPSP, PUR, REP, ISL/MISL, and COM during the various order release activities. MRP interfaces with IM to initiate the creation of a manufacturing or purchase order and REP to create production schedules. IM will interface with PUR if installed and interfacing when creating purchase orders or requisitions.

Note: Order-Based Production Management provides a client alternative to reviewing and releasing MRP orders and scheduled receipts.

MRP order release can be divided into three steps: reviewing or approving orders for release, checking an item's availability prior to release, and releasing the order.

When you release a planned or firm planned order, IM actually creates open orders. When you change an existing open order by canceling or rescheduling it, the open order is changed or canceled. Actions which could not be performed are listed on the Order Action Detail.

MRP can release both orders created by MRP and MPSP. You should always use MRP's order review and release instead of IM's order release because of the MRP/MPSP "housekeeping" that occurs:

1. Component generated requirements are adjusted based on the quantity of the order that was released and the amount of the component allocations.
2. Firm and planned orders are adjusted in MPSP by the amount of the order released in MRP.
3. Planned and firm planned orders are updated to the "released" status.

If COM is installed and interfacing, you can also release manufacturing orders per customer order release for S-numbered items.

Once you have released a manufacturing or purchase order, it is known as a scheduled receipt (or open order) and is stored in IM's files with an order number, quantity, and due date. All orders approved for release are processed by IM.

If ISL is installed, intersite orders can be released through MRP. Once released, intersite orders placed against a supplying warehouse are considered scheduled receipts in the requesting warehouse.

The order review process in MRP schedules and manages the release of manufacturing orders and purchase orders. That responsibility for scheduled controlled items, however, is in the REP application. For these items, you use the order review process to make adjustments to planned order due dates and quantities to ensure the resulting material plan meets the needs of higher level assemblies and shipment schedules. MRP creates planned orders that will make material available in a timely manner. REP manages the actual production, ensuring the items produced meet the due dates, yet keeping production within realistic manufacturing constraints.

Planned orders for schedule controlled items are not released through MRP. Instead, REP extracts the planned orders and uses them to create and release production schedules. The production planner balances item due dates, production line capacity, and the availability of components, people skills, fixtures, tooling, and test equipment.

As schedules are created in REP, they "consume" the planned orders in MRP. That is, planned orders with due dates on or after the REP schedule's consumption date are converted to planned schedules.

For more information on the function of Order Release in this and other XA applications, see Appendix C.

Review/approve orders for release

You review or approve orders for release at a work station. You can perform order releaser for a selected range of planners within a range of warehouses. You can choose to review/approve the orders for all items or only those for master level items. All items are used after a full planning run, and only master level items are used when planning master level items.

There are two ways of inquiring into orders to review or approve them for release. You can choose to see them in planner sequence, which permits you to review the orders in vendor and item number within planner sequence, or you can choose to see them explicitly, which means you can ask to review the orders for a specific item, indicated by its unique item number. Either way, once you have found the item you want to see, all orders pertaining to the item appear. You can do any of five actions: release the order (R), firm the order (F), change the order (C), cancel the order (X), or check the availability of needed components (A).

Note: Order-Based Production Management provides a client alternative to reviewing and releasing MRP orders and scheduled receipts.

For more information about the displays for reviewing and approving orders, read Chapter 6.

Requisition release

You can select a planned order to create a requisition through the review or approve screens. The approval process is the same as for creating a purchase order, except the purchase code on the Review/Approve Item screen is changed from a **P** to an **R**. After order release or order release with shop packets is run, the requisition is created in the Purchasing application. Requisitions can also be created during the auto release process.

Using requisitions in planning

Requisitions can be used as coverage for demand in both MRP and MPSP. There are three options specified in the MRP Planning Run Executions Options, display AMM151, applying to the extraction of requisitions. The first option is to extract all requisitions during the generation. The second option is to use only requisitions released through MRP. The third option is not to use requisitions at all during the generation. This is a shared response for both applications.

Shortage reports

MRP's order release lets you do an availability check before you release an order. This lets you see how releasing an order or a batch of orders affects inventory balances for the required parts and what alternatives you have in order to make effective use of the available inventory. The analysis is presented in two ways:

- Item Shortage Report-MRP Availability Check (AMI4Q1)
- Order Shortage Report-MRP Availability Check (AMI4W1).

Item Shortage Report. The Item Shortage Report-MRP Availability Check 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 available inventory committed for each order, the date that inventory is required, commitments to customer orders (if COM is installed and interfacing), and the material allocations for released manufacturing orders.

The Item Shortage Report can also be used to identify trends or characteristics of your order release system. Note that although individual items may be exceptions (due to changed lead-times, for example), it is the overall order release system that you should look at.

Order Shortage Report. The Order Shortage Report-MRP Availability Check helps you find out what orders of a group can be released without shortages. Orders with shortages appear on the Order Shortage Report along with a component list. 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 an order's shortage 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 would have to cut back the quantity or delay the release of the order to have components available.

The availability check gives you a comprehensive analysis of the situation involved as you try to enter a group of orders from the planning system to the execution system. It cannot be used as a substitute for either system, but it is an important checkpoint at this bridge between the systems. By proper investigation of the alternative plans of action here, you can avoid many problems later

If EPDM is activated, the availability check uses the item process defined in the planned order.

For more information about the item availability check, read "Options 1 and 2. Review/Approve Master Level Items/All Items (AMMM40)" on page 6-4.

Management reports

A number of reports can help you make decisions about releasing an order early or delaying an order. They help you spot business trends and identify potential resource conflicts. The reports are explained in detail in Chapter 8.

Working with dates

MRP uses dates for its displays and reports in the date format you chose when you answered the MRP Questionnaire. MRP stores the dates in the files in the format of yy/mm/dd, and can handle up to five calendar years, January through December. You can specify how much time you need for planning—up to five years—and set parameters for MRP to use by building a calendar and establishing the planning horizon.

Using MRP's Planning Run Options, "Option 1. Maintain Horizon Values (AMMM20)" allows you to tailor a specific planning horizon for each planning warehouse, containing unique horizon beginning date (or start date), release date, and review date, which sets up the particular management environment for each manufacturing location.

You set the horizon within which MRP operates. You tell MRP to do its planning using certain dates by entering horizon values (option 1 on the secondary menu (AMMM20), Planning Run Options). The dates that define the MRP planning horizon are:

- Start date
- Current date
- Release date
- Allocation date
- Review date
- End date.

MRP plans between the start date and the end date. The start, release, and review dates are derived from the current date and the values you enter for overdue days (start date), release days (release date), and review days (review date).

The allocation date shows you when MRP treats allocations as immediate allocations or time-phased allocations. The time-phased allocation option allows you to use the item's lead-time and to specify an allocation fence to help determine when MRP treats allocations as immediate allocations or time-phased allocations. Allocations are treated as immediate allocations if the allocation is within the time-phased allocation fence (TPAF) or the lead-time, whichever is shorter. Allocations are treated as time-phased allocations if the allocation date is past the TPAF or the lead-time, whichever is shorter.

The end date is always the last day of the last year in your calendar. It moves only when a new year is added to the calendar. MRP does not process any dates after this end date. If MPSP is installed and interfacing, it uses the overdue days and allocation days from MRP to determine its own horizon dates.

For specific information on the horizon values, see "Option 1. Maintain Horizon Values (AMMM20)" on page 4-3.

Using the planning horizon

Following are three cases illustrating how the planning horizon can be used. Each case assumes a five-day work week.

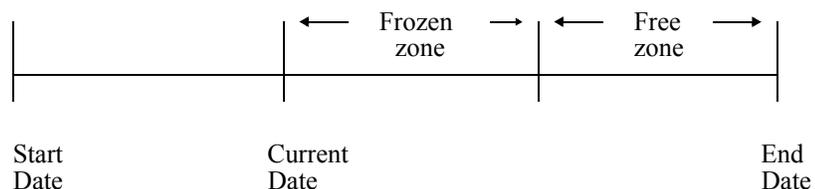
- Case 1. You manufacture a very large product with many levels in its bill of material and with a long lead-time. You run requirements planning once a week since your plan does not change often. You set your release days between 6 and 15 days, depending on the processing lead-time for your shop paperwork (time preparing engineering drawings or process sheets). You might set your review days as high as 8 to 12 weeks (40 to 60 days) to allow flexibility in rescheduling planned orders (using firm planned orders), to balance projected work loads, and to release orders ahead of schedule when needed. You reset the planning horizon only once a week, when you run requirements planning, by changing only the current date. All the other dates are reset automatically by MRP since they are based on the current date.
- Case 2. You make simple products with only a few levels in their bills of material and with short lead-times. You can make an end-item in less than two weeks. You run requirements planning once a day, using a release span of one to five days and a review span of two to four weeks (10 to 20 days), depending on a number of factors such as work available versus capacity. You reset the planning horizon once a day, by changing only the current date, and again MRP resets the other dates.

- Case 3. You are a combination of case 1 and case 2. There is no single solution because of the additional variables of build-to-stock versus assemble-to-order versus build-to-order, many levels versus few levels in the bills of material, long lead-times versus short lead-times, and others. These variables impact how often you run master level item planning and full requirements planning (generation or net change). You can use MRP to fit your needs. You might run a full planning run once a week, on Friday night or over the weekend, using the following Monday as the current date. You set your release date to an acceptable figure based on the lead-time for your shop paperwork. If your turnaround time through engineering, methods, or operations is three days (3), you might set the release days at five or six (5 or 6). MRP flags two to three day's worth of orders to be released, assuming you are releasing orders daily and that you are on schedule.

During the week, you run a net change planning run without changing the current date, but only changing the release displacement (in days). By doing your full run at the end of the week, you have a compromise between daily and weekly requirements planning. Once a week, in the full requirements planning run, you are provided with information about overdue events such as released orders not completed and planned orders not yet released.

As often as you want, you can ask MRP to detect any variations to your plan such as: an order being released for a short quantity because of unavailable components; the due date of an order being slipped because a vendor withdraws the order; or a change to quantity on hand or quantity available because of physical count, scrap, or unexpected shipments. You do this by asking for a net change planning run. MRP then replans only those items that have had activity by MRP, PDM or EPDM, IM, MPSP, REP, PUR, PC&C, PM&C, FCST, or by COM (if it is installed and interfacing). By entering a new number of release days when you request a net change planning run, you can select more orders to be released with each day's run to balance the work load of the production personnel releasing the orders. This is only one way to use MRP for case 3. You need to determine what works best for your needs.

Free and frozen zones



The free zone is that portion of the planning horizon which a planner is “free” to make whatever decisions are necessary, with little risk. Enough lead time exists in the free zone for a planner to make major changes with little impact.

The frozen zone is that portion of the planning horizon which a planner is locked into a number of commitments. Some changes to the plan may be made, but only with careful consideration.

Frozen zone time fence options

For customer orders, MRP has five settings for the frozen zone time fence. A field defined in Item Balance maintenance allows you to select one of five time fences for the frozen zone.

Plan Customer Order Field Code	Start of Frozen zone	End of frozen/ Start of free	End of Free zone
1	Start date	Current date	End date
2	Current date	Release date	End date
3	Current date	Review date	End date
4	Current date	End date	NO FREE ZONE
5	NO FROZEN ZONE	Start date	End date

Let's look at the way the MRP planning horizon is affected by the different code settings.

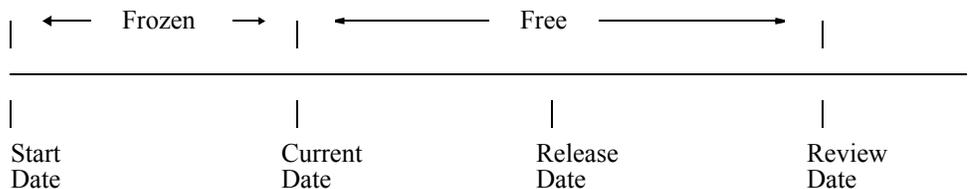
MRP Planning horizon



If you set the **Plan Customer Orders** field to 1 (Code = 1) in Item Balance maintenance, the demand extract function will create customer order manual requirements for each customer order from **Current Date** to **Review Date**.

Code = 1:

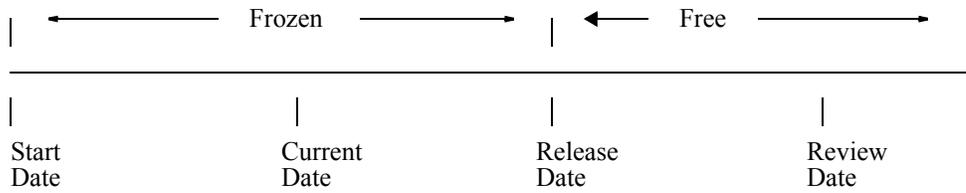
MRP Planning horizon



If you set the **Plan Customer Orders** field to 2 (Code = 2) in Item Balance maintenance, customer order manual requirements are created for each customer order after the **Release Date**. Customer order manual requirements set prior to the **Release Date** are not changed.

Code = 2:

MRP Planning horizon



If you set the **Plan Customer Orders** field to 3 (Code = 3) in Item Balance maintenance, customer order manual requirements are created for each customer order after the **Review Date**. Customer order manual requirements set prior to the **Review Date** are not changed.

Code = 3:

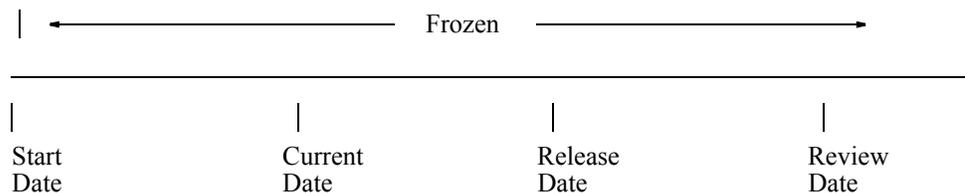
MRP Planning horizon



If you set the **Plan Customer Orders** field to 4 (Code = 4), in the Item Balance (ITEMBL) record, the entire horizon is frozen. No customer order manual requirements are created. When the multi-warehouse revisions are installed, the ITEMBL records are defaulted to 4.

Code = 4:

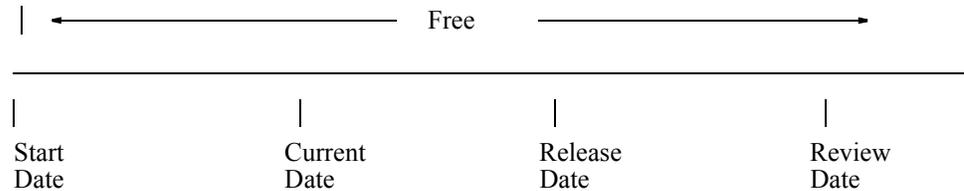
MRP Planning horizon



If you set the **Plan Customer Orders** field to 5 (Code =5) in the Item Balance maintenance, the demand extract function will create customer order manual held requirements for each customer order across the entire planning horizon (from Start Date to End Date).

Code = 5:

MRP Planning horizon



Note: When the multi-warehouse revisions are installed, the ITEMBL records are defaulted to 4.

MRP generates “information only” requirement records from the following sources:

- Customer order
- Blanket header customer order
- Blanket release customer order.

In addition to creating informational requirement records, the extract independent demand function will generate customer order manual requirements for any customer orders or blanket releases (not the header) which fall in the free zone.

The system will discard customer order manual requirements in the free zone and regenerate them.

The system will not discard or regenerate customer order manual in the frozen zone.

MLI maintenance will not allow customer order manual requirements to be maintained while they are in the free zone, because any maintenance would be lost on the next execution of the extract independent demand function. A message is displayed which states the customer order manual requirement is in the free zone if maintenance is attempted. If you need to adjust a customer order manual requirement which is in the free zone, you may enter a manual requirement for the same item on the same date. Your adjustment quantity can be positive or negative.

Considerations for special case items

Items that are defined by the use of features and options should remain with a Plan Customer Orders Code of 4. This means that no requirements are created for these items. If the items are created at level 0 (zero), then driven down through option level by the planning percentages, incorrect requirements are generated.

Similarly, items coded as Master Scheduled items should be coded 4 for Plan Customer Orders. These items have their top-level requirements created by the MPSP application. You will double-count requirements if you create items based on demand from Customer Order as well.

Time-phased allocations

Time phasing can be used to project future allocations on specific dates. When you use time-phased allocations, MRP assigns allocations on the date needed as opposed to assigning all allocations on the current date. MRP assigns allocations as immediate or time-phased allocations depending on whether the allocation date occurs before or after the time-phased allocation fence.

MRP establishes a time-phased allocation fence for each item by taking the earlier date of these two: current (horizon) date (plus the item's lead time) or the allocation date specified on the Maintain Horizon Values display. Choosing the earliest date helps to:

1. Reduce the number of days required to expedite or reschedule orders
2. Reduce the number of orders created too early.

To see how time-phased allocations work, let us compare several examples of an item with and without time-phased allocations. The allocations are shown by arrows as immediate or time-phased allocations. However, for an item without time-phasing, the allocations should appear as a total allocation on the current horizon date. In all the examples, immediate allocations are shown on their required date.

In our comparison, we looked at the changes in component allocations when any of the following situations occurred:

- Case 1: An order for a parent item is released (Figure 2-3, Figure 2-4, and Figure 2-5)
- Case 2: Unexpected requirements appear for an item (Figure 2-6 and Figure 2-7)
- Case 3: An item lead-time is used to find out the location of the time-phased allocation fence (Figure 2-8).

Case 1. In Figure 2-3 you see an example of an item without time-phased allocations. It shows a component item with 35 units immediately allocated and two generated requirements of 10 units each. The generated requirements come from parent items D and E.

Figure 2-3 shows the item when time-phased allocations are not used.

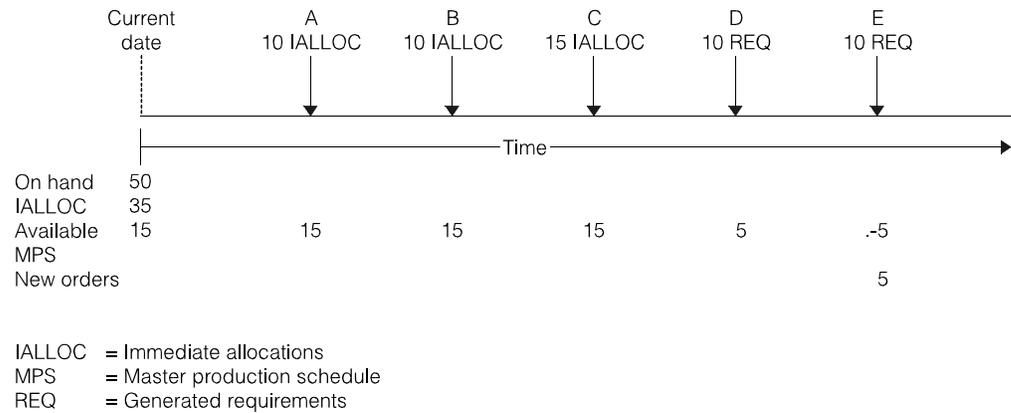


Figure 2-3. Item without time-phased allocations

Notice that on the current horizon date MRP subtracts 35 allocated units from the inventory on hand of 50 units; out of the remaining 15 units, it assigns 10 units to requirement D and 5 units to requirement E. Finally, MRP creates a planned order for 5 units to complete the total requirement for E. Let's assume that in the examples following Figure 2-3 the planned order for 5 units has been released and is now an open order. We use this open order to show how to expedite an order to meet the changes in the material plan. Figure 2-4 and Figure 2-5 show the changes that occur when you release an order for the parent of requirement E. In each case, requirement E becomes an allocation when MRP releases an order for the parent item.

In Figure 2-4, notice that when Inventory Management allocates requirement E, the immediate allocations increase from 35 to 45 units. MRP subtracts 45 units from the inventory on hand of 50 units and assigns the remaining 5 units to requirement D. Then, it expedites the open order for 5 units to complete requirement D.

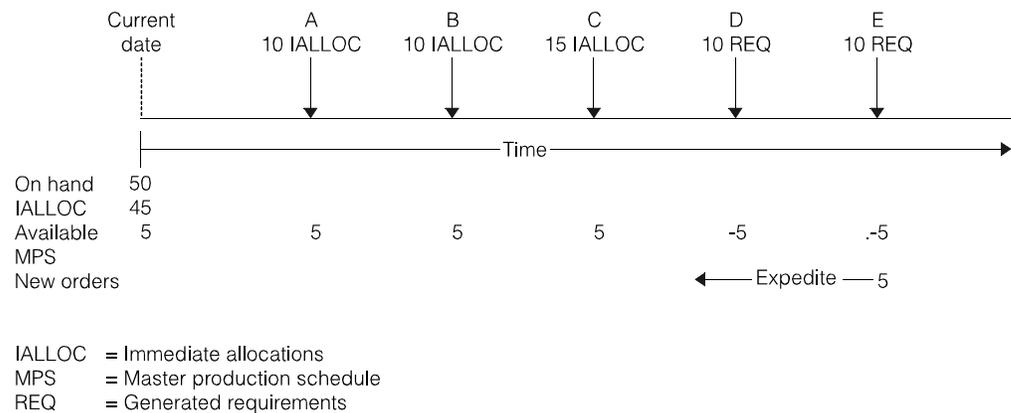


Figure 2-4. Item without time-phased allocations

In Figure 2-5 you see the changes that occur when you use a time-phased allocation fence with the data given in Figure 2-4. In this example, the last requirement E is now a time-phased allocation and treated as a future requirement. Because the immediate allocations have not changed, there is no need to issue a message to expedite or create new orders. Figure 2-5 shows the items using time-phased allocations.

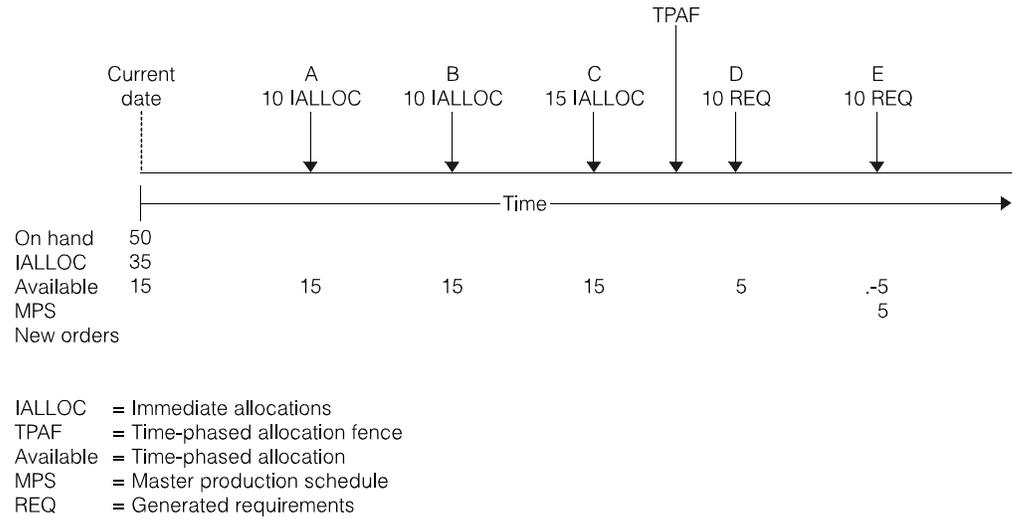


Figure 2-5. Item with time-phased allocations

Case 3. Figure 2-8 shows an example for which the item's lead-time is shorter than the allocation date specified on the Maintain Horizon Values display.

Comparing Figure 2-7 with Figure 2-8, notice that in Figure 2-8 MRP creates the order for 5 units at a later date, and the number of days required to expedite the order for 5 units is lower.

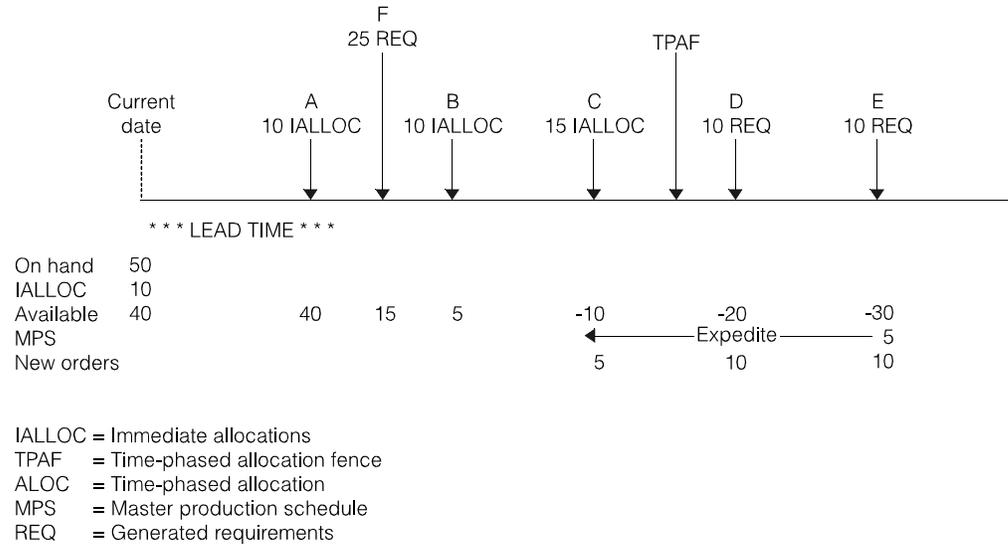


Figure 2-8. Item with time-phased allocation and a lead-time shorter than the TPAF.

In summary, as the allocation fence gets closer to the current horizon, you get the following benefits:

- Orders are created further in the future
- Messages to expedite orders are issued for a fewer number of days
- False shortages are decreased because you have more inventory available to complete your current released requirements.

However, to get these benefits you may have longer MRP generations due to an increase in the number of records that are processed. Each time-phased allocation requires that one allocation record be created in the Requirements file.

Combining requirements

MRP allows you to choose how much detail you want to see for each item. You can combine requirements during the planning process or summarize requirements when you print the planning report. Both options consolidate requirements information. The requirements are identifiable only as totals by time period, not by which items generated these requirements. Therefore, MRP cannot peg, or trace, the combined requirements back to the item that generated them. Summarizing requirements when you print the planning reports results in shorter reports without losing the ability to peg the requirements back to the parent items that generated them.

You can select either option for an item; in fact, you can select both options for the same item. To do this, two steps are involved: you must set up the intervals, and you must select which interval you want used for each item. If you do not use either option, all requirements are stored, printed, and shown individually, and you are always able to peg, or trace, each requirement to the parent item that generated it.

Summarizing requirements for printing

You can summarize requirements for printing with minimal effort (if you are willing to use the same interval for summarizing all items). To do this, set up 1 to 3 different intervals. When you print the planning reports, choose the interval you want to use.

To set up the intervals, select Maintain Period Intervals in the Planning Run Options folder. The display that appears shows each interval used for summarizing requirements for printing the Requirements Planning report. There are 3 interval codes, each containing 20 periods. You can set each of the periods for the number of days you would like to have summarized. You can vary the period length as you want. For example, you can enter 5 5 5 10 10 10 20 20 20 which builds an interval that summarizes your requirements in 5-day intervals for three periods, 10-day intervals for the next three, and 20-day intervals for the last three.

Setting up intervals this way lets you determine how much of a breakdown you want to see for your requirements in both the near future and the distant future. Any requirements falling before the start date are always listed in detail showing the source of the requirement. Any requirements falling after the end date are not printed on the report. If you plan to have requirements in the distant future and you want them included on your report, make your last periods large enough to include those future requirements. Each period can be as long as 999 days.

For specific information on building report period intervals, see “Option 2. Maintain Period Intervals (AMMM20)”.

Combining requirements while planning

Combining requirements during the requirements planning process causes only the date of the period and the total needed in that period of time to be stored for each item. When requirements are calculated during the planning run, additional requirements needed in each time period are added to the total already stored. Since there is only one record for each time period, no matter how many of an item is needed or what it is to be used for, there is no way to track the source of the requirement in MRP when you use combine requirements. You can, however, use EPDM/PDM's where-used inquiry to investigate each item, and along with the Item Requirements Inquiry or Purchase Planning Report, determine how many planned orders caused the requirement.

Combining requirements during planning must be selected by individual item. Two steps are involved: setting up the length in days of the combining periods and designating the combining period you want to use for the items whose requirements are to be combined. To set up the combining periods, use the same display you used to set up the intervals used in summarizing requirements when printing. The price break literal is used in conjunction with combine codes 5 through 9 to identify the way you want to describe totals on the Purchase Planning Report (AMM3B1). For specific information on using the combine codes and price break literal, see “Option 2. Maintain Period Intervals (AMMM20)”.

Lot sizing

If your setup cost for an item is more than the cost of carrying that item in inventory, you can accumulate your orders for an item to save cost by using the order policy code in the Item Plan (ITMPLN) file. See the *IM User's Guide* for specific information.

Note: Make sure this is agreeable to the foreman because neither you nor the foreman can override planned values without creating problems.

Safety stock

MRP considers safety stock as a requirement at one of four time fences specified in the Planning Run Execution Options for the planning warehouse. The four time fences are the MRP current date, purchase or manufacturing lead time (based on the lead time code), cumulative material lead time, or cumulative manufacturing lead time. The last three time fences are computed from the MRP current date. The safety stock requirement is treated just as any other type of requirement during the order planning process. Reports and inquiries show the safety stock requirement as defined by the time fence.

For determining a safety stock order, MRP starts comparing the available balance to the desired safety stock level at the time fence specified for the planning warehouse. MRP continues this analysis until the end of the planning horizon. For example, when using the manufacturing lead time fence and a lead time of five days, MRP starts the safety stock comparison on day five. It does not make the safety stock comparison before the fifth day out from the MRP current date.

An order defer message is only issued inside the safety stock lead time if the projected balance on an order's due date is already above the safety stock level.

Manufacture vs intersite vs purchase items

When you review an order for release, you may need to override its normal replenishment mode, for that order only. To handle demand on load shifts, you can release individual orders for items as manufacturing, intersite, or purchase orders if required. You must be careful when doing this, as changing the order type at release can place unexpected demand on either the plant, the supplying warehouse, or the vendor.

Planning exceptions

Planning exceptions can be any of the following:

- **PENDED**

- 1 A request has been made to cancel the order. Inventory Management's file maintenance must be used to cancel the order
- 2 A request has been made to maintain this order. Inventory Management's file maintenance must be used for any maintenance to the order.

Note: PENDED exceptions do not appear until MRP order release has been completed.

- **DATELO**

- 11 This scheduled receipt's due date is earlier than the planning start date
- 12 This scheduled receipt's due date is earlier than the current horizon date, but it is on target with its requirement.
- 13 This scheduled receipt's start date is earlier than the planning start date and the order has not been started
- 14 This scheduled receipt's start date is earlier than the current date and the order has not been started.
- 21 This scheduled receipt's due date is earlier than the current horizon date, but it is needed at a later date that is also prior to the current horizon date.
- 22 This scheduled receipt's due date is earlier than the current horizon date, but is needed to cover a requirement that is further in the past.
- 24 This requirement's due date is earlier than the current date.

- **EXPDTE:** Orders with a planning exception of EXPDTE must be rushed if they are to be completed in time.

- 31 MRP recommends releasing and expediting this firm planned or planned order
- 32 MRP recommends rescheduling and expediting this firm planned order
- 33 MRP recommends expediting this scheduled receipt.

- **RESCHD:** Orders with a planning exception of RESCHD can fall within the normal lead-time.

- 41 MRP recommends rescheduling this scheduled receipt
- 42 MRP recommends rescheduling this firm planned order.

Note: For more information on EXPDTE and RESCHD see "AMM6A1—Review/Approve Items (Exceptions)" on page 6-9.

- **RELEASE**

- 51 MRP recommends releasing this firm planned or planned order.

- **MAXLIM**

- 52 The requirements exceed the fixed quantity. The order has been planned discretely.
- 53 The requirements for this planned order exceeds the maximum quantity. The order has been planned discretely.
- 54 The requirement quantity exceeds the field capacity; the quantity 9,999,999 is substituted.
- 55 The planned order quantity exceeds the field capacity; the quantity 9,999,999 is substituted.

- **DEFER**

- 61 MRP recommends deferring this firm planned order.
- 62 MRP recommends deferring this scheduled receipt.

- **CANCEL**

- 71 MRP recommends canceling this firm planned order.
- 72 MRP recommends canceling this scheduled receipt.

• **DATEHI**

- 81** The requirement due date is adjusted to the calendar end date.
- 91** This order's due date is later than the calendar end date.
- 92** This order's start date is adjusted to the calendar end date.

MPSP Exception codes in MRP

When MRP transfers orders for master scheduled items from MPSP to use for MRP planning, it does not replan those orders and cannot generate MRP Exception codes or messages for them. Instead, it translates any remaining MPSP Exception codes into the corresponding MRP numeric codes and their related texts. For example, an MPSP master scheduled order with an Exception code of H (Date high) appears in MRP with an exception code of 91 (DATEHI).

You should resolve all significant Exception codes for master scheduled orders in MPSP before you transfer the orders for use in MRP. Changes you make to orders in MRP do not update the Master Scheduled Item Orders file in MPSP. As a result, you can cause MRP to plan component orders based on quantities and times not shown in your master schedules.

Exception Codes		Equivalent MRP Codes for:		
MPSP Code	Planning Exception	Planned Order	Firm Planned Order	Open Order
P	PENDED	---	---	1 or 2
L	DATELO	---	31	11, 12, 13, or 14
E	EXPDTE	---	32	33
R	RESCHD	---	42	41
M	MAXLIM	52, 53 or 54	---	---
D	DEFER	---	61	62
C	CANCEL	---	71	72
H	DATEHI	---	91	91

Automatic rescheduling

The automatic rescheduling function allows the MRP generation run to reschedule released manufacturing orders, released production schedules, released purchase orders, and firm planned orders. The planner controls this function by the reschedule codes. The Reschedule Activity report shows the exception messages encountered and the automatic rescheduling action taken by the system.

This function reduces the manual effort required to manage the material plan. Consequently, the material plan, through most levels of the bill-of-material, can be rescheduled in fewer MRP generation runs. Less manual effort and fewer MRP runs can increase reaction time to customer order changes and reduce the level of inventory required to support faster customer response times.

Traditional MRP generations do not automatically reschedule released and firm planned orders. They determine the appropriate exception message and output that message to a display or report. Subsequently, the planner is required to analyze the exception messages, determine what action to take and then manually maintain the individual orders whether it be expedite, defer, reschedule, or cancel. Then, a subsequent MRP generation run will take that action and explode the change to the next level which may also have a released order or firm planned order requiring manual intervention by the planner. This activity is repeated through each level of the bill-of-material until all components are rescheduled.

In contrast, MRP automatic rescheduling allows generation to take immediate action in response to the exception messages of expedite, defer, reschedule, or cancel without planner intervention.

When a REP schedule is primed, its order reschedule code may be set to Cannot be automatically rescheduled to stop automatic rescheduling. REP tailoring controls automatic rescheduling of primed REP schedules.

XA MRP allows you to utilize the traditional MRP approach, or the automatic rescheduling approach, or a mixture of the two. At run time, you can specify whether or not automatic rescheduling is to be used during an MRP planning run.

Automatic rescheduling is controlled by the following:

- Reschedule codes. Reschedule codes are used by the planner to control the automatic rescheduling of orders and production schedules by the system. They allow the planner to determine which released and firm planned orders are subject to automatic rescheduling and whether they can be moved in and/or out. Automatic rescheduling is selected by warehouse. If no, then automatic rescheduling cannot occur within that warehouse.

The following are the reschedule codes:

- Order/schedule reschedule code. Defines whether or not a specific order or production schedule can be rescheduled automatically. The order/schedule reschedule code overrides the item reschedule code.
- Item reschedule code. Defines whether or not an order or schedule for that item can be rescheduled automatically. The item reschedule code overrides the warehouse reschedule code.
- Warehouse reschedule code. Defines whether or not orders and schedules in that warehouse can be rescheduled automatically.

If the Warehouse reschedule code is "Cannot be automatically rescheduled", then no automatic rescheduling will be done for that warehouse regardless of the values of the Order/schedule reschedule code and the Item reschedule code.

These reschedule codes determine if the MRP generation run:

- 1 Should not allow automatic rescheduling to occur
 - 2 Can reschedule automatically out
 - 3 Can reschedule automatically in
 - 4 Can reschedule automatically in or out
- Minimum number of days. You can specify by warehouse and by item within warehouse the minimum number of days by which an order/schedule should move before the system will reschedule it.

- Frozen zone. The frozen zone, by warehouse and by item within warehouse, can prevent rescheduling activity within a specified number of workdays of the current date. For example, If the previous due date or the new due date is within the frozen zone or past due, then the order/schedule is not reschedule.

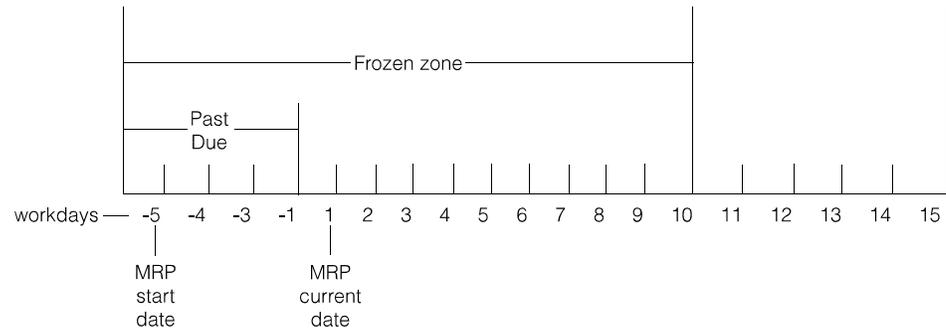


Figure 2-9. Frozen zone

Assume:

- The Current Date is day 1
- The Overdue days offset is 5 workdays
- The Frozen zone was defined as 10 workdays

Then the time period affected by the Frozen Zone is 15 days long. It starts with the MRP start date (on workday -5) and ends at the end of workday 10, as illustrated above.

- Due date in past for MO and PO. How to handle due date in past can be specified by warehouse for manufacturing orders, production schedules, and purchase orders. It allows you to specify that:

The system will reschedule an order/schedule even though the new due date is prior to the system or current date, and set the new due date equal to the greater date.

If a PO and the new due date is prior to the greater of the system or current date, then the new due date will be reset to the greater of the system or current date, but set on the hold code in the POMAST record.

- Cancel code. The Cancel code, specified by warehouse, allows you to determine how the system will handle CANCEL Exception Status Codes from MRP:
 - Bypass automatic rescheduling for CANCEL Exception Status Codes, or
 - Reschedule the order/schedule out to the end of the planning horizon less one month.

You then can manually perform the appropriate cancellation maintenance.

- Automatic reschedule options. Before you initiate the planning run, you determine whether the automatic rescheduling parameters should be invoked for purchase orders and requisitions, for manufacturing orders, or for production schedules.

Performance considerations

Inclusion of automatic rescheduling and source of demand tracking will affect the run time for the MRP generation. However, you can control automatic rescheduling by

warehouse, item, and order, along with an option to reschedule purchase orders, manufacturing orders, and schedules. Source of demand tracking can also be controlled through the number of sources of demand you wish to track. Using good judgement on the use of these functions can keep the run time for the generation run reasonable.

With the capability to schedule an unattended generation run, exploitation of the above functions can be done by scheduling a planning run during nonworking hours. At the conclusion of the planning run, rescheduling has taken place and source of demand information has been generated. The end result is less time is spent by planners during prime working hours responding to exceptions messages. In this situation, the increased generation run time during nonworking hours saves planner and computer resources when they are normally the busiest, for example, at the peak of their prime time work hours.

If you are not comfortable with having the MRP generation run automatic reschedule, you might consider traditional MRP planning for the first generation run followed by a second generation that uses auto rescheduling. This action allows you to respond to your critical top level items in the first run. On the second run, you could then choose to automatically reschedule the remaining items and orders.

Action exception in real time

If the planner selects to utilize the automatic rescheduling function, the MRP generation will automatically take the action recommended by the exception messages of expedite, reschedule, defer, or cancel on released orders, and firm planned orders, and planned schedules. That is, it will take action in response to the exception in real time and continue to plan the lower levels of the bill-of-material.

Automatic update of master files from order review

The automatic reschedule changes made by the MRP generation run will also update the manufacturing orders, purchase orders, schedules, and planned schedules within IM, PUR, and REP application files. Also, any manual maintenance of released purchased or manufacturing orders in MRP's order review and release function can automatically update those released orders in IM and PUR if update is selected on the order release select display. This capability also reduces the amount of manual intervention by the planner.

Using Electronic Commerce (EC) for EDI transactions

The Electronic Commerce (EC) application facilitates the movement of electronic data interchange (EDI) transactions in and out of XA and also provides an interface between XA and any EDI translator.

Interface to trading partners

You can use EC to transfer planning schedules between MRP and your trading partners using the following ANSI X.12 EDI transactions and the equivalent EDIFACT transactions:

ANSI	EDIFACT	Send	Receive	Description
830	DELFOR	X	X	Planning Schedule/Delivery Schedule

Transaction sets can be received from a trading partner using any third party translator program that can deliver to the System i a flat file in a format defined by EC. From the flat file, EC processes the transactions into interface files where unique requirements of transaction sets and individual trading partners are implemented.

When you send transactions, EC formats the data into EDI segments to meet your transaction and trading partner requirements. A call to a program supplied by the translator or a user program then moves the data into the translator's EDI mailbox.

You need to complete EC application setup tasks before you can begin using this feature in MRP. The setup tasks include:

- Defining the translator software you will use
- Defining trading partner relationships
- Defining transaction sets to be used for each trading partner
- Designing formats for printing transaction sets (optional).

In each of the EC transaction control files, you can select options, such as whether to:

- Send transactions to or receive them from the EDI translator automatically, instead of holding them in EC interface files and manually handling the transactions.
- Print paper copies of the transactions.

You use the EC application to do the following:

- Maintain, delete, display, and print transaction sets being sent or received
- Work with user exits to alter transaction set data
- Access the error log that is updated during the send or receive process.

See the *Electronic Commerce User's Guide* for more information.

Receiving expected customer orders

The planning or delivery schedules you receive from trading partner customers are called expected customer orders in MRP. They are your customers' current view of their future needs for the items they buy from you. Each time you receive one of these transactions, EC loads it automatically to the Expected Customer Order files and identifies it as the current version. If an expected customer order already exists for that customer for that item, it is flagged as a previous version, so that the latest data received is the current version for planning. Each expected order is a complete view of the requirements for an item over the customer's planning horizon, so it completely replaces the prior version.

You work with expected customer orders using the MRP Demand Management menu (AMMM10). Options 6 and 7 on this menu allow you to:

- View detail for items in an order
- Maintain items in an order (in case of transmission errors)
- Print expected orders within limits and purge them by date.

EDI trading partners can specify any of four “levels of commitment” in 830 and DELFOR transactions. EC captures those four levels of commitment in four expected customer order types:

A = Make	Customer authorization to build the product, but not to ship it.
B = Buy	Customer authorization to buy product materials, but not to build the product.
C = Firm	Customer “firm” forecast, no authorization.
D = Plan	Customer “planning” forecast, no authorization.

One EDI transaction from a customer for an item can have multiple types/levels of commitment: authorization from the customer to build or buy in the near term, and only forecasts further out.

Just as you can use customer orders in planning, you also can use expected customer orders. Just as you control, by a code in the Item Balance information (the Item Plan file) for each item, whether customer orders are used in planning an item, you can control—in a similar, but not identical way—whether expected customer orders are used in planning an item.

A Plan Expected Customer Order Code (ETPO) is defined in the Warehouse Master and Item Plan files, which allows you to select which types of expected customer orders (ECOs) are to be processed by MRP and MPSP. The new code allows you to select at the warehouse level and override at the item level, which types of ECOs are to be included in MRP and MPSP processing. Valid values for the codes (in both records) are:

0	No types of expected orders, the default for the Warehouse Master.)
A	Type A only.
B	Types A and B.
C	Types A, B, and C only.
D	All types.

In the Item Plan record only, blank (the default) indicates that the value in the Warehouse Master record is to be used for this item. Therefore, if you need different settings by item, you deal only with the item level.

The selected types of ECOs are extracted from the Expected Customer Order file into the MRP and MPSP planning files at the same time as the COM customer orders. The ECOs are netted against the customer orders to prevent double counting. For example, if a customer sends an expected customer order for 100 for a certain time period and subsequently sends actual orders totalling 35 to be shipped during that period, the extract programs decrease the expected customer order by the amount of the actual orders received, leaving 65 as the expected order quantity for that period.

You determine, using the Plan Customer Order Code in the Item Balance information (CTPO in the Item Plan file) whether customer orders create manual requirements in MRP, and, if so, for what time period. That code is also used for ECOs, so that the ECOs stay in sync with the customer orders. The ECOs selected for planning can then also have manual requirements created for them. The source of demand function does not trace demand back to a specific ECO number the way it does for customer orders—it identifies the demand only as a manual requirement for the item.

You can also define, using the Combine Customer Backlog Orders option (menu AMMM20, option 4, Planning Run Execution Options) whether customer orders due on the same date are to be combined into one record. That code is also used for ECOs, so the ECOs selected for planning are also combined.

Expected customer orders selected for use in planning are shown on the displays and reports along with customer orders. In most cases, they are identified with the format 01-ETnnnnnnn, where 01 is the company number for customer, ET designates an **Expected order of type** T (T = A, B, C, or D, as defined previously in this discussion), and nnnnnn is the expected customer order number assigned by EC when the EDI transaction is received and loaded into the expected customer order files. You can control that expected customer order number using settings in the EC transaction control file; see the *EC User's Guide* for more information. Manual requirements created for expected customer order are identified with the format ET MANUAL, where ET designates an **Expected order of type** T (T=A,B, C, or D, as defined previously in this discussion).

Sending purchase planning schedules

The planning or delivery schedules you send to trading partners are called purchase planning schedules in MRP. You work with these using the MRP Order/Schedule Release and Review menu (AMMM40). Options on this menu allow you to:

- Create profiles for the schedules you will send
- Create purchase planning schedules based on those profiles by:
 - Planning warehouse
 - Schedule frequency
- Print purchase planning schedules within limits and purge them by date. Schedules can be printed and mailed or faxed to trading partners or sent electronically using the EDI 830/DELFOR transactions. The appropriate media flags must be set for vendors using Vendor Master file maintenance in the Purchasing application.

Purchase planning schedules you send to trading partner vendors allow you to share forecasting and material planning information, to assist the selling partner in material and production planning. Their primary purpose is to provide planned and forecasted order information, with an option to include authorization from you to the vendor to commit resources (buy the materials or buy the materials and make the product).

To create these schedules, you set up purchase planning profiles, or templates, which define important information about your planning schedules:

- How frequently you create and send schedules
- Whether a buyer reviews the schedules before sending them
- How each component in a schedule is to be interpreted (schedule type):
 - A** Authorized to make a product
 - B** Authorized to buy materials
 - C** Firm forecast
 - D** Planning forecast
- Detail lines for each combination of schedule type, period length and number of periods.

After you create the profiles, you enter the planning profile IDs into vendor master records to apply to all items purchased from a vendor, or into Item Balance records if a different planning profile must be used for some items purchased from a vendor.

Programs that set the replan activity flag

Production Control and Costing:

AMC50 Shop activity update

Product Data Management:

AMVT0 Item Master file maintenance

AMEI2 Product costing/simulation

Inventory Management:

AMINB Miscellaneous item stock receipts, stock issues

AMIQF Quality control status maintenance

AMIQH Quality control transactions

AMI3F Inventory transaction batch update

AMI3I Inventory data entry

AMI3K Inventory data entry—pick complete by item

AMI3L Inventory data entry—receiving/issue transactions

AMI32 Inventory data entry—accounting transactions

AMI34 Inventory data entry—shipping transactions

AMI4N Order release summary and component update

AMI4P Purchase order closeout audit reports

AMI4S Order closeout selection

AMI4T Order closeout selection by date

AMI4U Order closeout summary and material purge

AMI5I Physical transaction batch update

AMI7A Item Balance file maintenance

AMI7B Purchase order item detail file maintenance

AMI7C Purchase order blanket release detail file maintenance

AMI7D Manufacturing order master file maintenance

AMI7E Manufacturing order detail file maintenance

AMI9A Manufacturing allocation audit

AMI9D Pick requirements audit

Production Monitoring and Control:

AMJCB Transaction processor—PC&C

Repetitive Production Management:

AMQ3B Transaction entry—component transfers/returns

AMQ3C Transaction entry—receipts/scrap reporting

AMQ3D Transaction entry—receipts/scrap backflushing

AMQ3E Transaction entry—component scrap

AMQ4A Purge schedule select

AMQ4C Purge schedule select

AMQ4N Expand, extract, update schedules

AMQ42 Enter and maintain customer manufacturing dates

AMQ44 Enter and maintain schedules

AMQ5B Released schedule file maintenance

Electronic Commerce:

AM4RPSRU

Update received planning schedules (830 & DELFOR)

Forecasting:

AM215 Load inventory parameters from Forecasting

AM218 Load forecast to MRP and MPSP

Purchasing:

AM64A Enter/edit purchase orders

Chapter 3. Demand Management

When you select option 1 on the Main Menu (AMMM00), the “Demand Management menu (AMMM10)” appears. From this menu you can:

- Enter and maintain sales forecasts for items.
- Extract customer orders into the MRP requirements (REQMTS) file, and create customer order manual requirements.
- Enter and maintain planner requirements for items.
- Inquire into the current materials plan for items.
- Maintain warehouses and warehouse relationships.
- Maintain, print, and purge expected customer orders received from trading partners.

Note: To perform tasks from this menu, except for option 5, you must be authorized to the proper level of security in the warehouse you select.

Demand Management menu (AMMM10)	3-1
Option 1. Maintain Forecast (AMMM10).....	3-3
Option 2. Extract Independent Demand (AMMM10)	3-15
Option 3. Maintain Master Level Item Schedules (AMMM10)	3-19
Option 4. Item Requirements Inquiry (AMMM10).....	3-38
Option 5. Work With Warehouses (AMMM10).....	3-72
Option 6. Maintain Expected Customer Orders (AMMM10).....	3-93
Option 7. Print and Purge Expected Customer Orders (AMMM10).....	3-109

Demand Management menu (AMMM10)

```

AMMM10                               Material Requirements Planning          *****
                                      Demand Management

Type option or command; press Enter.

  1. Maintain Forecast
  2. Extract Independent Demand
  3. Maintain Master Level Item Schedules
  4. Item Requirements Inquiry
  5. Work With Warehouses
  6. Maintain Expected Customer Orders
  7. Print and Purge Expected Customer Orders

==> _____

F3=Exit      F4=Prompt    F9=Retrieve   F10=Actions
F11=Job status  F12=Return   F22=Messages
    
```

Option 6.

Option 7. Maintain Forecast. Use this option to enter and modify sales forecasts for items. The displays provide the average sales figures, as determined in other applications. Also, if Customer Order Management is installed and interfacing, and if you requested it during MRP application tailoring, the backlog of customer orders is shown, and compared to the present forecast. If Electronic Commerce is installed and you are receiving 830/DELFOR transactions and have chosen to include them in planning, expected customer orders are shown along with customer orders in the backlog.

Option 8. Extract Independent Demand. Use this option to extract customer order and expected customer order information into the Requirements (REQMTS) file, prior to executing a planning run. This option also can be selected as a run time option to the planning run.

Option 9. Maintain Master Level Item Schedules. Use this option to review master level items, matching their current demand in the form of sales forecasts and customer orders and expected customer orders, against planner requirements that you enter. You can also change these requirements. The requirements are sometimes referred to as independent demand or independent requirements.

Option 10. Item Requirements Inquiry. Use this option to inquire into the requirements plan for items.

Option 11. Work With Warehouses. Use this option to perform inquiries and maintenance functions for the Warehouse Master (WHSMST) file, and the Planning Warehouse Item Override file. From this option, you can add, change, or delete warehouses. Also, this option is the entry point for the work with warehouse relationships function.

Option 12. Print and Purge Expected Customer Orders. This option is available only if EC is installed. Use this option selectively to print expected customer orders. You can also purge by date expected customer orders that you no longer need.

Option 13. Maintain Expected Customer Orders. This option is available only if EC is installed. It allows you to view, change, delete, and print expected customer orders. Use this option to maintain expected customer orders that you have received electronically as either of these EDI transactions:

- ANSI X.12 830 (planning schedules)
- EDIFACT DELFOR (delivery schedules).

Option 1. Maintain Forecast (AMMM10)

Use this option to add or change any of your forecast values. If Forecasting is installed and interfacing, you will probably want to use that application to create and maintain your forecasts.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouse you select.

What information you need:

- Planner numbers
- Planning warehouses
- Vendor numbers (if applicable)
- Item numbers
- Items to include

What reports are printed: None.

What forms you need: None.

The basic steps to maintain forecasts follow each display.

AMM450—Review Forecast/Orders—Select a planner’s items (AMMM10)

Use this display to establish search parameters, then initiate a sequential review by planner of all items that satisfy those parameters.

This display appears when you select option 1, Maintain Forecast, on the Demand Management menu (AMMM10) or when you use **F1** on display AMM451.

This display allows you to initiate a sequenced review of items in the second method. Items are sequenced by item number within vendor number within warehouse within planner number. If some (but not all) of the items for a planner have vendor numbers assigned, those with no vendor number are accessed first; they, in effect, have a vendor number of all blanks, which puts them first.

```

AMM450                                Review Forecast/Orders

Select a planner's items
Planner number . . . . . nnnnn
Planning warehouse . . . . . aA3

Select starting positions
Vendor number . . . . . aaaaA6
Item number . . . . . aaaaaaaaaA15

Enter selection criteria
Items to include . . . . . A  1=All
                               2=With detail
                               3=With any exception
                               4=With an order exception of
                               expedite, reschedule, or defer
                               5=Items planned on last generation

Select items where order exception
days are greater than . . . . . nnn

F2=Select by item   F24=Exit
  
```

What to do

- To see the sales forecast for items, type the information requested and press **Enter** or just press **Enter**. Go to display AMM451.
- To see forecasts for a specific item, use **F2**. Go to display AMM457.
- To cancel this session, use **F24**. Go to menu AMMM10.

Function keys

F2=Select by item causes the Review Forecast/Orders - Select a planner’s items display (AMM457) to appear, allowing you to select to a specific item for review.

F24=Exit causes any data you typed to be ignored. The Demand Management menu (AMMM10) appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Select a planner's items.

Planner number. Type the number of the planner who is primarily responsible for planning the replenishment strategy for the item (or group of items). If no items are found for this planner or the last item for this planner has been shown, a message stating the planner has changed appears. When this happens, the application shows the next planner number in this field so that you can continue.

If you press **Enter** without typing a planner number, the application assumes zero for the planner number and shows the first master level item, if any, for planner zero.

Planning warehouse [?]. The planning warehouse for the associated data. Type the name of the warehouse you would like to use as a starting point for your review. If no items are found for this warehouse or the last item for this warehouse has been shown, a message stating the warehouse has changed appears. When this happens, the application shows the next warehouse number in this field so that you can continue.

If you press **Enter** without typing in a warehouse, the application shows the first item for this planner that appears in the lowest (ascending warehouse ID) warehouse.

Select starting positions.

Vendor number (from Item Balance file) [?]. Type the number of the vendor (or supplier) that you want to review. If you handle many items supplied by different vendors and want to review all items supplied by one vendor, type that vendor number to begin sequenced review with the first item for that vendor. See "Accessing information" on page 2-6.

If you press **Enter** without typing in a vendor number, the application shows the first item for this planner that does not have a vendor number assigned in the Item Balance file. If all items for this planner have vendor numbers assigned, the application shows the first item for the first vendor.

Item number [?]. Type the number of the first item that you want to review.

If you press **Enter** without typing an item number, the application shows the first item satisfying the other parameters entered.

Enter selection criteria.

Items to include. Type the number that corresponds to the type of items that you want to review:

- 1** All. Allows you to review all items that have a MLI code not equal to blank (equal to M or S).
- 2** With detail. Limits the review of those items for which detail information exists.
- 3** With any exception. Limits the review to those items that were identified as having a planning exception in the last MRP planning run.
- 4** With an order exception of expedite, reschedule or defer. Limits the review to those items that contain an expedite, reschedule or defer exception. When you select this option, an additional input field becomes available to allow the severity of the exception to be qualified.

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- 5** Items planned on last generation. Limits the review to those items that were planned in the last MRP planning run. In a generation run, all items are planned, but in a net change run, only items with inventory activity or file maintenance since the previous full planning run are planned.

This field contains the default of 1 (all items) when this display first appears.

Select items where order exception days are greater than. This field is only applicable for option 4 (With an order exception of expedite, reschedule, or defer) on the Items to include selection. If option 4 is not selected, this field is not available for input. This field allows you to select the magnitude of the exception being reviewed. If you enter 10, only orders that have an expedite, reschedule, or defer of greater than 10 days are included in the review.

AMM451—Review Forecast/Orders

Use this display to review the current forecast for an item and compare it with the present backlog of customer orders and expected customer orders. You can also use this display to enter or modify the forecast for an item.

This display appears when you make valid entries on display AMM450 or AMM457 and press **Enter**.

The body of the display shows the anticipated demand in date sequence. You can compare the average monthly sales to the forecast in order to track your forecast against history. If COM is installed and interfacing, you can compare the forecast to the actual booked customer orders (backlog). If EC is installed, the **Backlog** column also contains selected expected customer orders. If ISL/MISL is installed, demand from planned intersite orders also appears in the **Forecast** column. The **Greater** column matches customer orders and expected customer orders against the forecast. If the forecast is greater than the backlog, the forecast appears in the **Greater** column. However, if the backlog exceeds the forecast, the backlog appears in the **Greater** column and that value is highlighted.

```

AMM451                      Review Forecast/Orders

Item . : *****          *****          Item types . : *****
Planning WHS . : ***      Start date : **/**/** Current date : **/**/**
Planner number : *****  Vendor . . : *****  Available . . : *,**,***.***
FCST periods . : **      Days/Period: **      FCST quantity: *,**,***
Average monthly sales . . : *,**,**,**,**,**.**
Position to date . . . . nnnnnn

SEQNO   Date           Greater      Forecast  Type      Backlog      More: - +
**      **/**/**      *****.*** *****.*** **      *****.*** ** *****
**      **/**/**      *****.*** *****.*** **      *****.*** ** *****
**      **/**/**      *****.*** *****.*** **      *****.*** ** *****
**      **/**/**      *****.*** *****.*** **      *****.*** ** *****
**      **/**/**      *****.*** *****.*** **      *****.*** ** *****
**      **/**/**      *****.*** *****.*** **      *****.*** ** *****
**      **/**/**      *****.*** *****.*** **      *****.*** ** *****
**      **/**/**      *****.*** *****.*** **      *****.*** ** *****
**      **/**/**      *****.*** *****.*** **      *****.*** ** *****

F1=Select by planner  F2=Select by item  F4=Add  F5=Change/delete  F6=Next item
F7=Previous item     F18=Refresh      F21=Item detail      F24=Exit
    
```

```

Enter Additions:
Date . . nnnnnn  Quantity . . nnnnnnn.nnn

F3=Resume inquiry  F5=Change/delete  F18=Refresh  F21=Item detail
    
```

```

Enter sequence number for change/delete nn

F3=Resume inquiry  F4=Add  F18=Refresh  F21=Item detail
    
```

```

Enter Action . .  A  C=Change, D=Delete
Date . . nnnnnn  Quantity nnnnnnn.nnn

F3=Resume inquiry  F4=Add  F18=Refresh  F21=Item detail
    
```

What to do

- To see forecasts and customer orders and expected customer orders after a specific date, type a date in the **Position to date** field and press **Enter**.
- To see the items in planner sequence, use **F1**. Go to display AMM450.
- To see a specific item, use **F2**. Go to display AMM457. (If you arrived at this display from the specific item display, **F6** does the same action.)
- To modify the forecasts on this display, do one of the following:
 - To add new forecast records for an item, use **F4**. Type the date and quantity of the requirement, and press **Enter**.
 - To change or delete existing planner forecasts, use **F5**. Type the date and sequence number of the requirements you want to modify, and press **Enter**. Type **C** or **D** in the **Action** field, and press **Enter** again.

When you are finished with the changes, use **F3**.

- To see the next item for this planner, and if you are reviewing items sequenced by planner, use **F6**.
- To see the previous item for this planner, and if you are reviewing items sequenced by planner, use **F7**.
- To rebuild the body portion of the display with the most current information, use **F18**.
- To show additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs, use **F21**.
- To exit this session, use **F24**. Go to menu AMMM10.

Function keys

F1=Select by planner causes the Review Forecast/Orders display (AMM450) to appear, allowing you to restart sequenced inquiry at a different position within the file or to set different search parameters.

F2=Select by item causes the Review Forecast/Orders display (AMM457) to appear, allowing you to go directly to another item by entering only its warehouse and item number.

F3=Resume inquiry returns you to Inquiry mode after using **F4** or **F5**. It also refreshes the display to reflect your changes.

F4=Add allows you to add new forecast records to the forecast of the item you are reviewing. A forecast record is merely a forecast of a given quantity of the item for a particular date. The forecast record is added as follows:

1. Use **F4**. The application shows the following in the lower part of the display:

```
Enter additions:  
Date . . nnnnn Quantity . . nnnnnnn.nnn
```

2. Type the date and quantity of your forecast record and press **Enter**. The application edits the date for valid format. If the date is invalid, the display appears again with an error message. If the date is valid, the data is accepted. The **Date** and **Quantity** fields are cleared on the display, allowing you to enter another forecast record.

3. After you finish adding records, you can change or delete existing forecast records using **F5** or refresh the display to reflect your changes using **F18**. If you use **F3**, the display reflects the results of any additions made, and reactivates other functions of the display (for example, other function keys).

F5=Change/delete allows you to change or delete existing forecast records.

Note: You cannot change or delete propagated forecasts (RQSOR = FC or FCR). You can adjust these forecasts by entering a manual forecast with the same due date as the forecast you want to adjust. Use a positive quantity to increase the forecast or a negative quantity to decrease the forecast. This adjustment of a propagated requirement (RQSOR = FCR) affects only the forecast and not the requirements for the item being changed.

Modify the record as follows:

1. Use **F5**. The application shows the following in the lower part of the display:

```
Enter sequence number for change/delete nn_
```

2. Type the date and sequence number identifying the forecast record you want to modify. If there is no record with the date and sequence number you entered, these fields appear again with an error message, and you can enter them again. If the forecast record is found, the following appears:

```
Enter action . . A
Date nnnnnnnn Quantity nnnnnnnn.nnn
```

3. The date and quantity shown are the data for the forecast record you identified.
4. Select the action you want for the record you chose in step 2.
 - a. To delete the forecast record, type **D** (delete) in the **Action** field and press **Enter**.
 - b. To change the forecast record, type in (change) in the **Action** field, and change the date, the quantity, or both, by typing in the correct data over the fields shown and pressing **Enter**. The application edits the date for valid format. If the date is invalid, the display appears again with an error message.
 - c. If all edits are valid, the application accepts the data and clears the **Date** and **Quantity** fields, allowing you to change or delete another forecast record.
5. After you finish modifying records, you can add new records, using **F4**, or refresh the display to reflect your changes, using **F18**. If you use **F3**, the display reflects the results of any modifications made, and reactivates other functions of the display (for example, other function keys).

F6=Next item causes one of the following to occur:

- If you were performing planner-sequenced review and more items exist for the current planner, the Review Forecast/Orders display (AMM451) appears again with the data for the next item for that planner.
- If no more items exist for the current planner and warehouse, the Review Forecast/Orders display (AMM450) appears again.
- If you selected the current item explicitly, the Review Forecast/Orders—Select a planner's items display (AMM457) appears again, allowing you to select another item.

F7=Previous item causes one of the following to occur:

- If you were performing planner-sequenced review and more items exist for the current planner, the Review Forecast/Orders—Select a planner's items display (AMM451) appears again with the data for the previous item for that planner.
- If no more items exist for the current planner and warehouse, the Review Forecast/Orders display (AMM450) appears again.
- If you selected the current item explicitly, the Review Forecast/Orders—Select a planner's items display (AMM457) appears again, allowing you to select another item.

Note: If display AMM450 appears, it is positioned to the last plannable item for the previous planner or warehouse. Because display AMM450 only processes in a forward direction, if the last plannable item for the planner or warehouse does not fit the selection criteria, pressing **Enter** will move forward to the next planner or warehouse (a result of viewing the same item you were reviewing when you used **F7 Previous item**).

F18=Refresh rebuilds the body portion of the Review Forecast/Orders display (AMM451) with the most current information.

F21=Item detail causes the Item Detail displays (AMM171 through AMM176) to appear, showing additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs.

F24=Exit causes any data typed on this display to be ignored, and ends the program. The Demand Management menu (AMMM10) appears again.

Fields

The header information on the display provides identifying and control information about the item being shown and indicates the method used to access this item in the item types field.

Item (ITNBR). The item number and description of the item.

Item types. If you are using sequenced inquiry, this field displays ALL, DETAIL, (3)EXCEPTIONS, (4)EXCEPTIONS, or PLANNED showing the items to include you selected on display AMM450. If you entered an item number on display AMM457, this field shows EXPLICIT.

Planning WHS (HOUSE). The planning warehouse for the associated data.

Start date (STDT). The planning start date is the earliest date the application allows the planner requirements to exist, and then only if they are "held." This date is also the starting point for the report period intervals, used to summarize generated requirements for printing. The date is set using option 1, Maintain Horizon Values, on the Planning Run Options (AMMM20) menu.

Current date (CU DT). The date used by the planning programs as the current date (the date the plan is generated). The date is usually changed just before a planning run, so the date shown is the date used in the last planning run. This date is the earliest date for which a forecast record can exist. Propagated forecasts are prorated as they pass this date, and manual forecasts are dropped entirely.

Planner number (PLANIB). The planner number for this item.

Vendor (VNDNR). The vendor number assigned to the item and recorded in the Item Balance file. This is usually the number for the primary supplier of the item. See “Accessing information” on page 2-6.

Available. The item's available inventory, adjusted back to the last planning run. The field is calculated as follows: on-hand inventory, minus the difference of the receipts since the last planning run and the shipments since the last planning run, minus the manufacturing allocation quantity adjusted by the future allocation quantity: (MOHTQ minus (RECPL minus CURPL)) minus (MALQT minus FALQT).

FCST periods (Number of Forecast Periods) (FRPD)

Days/Period (Number of Days in a Forecast Period) (PDDY)

FCST quantity (Forecast QTY per Period) (FRQTY). These fields are used by the planning programs to generate (or propagate) a forecast for an item, if the item contains a 1 or a 2 in its Master Level Forecast Code (MLFC) field. See “Forecasting” on page 2-7 for more detail. These fields are contained in the Item Plan (ITMPLN) file and Item Balance (ITEMBL) file and must be setup using ITEMBL file maintenance in the Inventory Management application.

Average monthly (or Period) sales (AVSAL). The average monthly sales for the item (or period sales, if you use a 13-period accounting year), as tracked by the Inventory Management application. This quantity appears for your guidance in establishing a forecast for the item.

Position to date. If you enter a date in this field and you press **Enter**, the application shows you the forecast/customer order records beginning at that date.

SEQNO (Sequence Number). This field contains an application-assigned sequence number for each forecast record. This number is used when modifying existing records. When more than one forecast record exists for one date, the sequence number is used to identify which record is being selected for modification.

Date (RQDUD). The date the forecast or backlog is required. For manually entered forecasts, this is the date entered when the forecast was entered (see the preceding description of **F4**).

For propagated forecasts, this date is determined by the date the forecast was first propagated in a requirements generation run and by the value in the **Days/Period** field.

Greater. The larger of either the FCST quantity or the backlog quantity for the forecast period. The forecast period is determined by the occurrence of forecast records. Whenever the backlog exceeds the forecast, the total of the customer orders and expected customer orders appears and is highlighted.

Forecast (RQQTY). The quantity of this item forecast for this date.

Type (derived from RQSOR).

MFC (manual forecast). A forecast manually entered by the planner in forecast maintenance. FCST and ISL/MISL also can generate manual forecasts.

FC (forecast). A forecast propagated by the application in a planning run from forecast generation fields entered in the Item Balance and Item Plan records prior to the run. (The master level forecast code (MLFC) for this item is 1).

FCR (forecast requirement). A forecast requirement propagated by the application in a planning run from forecast generation fields entered in the Item Balance and Item Plan records prior to the run. This information is considered a requirement in the planning process. (The master level forecast code (MLFC) for this item is 2).

Backlog (RQQT). The quantity not shipped for an explicit customer order; it is shown only if COM is installed and interfacing. If EC is installed, expected customer orders also are included.

Reference (RQCID = ORDNO). The customer order number whose demand appears in the Backlog field; it appears only if COM is installed and interfacing.

If EC is installed, expected customer orders also are identified. For a single expected customer order, the identifier is ET nnnnnnn, where ET designates an Expected order of type T (T = A, B, C, or D, as defined below) and nnnnnnn is the number of the expected customer order. Where multiple expected orders have been combined, ET-COMBINED appears, where T is one of the following order types:

- A** Make. Customer authorizes you to build the product, but not to ship it.
- B** Buy. Customer authorizes you to buy materials, but not build the product.
- C** Firm. Customer "firm" forecast - no authorization.
- D** Plan. Customer "planning" forecast - no authorization.
- E** Expected orders of multiple types have been combined.

AMM457—Review Forecast/Orders—Select a planner's items

Use this display to access an item directly by its warehouse and item number. If you do not know the item number or warehouse of the item you want to review, use F1 to obtain the planner start-up display (Review Forecast/Orders—Select a planner's items display (AMM450)). You can then use display AMM450 to search through the file, starting at the desired point, then using **F6** or **F7** on the Review Forecast/Order display (AMM451) to move from item to item once the first item appears on the display.

This display appears when you use **F2** on display AMM450 or AMM451. It allows you to enter the specific planning warehouse and specific item number of the item you want to see.

```
AMM457                                Review Forecast/Orders
Select a planner's items
Planning warehouse . . . . . aA3
Item Number . . . . . aaaaaaaaaaA15

F1=Select by planner  F24=Exit
```

What to do

- To see the forecasts, type in the planning warehouse and item number that you want to review and press **Enter**. Go to display AMM451.
- To see the items in planner sequence, use **F1**. Go to display AMM450.
- To exit this session, use **F24**. Go to menu AMMM10.

Function keys

F1=Select by planner causes the Review Forecast/Order display (AMM450) to appear.

F24=Exit causes any data typed in on this display to be ignored. The Demand Management menu (AMMM10) appears.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

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Select a planner's items.

Planning warehouse [?]. Required. Type the planning warehouse for the item you want to review.

Item number [?]. Required. Type the item number of the item whose forecast you want to review.

Option 2. Extract Independent Demand (AMMM10)

The extract independent demand function extracts customer order, released intersite order, and expected customer order information into the MRP requirements file. This menu option is not available if COM is not installed and interfacing.

The expected customer order information is available only if EC is installed. When you receive in EC either an ANSI 830 Planning Schedule or an EDIFACT DELFOR Delivery Schedule transaction, it is loaded into the Expected Customer Orders file. As the customer orders are extracted, they are subtracted from the expected customer orders, to prevent double counting. Thus the extracted expected customer orders are the remaining quantities after the actual customer orders have been netted against them.

If ISL is installed, intersite orders released by the requesting warehouse, against the supplying warehouse, are reflected in the independent demand for the supplying warehouse, as they are stored as COM orders against this warehouse.

Because the extract independent demand can be executed from a menu option, you are able to perform it outside of your planning run. For example, if you have just executed the extract independent demand menu option and adjusted your manual requirements in preparation for the planning run, you may not want to extract again to shorten your planning run execution time.

When you select option 2 on the Demand Management menu (AMMM10) menu, the Extract Independent Demand display (AMV360) appears. This display will prompt you for a planning warehouse. After a valid planning warehouse has been selected, display AMM180 appears, allowing you to view the date which the extract independent demand option was last executed for the selected warehouse. Using **F17** schedules a batch job for the selected planning warehouse and display AMV360 appears again allowing you to select the next planning warehouse to schedule.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouse you select.

What information you need: Planning warehouse identifier.

What reports are printed: None.

What forms you need: None.

The basic steps to extract independent demand follow each display.

AMV360—Extract Independent Demand

Use this display to extract Customer Order Management (COM) customer order information (also referred to as independent demand) into the Requirements (REQMTS) file. This option allows planners to extract independent demand, plan requirements based on the demand, and then submit a planning run to generate the material plan for the new requirements. This option is also available as a run time option on the planning run.

This display appears when you select option 2 on the Demand Management menu (AMMM10). This display prompts you for a planning warehouse.

Note: You must be authorized to the proper level of security in the warehouse you select.

```
AMV360                                Extract Independent Demand
Select a planning warehouse
Planning warehouse . . . . . aA3

F24=Cancel
```

What to do

- To extract Customer Order Management (COM) customer information into requirements (REQMTS) file, enter a valid planning warehouse and press **Enter**. Go to display AMM180.
- To cancel this session, use **F24**. Go to menu AMMM10.

Function keys

F24=Cancel causes any data typed in on this display to be ignored. The Demand Management menu (AMMM10) appears.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Select a planning warehouse.

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Planning warehouse [?]. Type the name of the warehouse from which you would like to extract customer orders. Each customer order in this warehouse, and all associated demand warehouse (as defined in Work With Warehouse Relationship), is extracted into the Requirements (REQMTS) file.

AMM180—Extract Independent Demand

Use this display to confirm your choice of the planning warehouse selected on display AMV360 for customer order requirements regeneration.

This display allows you to view the date that extract independent demand option was last executed for the selected warehouse.

```
AMM180                                Extract Independent Demand
Planning warehouse . . . . . : *** *****
Last independent demand extract . . : **/**/**

Selection of function key 17 causes all customer order requirements
to be regenerated.

NOTE: Planned orders are not altered by this function.

F17=Accept for update   F24=Cancel
```

What to do

- To submit a batch job to perform the extract, use **F17**. Go to display AMV360.
- To select the next physical warehouse, type the planning warehouse number on display AMV360 and press **Enter**.
- To cancel this session, use **F24**. Go to display AMV360.

Function keys

F17=Accept for update causes the extract independent demand function to be submitted to the job queue for the selected warehouse.

F24=Cancel causes display AMV360 to appear again.

Fields

Planning warehouse. The planning warehouse for the associated data.

Last independent demand extract. The date that the extract independent demand option was last executed.

Option 3. Maintain Master Level Item Schedules (AMMM10)

Use this option to initiate a sequenced review of master level items. Before reading this section about the master level item (MLI) schedule, be sure you have read "Introducing Material Requirements Planning" on page 1-1.

There are three displays associated with the MLI schedule. Two are start up displays: one permits inquiry into the schedule in planner sequence, the other is for retrieval of a specific master level item. The third display shows you the actual schedule for one master level item at a time with that item's planning information. You can add, change, delete, or hold MLI requirements using the third display. Subordinate displays are available to show the planning parameters set up for the item (lot sizing policies, lead time, safety stock). The descriptions for the three displays follow.

Note: If MPSP is installed and interfacing, planning data for master scheduled items may be incomplete in MRP because MPSP, not MRP, plans these items.

If ISL is installed, requirements from planned intersite orders from another warehouse are included as forecast demand and requirements. Requirements from released intersite orders from another warehouse are included as order demand and requirements. Planned and released intersite orders on another warehouse are included in expected receipts.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouse you select.

What information you need:

- Planner numbers
- Planning warehouses
- Vendor numbers
- Item numbers
- Items to include.

What reports are printed: None.

What forms you need: None.

The basic steps to maintain a master level Item schedule follow each display.

AMM350—MLI Requirements VS Forecast/Orders—Select a planner's items

Use this display to establish search parameters, then initiate a sequential review of all master level items (MLI) that satisfy those parameters.

This display appears when you select one of the following:

- You use option 3, Maintain Master Level Item Schedule on the Demand Management menu (AMMM10)
- You use **F1** on one of the other Master Level Item Schedule displays (AMM351 or AMM357).

If you used **F1** to access this display, it shows the last item number (and the associated planner number and vendor number, if applicable) that was shown using planner sequencing. You can resume planner-sequenced inquiry into the Master Level Item Schedule after doing an explicit inquiry (refer to "AMM357—MLI Requirements VS Forecast/Orders—Select a planner's items") without having to enter the start-up information again.

You can review the items you select (using the *Items to include* field) in sequence by item number within vendor number within warehouse within planner number, and you can begin the review at any point you want, by entering planner, planning warehouse, vendor, and item numbers as optional starting values. Any field not entered (other than the Items to include field, which must contain one of the allowed values) defaults to zero (planner) or blank (warehouse, vendor, item) and the search begins with those values.

```

AMM350                                MLI Requirements VS Forecast/Orders

Select a planner's items
Planner number . . . . . nnnnn
Planning warehouse . . . . . aA3

Select starting positions
Vendor number . . . . . aaaaA6
Item number . . . . . aaaaaaaaaA15

Enter selection criteria
Items to include . . . . . A  1=All
                               2=With detail
                               3=With any exception
                               4=With an order exception of
                               expedite, reschedule, or defer
                               5=Items planned on last generation

Bypass reviewed items . . . . . A  0=No, 1=Yes

Select items where order exception
days are greater than . . . . . nnn

F2=Select by item  F24=Exit
  
```

What to do

- To see the requirements, type the information requested and press **Enter**, or just press **Enter**. Go to display AMM351.
- To see requirements for a specific item, use **F2**. Go to display AMM357.
- To exit this session, use **F24**. Go to menu AMMM10.

Function keys

F2=Select by item causes the MLI Requirements VS Forecast/Orders—Select a planner's items display (AMM357) to appear, allowing access to a specific item by warehouse and item number.

F24=Exit causes any data you typed in to be ignored. The Demand Management menu (AMMM10) appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

All fields on this display are used for the entry of search parameters. Only the **Items to include** field is required.

Select a planner's items.

Planner number (PLANIB). Type the number of the planner who is primarily responsible for planning the replenishment strategy for the item (or group of items). If no items are found for this planner or the last item for this planner has been shown, then a message stating the planner has changed appears. When this happens, the application shows the next planner number in this field so that you can continue.

If you press **Enter** without typing in a planner number, the application assumes zero for the planner number and shows the first master level item, if any, for planner zero.

Planning warehouse [?]. The planning warehouse for the associated data. Type the planning warehouse code for which the item (or group of items) is planned. If no items are found for this planner/warehouse, or the last item for this planner/warehouse has been shown, a message stating the warehouse has changed is shown. The application then shows the next warehouse code in this field so that you can continue.

Select starting positions.

Vendor number (from Item Balance file) [?]. Type the number of the vendor (or supplier) that you want to review. If you handle many items supplied by different vendors and want to review all items supplied by one vendor, type in that vendor number to begin sequenced review with the first item for that vendor. See "Accessing information" on page 2-6.

If you press **Enter** without typing in a vendor number, the application shows the first item for this planner that does not have a vendor number assigned in the Item Balance file. If all items for this planner have vendor numbers assigned, the application shows the first item for the first vendor.

Item number [?]. Type the number of the first item that you want to review. If you press **Enter** without typing in an item number, the application shows the first item satisfying the other parameters entered.

Enter selection criteria.

Items to include. Type the number that corresponds to the type of items that you want to review:

- 1** All: Allows you to review all items that have a MLI code not equal to blank (equal to M or S).
- 2** With detail: Limits the review of those items for which detail information exists.
- 3** With any exception: Limits the review to those items that were identified as having a planning exception in the last MRP planning run.
- 4** With an order exception of expedite, reschedule or defer: Limits the review to those items which contain an expedite, reschedule or defer exception. When this option is selected an additional input field becomes available to allow the severity of the exception to be qualified.
- 5** Items planned on last generation: Limits the review to those items that were planned in the last MRP planning run. In a generation run, all items are active, but in a net change run, only items with inventory activity or file maintenance since the previous planning run are planned.

Bypass reviewed items. Type **1** (Yes) to skip any reviewed items that have a bypass set. Type **0** (No) to see all items, including those already reviewed.

Select items where order exception days are greater than. This field is only applicable for option 4 (With an order exception of expedite, reschedule, or defer) on the items to include selection. If option 4 is not selected, this field is not available for input. This field allows you to select the magnitude of the exception being reviewed. If you enter 10, only orders that have an expedite, reschedule, or defer of greater than 10 days are included in the review.

2. If customer order manual requirements exist in the free zone, you cannot modify these requirements. Free zone customer order manual requirements cannot be maintained because they are discarded and regenerated on the next Extract Independent Demand.
3. You may not be able to enter requirements to meet all anticipated demand for the item. To do so assumes that your production facilities have unlimited capacity. You must weigh the anticipated demand against the constraints in producing that item. The MLI Resource Report (AMM222) may be used as reference to compare total production planned with production capability.

The MLI schedule does not show detailed production information. Instead, it shows your requirements plan in relationship to the external (independent) demand for the item. The display shows why the requirements exist and whether these requirements are sufficient.

Use inquiry by alternate work session to see descriptive information about the item, such as:

- Planned orders
- Requirements
- Scheduled receipts.

After reviewing this detailed production information, you can return to the MLI schedule to enter your decisions.

Use all of this information to decide if these requirements are sufficient. If they are not, you must enter new requirements using the display. You make this decision, in part, based on the need for the item. Need normally is expressed as customer orders or projected sales. If COM is installed and interfacing, customer orders, called backlog, appear on the display in the order demand column, and if sales projections exist, they appear as the forecast.

If ISL is installed, requirements from planned intersite orders from another warehouse are included as forecast demand and requirements. Requirements from released intersite orders from another warehouse are included as order demand and requirements. If EC is installed, expected customer orders also are included as part of the backlog in the order demand column.

These two forms of external demand, backlog and forecast, are compared and the anticipated demand per forecast period is the one shown. Greater Demand is a tentative projection of when the item is needed and of how many items are needed. The effect of this anticipated demand on inventory balances is also shown. Your task may be simplified if you have coded your master files for automatic creation of customer orders requirements. Requirements are created for planned intersite orders, customer orders, and expected customer orders selected for planning. You will see entries on the display which represent those requirements.

Expected Inventory is the difference between the available balance for this item and the anticipated demand (the greater of forecast or backlog). Planned orders and scheduled receipts are added to this running total, and if they are added, the total is highlighted. Note that these numbers are projections. If the forecast is inaccurate or if additional orders are received, the numbers in Greater Demand and Expected Inventory will change. Anticipated demand is shown to you only as a guide. You must judge how accurate the anticipated demand is and make your decision accordingly.

If the item has an MLI code of M (multiple), generated requirements, if they exist, appear with the customer backlog and are subtracted from the expected inventory. They are not, however, included in the Greater Demand total because planned orders are automatically created to meet these generated requirements by the planning runs. The M-type generated requirements have an asterisk preceding their requirement description in the Reference column. The asterisk means that the quantity is not used in the Greater Demand calculation.

If the item has MLI code of S (single), planned orders are not created for these requirements. Generated requirements for these items are considered the same as external demand for the item. They appear in the backlog column (Order Demand) and are added to the Greater Demand total. You must enter manual requirements to cover the exposures created by these generated requirements just as if they were customer orders.

Other uses for display AMM351: There are a variety of possibilities with the fields on the AMM351 display, especially with the **ORD Demand/Reference** fields, and a number of them have consequent effects on **Greater Demand** and **Expected INV**. Some of these possibilities include:

- Reviewing an end product
- Reviewing a service product
- Reviewing a standard option of an end-item.

Reviewing an end product: In the simplest case, the item being reviewed is an end product. Three types of Order Demand can exist:

- Specific customer orders. A specific customer order (a normal order from a customer), or a released intersite order is identified by the customer order number shown in the **Reference** column: for example, 01-CO1234567, where 01 is the company, CO indicates a customer order and 1234567 is the order number assigned in the COM application.

If desired, customer orders can be combined for MRP purposes if they have the same manufacturing schedule date. If you select combining of customer orders on option 4, Planning Run Execution Options, on menu AMMM20 and if more than one customer order exists with the same date, they are combined into one record in the MRP files, and CO-COMBINED appears in the **Reference** column instead of a customer order number.

- Expected customer orders. An expected customer order is identified by the expected customer order type and order number shown in the **Reference** column: for example, 01-ETnnnnnnn, where 01 is the company, ET designates an Expected order of type T (where T may be A, B, C, or D or E if multiple types have been combined during the extract of independent demand), and nnnnnnn is the expected order number assigned in the EC application. If you select combining of customer orders as described above, expected customer orders are also combined and appear as ET-COMBINED.
- Blanket customer orders. A blanket customer order (for example, order number 423456) contains in the **Reference** column * B423456, where B with the order number denotes a blanket order, and the asterisk (*) indicates that this data is for information only: it is not included in the calculations of any other field on the display, since the releases against this blanket order constitute the real shipping plan by date. The releases for the blanket order are shown with 01-CO4234567 in the **Reference** column and are treated like normal customer orders.

It is helpful for planning purposes to show the blanket quantity, since it is possible that not all the releases were entered with the original order. However, the application makes no decisions (or calculations) based on the blanket order—only

on the releases. With a normal order, 01-CO1234567, its quantity is used in calculating the **Greater Demand**. If there is no forecast for this item, the quantity of this order becomes the **Greater Demand** for the date the order is required (the order's manufacturing schedule date). If there is a forecast, the order quantity is added to any other normal customer orders, and if the total becomes greater than the forecast, the total becomes the **Greater Demand** and appears opposite the order that causes the orders to exceed the forecast.

For example, if the forecast was 100 for the first of February, and there were three orders for 40 during the month of February, the **Greater Demand** (opposite the third order) would be 120 (it also contained 100 opposite the forecast on February first). **Expected INV** would be reduced by 100 on February first and by another 20 on the date of the third order.

The order total (120) appears in the **Greater Demand** field for ease of planner reference; whereas, since the forecast (100) was subtracted at the beginning of the forecasting period, only the excess (20) need be subtracted from inventory at the later date.

Reviewing a service part: In a more complex case, the item being reviewed is a service part (one that can be sold to customers and is also required for manufacturing use in building the end product). The same three kinds of customer order demand as above may exist, but now there is a fourth kind of **ORD Demand—generated requirements for planned production orders**. This kind of demand is identified by PG in the **Reference** column, but the details depend on how the item was coded as a master level item in its Item Plan file.

If the item's master level item code is M (for multiple sources of demand), both the generated requirements and the planner requirements for the item are used in the planning run; therefore, the generated requirements do not constitute demand that the planner must cover with his planner requirements.

This being the case, the manufacturing order demand is not included in the calculation of **Greater Demand** for master level item (MLI) type M items. The demand is identified as *PG, with the asterisk signifying that this order demand is not being used in the GREATER calculation and is shown for planner information only. The *PG demand is used in calculating **Expected INV**, since it is a real demand on the item and, as such, reduces **Expected INV**. If, on the other hand, the item contains an MLI code of S (for single source of demand), only planner requirements for the item are used in the planning run; therefore, the generated requirements from production must be considered by the planner so that he can provide coverage for them with planner requirements.

Because of this, for MLI type S items, the manufacturing order demand is included in the calculation of **Greater Demand** (and **Expected INV**) exactly like customer order demand. The demand is identified as *PG, for consistency with the Item Requirements Inquiry display (AMM511) of the same information. The asterisks in this case match its appearance on the Requirements Inquiry display, where it is shown purely for information, and to provide traceability—pegging capability, by using **F4** on that display—to the parent item generating the demand.

If desired, generated requirements can be combined on user-specified date intervals. If this option has been chosen (there is a combine requirements code in each item record), the dependent demand would be shown, combined on the intervals specified and identified as CB for MLI type M items and * CB for S items.

Reviewing a standard option of an end-item: Finally, the most complex case is one in which the item is a standard option of an end-item, as well as a service part. All of

the above types of order demand may still exist: normal customer orders and expected customer orders (individually or combined), blanket customer orders, and generated requirements (individually or combined).

There is one additional type of demand shown in the **ORD Demand** column for option items: customer orders for the option as part of the end-item; or, putting it another way, customer orders for the end-item that specify this optional item. This case exists when the end-item has been structured using the feature/option capability of the Product Data Management application and a customer order has been entered through Customer Order Management (and a extract independent demand executed, to copy over the customer order records).

Here the display for the option item would show the customer order in the **ORD Demand**, with * 01-CO222333 in the **Reference** field. The asterisk appears only for those items ordered on the sale of an end configuration or model line. The asterisk differentiates this customer order from normal customer orders and also signifies that this type of customer order is not included in the calculations of other fields on the display.

```

AMM351                                MLI Requirements VS Forecast/Orders

Item . : ***** Item types . : *****
Planning WHS . : *** Start date : **/**/** Current date : **/**/**
Planner number : ***** Vendor . . : ***** Available . . : *,**,***.***
Last demand extract . . . : **/**/**
Position to date . . . . nnnnnn *****

More: - +
SEQNO Date Type Plan VS Greater Forecast Reference
Planner-REQMTS Demand Demand Demand ORD Demand Expected INV
* **/**/** *** *****.*** *****.*** *****.*** *****.*** *****.***
* **/**/** *** *****.*** *****.*** *****.*** *****.*** *****.***
* **/**/** *** *****.*** *****.*** *****.*** *****.*** *****.***
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F1=Select by planner F2=Select by item F4=Add F5=Change/Delete
F6=Next item F7=Previous item F10=Set bypass F18=Refresh
F21=Item detail F24=Exit

Enter Additions:
Date . . nnnnnn Quantity . . nnnnnnn.nnn Smooth date/code . . nnnnnn A
F3=Resume inquiry F5=Change/Delete F18=Refresh F21=Item detail

Enter sequence number for change/delete/hold n
F3=Resume inquiry F4=Add F18=Refresh F21=Item detail

Enter Action . . A C=Change, D=Delete, H=Hold
Date . . nnnnnn Quantity . . nnnnnnn.nnn Smooth date/code . . nnnnnn A
F3=Resume inquiry F4=Add F18=Refresh F21=Item detail

```

What to do

- To see requirements after a specific date, type a date in the **Position to date** field and press **Enter**.
- To see the items assigned to a planner, use **F1**. Go to display AMM350.
- To see a specific item, use **F2**. Go to display AMM357. (If you arrived at this display from the specific item display, **F6** does the same action).
- To modify the requirements on this display, do one of the following:
 - To add new (manual) planner requirements for an item, use **F4**. Type the date and quantity of the requirement and press **Enter**.
 - To change, delete, or hold existing planner requirements, use **F5**. Type the date and sequence number of the requirements you want to modify, and press **Enter**. Type **C**, **D**, or **H** in the **Action** field and press **Enter** again.

When you are finished with the changes, use **F3**.

- To see the next item for this planner, if you are reviewing items sequenced by planner, use **F6**.
- To see the previous item for this planner, if you are reviewing items sequenced by planner, use **F7**.

Note: If the item is the last one for this planner, go back to display AMM350.

- To flag the item you are reviewing to skip it in future reviews, use **F10**.
- To exit this session, use **F24**. Go to menu AMMM10.

Function keys

F1=Select by planner causes the MLI Requirements VS Forecast/Orders—Select a planner's item display (AMM350) to appear, allowing you to restart sequenced inquiry at a different position within the file or to set different search parameters.

F2=Select by item causes the MLI Requirements VS Forecast/Orders—Select a planner's item display (AMM357) to appear, allowing you to go directly to another item by entering only its item number.

F3=Resume inquiry returns you to inquiry mode after you select **F4** or **F5**. It also refreshes the display to reflect your changes.

F4=Add allows you to add new (manual) planner requirements for the item you are reviewing. To enter held planner requirements, two operations are necessary: first, add the requirement using **F4**, and then hold it using **F5**. To add requirements do the following:

1. Use **F4**. The application shows the following in the lower part of the display:

```
Enter Additions:  
Date nnnnnn Quantity nnnnnnn.nnn
```

Note: If Repetitive Production Management is installed and interfacing and the item is a scheduled controlled item, the smooth date/code is also shown on the lower part of the display. Either may be changed from this display.

2. Type the date and quantity of the requirement and press **Enter**. The application edits the date for valid format. If the format is invalid, the display appears again with an error message. If the format is valid, the data is accepted and the Date and Quantity fields are cleared, to allow you to enter another requirement.

Enter Action: n
Date nnnnnn Quantity nnnnnnn.nnn

F5=Change/Delete allows you to change, delete, or hold existing planner requirements. To perform these functions proceed as follows:

1. Use **F5**. The application shows the following in the lower part of the display:
2. Type the sequence number identifying the planner requirement you want to modify and press **Enter**. If there is no requirement record with the date and sequence number you entered, these fields appear again with an error message, allowing you to enter them again. If the requirement record is found, the following appears:

The date and quantity shown are the data for the requirement you identified.

- a. To delete the requirement, type **D** (delete) in the **Action** field and press **Enter**.
- b. To hold the requirement (prevent it from being dropped when it becomes older than the Current Date, to "hold" it until the Start Date), type **H** (hold) into the **Action** field and press **Enter**. You can also enter date or quantity changes while holding the requirement.
- c. To change the requirement, type **C** (change) in the **Action** field; then change the date, the quantity, or both, by typing the new data and pressing **Enter**.

Note: If Repetitive Production Management is installed and interfacing, and if the item is a scheduled controlled item, the smooth date/code is also shown in the lower part of the display. You can change either from this display.

3. After you finish modifying requirement records, you can add new requirements using **F4**, or refresh the display using **F18**. If you use **F18**, the refreshed display reflects the results of any modifications made in the **Plan VS Demand** column as well as the **Planner-REQMTS** column. Select **F3** to reactivate other functions of the display (other function keys).

F6=Next item causes one of the following to occur:

- If you were performing planner-sequenced review and more items exist for the current planner, display AMM351 appears again with the data for the next item for that planner. If no more items exist for the current planner, the MLI Requirements VS Forecast/Orders—Select a planner's items display (AMM350) appears.
- If you had selected the current item explicitly, the MLI Requirements VS Forecast/Orders—Select a planner's items display (AMM357) appears, allowing you to select another item.

F7=Previous item causes one of the following to occur:

- If you were performing planner-sequenced review and more items exist for the current planner, display AMM351 appears again with the data for the previous item for that planner. If no more items exist for the current planner, the MLI Requirements VS Forecast/Orders—Select a planner's items display (AMM350) appears.
- If you had selected the current item explicitly, the MLI Requirements VS Forecast/Orders—Select a planner's items display (AMM357) appears, allowing you to select another item.

Note: If display AMM350 appears, the last plannable item for the previous planner or warehouse appears on the list. Because display AMM450 only processes in a forward direction, if the last plannable item for the planner or warehouse does not fit the selection criteria, pressing **Enter** will move forward the

next planner or warehouse (a result of viewing the same item you were reviewing when you pressed **F7=Previous item**).

F10=Set bypass tags this item as having been reviewed and lets you skip this item in future reviews if you enter 1 for Bypass Reviewed Items on the MLI Requirements VS Forecast/Orders—Select a planner's items display (AMM350). Otherwise, this function key works like function key **F6**.

F18=Refresh rebuilds the body portion of the Review Forecast/Orders display (AMM351) with the most current information.

F21=Item detail causes the Item Detail information displays (AMM171 through AMM176) to appear, showing additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs.

F24=Exit causes any data you typed in the **Position to date** field to be ignored, and ends the program. The Demand Management menu (AMMM10), appears again.

Fields

Item. The item number and description for the item.

Item types. If you are using sequenced inquiry, this field contains ALL, DETAIL, (3)EXCEPTIONS, (4)EXCEPTIONS or PLANNED showing the requirements type you selected on display AMM350. If you entered an item number on display AMM357, this field contains EXPLICIT.

Planning WHS (HOUSE). The planning warehouse for the associated data.

Start date (STDT). The planning start date is the earliest date the application allows the planner requirements to exist, and then only if they are "held." This date is also the starting point for the report period intervals, used to summarize generated requirements for printing. The date is set using option 1, Maintain Horizon Values, on the Planning Run Options menu (AMMM20).

Current date (CU DT). The date used by the planning programs as the current date (the date the plan is generated). The date is usually changed just before a planning run, so the date shown is the date used in the last planning run. This date is the earliest date for which a forecast record can exist. Propagated forecasts and requirements are prorated as they pass this date, and manual forecasts and requirements are dropped entirely.

Planner number. The planner number for this item.

Vendor (VNDNR). The vendor number assigned to this item and recorded in the Item Balance file. This is usually the number for the primary supplier of the item. See "Accessing information" on page 2-6.

Available. The item's available inventory, adjusted back to the last planning run. The field is calculated as follows: on-hand inventory, minus the difference of the receipts since the last planning run and the shipments since the last planning run, minus the manufacturing allocation quantity adjusted by the future allocation quantity. (MOHTQ minus (RECPL minus CURPL)) minus (MALQT minus FALQT)

This field serves as the starting point for the **Expected INV** column on the display and represents the starting available balance (on-hand minus allocated to manufacturing) for the last planning run.

Last demand extract. This field is the date that the extract independent demand option was last run. You can run demand extract from the AMMM10 menu option 2, Extract Independent Demand, or demand is extracted with the planning run (as a run time option).

Position to date. If you enter a date in this field and press **Enter**, the application shows you the forecast/customer order records beginning at that date.

SEQNO (Sequence Number). This field contains an application-assigned sequence number for each requirement record. This number is used when modifying existing records. When more than one planner requirement record exists for one date, the sequence number is used to identify which record is being selected for modification.

Date (RQDUD). The date for a line on the display. This may be the date of a planner requirement, a forecast demand record, or an order demand record. All records are aligned by date required. It is possible for two or three records to appear on the same line, if they are for the same date.

If a planner requirement was individually entered, this date was entered manually. If a planner requirement was propagated, this date was determined by the application from Current Date and Days Per Period for the item. In either case, this field is the required date.

For manually entered forecast records, this is the forecast date and was entered with the forecast. For propagated forecasts, this date was determined by the application from Current Date and Days Per Period for the item.

Type (derived from RQSOR).

MNL (manual requirement). A requirement manually entered by the planner in the maintain master level item schedule function. FCST and ISL/MISL also can generate manual requirements.

CMN (customer order manual requirement). A requirement automatically created by the extract independent demand function. You can maintain customer order manual requirements (through the maintain master level item schedule) if they are in the frozen zone. You cannot maintain customer order manual requirements in the free zone because they are discarded and regenerated on the next execution of the extract independent demand function.

CMH (customer order manual held requirement). A requirement automatically created by the extract independent demand function for items with a Plan Customer Order Code (CTPO) = 5, or a customer order manual requirement that has been held in the maintain master level item schedule function. Being held requirements, they will be retained until the planning Start Date. You can maintain customer order manual held requirements (through the maintain master level item schedule) if they are in the frozen zone. You cannot maintain customer order manual held requirements in the free zone because they are discarded and regenerated on the next execution of the extract independent demand function.

If ISL is installed, released intersite orders against this warehouse are stored as customer orders, and can generate CMN and CMH requirements.

ETN (expected customer order manual requirement). If EC is installed and manual requirements have been created automatically by the extract independent demand function for expected customer orders, they are identified by **ET N**, where **T** is the one of the following expected order types:

- A** Make. Customer authorizes you to build the product, but not to ship it
- B** Buy. Customer authorizes you to buy materials, but not to build the product.
- C** Firm. Customer “firm” forecast - no authorization.
- D** Plan. Customer “planning” forecast - no authorization.
- E** Expected orders of multiple types have been combined.

HLD (held manual requirement): A manual requirement that has been held in maintain master level item schedule. Normally, requirements are dropped by the application during a planning run when they become past due (become earlier than the Current Date, because the Current Date advanced past them). However, requirements can be retained until the planning Start Date by holding them (see **F5**).

FCR (forecast requirement): A forecast requirement propagated by the application in a planning run from forecast generation fields entered in the Item Balance and Item Plan records prior to the run. This information is considered a requirement in the planning process. (The master level forecast code (MLFC) for this item is 2).

This entry serves as a requirement and a forecast, and therefore appears in two columns on the display, Planner-REQMTS and Forecast Demand.

Planner-REQMTS (RQPTY). The quantity of the item required on this date. This quantity is used by the planning run as a gross requirement and begins the planning process. You can use this display to enter or modify planner requirements (see **F4** and **F5**). Planner requirements are sometimes called the supply plan, the figure negotiated between sales and manufacturing: the quantity of an item to be supplied to finished goods stock on (or by) a certain date. This quantity can be supplied by the Forecasting application if installed and interfacing.

Plan VS Demand. This column compares the planner requirements (supply plan) with the demand that those requirements must cover (Greater Demand). The figure for each line is the sum of the planner requirements through that line minus the sum of the demand through that line. Negative numbers are highlighted to emphasize times where the requirements do not cover the demand. To help you match the requirements to the demand, this field is recalculated while you are modifying requirements when **F3** is selected.

Greater Demand. This column contains the demand that must be covered by planner requirements: the greater of the sales forecast or the sales backlog (booked customer orders and expected customer orders). The application assumes that marketing will sell its forecast; so when the forecast exceeds the backlog of orders, it is assumed that more orders will be booked; therefore, the forecast is used as the demand. When orders exceed the forecast, the orders are used to represent the demand.

The demand is shown by forecasting interval: the time between forecast records. Each forecast record represents the initial demand for a period. The customer orders and expected customer orders are accumulated, and if they exceed the forecast quantity during an interval, the total of the orders appears in this column highlighted.

Forecast Demand (RQPTY). The quantity of this item forecast for this date. This forecast was entered manually on the Review Forecast/Orders—Review or Update Forecast display (AMM451), or else was propagated by the application during a planning run using data in the forecast generation fields in the Item Plan file, or else was supplied by FCST, if installed and interfacing, or was supplied by ISL, if installed, for planned intersite orders against the warehouse.

Reference (derived from RQSOR or RQCID). This field shows the type of demand shown in the **ORD Demand** column. It will either contain a customer order number, or a code identifying what type of requirement is being displayed. If EC is installed and interfacing, expected customer orders also appear. The field may show one of the following:

- Customer orders appear as:
 - B 01-CO1234567:** If it starts with B followed by the customer order number, it is a customer order blanket line item. This quantity does not affect demand per period.
 - 01-CO1234567:** Customer order demand from a direct sales order or a release against a blanket order, or from a released intersite order against this warehouse.
 - CO-COMBINED:** Designating that multiple customer orders have been combined.
 - F 01-CO1234567:** If it starts with F followed by the customer order number, it is an option ordered on the sale of an end configuration or model line. MRP does not use this order in any calculations because it is already included in the generated requirements coming from the end item (using the Feature/Option Planning Factor (FOPF)).
- Expected customer orders appear as:
 - 01-ET1234567:** for an individual expected customer order, number 1234567.
 - ET-COMBINED:** designating that multiple expected customer orders have been combined.
- **01** is the company, and **ET** designates an Expected order of type **T**, where T is one of the following expected order types:
 - A** Make. Customer authorizes you to build the product, but not to ship it.
 - B** Buy. Customer authorizes you to buy materials, but not to build the product.
 - C** Firm. Customer “firm” forecast - no authorization.
 - D** Plan. Customer “planning” forecast - no authorization.
 - E** Expected orders of multiple types have been combined.
- PG (Peg to): A requirement generated by a parent item requiring this item as a component.
- AL (time-phased allocations): A requirement that is a future time-phased allocation to a released manufacturing order.
- SM (structure maintenance): A generated requirement that may be inaccurate due to Product Structure file maintenance in the Product Data Management (PDM) application. A planning run corrects this requirement.
- CB (combine): A generated requirement that has been combined according to combine codes in order to show the total requirement needed by this date. Pegging is not possible for this type of generated requirement.

Some of the values which may appear in the reference field may be preceded by either an F, B, an asterisk, or both. If the field is preceded by an F, the parent of this item is a feature. If the field is preceded by an B, it is a customer blanket release. If the field is preceded by an asterisk, the associated requirement is not included in the Greater Demand calculation.

- Customer orders.
 - Blanket orders (*B 01-CO1234567) are not included in any calculations but releases against blanket orders are included in the calculations.
 - O (*F 01-CO1234567) ordered on the sale of an end configuration or model line are not used in any calculations because they are already included in the generated requirements coming from the end item (using the Feature/Option Planning Factor (FOPF)).
- Generated Requirements. If a generated requirement (other than safety stock) is preceded by an asterisk, then the MLI code for that item is M. An MLI type M item is planned by the application in a planning run. Generated requirements are therefore not included in the Greater Demand calculation because they have already been planned.

An MLI type S item is planned by the planner, and only manual requirements are planned by the application in a planning run for these items. The generated requirements for these items are therefore included in the Greater Demand calculation so the planner may enter manual requirements to offset them.

ORD Demand (RQQTY). This field contains the quantity of demand from either a customer order or an expected customer order, a released intersite order against this warehouse, or a planned manufacturing order.

Expected INV. This field shows a calculated running inventory balance over time, considering demand and production plans. This field is calculated for the first line on the display as: **Available** minus **Greater Demand** plus **Expected Receipts**.

Expected receipts are not shown separately on the display for lack of space; however, when an expected receipt (a released manufacturing, intersite, or purchase order or a planned or firm planned order) is included in an expected inventory figure for a date, that figure is highlighted. If the item has a shrinkage factor in the Item Plan record, the expected receipt is reduced by the expected scrap amount before being added to **Expected INV**. You can use inquiry by alternate work session to see the detail of the production or purchase orders for the item.

For each line following the first, the field is calculated as: **previous Expected INV** minus **Greater Demand** plus **Expected Receipts**. The field gives the expected inventory balance if marketing meets its sales plan (it ships the forecasts and/or customer orders) and if production meets its production plan (it builds the quantity ordered by the date ordered).

If there are expected receipts with due dates later than the date of the last requirement, they are shown with the due date in the **Date** column, the expected quantity of the order in the **ORD Demand** column, and the calculated expected inventory in the **Expected INV** column.

Smooth date/code. The smooth date is the specific date you want smoothing to begin. It is used as an override to the smoothing code. This date is used if it is greater than the system date. The smoothing code specifies if and how smoothing is applied to an item in production. This field can be overridden by the smooth date and only

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appears for schedule controlled items and if the Repetitive Production Management application is installed.

Blank No smoothing

1 REP schedule release horizon plus one work day

2 First date of demand used to begin smoothing

AMM357—MLI Requirements VS Forecast/Orders—Select a planner's items

Use this display to go to an item directly by using the item number and its planning warehouse. If you do not know the item number or planning warehouse of the item you want to review, use **F1** to go to (MLI Requirements VS Forecast/Orders—Select a planner's items (AMM350). You can then use display AMM350 to search through the file, starting at the desired point, then using **F6** or **F7** on the MLI Requirements VS Forecast/Orders—Review or update item requirements display (AMM351) to step from item to item once the first item appears.

```
AMM357                                MLI Requirements VS Forecast/Orders
Select a planner's items
Planning warehouse . . . . . aA3
Item number . . . . . aaaaaaaaaaA15

F1=Select by planner  F24=Exit
```

What to do

- To see the requirements, type the planning warehouse and item number that you want to review and press **Enter**. Go to display AMM351.
- To see the items in planner sequence, use **F1**. Go to display AMM350.
- To exit this session, use **F24** and you return to the menu AMMM10.

Function keys

F1=Select by planner causes the MLI Requirements VS Forecast/Orders—Select a Planner's Items display (AMM350) to appear.

F24=Exit causes any data you entered to be ignored. The Demand Management menu (AMMM10) appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Select a planner's items.

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Planning warehouse [?]. Type the planning warehouse for the item you want to review.

Item number [?]. Required. Type the item number of the item whose requirements you want to review.

Option 4. Item Requirements Inquiry (AMMM10)

Use this option to inquire into the requirements plan for items.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouse you select.

The item requirements inquiry shows an item's requirements plan: the needs (requirements) for the item and replenishment orders, both released and planned, to fill those needs. Subordinate displays are available to show the source of the requirements (where the requirements are generated from higher-level planned orders) and the planning parameters set up for the item (lot sizing policies, lead time, safety stock).

Note: If MPSP is interfacing with MRP, planning data for master scheduled items may be incomplete in MRP because MPSP, not MRP, plans these items.

If ISL/MISL is installed, requirements from planned and released intersite orders against this warehouse are included. Intersite orders against another warehouse are included as scheduled receipts.

You can use MRP's inquiry to check on the requirements for an order that is held up because tools or machines are not available. You can inquire about items when you want to release orders that are short of components. You can access these inquiry displays while you are forecasting, scheduling master level items, or releasing orders when you use MRP's inquiry by alternate work session. You can also use these displays to review the results of a planning run. Item requirements inquiry has the same information as the Requirements Planning Report.

The item requirements inquiry can be used in two ways:

- First, you can access a specific item's information directly. To do this, enter a specific planning warehouse and specific item number, and the plan for that item appears. This form of access is normally prompted by some other event (quite often a problem), and fast access is essential.
- Second, you can initiate a systematic review of many items, with the ability to control the search in various ways. This form of access is valuable in anticipating problems and in reviewing the results of a planning run. It is initiated by option 4 on the Demand Management (AMMM10) or by selecting to restart the planner whenever the inquiry is operating. The Item Requirements Inquiry—Select a planner's items display (AMM510) appears, allowing you to enter search criteria or search parameters.

When you enter a planner number, and no items exist assigned to that planner, the next higher planner number in sequence is displayed. The first warehouse assigned to that planner appears in the Planning Warehouse field and the first item number assigned to that warehouse appears in the Item number field. A message appears informing you that the planner number has changed.

If you are not authorized to a warehouse, a message appears informing you of that. When you press **Enter** the next warehouse in sequence is displayed. The process continues until the search finds a warehouse for which you have proper security authorization or until the end of the file is reached.

The information that appears on these MRP inquiry displays comes from MRP files. The information coordinates most closely with MPSP information immediately after an MRP planning run in which:

- You transferred master scheduled orders from MPSP
- The MRP Current Date was the same as the MPS Current date.

After that time, activity in MPSP and in MRP makes the information you see on MRP displays increasingly different from MPSP information for the same item.

If you want to review all the items for which a planner is responsible, enter the planner number and press **Enter**. The application shows the first item assigned to the planner on the Item Requirements Inquiry–Item overview display (AMM511), and you can move from item to item (as you finish with each one) by using F6 or F7 on that display.

You may want to limit your review to only those items that had planning exceptions in the last planning run or only those items that were active in the last planning run. In either case, enter the planner number and the appropriate Items to include value, and press Enter to view the first such item.

You might be responsible for manufactured and purchased items. To review the purchased items first, type in **A** in the **Vendor** field (or enter the first vendor number of the vendor with whom the planner is dealing). The application shows the first item with a vendor number present in the vendor field in the Item Balance file.

If you are interrupted before finishing the review and must exit this function, make a note of the item number, vendor number (if the item had one), planning warehouse and the planner number. When you are able to return to the work station (assuming it was used for other purposes while you were gone), enter the item number you were reviewing, vendor number (if applicable), planning warehouse, and the planner number you were last working on. The application repositions you to the place in the file where the interruption occurred, and you can resume your review.

You can review the items you select (in the Items to include field) in sequence by item number within vendor number within warehouse within planner number and you can begin the review at any point you want by entering planning warehouse, planner number, vendor number, and item number as optional starting values. Any field not entered (other than Items to include, which must contain one of the allowed values) defaults to zero (planner) or blank (planning warehouse, vendor, item), and the search begins with those values.

What information you need:

- Planner numbers
- Planning warehouses
- Vendor numbers
- Item numbers
- Items to include.

What reports are printed: None.

What forms you need: None.

The basic steps to inquire about item requirements follow each display.

AMM510—Item Requirements Inquiry—Select a planner’s items

Use this display to establish search parameters and initiate a sequential review of all items that satisfy those parameters.

This display appears when you use **F1** on any of the other Inquiry displays (AMM511, AMM512, or AMM516) or, in MRP, when you select option 4 on the Demand Management menu (AMMM10). Display AMM510 shows the last planner number, planning warehouse, vendor number, and item number that were shown by planner sequencing, if any. This allows you to press **Enter** to resume planner-sequenced inquiry after an explicit inquiry (see display AMM516), without having to enter the startup information again.

```

AMM510                               Item Requirements Inquiry

Select a planner's items
Planner number . . . . . nnnnn
Planning warehouse . . . . . aA3

Select starting positions
Vendor number . . . . . aaaaA6
Item number . . . . . aaaaaaaaaA15

Enter selection criteria
Items to include . . . . . A  1=All
                               2=With detail
                               3=With any exception
                               4=With an order exception of
                               expedite, reschedule or defer
                               5=Items planned on last generation

Select items where order exception
days are greater than . . . . . nnn

F2=Select by item   F24=Exit
    
```

What to do

- To see the requirements, type the information requested and press **Enter**, or just press **Enter**. If you do not type any information and press **Enter**, the first item for the first planner appears. Go to display AMM511.
- To see a specific item, use **F2**.
- To exit this session, use **F24**.

Function keys

F2=Select by item causes the Item Requirements Inquiry—Select a planner’s items display (AMM516) to appear. This display allows you to access an item by item number alone.

F24=Exit ends processing and any data you may have typed in is ignored. The application menu from which you requested this program appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Select a planner's items.

Planner number. Type in the number of the planner who is primarily responsible for planning the replenishment strategy for the item (or group of items). If no items are found for this planner or the last item for this planner has been shown, a message stating planner has changed appears. When this happens, the application shows the next planner number in this field to permit you to continue.

If you press **Enter** without typing in a planner number, the application assumes zero for the planner number and shows the first master level item, if any, for planner zero.

Planning warehouse [?]. The planning warehouse for the associated data. Type in the name of the warehouse code you would like to use as a starting point for your review. If no items are found for this warehouse, or the last item for this warehouse has been shown, a message stating the warehouse has changed is displayed. When this happens, the application shows the first item for this planner that appears in the lowest (ascending warehouse ID) warehouse.

If you do not have the proper security authorization for a warehouse, a message is displayed informing you of that. When you press **Enter** the next warehouse is displayed. The process continues until a warehouse is found for which you do have the proper authorization or until it reaches the end of the file.

Select starting positions.

Vendor number (from Item Balance file) [?]. Type in the number of the vendor (or supplier) that you want to review. If you handle many items supplied by different vendors and want to review all items supplied by one vendor, type in that vendor number to begin sequenced review with the first item for that vendor.

If you press **Enter** without typing in a vendor number, the application shows the first item for this planner that does not have a vendor number assigned in the Item Balance file. If all items for this planner have vendor numbers assigned, the application shows the first item for the first vendor.

Item number [?]. Type in the number of the first item that you want to review.

If you press **Enter** without typing in an item number, the application shows the first item satisfying the other parameters entered.

Enter selection criteria

Items to include. Type in the number that corresponds to the type of items that you want to review:

- 1 All. Allows you to review all items.
- 2 With detail. Limits the review to those items for which detail information exists.
- 3 With any exception. Limits the review to those items that were identified as having a planning exception in the last MRP planning run.
- 4 With an order exception of expedite, reschedule or defer. Limits the review to those items which contain an expedite, reschedule or defer exception. When

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this option is selected, an additional input field becomes available to allow the severity of the exception to be qualified.

- 5** Items planned on last generation. Limits the review to those items that were planned in the last MRP planning run. In a generation run, all items are active, but in a net change run, only items with inventory activity or file maintenance since the previous planning run are planned.

Select items where order exception days are greater than. This field is only applicable for option 4 (With an order exception of expedite, reschedule, or defer) on the items to include selection. If option 4 is not selected, this field is not available for input. This field allows you to select the magnitude of the exception being reviewed. If you enter 10, only orders that have an expedite, reschedule, or defer of greater than 10 days are included in the review.

AMM511–Item Requirements Inquiry–Item overview display

Use this display to review the time-phased material plan for an item: its beginning available balance, the requirements for the item in date sequence, the released and planned replenishment orders sequenced by due date, and the running projected inventory balance.

Note: This and related MRP inquiry displays are especially useful for exploring the peg-to relationships of master scheduled component items.

This display appears when you make valid entries and press **Enter** on display AMM510 or AMM516, or when you use **F3 Resume inquiry**, on display AMM512.

```

AMM511                               Item Requirements Inquiry

Item . : *****                      *****                      Item types . : *****
Planner WHS . : ***                    Start date : **/**/**          Current date : **/**/**
Planner number : *****                Vendor . . : *****          Available . : *,***,***.****
Position to date . . . . nnnnnn        *****

More: - +

-----Requirements----- -Orders----- Projected
Due Date   Quantity  TYP Start DT   Quantity  REFER  Balance  Exception
**/**/** ***** .*** ** **/**/** ***** .*** ***** ***** .*** ** *****
**/**/** ***** .*** ** **/**/** ***** .*** ***** ***** .*** ** *****
**/**/** ***** .*** ** **/**/** ***** .*** ***** ***** .*** ** *****
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F1=Select by planner   F2=Select by item   F4=Peg to       F6=Next item
F7=Previous item      F18=Refresh         F21=Item detail F24=Exit
  
```

What to do

- To see the items assigned to a planner, use **F1**. Go to display AMM512.
- To see a specific item, use **F2**. Go to display AMM516. (If you arrived at this display from a specific item inquiry, **F6** does the same action.)
- To see the “Peg to” (or PG) requirements generated for this item and the higher-level item that generated the requirements, use **F4**. Go to display AMM512.
- To see the next item for the current planner and you are now reviewing items sequenced by planner, use **F6**. Go back to the beginning of this step.
- To see the previous item for the current planner and you are now reviewing items sequenced by planner, use **F7**. Go back to the beginning of this step.

Note: If the Item Requirements Inquiry—Select a planner’s items display (AMM510) appears, no more items exist for this planner. A message is generated stating that the planner number has changed. Press **Enter** to continue.

- To rebuild the body portion of the AMM511 display with the most current information, use **F18**.
- To show additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs, use **F21**.
- To exit this session, use **F24**.

Function keys

F1=Select by planner causes the Item Requirements Inquiry—Select a planner's items display (AMM510) to appear, so you can restart sequenced inquiry at a different position in the file, or to set different search parameters.

F2=Select by item causes Item Requirements Inquiry—Select a planner's items display (AMM516) to appear, so you can go directly to another item by typing in only its item number.

F4=Peg to causes the Item Requirements Inquiry—Peg to display (AMM512) to appear, showing only the generated requirements and time-phased material plan for this item identified as PG or *PG and, for each one, the parent item that generated each requirement if you do not combine requirements in the back log.

F6=Next item causes one of the following to occur:

- If you were using explicit item inquiry, the Item Requirements Inquiry—Select a planner's items display (AMM516) appears again to allow you to enter the next item for inquiry.
- If you were using planner-sequenced item inquiry, the Item Requirements Inquiry display (AMM511) appears again with the next item for the current planner. If no more items exist for this planner, the Item Requirements Inquiry—Select a planner's items display (AMM510) appears again. A message is generated stating that the planner number has changed. Press **Enter** to continue.

F7=Previous item causes one of the following to occur:

- If you were using explicit item inquiry, the Item Requirements Inquiry—Select a planner's items display (AMM516) appears again to allow you to enter the previous item for inquiry.
- If you were using planner-sequenced item inquiry, the Item Requirements Inquiry—Item overview display (AMM511) appears again with the previous item for the current planner. If no more items exist for this planner, the Item Requirements Inquiry—Select a planner's items display (AMM510) appears again. A message is generated stating that the planner number has changed. Press **Enter** to continue.

Note: If display AMM510 appears, it is positioned to the last plannable item for the previous planner or warehouse. Because display AMM450 only processes in a forward direction, if the last plannable item for the planner or warehouse does not fit the selection criteria, pressing **Enter** will move forward the next planner or warehouse (a result of viewing the same item you were reviewing when you pressed **F7=Previous item**).

F18=Refresh rebuilds the body portion of the Item Requirements Inquiry display (AMM511) with the most current information.

F21=Item detail causes the Item Detail displays (AMM171 through AMM176) to appear, showing additional detail about the item, such as lead time factors, order sizing factors, inventory status, item characteristics, and requirements management factors.

F24=Exit ends the job and any information you typed is ignored. The application menu from which you requested this program appears again.

Fields

Item. The number and description of the item.

Item types. If you are using sequenced inquiry, the words ALL, DETAIL, (3)EXCEPTIONS, (4)EXCEPTIONS or PLANNED appears in this field and indicates the items to include you selected on display AMM510. If you entered an item number on display AMM516, this field contains EXPLICIT.

Planning WHS (HOUSE). The planning warehouse for the associated data.

Start date (STDT). The planning start date is the earliest date the application allows the planner requirements to exist, and then only if they are “held.” This date is also the starting point for the report period intervals, used to summarize generated requirements for printing. The date is set using option 1, Maintain Horizon Values, on the Planning Run s menu (AMMM20).

Current date (CU DT). This date used by the planning run programs as the current date. The date is usually changed just before a planning run, so the date shown is the date used in the last planning run. This date is the earliest date for which a forecast record can exist.

No forecast or planner requirements can exist earlier than this date, except in the case of a “held” requirement, which can be held until the start date.

Propagated forecasts and requirements are prorated as they pass this date, and manual forecasts and requirements are dropped entirely. Held requirements are dropped entirely as they pass the start date. Usually, this date is changed just before a planning run, so the date shown is the date used in the last planning run. This is the date to which the Available field Cumulative Material Lead Time (CMLT) is adjusted.

Planner number. The number of the planner for this item.

Vendor (VNDNR). The vendor number assigned to this item and recorded in the item’s Item Balance record. This is usually the primary supplier of the item. See “Accessing information” in the *MRP User’s Guide*.

Available. The item’s available inventory, adjusted back to the last planning run. The field is calculated as follows: on-hand inventory, minus the difference of the receipts since the last planning run and the shipments since the last planning run, minus the manufacturing allocation quantity adjusted by the future allocation quantity. This field serves as the starting point for the Projected Balance column on the display and represents the starting available balance (on-hand minus allocated to manufacturing) for the last planning run. (MOHTQ minus (RECPL minus CURPL)) minus (MALQT minus FALQT)

The body of the display shows the requirements for the item, the released production and/or purchase orders scheduled to replenish the item, the planned orders created by the application (including any firming by the planner) to cover the requirements, and the resulting projected inventory balance.

Position to date. If you enter a date in this field and press **Enter**, the application shows you the records beginning at that date.

Requirements. The first three columns establish the date of the display line and give the quantity and type of the requirements for the item.

Due Date (RQDUD or PODUD). For a requirement, this is the date required; for an order, this is the date due. Therefore, in the simple case where one requirement results in one planned order, the planned order due date equals the requirement date.

Quantity (RQQTY). The quantity of the requirement.

TYP (derived from RQSOR or SAFTY or SHRFC). The type of the requirement. The main categories are planner requirements, and generated requirements.

Planner requirements.

MNL (manual requirement). A requirement manually entered by the planner in maintain master level item schedule. (The Forecasting (FCST) application may generate manual requirements also).

If EC is installed and manual requirements have been created for expected customer orders, they are identified by **ET MANUAL**, where T is one of the following order types:

- A** Make. Customer authorizes you to build the product, but not to ship it.
- B** Buy. Customer authorizes you to buy materials, but not build the product.
- C** Firm. Customer "firm" forecast - no authorization.
- D** Plan. Customer "planning" forecast - no authorization.
- E** Expected orders of multiple types have been combined.

CMN (customer order manual requirement). A requirement automatically entered by the extract independent demand function. Customer order manual requirements may be maintained (through the maintain master level item schedule) if they are in the frozen zone. Customer order manual requirements in the free zone may not be maintained because they will be discarded and regenerated on the next execution of the extract independent demand function.

CMH (customer order manual held requirement). A requirement automatically entered by the extract independent demand function for items with a Plan Customer Order Code (CTPO) = 5, or a customer order manual requirement that has been held in maintain master level item schedule. Being held requirements, they will be retained until the planning Start Date. You can maintain customer order manual held requirements (through the maintain master level item schedule) if they are in the frozen zone. You cannot maintain customer order manual held requirements in the free zone because they are discarded and regenerated on the next execution of the extract independent demand function.

If ISL is installed and interfacing, InterSite orders from other planning warehouses are included as CMH requirements.

HLD (held manual requirement). A manual requirement which has been held in maintain master level item schedule. Normally, requirements are dropped by the application during planning run when they become past due (become earlier than the Current Date, because the Current Date advanced past them). However, requirements can be retained until the planning Start Date by holding them.

FCR (forecast requirement). A forecast requirement propagated by the application in a planning run from forecast generation fields entered in the Item Balance and Item Plan records prior to the run. This information is considered a requirement in the planning process. (The master level forecast code (MLFC) for this item is 2).

XXX (intersite requirement). A requirement automatically entered during planning for demand from planned intersite orders on this warehouse. XXX is the transfer warehouse associated with the requesting warehouse for the planned order.

Generated requirements.

PG (Peg to). A requirement generated by a parent item requiring this item as a component.

AL (time-phased allocations). A requirement that is a future time-phased allocation to a released manufacturing order.

SM (structure maintenance). A generated requirement that may be inaccurate due to product structure maintenance in the Product Data Management (PDM) application. A planning run will correct this requirement.

CB (combine). A generated requirement that has been combined according to combine codes in order to show the total requirement needed by this date. Pegging is not possible for this type of generated requirement.

SFY (safety stock requirement). A requirement for the designated safety stock quantity needed on the current date plus the item's lead time.

SHR (Shrinkage Requirement). A requirement for the quantity planned for scrap and other losses expected before the order is received into stock. The application plans orders taking shrinkage into account. As a result, the quantity planned (or released for open orders) is more than the quantity actually required.

Some of the values which may display in the **Type** field may be preceded by an asterisk. If a requirement is preceded by an asterisk, it is not included in the Projected Balance calculation.

Note: If a generated requirement (other than safety stock) is preceded by an asterisk, then the generated requirement is for an MLI type S item. An MLI type S item is planned by the planner, and only manual requirements are planned by the application in a planning run for these items. The generated requirements for these items are therefore not included in the Projected Balance calculation. The planner is responsible for entering manual requirements to satisfy any generated requirements for S type items.

Orders/Schedules. The next three columns on the display give the quantity and type of orders that exist to cover the requirements for the item.

Start DT (Order Start Date) (POSTD). For released orders with activity reported, this is the actual start date. For released orders with no activity reported, and for planned and firm planned orders, this is the planned, or scheduled start date. For planned and firm planned manufacturing orders, this is the required date for the components (unless component lead time adjustment is present). For planned and firm planned orders recommended for release, this date is highlighted.

Quantity (Order Quantity) (POQTY). For released orders with no activity reported, and for planned and firm planned orders, this is the quantity released, or planned to be released. For released orders with activity reported, this is the quantity remaining open on the order.

REFER (Order Reference) (PORID). The following prefixes identify the type of order:

M	Manufacturing Order
P	Purchase Order
R	Requisition
S	Schedule
U	Unreleased schedule
*B	Blanket purchase order
X	InterSite order (if ISL is installed and interfacing).

Note: The asterisk signifies that this value is not included in the Project Balance calculation. (Blanket purchase orders are stored for informational purposes only. The releases against a blanket order not the blanket header are actually used in calculations).

For planned and firm planned orders, this field contains the following, where xxxx is PLAN for a planned order or FIRM for a firm planned order.

M-xxxx	Manufacturing Order
P-xxxx	Purchase Order
S-xxxx	Schedule
R-xxxxxx	Requisition

Projected Balance. The calculated inventory balance for each date on the display. The calculation is: previous balance (the first line uses Available) minus requirement quantity plus order quantity for this date.

Two types of requirements are not subtracted from projected balance. Generated requirements for master level type S items (those identified as either *PG or *CB) are not subtracted, because they are not used by the planning programs. Manual requirements entered by the planner should represent these requirements. Safety stock requirement is not subtracted because of its inherent nature: it is planned to handle unforeseen demand, so it is shown as available inventory.

Exception (RQERC or POERC). The planning exception noted by the application the last time this item was planned. A planning exception can be thought of as an action message in most cases, since the application has detected and is informing you of an out-of-balance condition in the plan. The most typical examples are: release this order (51 RELEASE), expedite this released order (33 EXPDTE), and defer this released order (62 DEFER).

AMM512–Item Requirements Inquiry–Peg To

Use this display to review the generated requirements for the item. It shows the parent items whose planned and firm planned orders generated those requirements.

The information that appears on these MRP inquiry displays comes from MRP files. The information coordinates most closely with MPSP information immediately after an MRP planning run in which:

- You transferred master scheduled orders from MPSP
- The MRP Current Date was the same as the MPS Current Date.

After that time, activity in MPSP and in MRP makes the information you see on MRP displays increasingly different from MPSP information for the same item.

This display appears when you use **F4 Peg to** on display AMM511. From this display you can:

- Restart sequenced inquiry (**F1**)
- Select another item for review (**F2**)
- Review the material plan for the item (**F3**)
- Rebuild the body portion of the display with the most current information (**F18**)
- Review the Item Detailed information displays (AMM171 through AMM175), showing additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs (**F21**)
- Exit (**F24**).

Use this display to request the time-phased materials plan of any of the listed parent items that generated the requirements for the item you are reviewing. This display serves as the link (or peg) between the item being reviewed and the items generating its requirements. It shows you the parent items responsible for generated requirements, lets you select a parent item, and lets you see its materials plan to determine what requirements it covered with the planned order or how the planned order was lot-sized.

Usually, you are looking at the parent item because you have a problem supplying the original item. Looking at the parent may allow you to change its plan to require fewer of the original item. If not, you may have to peg another level and look at the parent of the parent item, and so forth, until you determine where, if any, some slack or buffer exists in the plan. If no slack or buffer exists, you must decide which products are going to be affected. In any case, you can trace the source of requirements for an item.

F21=Item detail causes the Item Detail information displays (AMM171 through AMM176) to be invoked, showing additional detail about the item such as, lead time factors, order sizing factors, inventory status, item characteristics, and requirements management factors.

F24=Exit ends processing and ignores any data that you typed in. The application menu from which you requested this program appears again.

Fields

The header information for this display is the same as that described for the previous display AMM511; it identifies the item being reviewed. Of the remaining fields on this display, only two are available for entry: **Enter sequence number** and **Position to date**. The rest of the fields show the generated requirements for the item and the parent items that generated those requirements as of the last planning run.

Position to date. If you enter a date in this field and press **Enter**, the application shows you the item requirements inquiry records beginning at that date.

Enter sequence number. Type the sequence number of the generated requirement for which you want additional detail information and press **Enter**.

Generated Requirements. The first three columns establish the sequence number of the display line and give the due date and quantity of the requirements for the item:

SEQNO (Sequence Number). An application-assigned field that you can use in selecting a specific requirement for review (see “Enter sequence number” for further detail).

Due Date (RQDUD) The due date of the generated requirement, or the date the item is required for use in manufacturing the parent item.

Quantity (RQQTY) The quantity of the generated requirement.

Parent Items. The next three columns give the item number, description and low level code of the parent item:

Item Number (ITNBR). The number of the parent item generating the requirement.

Description (ITDSC). The description of the parent item generating the requirement.

Lo Level (LOLEV). The low-level code of the parent item generating the requirement. This code is shown to help you determine which parent, if multiple parents appear on the display, you want to review. The lower the number, the closer the parent item is to the end-item.

AMM516–Item Requirements Inquiry–Select a planner’s items

Use this display to make a direct inquiry by planning warehouse and item number. If you do not know the item number or planning warehouse, use F1 Select by planner to get to Item Requirement Inquiry–Select a planner’s items (AMM510). You can then use display AMM510 to search through the file, starting at the desired point, and use F6 or F7 to step from item to item on the Item Requirements Inquiry–Item overview display (AMM511) once the first item appears.

Note: This display is generated by the Material Requirements Planning (MRP) application. This and related MRP inquiry displays are useful for exploring the peg-to relationships of master scheduled component items.

The information that appears on these MRP inquiry displays comes from MRP files. The information coordinates most closely with MPSP information immediately after an MRP planning run in which:

- You transferred master scheduled orders from MPSP
- The MRP Current Date was the same as the MPS Current Date.

After that time, activity in MPSP and in MRP makes the information you see on MRP displays increasingly different from MPSP information for the same item.

This display appears when you use F2 on any of the other Item Requirements Inquiry displays (AMM510, AMM511 or AMM512). When display AMM516 appears after you use F2, it shows the item number and planning warehouse, if any, that were entered the last time this display was used during this inquiry run. This display permits you to compare an item retrieved by planner sequencing to an explicit item, and switch back and forth between them rather than having to remember and type all of the startup information again. (Refer to “AMM510–Item Requirements Inquiry–Select a planner’s items”.)

```
AMM516                               Item Requirements Inquiry

Select a planner's items
Planning warehouse . . . . . aA3
Item number . . . . . aaaaaaaaaaaaA15

F1=Select by planner  F24=Exit
```

What to do

- To review an item, type the planning warehouse and the item number. Press **Enter**. Go to display AMM511.

- To see the items assigned to a planner, use **F1**. Go to display AMM510.
- To exit this session, use **F24**. Go to menu.

Function keys

F1=Select by planner causes Item Requirements Inquiry—Select a planner's items display (AMM510) to appear.

F24=Exit causes any data you entered to be ignored. The application menu from which you requested this program appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Select a planner's items.

Planning warehouse [?]. Type the planning warehouse for the item you want to review.

Item number [?]. Required. Type the number of the item that you want to review.

AMM171—Item Detail Information—Lead time factors

Use this display to review lead time factors for an item.

The same header information shown on displays AMM172, AMM173, AMM174, AMM175, and AMM176 is also shown here.

```

AMM171                               Item Detail Information

Item . . : *****                               Revision
Warehouse : ***                               Site ***   Eff From **/**/**
                                                Eff To  **/**/**
                                                Page n of 6

Lead time factors
Lead time code . . . . . : *
Standard manufacturing lead time . . . . . : ***.*
Variable manufacturing lead time . . . . . : ***.*
Manufacturing lead time adjustment . . . . . : **.*
Average manufacturing lead time . . . . . : ***.*
Cumulative manufacturing lead time . . . . . : ***.*
Review lead time . . . . . : ***.*
Vendor lead time . . . . . : ***.*
Safety lead time . . . . . : ***.*
Standard purchase lead time . . . . . : ***.*
Purchase lead time adjustment . . . . . : **.*
Average purchase lead time . . . . . : ***.*
Cumulative material lead time . . . . . : ***.*

F12=Cancel

```

What to do

Review the information on this display. To return to the previous display, use **F12**.

Function keys

F12=Cancel causes the display from which you requested this program to appear again.

Fields

Item. The item number and item description for the item being displayed.

Warehouse. The planning warehouse and warehouse description for the item being displayed.

Site. The identifier of the site that this warehouse is associated with. An entry in the field indicates that EPDM and PDM are interfacing and identifies the specific site records in EPDM being used.

Revision. The revision identifier associated with this item. This field appears only if EPDM is activated.

Page n of 6. You may enter the desired page number directly in the field in the upper right portion of the display or you may roll from one page to another using the roll keys.

Lead time factors.

Lead time code (LTCOD). A code used to indicate whether manufacturing or purchase lead times and adjustments are to be used in calculating lead time for this item.

M Manufacture
P Purchase

For graphic illustrations of the relationship between the elements of lead time discussed below, refer to the *Inventory Management User's Guide*.

These are the lead times for a standard lot of an item expressed in working days, as follows:

Standard manufacturing lead time (LTMAN). The number of days between order release and its completed receipt to stock. It is the time required to produce an item, assuming all components are available for a single level bill of material.

Variable manufacturing lead time (LTVAM). The portion of STD MFG that is dependent on the quantity produced. It is the run time for all operations that do not have a fixed length of time per standard lot.

Manufacturing lead time adjustment (LTADM). The number of days required for quantity-independent administrative activities such as review and requisition processing time prior to order release.

Average manufacturing lead time (LTMAV). The weighted average number of days between the order release and the order completed receipt to stock.

Cumulative manufacturing lead time (CMFLT). The total number of days to produce an item, assuming all purchased items at every level of the bill of material are in stock.

Review lead time (LTREV). The number of days between creation of the requisition and release of the order to the vendor.

Vendor lead time (LTVEN). The vendor-quoted number of days between the vendor's receipt of your order and delivery to your dock.

Safety lead time (LTSAF). The number of days allocated for unexpected delays.

Standard purchase lead time (LTPUR). The number of days between creation of a requisition and receipt of the item at the dock. It is the sum of Review lead time, Vendor lead time, and Safety lead time.

Purchase lead time adjustment (LTADP). The number of days between receipt of the item at the dock and receipt to stock.

Average purchased lead time (LTPAV). The weighted average number of days between purchase order release and receipt of the item to stock.

Contents	Index
--------------------------	-----------------------

Cumulative material lead time (CMTLT). The total number of days to produce an item, assuming no material is on hand. It is the sum of the longest standard purchasing or standard manufacturing lead time at each level rolled up through the bill of material.

AMM172—Item Detail Information—Order/Schedule sizing factors

Use this display to show review order/schedule sizing factors for the item you were reviewing.

Note: Fields that have an asterisk to the left of their description are consolidated fields. These fields have values from demand warehouses accumulated in them. If, for example, planning warehouse A had two demand warehouses associated with it (B and C), the safety stock shown on AMM172 would be the sum of the safety stock from warehouses A, B, and C.

```

AMM172                               Item Detail Information
Item . . . : ***** Revision
Warehouse : *** ***** Site *** Eff From **/**/**
                                           Eff To  **/**/**
                                           Page n of 6

Order/Schedule sizing factors
Order policy code . . . . . : *
Fixed order quantity . . . . . : *, **/, **/, **
Number days supply to be ordered . . . . . : **
Minimum lot size . . . . . : *, **/, **/, **
Maximum lot size . . . . . : *, **/, **/, **
Multiple lot size . . . . . : *, **/, **/, **
* Safety stock . . . . . : *, **/, **/, **
Shrinkage factor . . . . . : **
Standard lot size . . . . . : *, **/, **/, **
Standard batch quantity . . . . . : **/, **/, **
Schedule control code . . . . . : (Repetitive not installed)
Smoothing code . . . . . : (Repetitive not installed)
Smoothing date . . . . . : (Repetitive not installed)

F12=Cancel

```

What to do

Review the information on this display. To return to the previous display, use **F12**.

Function keys

F12=Cancel causes the display from which you requested this program to appear again.

Fields

See “AMM171—Item Detail Information—Lead time factors” for a description of the header information.

Order/Schedule sizing factors.

Order policy code (ORDP). One of the following codes that describes the order policy to be used when ordering this item:

- A** Discrete order quantity
- D** Fixed quantity

- F Part period balancing—standard cost
- G Time periods of supply (default)
- H Discrete above a minimum quantity
- I Part period balancing—current cost
- Z User option.

Note: Order policy codes B (order point, order quantity) or C (order point, order up to level) never appears on this display, because the MRP application does not deal with order point items.

Fixed order quantity (FXORQ). When the order policy code in the Item Plan file is B, you can leave this field blank if you want the system to dynamically calculate order quantity. Otherwise, when the order policy code is B or D, the quantity of the item that is to be reordered when the quantity available falls below the order point is displayed.

When the order policy code is C, the quantity representing the level that the quantity available should be brought up to whenever the item is reordered is displayed.

When the order policy code is H, the minimum reorder quantity for which an order can be released (defined by your company) is displayed.

Quantity is in terms of the stocking unit of measure.

Number of days supply to be ordered (NODS). The number of days of net requirements that should be covered in one order planned by the planning run.

Minimum lot size (MINQ). The minimum order quantity of the item. Any planned order calculated as required by MRP that is for a quantity less than the minimum indicated is increased to this minimum number.

Maximum lot size (MAXQ). The maximum planned order quantity of the item. If the planned order quantity generated by MRP exceeds this maximum, an exception is created to notify the planner that it may be necessary to adjust the order quantity.

Multiple lot size (MULQ). This factor is used in increasing a planned order of the item to a multiple of this quantity. For example, if the planned order was calculated for a quantity of 16 and the multiple was 20, the planned order would be increased to 20. If the original quantity was 35, the planned order would be increased to 40.

***Safety stock (SAFTY).** The quantity of the item carried to guard against unexpected increases in demand or late delivery of replenishment orders.

Shrinkage factor (SHFC). The value used by the planning run to adjust gross requirements not covered by on-hand inventory to account for losses due to expected scrap and other causes.

Standard lot size (LOTSZ). The standard lot size of the item that is normally ordered. This quantity is used to apportion the setup cost per unit for the item. This field may not be 0 (zero) if the item's Cost Technique code equals R. MRP (if installed and interfacing) can use this field to determine a quantity-based lead time. MPSP can use this field to calculate resource profiles.

Standard batch quantity (SBQTY). This field shows the quantity of the parent item relative to the quantity of each component item. The product structure (recipe or formulation) is expressed in relation to a batch quantity of the parent item as opposed to a quantity of one stocking unit.

Schedule control code (SCHCD) <Y,N>. The item schedule control code. The code tells whether demand for the item is brought into REP when the requirements extract option is selected.

N The item is not schedule-controlled. This is the default.

Y The item is schedule-controlled.

Note: If Repetitive is not installed, the message Repetitive not installed will appear; otherwise, the schedule control code date will appear.

Smoothing code (SMHCD). The smoothing date is the specific date you want smoothing to begin. It is used as an override to the smoothing code. This date is used if it is greater than the system date.

Note: If Repetitive is not installed, the message Repetitive not installed will appear; otherwise, the schedule control code date will appear.

Smoothing date (SMHDT). The smoothing code specifies if and how smoothing is applied to an item in production. The field can be overridden by the smoothing start date and will only appear for schedule controlled items.

Blank No smoothing

1 REP schedule release horizon plus one work day

2 First date of demand used to begin smoothing.

Note: If Repetitive is not installed, the message Repetitive not installed will appear; otherwise, the smoothing date will appear.

AMM173—Item Detail Information—Inventory status summary

Use this display to review the inventory status of the item you are reviewing.

```

AMM173                               Item Detail Information
Item . . . : ***** Revision
Warehouse : *** ***** Site *** Eff From **/**/**
                                           Eff To **/**/**
                                           Page n of 6

Inventory status summary
* On hand . . . . . : *, **/, **/, **/
  On order production . . . . . : *, **/, **/, **/
  On order purchase . . . . . : *, **/, **/, **/
  Manufacturing allocations . . . . . : *, **/, **/, **/
  Future allocations . . . . . : *, **/, **/, **/
* Pick list requirements . . . . . : *, **/, **/, **/
* Activity . . . . . : *, **/, **/, **/
* Shipments since last plan . . . . . : *, **/, **/, **/
* Receipts since last plan . . . . . : *, **/, **/, **/
  Issue . . . . . : *, **/, **/, **/
  Receipt . . . . . : *, **/, **/, **/
  Adjustments . . . . . : *, **/, **/, **/, **/
  Warehouse stock location . . . . . : *****
  Inventory carrying rate . . . . . : .***

F12=Cancel
  
```

What to do

Review the information on this display. To return to the previous display, use **F12**.

Function keys

F12=Cancel causes the display from which you requested this program to appear again.

Fields

See “AMM171—Item Detail Information—Lead time factors” for a description of the header information.

Inventory status summary.

***On hand (MOHTQ).** The quantity of the item presently in stock. This field cannot be changed if the transaction history option was selected during application tailoring. If transaction history is supported, you must use an inventory transaction to change the on hand quantity for this item.

On order production (MPRPQ). The total quantity of the item that is currently on order.

On order purchase (MPUPQ). The total quantity of the item currently on order through purchasing.

Manufacturing allocations (MALQT). The total quantity of this item allocated (reserved) for manufacturing requirements.

Future allocations (FALQT). The total of all manufacturing allocations that have a due date greater than the time-phased allocation fence.

***Pick list requirements (PLREQ).** The total quantity of this item reserved for customer order requirements.

***Activity.** The difference between current shipments and current receipts since the last planning run (RECPL minus CURPL).

***Shipments since last plan (CURPL).** The quantity of the item shipped since the last planning run (in which the item was replanned).

***Receipts since last plan (RECPL).** The quantity of the item received since the last planning run (in which the item was replanned).

Issue (ISSMO). The quantity of the item issued this period or month-to-date.

Receipt (RECMO). The quantity of the item received this period or month-to-date.

Adjustments (ADJMO). The sum of the adjustments (changes) made to the quantity of the item this period or month-to-date.

Warehouse stock location (WHS LC). The code that identifies the location of this item in the warehouse.

Inventory carrying rate. The cost of carrying inventory for one year, expressed as a percentage of the item cost. For items with an order policy of part period balancing (Order Policy codes of F or I), this rate is used to override the standard carrying rate entered during application tailoring of the Inventory Management application.

AMM174—Item Detail Information—Item characteristics

Use this display to review the item characteristics for the item you were reviewing.

```

AMM174                               Item Detail Information
Item . . . : ***** Revision
Warehouse : *** ***** Site *** Eff From **/**/**
                                           Eff To **/**/**
                                           Page n of 6

Item characteristics
Planner . . . . . : *****
Buyer . . . . . : ***** (Purchasing not installed)
Primary vendor . . . . . : *****
Item type code . . . . . : *
Item class . . . . . : *****
Shelf life . . . . . : *****
Stocking unit of measure . . . . . : **
Purchase unit of measure . . . . . : **
Auto release code . . . . . : *
Floor stock code . . . . . : *
Backflush code . . . . . : *
Value class . . . . . : *
Unit weight . . . . . : *,***.***
Engineering drawing number . . . . . : *****
Inventory code . . . . . : **
Contract required for auto release code . . . : *

F12=Cancel
  
```

What to do

Review the information on this display. To return to the previous display, use **F12**.

Function keys

F12=Cancel causes the display from which you requested this program to appear again.

Fields

See “AMM171—Item Detail Information—Lead time factors” for a description of the header information.

Item characteristics.

Planner (PLANIB). The user-assigned code that identifies the person responsible for planning the replenishment strategy for this item.

Buyer (BUYNO). The user-assigned number that identifies the person responsible for buying this item.

Note: If Purchasing is not installed, the message Purchasing not installed will appear.

Primary vendor (VNDNR). The number of the primary vendor supplying this item.

Item type (ITYP).

Code that best describes the type of item:

- 0** Phantom
- 1** Assembly or subassembly
- 2** Fabricated item
- 3** Raw material
- 4** Purchased item
- 9** User option (Special)
- F** Feature
- K** Kit

Item class (ITCLS). The user-defined code identifying the class or group to which this item belongs. For example, ST might indicate this item is classified with that group of items made of steel.

Note: Uses of item class include the following:

- Sales Analysis can be performed using item class.
- Item Master file maintenance allows percentage change of material (cost) for all items having a specific item class.
- PDM cost simulation can be run based on percentage change of material (cost) for all items having a specific item class.
- Several IM reports allow limits to be set using item class and can also be sequenced using item class.

Shelf life (Shelf Life in Days) (QCDAY). The number of days from 1 to 9999 that represents the shelf life for this item. At the end of the number of days shown, this item needs to be inspected again. If the QC CONTROL field is 0, the default is 0.

Stocking unit of measure. The code (user assigned) that defines the measurement basis of on hand quantity and issue quantity for this item. For example, EA (each), KG (kilogram), or CM (centimeter).

Purchase unit of measure (PURUM). The purchase unit of measure for the item if it is different from the stocking unit of measure. For example, wire can be purchased by the coil but issued by the meter.

Auto release code (ATRL). A code used to define the conditions under which purchase orders or requisitions for this item can be automatically released.

- 0** Do not automatically release requisitions or purchase orders.
- 1** Automatically release requisitions without generating a purchase order.
- 2** Create purchase orders for held single purchase orders not requiring manual release.
- 3** Automatically release single purchase orders requiring manual release.
- 4** Create purchase orders for held blanket purchase orders requiring manual release.
- 5** Automatically release blanket purchase orders not requiring manual release.
- 6** Automatically release held fixed blanket purchase orders.
- 7** Automatically release fixed blanket purchase orders.

Floor stock code (FLSTK). A code that indicates if the floor stock is controlled.

- blank** Not floor stock
- C** Controlled floor stock
- U** Uncontrolled floor stock

Refer to “Floor Stock Considerations” in the *Inventory Management User’s Guide* for further information on floor stock components.

Backflush Code. The code that identifies whether component backflushing for controlled floor stock items is done using the component quantity per adjusted for yield or the standard component quantity per.

- 0** Use the value of the backflush code for the warehouse.
- 1** Use adjusted quantity per to backflush (default).
- 2** Use standard quantity per to backflush.

Value class (VALUC). The user-assigned code that identifies the importance of the item. For example, the classes may be A, B, C. FCST (if installed and interfacing) can use this field to classify items that have been coded as master level items (MLI codes M and S).

Unit weight (WEGHT). The item’s stocking unit of measure.

Engineering drawing number (ENGNO). The engineering drawing number of the item.

Inventory code (INVFG). One of the following codes is used to classify the item in inventory:

- 1** Inventory item
- 2** Miscellaneous item
- 3** Service item.

Contract required for auto release code. One of the following codes to indicate how auto release of the item is handled during auto release and the planning run:

- 0** (Default) Use the value for this warehouse in Planning Run Execution Options.
- 1** Yes, a contract is required for auto release to Purchasing.
- 2** No, a contract is not required for auto release to Purchasing. However, the purchase order is not released if an expired contract exists for an item.
- 3** No, a contract is not required for auto release to Purchasing. The purchase order is released with a warning message if an expired contract is encountered.
- 4** No, a contract is not required for auto release to Purchasing. Any contracts are ignored.

AMM175—Item Detail Information—Requirements management factors

Use this display to review the requirements management factors for the item you are reviewing.

```

AMM175                               Item Detail Information
Item . . : *****                      ***** Revision
Warehouse : *** *****                      Site *** Eff From **/**/**
                                                Eff To  **/**/**/**
                                                Page n of 6

Requirements management factors
Master level item code . . . . . : *
Master level forecast code . . . . . : *
Forecast quantity per time period . . . . . : *, ***, ***
Number of forecast periods . . . . . : **
Days per forecast period . . . . . : **
Plan customer order code . . . . . : *
Plan expected customer order code . . . . . : *
Combine requirements code . . . . . : *
Price break conversion factor . . . . . : .****
Period interval code . . . . . : *
Include inventory balance . . . . . : *
Master level print code . . . . . : *
* Requirements planning activity code . . . . . : *
Item reschedule code . . . . . : *
Minimum days to reschedule . . . . . : *****
Reschedule frozen zone . . . . . : *****

F12=Cancel

```

What to do

Review the information on this display. To return to the previous display, use **F12**.

Function keys

F12=Cancel causes the display from which you requested this program to appear again.

Fields

The header information is explained on display AMM171

Requirements management factors.

Master level item code (MLIC). The code used by MRP to indicate if this item is a master level item and, if so, which requirements to use when planning orders.

blank Not a master level item (MLI).

M Multiple source MLI. Both planner-entered (manual, held, and propagated) and generated requirements cause planned orders to be created for this item.

S Single source MLI. Only planner-entered requirements cause planned orders to be created.

Master level forecast code (MLFC). The code used by MRP (if installed and interfacing) to indicate if the master level item is to be forecasted. This code applies only to forecasts propagated in MRP. The available codes are:

- 0 Do not propagate forecast for this item.
- 1 Propagate forecast for this item.
- 2 Propagate requirements equal to forecast for this item.

Note: The following fields (also defined on this display) must contain nonzero values for propagation to occur:

- **Number of Forecast Periods (FRPD)**
- **Days per Forecast Period (PDDY)**
- **Forecast Quantity (FRQTY).**

Forecast quantity per time period (FRQTIB). This field is only used if MRP is installed and interfacing. If FCST is installed and interfacing, this field should be 0 (zero).

Number of forecast periods (FRPD). The number of periods over which this item is to be forecasted in MRP.

Days per forecast period (PDDY). The number of days to be contained in each MRP forecast period.

Plan customer order code (CTPO). This field contains one of the following codes:

- 1 Create requirements equal to all customer orders after the MRP Current Date
- 2 Create requirements for all orders that fall after the release date
- 3 Create requirements for all orders that fall after the review date
- 4 Do not create any requirements
- 5 Create requirements equal to all customer orders, including past due, after the MRP Start Date

Plan expected customer order code (ETPO)/ This field contains one of the following codes:

- blank** Default. Use the value in the Warehouse Master record.
- 0 Do not use expected customer orders in planning.
- A Use only type A (Make) expected customer orders in planning.
- B Use type A (Make) and type B (Buy) expected customer orders in planning.
- C Use type A (Make), type B (Buy), and type C (Firm) expected customer orders in planning.
- D Use type A (Make), type B (Buy), type C (Firm), and type D (Plan) expected customer orders in planning.

Combine requirements code (CMRQ). The code used to indicate if requirements for this item are to be combined during the MRP Requirements Planning run.

Note: You are not able to use the pegged-to-requirements function for any items that have combined requirements.

The four combine interval sizes and the five price break literals are defined on MRP Period Interval display, AMM120. Codes 5 through 9 (price break literals) combine requirements according to the fourth period interval.

The price break literals refer to the price break unit of measure constants printed on the MRP Purchase Planning report. The available codes are:

- 0** Do not combine requirements
- 1** Combine interval 1
- 2** Combine interval 2
- 3** Combine interval 3
- 4** Combine interval 4
- 5** Price break literal 5
- 6** Price break literal 6
- 7** Price break literal 7
- 8** Price break literal 8
- 9** Price break literal 9.

Price break conversion factor (PBCF). The factor used by MRP to convert planning units to purchase units. The factor is described by the price break literal assigned to this item (see Combine requirements code field).

Period interval code (PDIN). The code used by MRP to indicate how requirements detail is presented on the Requirements Planning report. The available codes are:

- 0** Print full detail.
- 1** Summarize according to the first set of print intervals.
- 2** Summarize according to the second set of print intervals.
- 3** Summarize according to the third set of print intervals.

Note: This code corresponds to the print intervals defined on MRP Period Interval display, AMM120.

Include inventory balance. This field contains one of the following codes:

- 1** Yes. Include inventory balance of this item/warehouse in MRP planning runs.
- 0** No. Do not include inventory balance of this item/warehouse in MRP planning runs. This is the default.

Master level print code (MLPC). The code used by MRP to indicate if this item is printed on MRP MLI reports during master level planning runs. The available codes are:

- blank** Always printed.
- L** Printed only if this item's level was planned.
- S** Service usage. Is not printed on MRP MLI reports.

***Requirements planning activity code (RPFLG).** This field is used to indicate if any activity (such as issues or receipts) has occurred to this item since the last planning run through COM, EC, IM, EPDM or PDM, EMRP, PM&C, MPSP, REP, PUR, FCST, or PC&C, as a signal for planning this item again. Possible values are:

- 0** No activity. This item does not need to be planned again in a net change planning.
- 1** Replan. This item has had activity since the last planning run.

Item reschedule code. Code used to indicate whether or not orders for the item (by item/warehouse) can be rescheduled automatically by the system.

- 0** Default to warehouse reschedule code. This is the default.
- 1** Cannot be rescheduled automatically.
- 2** Can be scheduled out.
- 3** Can be scheduled in.
- 4** Can be scheduled both out and in.

Minimum days to reschedule. Specifies the minimum number of days before an order can move for it to be rescheduled automatically by the system.

Reschedule frozen zone. Number of days within which a scheduled receipt or firm planned order will not be rescheduled, by item/warehouse.

AMM176—Item Detail Information—Master scheduling factors

Use this display to review the master scheduling factors for the item you are reviewing.

```

AMM176                               Item Detail Information
Item . . : *****                      ***** Revision
Warehouse : *** *****                      Site *** Eff From **/**/**
                                                Eff To  **/**/**
                                                Page n of 6

Master scheduling
Forecasting code . . . . . : *
Master schedule item code . . . . . : *
MPS planning source code . . . . . : *
Demand time fence . . . . . : ***
Resource number . . . . . : *****
Resource number build code . . . . . : *
Production family planner . . . . . : *****

F12=Cancel
    
```

What to do

Review the information on this display. To return to the previous display, use **F12**.

Function keys

F12=Cancel causes the display from which you requested this program to appear again.

Fields

See “AMM171—Item Detail Information—Lead time factors” for a description of the header information.

Master scheduling.

Forecasting code (FCSC). The code that controls forecasting for this item in this warehouse. The available codes are:

- 0** Do not forecast this item.
- 1** Forecast, but do not pass to MRP/MPSP.
- 2** Pass forecast only to MRP/MPSP.
- 3** Pass both forecast and requirement to MRP/MPSP.

Master schedule item code (MSCOD). The code used by MPSP to indicate if this item is a master scheduled item. If you type in M, MPSP plans orders for the item and ignores any requirements generated or entered for it in MRP. MRP uses the orders created by MPSP during the MRP planning run, based on a run-time option in MRP. The available codes are:

- blank** Not a master scheduled item
- M** Master scheduled item
- P** Production family.

If the master scheduled item (MSI) code is P, the only valid master level item code is blank and the only valid item type code is 0 (Phantom). If the MSI code is M, all item type codes are valid, except for F (Feature) and 0 (Phantom). Refer to display AMVT02 in the *PDM User's Guide* for a definition of the item type codes.

If the MSI code is blank, FCST (if installed and interfacing) uses the forecasting code to determine whether the item is forecast and whether the forecast is passed to MPSP.

Note: To change a master scheduled item code of M or P to blank, you must first delete the family or family member from the MPSP Production Family Relationship file.

MPS planning source code (MSSR). The code used by MPSP to indicate the kind of demand used for generating the master production schedule for this item. The available codes are:

- blank** Not used in MPS planning
- B** Blended demand; the greater of forecasts or customer orders for the period
- C** Customer orders only
- D** Blended demand, planned orders created for each customer order
- E** Forecasts ignored, planned orders created for each customer order
- F** Forecasts only
- M** Manually entered firm planned orders
- P** Item production plan.

If the master scheduled item code is M, this field cannot be blank.

Demand time fence (DMDFN). The number of days that are used by MPSP as a "frozen" planning zone in the MPSP master production schedules for this item. During this period, blended demand does not include forecasts until the periods after the fence date, and only customer orders are considered as demand. Any changes to the production schedule during the "frozen" period can seriously affect production schedules and should be avoided. This number of days can equal the final assembly lead time (FALT) for this item. The system uses this number to calculate the Demand Time Fence Date in the master production schedule for this item.

Resource number (RSNO). The unique number, assigned by your company, and used by MPSP to identify this item as a critical resource. This field appears if EPDM is activated.

Resource number build code (RSBF). The code used by MPSP to indicate which items or production families can have resource profiles generated. This field appears if EPDM is activated.

- Y** Build profile
- N** Do not build profile

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Production family planner (PFPL). The identifier of the person responsible for planning the replenishment strategy for this production family. This field appears if EPDM is activated.

Option 5. Work With Warehouses (AMMM10)

Use this option to add, change, or delete warehouses in the Warehouse Master file.

What information you need: None.

What reports are printed: None.

What forms you need: None.

The basic steps to work with warehouses follow each display.

Function keys

ROLL UP/DOWN allows you to scroll up and down through the list of warehouses.

F17 SUBSET causes the Subset Warehouse display (AMVW22) to appear.

F18 REFRESH causes this display to appear again with the most current information from the Warehouse Master file.

F24 EXIT returns you to the menu.

Fields

POSITION TO WAREHOUSE. If you want a specific warehouse to appear at the top of the list in the WHS ID field, type in the name of that warehouse.

OPT. Type in one of the following:

- 1** CREATE. Use this option to add a new warehouse to the Warehouse Master file. You can use option 1 only on the fast path line.
- 2** CHANGE. Use this option to change a warehouse that already exists in the Warehouse Master file. Type **2** in the **OPT** field next to the warehouse you want to change or type in **2** and the specific warehouse ID on the fast path line.
- 4** DELETE. Use this option to delete a warehouse that already exists in the Warehouse Master file. Type **4** in the **OPT** field next to the warehouse you want to delete or type in **4** and the specific warehouse ID on the fast path line.

The Delete Warehouse Confirmation display (AMVW41) appears when you press **Enter** after using option 4 to give you the opportunity to review the warehouses you have selected for deletion.
- 5** DISPLAY. Use this option to view detailed information about a warehouse that already exists in the Warehouse Master file. Type **5** in the **OPT** field next to the warehouse you want to view or type in **5** and the specific warehouse ID on the fast path line.
- 11** AUTHORIZE USERS. Use this option to grant or revoke user authorizations for the tasks that are secured in this warehouse. Type **11** in the **OPT** field next to the warehouse you want to authorize users for or type **11** and the specific warehouse ID on the fast path line.
- 30** WAREHOUSE RELATIONSHIPS. Use this option to view or maintain all of the warehouse planning and demand relationships. Type **30** in the **OPT** field next to the warehouse whose warehouse relationships you want to work with or type in **30** and the specific warehouse ID on the fast path line.

You can select more than one option before pressing **Enter**. When you press **Enter** all of the options you selected are processed in sequence. If you type an option on the fast path line you must also type in a warehouse ID.

WHS ID. Do any of the following:

- Type in a warehouse ID on the fast path line.
- Review the list of all warehouses currently defined.
- Review the list of warehouses beginning with the warehouse you type in the **POSITION TO WAREHOUSE** field.

SITE. A three character identifier which indicates the source of engineering records to be used in manufacturing order entry and release. The entry indicates the source of engineering records is a specific site in the EPDM application.

Sites may be added to the warehouse master to pre-set the values before activating EPDM. After EPDM is activated, the site value is defaulted and mandatory for future warehouse creates.

The following fields show current warehouse information:

DESCRIPTION. The description of the warehouse.

WHS TYPE. The code that identifies if this is a controlled or uncontrolled warehouse.

- 1 Controlled. A warehouse where an item can be stocked in more than one location and can optionally carry quality control codes, batch/lot numbers, and FIFO dates.
- 2 Uncontrolled. A warehouse where an item can be stocked in only one location. Quality control, batch/lot control, and FIFO tracking are not available.

SELLING WHS CODE. The code that identifies if this is a selling warehouse.

- 0 Non-selling
- 1 Selling.

For more information on selling and non-selling warehouses refer to the *Forecasting User's Guide*.

PLANNING WHS CODE. The code that identifies a demand or planning warehouse. This field is applicable only if IM and MRP are interfacing.

- 0 Demand. A warehouse used as a distribution point. This warehouse cannot have a material plan (as generated by MRP) and does not support many of MRP's functions. Several demand warehouses can be associated with a single planning warehouse.
- 1 Planning. A warehouse used as a manufacturing facility. This warehouse can have a material plan (as generated by MRP) and supports all of MRP's functions.

For more information on planning and demand warehouses refer to the *Material Requirements Planning User's Guide*.

PRIMARY PLANNING WHS. This field contains either *NONE or the specific warehouse ID of the warehouse that plans demand for the warehouse identified in the **WHS ID** field.

***NONE** If this field contains *NONE, the items in the warehouse identified in the **WHS ID** field are not planned in any warehouse unless an item override exists.

*** * *** If this field contains a specific warehouse ID (where * * * is the warehouse ID), the warehouse identified in this field plans demand for the items in the warehouse identified in the **WHS ID** field. If the warehouse in the **WHS ID** field is a planning warehouse (**PLANNING WHS CODE** is not 1), the warehouse identified in this field must match the warehouse in the **WHS ID** field (**WHS ID** is not **PRIMARY PLANNING WHS**). All items in a planning

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warehouse are planned within that warehouse unless a global override exists for a specific item.

AMVW22—Subset Warehouse

Use this display to specify which warehouses you want to include on the Work With Warehouses display (AMVW21). This display allows you to select a subset of all defined warehouses to view. If EPDM is installed and activated, you also can select the engineering sites you want to use.

This display appears when you use **F17 SUBSET** on the Work With Warehouses display (AMVW21).

The field descriptions for this display refer to * (asterisk) as a wild card character. A wild card character stands for any series of characters. For example, typing in A* would select all warehouse IDs beginning with A.

```

DATE **/**/**                SUBSET WAREHOUSE                AMVW22  **
TYPE INFORMATION, PRESS ENTER.

SITE . . . . . aaA4  (*ALL, GENERIC*, SPECIFIC)
WAREHOUSE ID . . . . . aaA4  (*ALL, GENERIC*, SPECIFIC)
WAREHOUSE TYPE . . . . . aaA4  (*ALL, 1=CONTROLLED, 2=UNCONTROLLED)
SELLING WAREHOUSE CODE . . . aaA4  (*ALL, 0=NO, 1=YES)
PLANNING WAREHOUSE CODE . . . aaA4  (*ALL, 0=NO, 1=YES)
PRIMARY PLANNING WAREHOUSE . . aaaA5  (*ALL, GENERIC*, *NONE, SPECIFIC)
WAREHOUSE DESCRIPTION . . . . aaaaaaaaaaaaaaaaaaaaaaaaaaaaaA30

F18=REFRESH  F19=RETURN

```

What to do

To select warehouses to include in the Work With Warehouses display (AMVW21), type in the warehouse information and press **Enter**. Display AMVW21 appears listing only those warehouses that meet the selections you made on this display.

Function keys

F18=REFRESH restores the display to its status before you made any changes.

F19=RETURN returns you to the Work With Warehouses display (AMVW21).

Fields

SITE. This field appears only if EPDM is installed and activated so you can select the site whose warehouses you want to use. Type in one of the following:

***ALL** All sites are selected.

GENERIC* Type in a series of characters using * as a wild card character. Any site that fits the series of characters and wild cards is selected.

SPECIFIC Type in a specific series of characters. Only the site with that specific identifier is selected.

WAREHOUSE ID. Type in one of the following:

***ALL** All warehouse identifiers are selected.

GENERIC* Type in a series of characters using * as a wild card character. Any warehouse that fits the series of characters and wild cards is selected.

SPECIFIC Type in a specific series of characters. Only the warehouse with that specific identifier is selected.

WAREHOUSE TYPE. Type in one of the following:

***ALL** Both controlled and uncontrolled warehouses are selected.

1 Only controlled warehouses are selected.

2 Only uncontrolled warehouses are selected.

SELLING WAREHOUSE CODE. Type in one of the following:

***ALL** Both selling and non-selling warehouses are selected.

0 Only non-selling warehouses are selected.

1 Only selling warehouses are selected.

PLANNING WAREHOUSE CODE. Type in one of the following:

***ALL** Both demand and planning warehouses are selected.

0 Only demand warehouses are selected.

1 Only planning warehouses are selected.

PRIMARY PLANNING WAREHOUSE. Type in one of the following:

***ALL** All primary planning warehouse identifiers are selected.

GENERIC* Type in a series of characters using * as a wild card character. Any warehouse that fits the series of characters and wild cards will be selected.

***NONE** Type in ***NONE**. Only demand warehouses that have no primary planning warehouses are selected.

SPECIFIC Type in a specific series of characters. Only the primary planning warehouse with that specific identifier is selected.

WAREHOUSE DESCRIPTION. Type in up to 30 alphanumeric characters. Warehouse descriptions that contain these characters are selected.

AMVW31—Create Warehouse

Use this display to create or define a new warehouse in the Warehouse Master file. There is more information than will fit on one display so a second page is available.

This display appears when you select option 1 (Create) on the Work With Warehouses display (AMVW21).

```

DATE **/**/**                CREATE WAREHOUSE                AMVW31  **
TYPE INFORMATION, PRESS ENTER.                PAGE 1  of  2

WAREHOUSE ID . . . . . aA3
DESCRIPTION . . . . . aaaaaaaaaaaaaaaaaaaaaaaaaaA30
WAREHOUSE TYPE . . . . . n          (1=CONTROLLED, 2=UNCONTROLLED)
SELLING WAREHOUSE CODE . . . . . n          (0=NO, 1=YES)
PLANNING WAREHOUSE CODE . . . . . n          (0=NO, 1=YES)
PRIMARY PLANNING WAREHOUSE . . . . . aA5    (*NONE, SPECIFIC WAREHOUSE)
SITE . . . . . aA3          *****
TAX CITY . . . . . aA10          *****
TAX COUNTY . . . . . aA10          *****
STATE . . . . . A2          ***** EEC ST CODE  **
COUNTRY . . . . . aA3          ***** EEC CN CODE  ***
POSTAL CODE . . . . . aA10
WAREHOUSE DATA SECURITY GROUP . . . . . aA4
PICK/SHIP COMPLETE . . . . . n          (1=COMPLETE, 2=NOT COMPLETE)
BACKFLUSH CODE . . . . . n          (1=ADJUSTED, 2=STANDARD)
DEFAULT STAGING LOCATION . . . . . aA7

F4=PROMPT  F8=FORWARD  F18=REFRESH  F19=RETURN
    
```

```

DATE **/**/**                CREATE WAREHOUSE                AMVW31  **
TYPE INFORMATION, PRESS ENTER.                PAGE 2  of  2

PLAN EXPECTED CUSTOMER ORDERS . . a          (0=NO, A, B, C, D=INCLUDE THRU)
CONTRACT WAREHOUSE . . . . . n          (0=NO, 1=YES)

SHIPPING CALENDAR ID . . . . . A2          aAaaaaaaaaaaaaaaaaaaaaaaaaA25
PRODUCTION CALENDAR ID . . . . . aA10      aAaaaaaaaaaaaaaaaaaaaaaaaaA35
RECEIVING CALENDAR ID . . . . . aA10      AAaaaaaaaaaaaaaaaaaaaaaaaaA35

F4=PROMPT  F7=BACKWARD  F18=REFRESH  F19=RETURN
    
```

What to do

To add a warehouse to the Warehouse Master file, type in the requested information and press **Enter**. The warehouse you have defined is added to the Warehouse Master file.

- If you entered only one option on display AMVW21, a message appears confirming that the record was added and this display is refreshed to allow you to create additional warehouses.
- If you entered more than one option on display AMVW21, the next warehouse you selected to work with appears on display AMVW32, AMVW41, AMVW33, or AMMAA1, depending on the option you chose.

Function keys

F4=PROMPT when used on the Warehouse Data Security Group field shows you the CAS Select Data Group window where you can select or create a security data group for this warehouse. When used on the Calendar ID field a window appears where you can select an appropriate ID.

F7=BACKWARD shows you the previous page of information for this warehouse.

F8=FORWARD shows you the next page of information for this warehouse.

F18=REFRESH restores the display to its status before you made any changes.

F19=RETURN returns you to the Work With Warehouses display (AMVW21).

Fields

WAREHOUSE ID. Type in the code for the warehouse you want to create.

DESCRIPTION. Type in up to 30 alphanumeric characters to identify the warehouse.

WAREHOUSE TYPE. Type in one of the following codes to identify if this is a controlled or uncontrolled warehouse.

- 1** Controlled. A warehouse where an item can be stocked in more than one location and can optionally carry quality control codes, batch/lot numbers, and FIFO dates.
- 2** Uncontrolled. A warehouse where an item can be stocked in only one location. Quality control, batch/lot control, and FIFO tracking are not available.

If this is a warehouse to be used by the Maintenance Management System (MMS), make sure you define it as uncontrolled.

SELLING WAREHOUSE CODE. Type in one of the following codes to identify if this is a selling or non-selling warehouse. This field is applicable only if FCST is installed and interfacing.

- 0** Non-selling
- 1** Selling.

For more information on selling and non-selling warehouses refer to the *Forecasting User's Guide*.

PLANNING WAREHOUSE CODE. Type in one of the following codes to identify if this is a demand or planning warehouse. This field is applicable only if IM, MPSP, and MRP are interfacing.

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- 0** Demand. A warehouse used as a distribution point. This warehouse cannot have a material plan (as generated by MRP) and does not support many of MRP's functions. Several demand warehouses can be associated with a single planning warehouse.
- 1** Planning. A warehouse used as a manufacturing facility. This warehouse can have a material plan (as generated by MRP) and supports all of MRP's functions.

PRIMARY PLANNING WAREHOUSE. Type in one of the following to identify which warehouse plans demand for the warehouse you are creating.

***NONE** Type in *NONE if the items in the warehouse you are creating are not planned in any warehouse unless an item override exists.

SPECIFIC Type in the ID of the specific warehouse that plans demand for the items in the warehouse you are creating. If you are creating a planning warehouse (**PLANNING WAREHOUSE CODE** =1), the warehouse identified in this field must match the warehouse in the **WAREHOUSE ID** field (**WAREHOUSE ID = PRIMARY PLANNING WAREHOUSE**). All items in a planning warehouse are planned within that warehouse unless a global override exists for a specific item.

SITE. A three character identifier to indicate the source of engineering records to be used in manufacturing order entry and release. An entry indicates the source of engineering records is a specific site in the EPDM application.

Using this technique allows multiple warehouses to be assigned to a single site. Multiple warehouses assigned to a site can best be used when multiple warehouses/plants are located in the same geographic region of a country and labor and overhead costs are similar.

TAX CITY. Appears only if IFM is installed. The city, within that state, to be used for tax calculation purposes.

TAX COUNTY. Appears only if IFM is installed. The county, within that state, to be used for tax calculation purposes.

STATE. Identifier for the state where the warehouse is located.

EEC ST CODE. European Economic Community member-state identifier and description for the state where the warehouse is located. This field is output only. It is defined when you create the state code in code file maintenance.

COUNTRY. Identifier for the country where the warehouse is located.

EEC CN CODE. European Economic Community member-state identifier and description for the country where the warehouse is located. This field is output only. It is defined when you create the country code in code file maintenance

POSTAL CODE. Appears only if IFM is installed. The postal code to be used for tax calculation purposes.

WAREHOUSE DATA SECURITY GROUP. The security group to which this warehouse is assigned. Accept the default or use F4 to see the CAS Select Data Group window where you can select or create a security data group for this warehouse.

PICK/SHIP COMPLETE. Code used by COM as a default for the ship complete code associated with orders shipped from this warehouse.

- 1 Ship complete.
- 2 Ship incomplete; confirm detail.

BACKFLUSH CODE. A code that indicates how component backflushing for controlled floor stock items is to be done:

- 1 Use the adjusted quantity per to backflush (default).
- 2 Use the standard quantity per to backflush.

DEFAULT STAGING LOCATION. Code defined by your company that identifies the location of the item within the warehouse.

An error message appears if the location does not exist in the location file.

PLAN EXPECTED CUSTOMER ORDERS (ETPO). Type in one of the following codes:

- 0 Do not use expected customer orders in planning.
- A Use only type A (Make) expected customer orders in planning.
- B Use type A (Make) and type B (Buy) expected customer orders in planning.
- C Use type A (Make), type B (Buy), and type C (Firm) expected customer orders in planning.
- D Use type A (Make), type B (Buy), type C (Firm), and type D (Plan) expected customer orders in planning.

SHIPPING CALENDAR. User-defined code used by COM that uniquely identifies a shipping calendar.

PRODUCTION CALENDAR. The name of the production calendar associated with this warehouse.

RECEIVING CALENDAR. The name of the receiving calendar associated with this warehouse.

CONTRACT WAREHOUSE. Appears only if Contract Accounting (CA) is interfacing. A code that defines whether or not the warehouse is a contract warehouse.

- 0 No, this is not a contract warehouse.
- 1 Yes, this is a contract warehouse.

AMVW32—Change Warehouse

Use this display to change information about a warehouse already defined in the Warehouse Master file. There is more information than will fit on one display so a second page is available.

This display appears when you enter option 2 (Change) beside one or more warehouses listed on the Work With Warehouses display (AMVW21).

```

DATE **/**/**                CHANGE WAREHOUSE                AMVW32 **
TYPE INFORMATION, PRESS ENTER.                PAGE 1 of 2

WAREHOUSE ID . . . . . aA3
DESCRIPTION . . . . . aaaaaaaaaaaaaaaaaaaaaaaaaA30
WAREHOUSE TYPE . . . . . n          (1=CONTROLLED, 2=UNCONTROLLED)
SELLING WAREHOUSE CODE . . . . . n          (0=NO, 1=YES)
PLANNING WAREHOUSE CODE . . . . . n          (0=NO, 1=YES)
PRIMARY PLANNING WAREHOUSE . . . . . aAA5   (*NONE, SPECIFIC WAREHOUSE)
SITE . . . . . aA3          *****
TAX CITY . . . . . aAAAAA10          *****
TAX COUNTY . . . . . aAAAAA10          *****
STATE . . . . . A2          ***** EEC ST CODE **
COUNTRY . . . . . aA3          ***** EEC CN CODE ***
POSTAL CODE . . . . . aAAAAA10
WAREHOUSE DATA SECURITY GROUP aaA4
PICK/SHIP COMPLETE . . . . . n          (1=COMPLETE, 2=NOT COMPLETE)
BACKFLUSH CODE . . . . . n          (1=ADJUSTED, 2=STANDARD)
DEFAULT STAGING LOCATION . . . . . aAAAAA7

F4=PROMPT  F8=FORWARD  F18=REFRESH  F19=RETURN
    
```

```

DATE **/**/**                CHANGE WAREHOUSE                AMVW32 **
TYPE INFORMATION, PRESS ENTER.                PAGE 2 of 2

PLAN EXPECTED CUSTOMER ORDERS . a          (0=NO, A, B, C, D=INCLUDE THRU)
CONTRACT WAREHOUSE . . . . . n          (0=NO, 1=YES)

SHIPPING CALENDAR ID . . . . . A2          aaaaaaaaaaaaaaaaaAAAA25
PRODUCTION CALENDAR ID . . . . . aAAAAA10 aaaaaaaaaaaaaaaaaAAAA35
RECEIVING CALENDAR ID . . . . . aAAAAA10 aaaaaaaaaaaaaaaaaAAAA35

F4=PROMPT  F7=BACKWARD  F18=REFRESH  F19=RETURN
    
```

What to do

To change information about a warehouse, type in the changes and press **Enter**. The information for this warehouse is changed in the Warehouse Master file.

- If you entered only one option on display AMVW21, display AMVW21 appears again.
- If you entered more than one option on display AMVW21, the next warehouse you selected to work with appears on display AMVW32, AMVW41, AMVW33, or AMMAA1, depending on the option you chose.

Function keys

F4=PROMPT when used on the Warehouse Data Security Group field shows you the CAS Select Data Group window where you can select or create a security data group for this warehouse. When used on the Calendar ID field a window appears where you can select an appropriate ID.

F7=BACKWARD shows you the previous page of information for this warehouse.

F8=FORWARD shows you the next page of information for this warehouse.

F18=REFRESH restores the display to its status before you made any changes.

F19=RETURN returns you to the Work With Warehouses display (AMVW21).

Fields

You can change any of the fields shown. See “AMVW31—Create Warehouse” for an explanation of the fields on this display.

Note: If COM is interfacing, changing the **WAREHOUSE TYPE** field from uncontrolled to controlled when S-type (standard) orders exist, may cause unpredictable results to occur.

If the Maintenance Management System (MMS) is interfacing, warehouse type must be uncontrolled.

AMVW33—Display Warehouse

Use this display to see detailed information for a warehouse defined in the Warehouse Master file. There is more information than will fit on one display, so a second page is available.

This display appears when you enter option 5 (Display) next to one or more warehouses listed on the Work With Warehouses display (AMVW21).

```

DATE **/**/**                DISPLAY WAREHOUSE                AMVW33  **
PRESS ENTER TO CONTINUE.                                PAGE 1 OF 2

WAREHOUSE ID . . . . . ***
DESCRIPTION . . . . . *****
WAREHOUSE TYPE . . . . . *          (1=CONTROLLED, 2=UNCONTROLLED)
SELLING WAREHOUSE CODE . . . . . *          (0=NO, 1=YES)
PLANNING WAREHOUSE CODE . . . . . *          (0=NO, 1=YES)
PRIMARY PLANNING WAREHOUSE . . . . . ***** (*NONE, SPECIFIC WAREHOUSE)
SITE . . . . . ***
TAX CITY . . . . . *****
TAX COUNTY . . . . . *****
STATE . . . . . ** ***** EEC ST CODE **
COUNTRY . . . . . *** ***** EEC CN CODE ***
POSTAL CODE . . . . . *****
WAREHOUSE DATA SECURITY GROUP . . . . . *****
PICK/SHIP COMPLETE . . . . . *          (1=COMPLETE, 2=NOT COMPLETE)
BACKFLUSH CODE . . . . . *          (1=ADJUSTED, 2=STANDARD)
DEFAULT STAGING LOCATION . . . . . *****

F8=FORWARD  F18=REFRESH  F19=RETURN
    
```

```

DATE **/**/**                DISPLAY WAREHOUSE                AMVW33  **
PRESS ENTER TO CONTINUE.                                PAGE 2 OF 2

PLAN EXPECTED CUSTOMER ORDERS . . . . . *          (0=NO, A, B, C, D=INCLUDE THRU)

SHIPPING CALENDAR ID . . . . . ** *****
PRODUCTION CALENDAR ID . . . . . ***** *****
RECEIVING CALENDAR ID . . . . . ***** *****

F4=PROMPT  F7=BACKWARD  F18=REFRESH  F19=RETURN
    
```

What to do

To see information for another warehouse, press **Enter**.

- If you selected only one warehouse on display AMVW21, display AMVW21 appears again so you can make another selection.
- If you selected more than one warehouse on display AMVW21, information for the next warehouse you selected to view appears.

Function keys

F7=BACKWARD shows you the previous page of information for this warehouse.

F8=FORWARD shows you the next page of information for this warehouse.

F18=REFRESH causes the information to be re-displayed to capture any information another user may have added for this warehouse while you were viewing it.

F19=RETURN returns to the Work With Warehouses display (AMVW21).

Fields

All of the fields shown on this display are informational only and cannot be changed. See “AMVW31—Create Warehouse” for an explanation of these fields.

Fields

PLANNING/DEMAND WAREHOUSE. The warehouse number and description which was selected on the Work With Warehouse display. The heading on the display will either be PLANNING or DEMAND, depending on whether a planning or demand warehouse was selected on the Work With Warehouses display.

POSITION TO DEMAND WAREHOUSE. If you want a specific warehouse to appear at the top of the list in the **DEMAND WAREHOUSE** field, type in the name of that warehouse.

OPT. Type in one of the following:

1 Create. Causes a relation to be added to the system. You may only enter 1 on the fast path line (the top option on the display) to create a definition relation or an item override relation. To create any relation, you must fill in the relation type field. The following fields must be supplied on the fast path line to create the following relation types:

1 *DEF **DEMAND WAREHOUSE, PLANNING WAREHOUSE**

2 *ITEM_IN **DEMAND WAREHOUSE, ITEM, PLANNING WAREHOUSE**

3 *ITEM_OUT **DEMAND WAREHOUSE, ITEM, PLANNING WAREHOUSE**

Note: Depending on how you arrived at this display, the planning warehouse or the demand warehouse will not be input capable. If you selected warehouse relationships for a planning warehouse (option 30 from the Work With Warehouses) the planning warehouse field will not be input capable and will default to the planning warehouse in the header portion of the display. If you selected source of demand for a demand warehouse, the demand warehouse field will not be input capable and will default to the demand warehouse in the header portion of the display.

4 Delete. Causes the Delete Warehouse Relationships Confirmation display (AMMAE1) to appear. You may enter a 4 next to any relation which you would like to delete. You may also enter a 4 in the option field on the fast path line to delete a specific warehouse.

Note: If you enter more than one delete option and press **Enter**, you will process all of the options you have entered. To use an option on the fast path line (the top option on the display), you must also enter the other applicable fields such as demand warehouse, relation type, item, and planning warehouse.

DEMAND WAREHOUSE. The warehouse that the items reside in. The items are planned in the warehouse specified in the planning warehouse column of the display.

The special value *GLOBAL represents all planning warehouses and demand warehouses. If the *GLOBAL is shown, all demand for this item, in all warehouses, (including other planning warehouses) is planned in the warehouse specified in the planning warehouse column of the display. For data entry purposes, an asterisk may be keyed instead of the *GLOBAL constant for input operations.

RELATION TYPE. There are three types of relations that can appear in this field. Each type of relation represents a different type of Source of Demand. The three types of relations follow:

1 *DEF Demand warehouse definition relation specifies that the warehouse in the planning warehouse column of the display is the demand

warehouse's primary planning warehouse (as defined in the Warehouse Master file).

- 2 *ITEM_IN** Item override input relation that adds demand for an item to a planning warehouse that would normally be excluded due to definition relations that have been previously defined. It is a selective override that refines the condition accomplished by a previous definition relation.
- 3 *ITEM_OUT** Item override output record causes demand for an item to be transferred to a different planning warehouse. It is a selective override that refines the condition accomplished by a previous definition relation.

Although the full relation type is always displayed, for data entry purposes only the first character of the relation type (1, 2, or 3) is necessary for input operations.

ITEM. The items that reside in the warehouse in the demand warehouse column of the display and are being planned in the warehouse in the planning warehouse column of the display. If the item number is blank this is a definition record.

RELATION TYPE of 1 *DEF and all items that reside in the **DEMAND WAREHOUSE** which do not contain explicit overrides stating otherwise, are planned in the warehouse in the planning warehouses column of the display. Items containing explicit overrides are displayed as a **RELATION TYPE** of 2 *ITEM_IN or as a **RELATION TYPE** of 3 *ITEM_OUT.

ITEM DESCRIPTION. The description of the item.

PLANNING WAREHOUSE. The warehouse which the item in the item column of the display is planned in. This item is located in the warehouse specified in the demand warehouse column of the display.

AMMAA2—Subset Warehouse Relationships

Use this display to specify which demand warehouses, relation types, items, and planning warehouse you want to include on the Work With Warehouse Relationships display (AMMAA1).

This display appears when you use **F17 SUBSET** on the Work With Warehouse Relationships display (AMMAA1).

```

DATE **/**/**                SUBSET WAREHOUSE RELATIONSHIPS                AMMAA2  **
TYPE INFORMATION, PRESS ENTER.

DEMAND WAREHOUSE . . . . . aaaaaA7                (*ALL, *GLOBAL, *GENERIC*, ...)

INCLUDE RELATION TYPES
 1 *DEF . . . . . A                (0=NO, 1=YES)
 2 *ITEM_IN . . . . . A                (0=NO, 1=YES)
 3 *ITEM_OUT . . . . . A                (0=NO, 1=YES)

ITEM . . . . . aaaaaaaaaA15                (*ALL, *GENERIC*, SPECIFIC)

PLANNING WAREHOUSE . . . . . aaA4                (*ALL, *GENERIC*, SPECIFIC)

F18=REFRESH  F19=RETURN
    
```

What to do

- To specify which demand warehouses to include on display AMMAA1, type the information requested and press **Enter**.
- Use **F18** to restore the display to its original status and use **F19** to return to the previous display.

Function keys

F18=REFRESH restores the display to its status before you made any changes.

F19=RETURN returns you to the Work With Warehouse Relationships display (AMMAA1).

Fields

DEMAND WAREHOUSE. Type in one of the following:

- *ALL** All demand warehouse identifiers are selected.
- *GLOBAL** Only demand warehouses equal to *GLOBAL (the special value representing all warehouses) are selected.
- *GENERIC*** Type in a series of characters using an * as a wild card character. Any demand warehouse that fits the series of characters and wild cards will be selected.

SPECIFIC Type in a specific series of characters. Only the demand warehouses with that specific identifier are selected.

INCLUDE RELATION TYPES.

1 *DEF. Type in one of the following:

0=No Do not select definition relations.

1=Yes Do select definition relations.

2 *ITEM_IN. Type in one of the following:

0=No Do not select item_in override relations.

1=Yes Do select item_in override relations.

3 *ITEM_OUT. Type in one of the following:

0=No Do not select item_out override relations.

1=Yes Do select item_out override relations.

ITEM. Type in one of the following:

***ALL** All item identifiers are selected.

GENERIC Type in a series of characters using an * as a wild card character. Any item that fits the series of characters and wild cards will be selected.

SPECIFIC Type in a specific series of characters. Only the items with that specific identifier are selected.

PLANNING WAREHOUSE. Type in one of the following:

***ALL** All planning warehouse identifiers are selected.

GENERIC Type in a series of characters using an * as a wild card character. Any planning warehouse that fits the series of characters and wild cards will be selected.

SPECIFIC Type in a specific series of characters. Only the planning warehouses with that specific identifier are selected.

Option 6. Maintain Expected Customer Orders (AMMM10)

Use this option to maintain expected customer orders that you have received electronically as either of these EDI transactions:

- ANSI X.12 830 (planning schedules)
- EDIFACT DELFOR (delivery schedules).

Notes:

1. This option is available only if EC is installed.
2. To perform some tasks in this menu option, you must be authorized to the proper level of security in the warehouse you select.
3. Expected customer orders usually consist of multiple items grouped under a single order number. Within MRP, for ease of planning, expected customer orders are presented at the item level, grouped by planner, warehouse and item. Header information is also presented at the item level. If you want to view or maintain information at the order level, you can use the F17=Subset function to work with all of the items for a given customer. All items sent by a customer in one EDI transaction are assigned the same expected order number.

This option allows you to use Work With lists of expected customer orders to:

- View detail for an item in an order
- Change expected order quantity for an item in an order
- Delete items in an order
- Print orders or items in an order
- Use the most recent prior version of an item in an order
- View all versions of an item in an order

What information you need:

- Planner number
- Warehouse number
- Numbers of items in the order
- Quantities you may want to change
- Any orders containing transmission errors

What reports are printed:

- Expected Customer Orders (AMM87RP1)
- Maintain Expected Customer Order Audit (AMMPEC0P)

What forms you need: None

Commands you can use:

- WRKEXPCOR (Work with Expected Customer Order)
- DSPEXPCOD (Display Expected Order Detail)
- CHGEXPCOR (Change Expected Customer Order)
- DLTEXPCOR (Delete Expected Order)
- USEEXPCOR (Use Prior Expected Order)
- WRKEXPOVR (Work with Expected Customer Order Versions)

The basic steps to maintain expected customer orders follow each display. When you select option 6, the Specify Planner to Work With display (AMMWEC00) appears.

AMMWEC00—Specify Planner to work with

```
AMMWEC00                Specify Planner to Work With
Type information; then press Enter.
Planner . . . . . nnnN5

F1=Help          F3=Exit          F5=Refresh       F11=Job status
F12=Cancel       F22=Messages
```

What to do

Type in a valid planner number and press **Enter**. The Work With Expected Customer Orders display (AMMWEC01) appears.

AMMWE01—Work With Expected Customer Orders

Use this display to work with items in expected customer orders. Items are shown for the planner you specified. The list is sequenced by warehouse, item, company, and customer. You can also use **F17**, the Work With subset function, to provide a more specific list, for example, for a single order number or customer.

View 1 shows header information to help you locate the item you want to work with. View 2 displays other reference information in the item header.

```

AMMWE01                Work With Expected Customer Orders

Planner . . . . .      nnnnn
Position to warehouse  aA3
                        item . . .  aaaaaaaaaaaaA15

Type options; then press Enter.
  2=Change  4=Delete  5=Display  6=Print  11=Use prior  12=All versions
                        View 1 of 2  MORE: + >

Option  Whs  Item                Co  Customer  OrderNo  Date      Time
A2     ***  *****                **  *****  *****  **/**/**  **:**:**

Command ==> _____

F1=Help      F3=Exit      F4=Prompt      F5=Refresh
F7=Backward  F8=Forward   F24=More keys
  
```

```

AMMWE01                Work with Expected Customer Orders

Planner . . . . .      nnnnn
Position to warehouse  aA3
                        item . . .  aaaaaaaaaaaaA15

Type options; then press Enter.
  2=Change  4=Delete  5=Display  6=Print  11=Use Prior  12=All versions
                        View 2 of 2  MORE: < +

Option  Whs  Item                OrderNo Reference  Userid
A2     ***  *****                *****  *****/**/*****:**:** *****

Command ===> _____

F1=Help      F3=Exit      F4=Prompt      F5=Refresh
F7=Backward  F8=Forward   F24=More keys
  
```

What to do

The following table summarizes the displays that appear after you type an option and press **Enter**.

Choose this option:	To go to this display:
2	Change Expected Order Detail (AMMCED01)
4	Confirm Delete of Expected Order (AMMREC10)
5	Display Expected Order Detail (AMMWED01)
6	No display appears. The Expected Customer Order is printed.
11	Confirm Use Prior Expected Order ((AMMUEC10)
12	Expected Customer Order Versions (AMMWEV01)

- To change period quantities for an item in an expected customer order, type **2** in the **Option** field beside the expected order and press **Enter**. Go to “AMMCED01—Change Expected Order Detail”.
- To delete an item in an expected customer order, type **4** in the **Option** field beside the item you want to delete and press **Enter**. A Confirm Delete display appears, asking you to press **Enter** to confirm your choices for deletion. You can also press **F12** on that display to cancel and return here. Go to “AMMREC10—Confirm Delete of Expected Orders”.

Note: Use this option only when a customer does not plan to order any more of an item, as it effectively cancels all demand from the customer. Otherwise, use option 11, Use Prior.

- To display dates and quantities for an item in an expected customer order, type **5** in the **Option** field beside the item you want to view and press **Enter**. The Display Expected Order Detail display (AMMWED01) appears. This display looks exactly like the Change Expected Order Detail display (AMMCED01), except that you cannot change any information.
- To print information about an item in an expected customer order, type **6** in the **Option** field beside the item and press **Enter**. The Expected Customer Orders report (AMM87RP1) is printed.
- To replace the current version of an expected customer order for an item with the most recent prior version, type **11** in the **Option** field next to the item you want to replace and press **Enter**. The Confirm Use Prior Expected Order display (AMMUEC10) appears, asking you to confirm your choice. Go to “AMMUEC10—Confirm Use Prior Expected Order”. Use this option when errors have been transmitted in the current version.
- To review all prior versions for an item in an expected customer order, type **12** in the **Option** field next to the expected order and press **Enter**. Go to “AMMWEV01—Expected Customer Order Versions”.

Function keys

F1=Help

Shows information about this panel. Pressing F1 or pressing the help key shows you the same information.

F3=Exit

Ignores any options or changes you typed on the current panel, ends the current task, and returns to the panel where you started.

F4=Prompt

Provides assistance for the option or options you selected in the list or provides assistance for the command you typed on the command line. A command is the same as a function. For example, WRKITM means the function 'Work with Items'. If you did enter a command, you see a list of parameters (choices) you can use with that command.

F5=Refresh

Clears any changes you made and returns the panel to the way it originally appeared. If any fields on the panel have default values, those defaults appear.

F6=Cursor

Moves the cursor to Position so that you can start the list with the one you type here.

F7=Backward

Shows the previous set of entries for the list. You can press F7 when you see More: - in the upper right part of the panel.

F8=Forward

Shows the next set of entries for the list. You can press F8 when you see More: + in the upper right part of the panel.

F9=Retrieve

Shows the last command you entered from the command line with any parameters you selected. Press F9 again to see the next-to-last command, and so on.

F10=Header options

Shows a window with all the valid options for the object identified at the top of this panel. The list includes options already supplied and those defined by your company.

F11=Job status

Shows a list of your current system and job information. You can see the status of your current job, including: system ID, date, job number, and job name; your ID and your workstation ID; the default output queue and output queue library; and the XA environment.

F12=Cancel

Ignores any options or changes you typed on the current panel, and returns to the previous panel. Processes any other options you typed on the previous panel.

F13=Repeat

Repeats the option in Option from where the cursor is to the end of the list but ignores any other options typed for items earlier in the list.

F16=User options

Shows the options your company has currently defined for this function.

Use F16 to work with user options. On the list that appears, you can type the option you want to perform against the user option you select. There is more information about a user option than can fit on the panel. You can use function keys to see more to the left or to the right of the view you currently see. Unless you change the sequence, you see views in this order:

1. Operator information
2. Programmer information.

F17=Subset

Shows a panel where you can create a subset of a list. You can narrow the list down to a smaller group that contains only those entries that meet all the criteria you enter.

You can subset this list by planning warehouse, item number, company, and customer number.

F18=Change defaults

Shows a panel where you can select which view of the information you want to see first.

F19=Left

Shows information to the left of what you currently see. You can press F19 when you see More: < in the upper right part of the panel.

F20=Right

Shows information to the right of what you currently see. You can press F20 when you see More: > in the upper right part of the panel.

F22=Messages

Shows a list of all the messages currently sent to this panel. From the list, you can choose to see secondary message text for any of the messages.

F24=More keys

Shows additional function keys you can use on this panel.

Fields

Whs. Code defined by your company that identifies the warehouse in which this item is currently stocked.

Item. Number of the item in this order.

Co. Unique identifier for a particular company.

Customer. Unique number that identifies a customer.

OrderNo. Number that identifies the expected customer order.

Date. Date that the expected customer order was created.

Time. Time that the expected customer order was created.

Reference. Reference information for the expected customer order.

Userid. ID of the last person to update this expected customer order.

AMMCED01—Change Expected Order Detail

Use this display to change period quantities for an item in an expected customer order. You can change only the expected order quantity because the number, type, and length of the periods are fixed by the EDI transmission.

```

AMMCED01                Change Expected Order Detail

Warehouse / Item . . . aA3  aaaaaaaaaaaaaA15
Company / Customer . . . A2  aaaaaaaA8
Expected order . . . . . aaaaaA7
Schedule date . . . . . nn/nn/nn
Position to . . . . . aaaaaA7

Type changed quantities as required; press Enter.

View 1 of 1
Period  Type  Days  Date      Quantity  Previous Qty  Change
**      ****  **   *         nnnnnnnnnnnN15 *****
**      ****  **   *         nnnnnnnnnnnN15 *****

**      ****  **   *         nnnnnnnnnnnN15 *****
**      ****  **   *         nnnnnnnnnnnN15 *****
**      ****  **   *         nnnnnnnnnnnN15 *****
**      ****  **   *         nnnnnnnnnnnN15 *****
**      ****  **   *         nnnnnnnnnnnN15 *****
**      ****  **   *         nnnnnnnnnnnN15 *****
**      ****  **   *         nnnnnnnnnnnN15 *****
**      ****  **   *         nnnnnnnnnnnN15 *****
**      ****  **   *         nnnnnnnnnnnN15 *****
**      ****  **   *         nnnnnnnnnnnN15 *****

Command ==> _____

F1=Help      F3=Exit      F4=Prompt      F5=Refresh
F7=Backward  F8=Forward
  
```

What to do

If you want to change the quantities for an item in an expected order, type the new quantity in the Quantity field and press **Enter**.

Function keys

F1=Help

Shows information about this panel. Pressing F1 or pressing the help key shows you the same information.

F3=Exit

Ignores any options or changes you typed on the current panel, ends the current task, and returns to the panel where you started.

F4=Prompt

Provides assistance for the option or options you selected in the list or provides assistance for the command you typed on the command line. A command is the same as a function. For example, WRKITM means the function 'Work with Items'. If you did enter a command, you see a list of parameters (choices) you can use with that command.

F5=Refresh

Clears any changes you made and returns the panel to the way it originally appeared. If any fields on the panel have default values, those defaults appear.

F6=Cursor

Moves the cursor to Position to so that you can start the list with the one you type here.

F7=Backward

Shows the previous set of entries for the list. You can press F7 when you see More: - in the upper right part of the panel.

F8=Forward

Shows the next set of entries for the list. You can press F8 when you see More: + in the upper right part of the panel.

F9=Retrieve

Shows the last command you entered from the command line with any parameters you selected. Press F9 again to see the next-to-last command, and so on.

F10=Header options

Shows a window with all the valid options for the object identified at the top of this panel. The list includes options already supplied and those defined by your company.

F11=Job status

Shows a list of your current system and job information. You can see the status of your current job, including: system ID, date, job number, and job name; your ID and your workstation ID; the default output queue and output queue library; and the XA environment.

F12=Cancel

Ignores any options or changes you typed on the current panel, and returns to the previous panel. Processes any other options you typed on the previous panel.

F13=Repeat

Repeats the option in Option from where the cursor is to the end of the list but ignores any other options typed for items earlier in the list.

F16=User options

Shows the options your company has currently defined for this function.

Use F16 to work with user options. On the list that appears, you can type the option you want to perform against the user option you select. There is more information about a user option than can fit on the panel. You can use function keys to see more to the left or to the right of the view you currently see. Unless you change the sequence, you see views in this order:

1. Operator information
2. Programmer information.

F17=Subset

Shows a panel where you can create a subset of a list. You can narrow the list down to a smaller group that contains only those entries that meet all the criteria you enter.

You can subset this list by planning warehouse, item number, company, and customer number.

F18=Change defaults

Shows a panel where you can select which view of the information you want to see first.

F19=Left

Shows information to the left of what you currently see. You can press F19 when you see More: < in the upper right part of the panel.

F20=Right

Shows information to the right of what you currently see. You can press F20 when you see More: > in the upper right part of the panel.

F22=Messages

Shows a list of all the messages currently sent to this panel. From the list, you can choose to see secondary message text for any of the messages.

F24=More keys

Shows additional function keys you can use on this panel.

Fields

Warehouse. Code defined by your company that identifies the warehouse in which this item is currently stocked.

Item. Number of the item in the order.

Company. Unique identifier for a particular company.

Customer. Unique number that identifies a customer.

Expected order. Number that identifies the expected customer order.

Schedule date. Date that the expected customer order was created.

Position to. Type a value in this field to skip to a particular entry in the list. Use it for quick repositioning of the list, not for creating a subset of the list. Choose from the following:

***TOP**

Type *TOP to go to the top of the list.

***BOT**

Type *BOT to go to the bottom of the list.

Name or partial name

Type the full or partial name or number of the entry you want to skip to in the list. The list starts with the first entry that begins with the string of characters or numbers you typed. If no entry matches the string, the list begins with the one immediately preceding the position you want.

Period. Number of the period in the expected customer order.

Type. Code indicating the level of commitment by this customer for the item in this period. Each period, defined in terms of a period length, represents a component of the expected order.

Make Authorized to build product.

Buy Authorized to buy materials.

Firm Forecast for schedule is firm.

Plan Forecast for schedule is planned only.

Days. Length of this planning period, in days. This is calculated by subtracting the date of this period from the date of the following period.

Date. Start date of this planning period. For planning purposes, MRP assumes the entire quantity for this period is required on this date.

Quantity. The amount needed for this period. If you want to change this amount, type in the new amount in the field.

Contents	Index
--------------------------	-----------------------

Previous quantity. The amount needed for this period in the previous version of this expected order. This quantity is shown for information only. If the period in the current version does not match (in start date and number of days) a period in the previous order, this field shows a calculated amount.

The purpose of this field is to allow you to see how much variation exists in your customer's 830/DELFORs over time, as this variation may cause disruption in your planning system. XA accomplishes this task by capturing and showing the following for each 830/DELFOR:

1. Quantity required for a period.
2. Quantity required for this same period in the customer's previous 830/DELFOR.

Consider the following example:

On 1/1, a 830/DELFOR is received, and the EXPCOD records are created, as follows:

Period start	1/1	1/8	1/15	1/22	1/29	etc.	(from 830/DELFOR)
Qty required	25	22	27	28	23	xx	(from 830/DELFOR)

If this is the "first ever" 830/DELFOR from this customer for this item, the previous quantities would all be zero, as there is no previous 830/DELFOR.

Previous qty	0	0	0	0	0	0	(by XA)
--------------	---	---	---	---	---	---	---------

On 1/8, a week later, a second 830/DELFOR is received, from the same customer for the same item, as follows:

Period start	1/8	1/15	1/22	1/29	2/05	etc	(from 830/DELFOR)
Qty required	22	26	29	24	27	xx	(from 830/DELFOR)

The previous quantity is now "plugged into" the new EXPCOD records by XA from the previous EXPCOD records.

Previous qty	22	27	28	23	xx		(by XA)
--------------	----	----	----	----	----	--	---------

The above example covered only periods of equal length, the "simple" case. In the more complex case, where some weekly periods are followed by some periods of greater length, no single period in the previous 830/DELFOR corresponds directly to the last weekly period in the new transaction. In this case, XA must calculate the previous quantity for the period by prorating the applicable portion(s) from the appropriate period(s) in the previous transaction that correspond to the period in the new transaction.

Change. Shows the difference between the previous quantity and the quantity fields.

AMMREC10—Confirm Delete of Expected Orders

Use this display to confirm that you want to delete the items you selected. The list displays header information for each item.

Notes:

1. If you confirm this request, you delete the current version of each item (its header and associated detail). Previous versions remain, but because there is no current version, you effectively cancel all expected demand from the customer.
2. Use this option only when a customer does not plan to order any more of an item.

```
AMMREC10          Confirm Delete of Expected Order

Press Enter to confirm your choices for 4=Delete.
Press F12 to return to change your choices.

View 1 of 1

Option  Whs  Item          Co  Customer  OrderNo  Date  Time
  4      ***  *****          **  ***      *      **/**/**  **:**:**

F1=Help      F7=Backward  F8=Forward  F11=Job Status
F12=Cancel   F19=Left    F20=Right   F22=Messages
```

What to do

- To confirm your choice, press **Enter**.
- To cancel this request and return to the Work With list, press **F12**.

Function keys

F1=Help

Shows information about this panel. Pressing F1 or pressing the help key shows you the same information.

F7=Backward

Shows the previous set of entries for the list. You can press F7 when you see More: - in the upper right part of the panel.

F8=Forward

Shows the next set of entries for the list. You can press F8 when you see More: + in the upper right part of the panel.

F11=Job status

Shows a list of your current system and job information. You can see the status of your current job, including: system ID, date, job number, and job name; your ID and your workstation ID; the default output queue and output queue library; and the XA environment.

F12=Cancel

Ignores any options or changes you typed on the current panel, and returns to the previous panel. Processes any other options you typed on the previous panel.

F19=Left

Shows information to the left of what you currently see. You can press F19 when you see More: < in the upper right part of the panel.

F20=Right

Shows information to the right of what you currently see. You can press F20 when you see More: > in the upper right part of the panel.

F22=Messages

Shows a list of all the messages currently sent to this panel. From the list, you can choose to see secondary message text for any of the messages.

Fields

Warehouse. Code defined by your company that identifies the warehouse in which this item is currently stocked.

Item. Number of the item in the order.

Company. Unique identifier for a particular company.

Customer. Unique number that identifies a customer.

OrderNo. Number that identifies the expected customer order.

Date/Time. Date and time that the expected customer order was created.

AMMUEC10—Confirm Use Prior Expected Order

Use this display to confirm that you want to replace the expected orders for the items you selected with prior versions. The list displays header information for each item.

Notes:

1. If you confirm this request, you delete the current version of each item (its header and associated detail) and reactivate the most recent prior version. In effect, you roll back the selected items to previous versions.
2. Use this option when errors have been transmitted in the current version.

```
AMMUEC10          Confirm Use Prior Expected Order

Press Enter to confirm your choices for 11=Use Prior.
Press F12 to return to change your choices.

View 1 of 1

Option  Whs  Item          Co Customer  OrderNo  Date      Time
  11    ***  *****      ***  *****  *****  **/**/**  **:**:**

F1=Help          F7=Backward    F8=Forward    F11=Job Status
F12=Cancel       F19=Left       F20=Right     F22=Messages
```

What to do

- To confirm your choice, press **Enter**.
- To cancel this request and return to the Work With list, press **F12**.
- To review prior versions of the expected order for this customer, press **F12** to return to the Work With list and then enter option 12 (All versions) to view them.

The function keys and fields on this display are the same as those on “AMMREC10—Confirm Delete of Expected Orders”.

AMMWEV01—Expected Customer Order Versions

Use this display to view or print the current and previous versions of the item you selected in this expected customer order. Using option code 2, you can also change expected order quantities.

```

AMMWEV01           Expected Customer Order Versions
Warehouse / Item . . : MPA   MPC201
Company / Customer . . : A2     aA3
Expected order . . . : aaaaaA6

Type options; then press Enter.
  2=Change  5=Display  6=Print

Option      Order   Create   Create
Number      Number  Date     Time
N2          ***** **/**/** **:**:**

View 1 of 1
----Last Update----
User      User ID
**/**/** *****

Command ==>

F1=Help          F3=Exit          F4=Prompt          F5=Refresh
F7=Backward      F8=Forward
  
```

What to do

The following table summarizes the displays that appear after you type an option and press **Enter**.

Choose this option:	To go to this display:
2	Change Expected Order Detail (AMMCED01)
5	Display Expected Order Detail(AMMWED01)
6	No display appears. The Expected Customer Order is printed.

- To change period quantities for an item in an expected customer order, type **2** in the **Option** field beside the order number and press **Enter**. Go to “AMMCED01—Change Expected Order Detail”.
- To display period quantities for an item in an expected customer order, type **5** in the **Option** field beside the order number, and press **Enter**.
- To print an expected customer order, type **6** in the **Option** field beside the order number and press **Enter**.

Function keys

F1=Help

Shows information about this panel. Pressing F1 or pressing the help key shows you the same information.

F3=Exit

Ignores any options or changes you typed on the current panel, ends the current task, and returns to the panel where you started.

F4=Prompt

Provides assistance for the option or options you selected in the list or provides assistance for the command you typed on the command line. A command is the same as a function. For example, WRKITM means the function 'Work with Items'. If you did enter a command, you see a list of parameters (choices) you can use with that command.

F5=Refresh

Clears any changes you made and returns the panel to the way it originally appeared. If any fields on the panel have default values, those defaults appear.

F6=Cursor

Moves the cursor to Position so that you can start the list with the one you type here.

F7=Backward

Shows the previous set of entries for the list. You can press F7 when you see More: - in the upper right part of the panel.

F8=Forward

Shows the next set of entries for the list. You can press F8 when you see More: + in the upper right part of the panel.

F9=Retrieve

Shows the last command you entered from the command line with any parameters you selected. Press F9 again to see the next-to-last command, and so on.

F10=Header options

Shows a window with all the valid options for the object identified at the top of this panel. The list includes options already supplied and those defined by your company.

F11=Job status

Shows a list of your current system and job information. You can see the status of your current job, including: system ID, date, job number, and job name; your ID and your workstation ID; the default output queue and output queue library; and the XA environment.

F12=Cancel

Ignores any options or changes you typed on the current panel, and returns to the previous panel. Processes any other options you typed on the previous panel.

F13=Repeat

Repeats the option in Option from where the cursor is to the end of the list but ignores any other options typed for items earlier in the list.

F16=User options

Shows the options your company has currently defined for this function.

Use F16 to work with user options. On the list that appears, you can type the option you want to perform against the user option you select. There is more information about a user option than can fit on the panel. You can use function keys to see more to the left or to the right of the view you currently see. Unless you change the sequence, you see views in this order:

1. Operator information
2. Programmer information.

F17=Subset

Shows a panel where you can create a subset of a list. You can narrow the list down to a smaller group that contains only those entries that meet all the criteria you enter.

You can subset this list by planning warehouse, item number, company, and customer number.

F18=Change defaults

Shows a panel where you can select which view of the information you want to see first.

F19=Left

Shows information to the left of what you currently see. You can press F19 when you see More: < in the upper right part of the panel.

F20=Right

Shows information to the right of what you currently see. You can press F20 when you see More: > in the upper right part of the panel.

F22=Messages

Shows a list of all the messages currently sent to this panel. From the list, you can choose to see secondary message text for any of the messages.

F24=More keys

Shows additional function keys you can use on this panel.

Fields

Warehouse. Code defined by your company that identifies the warehouse in which this item is currently stocked.

Item. Number of the item in the order.

Company. Unique identifier for a particular company.

Customer. Unique number that identifies a customer.

Expected order/Order number. Number that identifies the expected customer order.

Create date. Date that the expected customer order was created.

Create time. Time the expected customer order was created.

Last update User/user ID. ID of the last person to update this expected customer order and when it was updated.

Option 7. Print and Purge Expected Customer Orders (AMMM10)

Use this option to print a selection of expected customer orders and optionally remove them from the system.

Notes:

1. To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouse you select.
2. This option is available only if EC is installed.

What information you need:

- Planning warehouse limits
- Planner limits
- Item number limits
- Customer limits (company and customer)
- Expected order number limits
- Expected order date limits
- Date before which you want to purge expected customer orders

What reports are printed: Expected Customer Orders (AMM87RP1)

What forms you need: None.

The basic steps to print and purge purchase expected customer orders follow the display.

AMV3HG—Print and Purge Expected Customer Orders Options

Use this display to print and/or purge a selection of expected customer orders received via EDI830/DELFOR transactions.

You may want to print expected customer orders to use when entering MRP requirements or as an audit trail before purging them. You may want to purge expected customer orders received before a specific date to reduce the size of the Expected Customer Order files or because the information is no longer of use.

```
AMV3HG                Print and Purge Expected Customer Orders Options

Planning warehouse limits:
  From warehouse . . . nN3                To warehouse . . . . nN3
Planner limits:
  From planner . . . . nnnN5              To planner . . . . . nnnN5
Item number limits
  From item number . . nnnnnnnnnnnN15    To item number . . . nnnnnnnnnnnN15
Customer limits:
  From company . . . . N2                  To company . . . . . N2
  customer . . . . nnnnnnN8                customer . . . . . nnnnnnN8
Expected Order Number:
  From expected order aaaaaA7             To expected order . aaaaaA7
Expected Order date limits:
  Received from . . . nnnnN6              Received to . . . . . nnnnN6

Purge orders received before nnnnN6

F1=Help   F5=Refresh   F24=Cancel
```

What to do

Select a group of expected customer orders to be printed by entering 'From' and 'To' (starting and ending) limits for any of these criteria:

- Planning warehouse
- Planner
- Item number
- Company
- Customer
- Expected order number
- Expected order date

Entering a date in **Purge orders received before** determines whether expected customer orders are purged.

- To print orders only, enter limits and leave **Purge orders received before** blank.
- To print and purge orders, enter limits and also a date in **Purge orders received before**. All orders before this date will be purged.
- To purge orders only, enter a date in **Purge orders received before** and an invalid value in the limits fields, such as an invalid planner ID in **From/To Planner limits**.

Function keys

F1=Help

Shows information about this panel. Pressing F1 or pressing the help key shows you the same information.

F3=Exit

Ignores any options or changes you typed on the current panel, ends the current task, and returns to the panel where you started.

F5=Refresh

Clears any changes you made and returns the panel to the way it originally appeared. If any fields on the panel have default values, those defaults appear.

F12=Return

Ignores any information you typed and returns you to the previous menu or the Application Selection menu if you are on the Main Menu, or asks if you want to exit XA if you are on the Application Selection menu.

Fields

Planning warehouse limits. Range of planning warehouses for which you want to print expected customer orders.

Planner limits. Range of planners for which you want to print expected customer orders.

Item number limits. Range of item numbers for which you want to print expected customer orders.

Customer limits. Range of customers for which you want to print expected customer orders. You can specify this range by both company number and customer number.

Expected order number. Range of expected order numbers to print.

Expected order date limits. Range of expected order dates for which to print orders.

Purge orders received before. All expected customer orders prior to the date you enter here will be purged. If blank, no expected customer orders are purged.

Chapter 4. Planning Run Options

When you select option 2 on the Main Menu (AMMM00), the “Planning Run Options menu (AMMM20)”, appears. From the Planning Run Options menu (AMMM20), you can establish planning horizon dates, set date intervals for consolidating requirements, work with warehouses, establish planning run execution and report options, and initiate a planning run.

Except for option 3, you must be authorized to the proper level of security for the warehouse you want to use.

Note: If Customer Order Management (COM) is installed and interfacing, make sure all Customer Order file maintenance is completed. Also, customer orders that have been selected for release in COM must be updated or they will not be processed in the next planning run.

The tasks in Option 1 and 6 also can be executed in batch jobs outside this menu. See Appendix E for more information.

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Option 6. Initiate Planning Run (AMMM20).....	4-25

Planning Run Options menu (AMMM20)

```
AMMM20                               Material Requirements Planning          *****
                                      Planning Run Options

Type option or command; press Enter.

1. Maintain Horizon Values
2. Maintain Period Intervals
3. Work With Warehouses
4. Planning Run Execution Options
5. Planning Run Report Options
6. Initiate Planning Run

==> _____

F3=Exit      F4=Prompt    F9=Retrieve   F10=Actions
F11=Job status F12=Return   F22=Messages
```

Option 14.Maintain Horizon Values. Use this option to review and maintain the planning horizon dates used in the planning run using the Maintain Horizon Values display (AMM110).

Option 15.Maintain Period Intervals. Use this option to review and maintain the intervals used to summarize requirements for printing, the intervals used to combine requirements during planning, and the price break literals used on the Purchase Planning Report (AMM3B1) using the Maintain Period Intervals display (AMM120).

Option 16.Work With Warehouses. Use this option to perform inquiries and maintenance functions for the Warehouse Master (WHSMST) file, and the Planning Warehouse Item Override file.

Option 17.Planning Run Execution Options. Use this option to review and maintain tailorable aspects of the planning run.

Option 18.Planning Run Report Options. Use this option review and maintain planning run report options. You can select five reports to execute at the completion of the planning run.

Option 19.Initiate Planning Run. Use this option to submit the planning run. A planning run prevents some MRP activities from running, so you should schedule it carefully typically for overnight or over a weekend. You can submit the following types of planning runs:

- Full planning run—generation
- Full planning run—net change
- MLI planning run—generation
- MLI planning run—net change

Option 1. Maintain Horizon Values (AMMM20)

Use this option to review and maintain the planning horizon dates used in the planning run and change them as necessary, using the Maintain Horizon Values display (AMM110).

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouse you select.

What information you need: Offset days for the planning dates and a valid planning warehouse.

What reports are printed: Date Interval Records (AMM130).

What forms you need: None.

The basic steps to maintain horizon values follow each display.

This menu option is enabled for Automated Job Submission. See Appendix E.

AMV361—Maintain Horizon Values—Select a planning warehouse

Use this display to select a planning warehouse for which you would like to review or maintain the horizon values.

Note: You must be authorized to the proper level of security in the warehouse you select.

This display appears when you select option 1 on the Planning Run Options menu (AMMM20). This display will prompt you for a planning warehouse. After you select a valid planning warehouse, display AMM110 appears, allowing you to maintain the horizon values for the selected warehouse. After you maintain the planning run report options, display AMV361 appears again allowing you to select the next planning warehouse to maintain.

```
AMV361                               Maintain Horizon Values
Select a planning warehouse
Planning warehouse . . . . . aA3

F24=Cancel
```

What to do

- Select a valid planning warehouse and press **Enter**. Go to display AMM110.
- To cancel this session, use **F24**. Go to menu AMMM20.

Function keys

F24=Cancel ends processing and any data you typed is ignored. The Planning Run Options menu (AMMM20) appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Select a planning warehouse.

Planning warehouse [?]. Type the planning warehouse for which you want to review or maintain horizon values.

AMM110—Maintain Horizon Values

Use this display to review and change the dates and horizon values currently in effect for the planning horizon.

This display shows you the dates and displacements currently in effect for the planning horizon. The following dates define the planning horizon for MRP:

- Start date
- Current date
- Release date
- Allocation date
- Review date
- End date.

```

AMM110                               Maintain Horizon Values
Planning warehouse . . . . . : *** *****

Planning dates
Start . . . . . : **/**/**
Current . . . . . : **/**/**
Release . . . . . : **/**/**
Allocation . . . . . : **/**/**
Review . . . . . : **/**/**
End . . . . . : **/**/**

Enter horizon values                                Original Value
Current date . . . . . nnnnnn
Overdue days . . . . . nnn                ***
Release days . . . . . nn                 **
Allocation days . . . . . nn              **
Review days . . . . . nnn                 ***

F24=Cancel    F17=Accept for update
  
```

What to do

- To change the planning dates, type the information requested and press **Enter** to validate the dates.
- To accept the dates now shown as a result of your changes, use **F17**. The system prints the Date Interval Records report (AMM130). The Planning Run Options menu (AMMM20) appears again. To make more changes, go to display AMM110.
- To cancel this session, use **F24**. Go to menu AMMM20.

Function keys

F17=Accept for update (appears only after new data is entered) causes the planning dates and displacements, as presently shown, to be stored permanently in the application files and the Date Interval Records report (AMM130) to be printed, showing the new dates and the report intervals.

F24=Cancel ends processing and any data you typed is ignored. The display AMV361 appears again.

Fields

The information that appears in the **Planning dates** field is derived from the values you provide in the **Enter horizon values** field on the lower portion of the display. The planning dates are the parameters, or horizons, that you establish for the application to perform materials planning. You should only change these dates immediately before a planning run, since between runs they are used on reports and displays and should correspond with the data they accompany. Because the data represents the last planning run, the dates should also represent the last planning run.

Planning dates. When the display first appears, these fields show the dates currently in effect. If you are making changes on this display, the application shows the revised dates here after you type the changes and press **Enter**. You should verify the dates before using **F17** to store the dates in the application files.

Start (STDT). The start of the planning horizon. No held requirements exist prior to this date. (In a planning run, all held requirements earlier than this date and all firm planned orders with due dates that are earlier than this date are dropped). The report period intervals, used for summarizing requirements for printing, start at this date.

Current (CU DT). The date the material plan is created. Manual forecasts and requirements earlier than this date are dropped. Propagated forecasts and requirements are prorated as they pass this date. Released orders with a due date prior to this date are flagged as overdue.

Release (RLDT). The date orders become flagged as due for release. All planned and firm planned orders with a start date on or before this date are identified as due for release by an exception message.

Allocation (ALDT). Shows you the date that determines when MRP treats allocations as immediate allocations or time-phased allocations. The time-phased allocation option allows you to use the items' lead time and to specify an allocation fence to help determine when MRP treats allocations as immediate allocations or time-phased allocations.

Allocations are treated as immediate allocations if the allocation required date is within the time-phased allocation fence (TPAF) or the lead time, whichever is shorter.

Allocations are treated as time-phased allocations if the allocation required date is beyond the TPAF or the lead time, whichever is shorter.

Review (RVDT). The date orders become eligible for review and approval through option 1 or 2 of the Order/Schedule Release and Review menu (AMMM40). All planned orders with a start date on or before this date and all released and firm planned orders are copied to the Order Review file and are shown on the Order Review and Approval displays.

End (CFEDT). The last day of the fifth year of the five-year XA calendar. It is the end of the planning horizon.

To establish new planning dates, you only have to type a new Current date; the intervals between dates usually remain constant. However, you can change any of the intervals if necessary. The displacements shown under "Original values" heading are those currently in effect.

Enter horizon values. This portion of the display allows you to change any of the planning dates by typing a new Current date and/or new displacements. The End date is changed only when a new year is added to the XA calendar.

Current date (CUDT). Type in the date on which you want to base the plan. This date usually corresponds to the beginning of a forecast interval.

Overdue days (OVDP). Type in the number of days to be subtracted from the Current date to establish the Start date.

Release days (RLDP). Type in the number of days to be added to the Current date to establish the Release date.

Allocation days (ALDP). Type in the number of working days to be added to the Current date to establish the Allocation date.

Review days (RVDP). Type in the number of working days to be added to the Current date to establish the Review date.

For convenience in changing the planning horizons as time passes, displacements, or intervals, occur between four of the dates: Start, Current, Release, and Review. The formulas used to derive the Start, Release, Allocation, and Review dates from the Current date are:

- Current date minus Overdue days equals Start date.
- Current date plus Release days equals Release date.
- Current date plus Allocation days equals Allocation date.
- Current date plus Review days equals Review date.

Note: If the Current date, Overdue days, or allocation days are changed you may not perform a net change planning run. The release and review days are the only maintainable values which will not prevent a net change planning run from executing.

Option 2. Maintain Period Intervals (AMMM20)

Use this option to review or maintain the period intervals for a specific warehouse.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouse you select.

What information you need: A valid planning warehouse.

What reports are printed: Date Interval Records (AMM130).

What forms you need: None.

The basic steps to maintain period intervals follow each display.

AMV362—Maintain Period Intervals—Select a planning warehouse

Use this display to select a planning warehouse for which you would like to review or maintain the period intervals.

Note: You must be authorized to the proper level of security in the warehouse you select

This display appears when you select option 2 on the Planning Run Options menu (AMMM20). This display will prompt you for a planning warehouse. After you select a valid planning warehouse, display AMM120 appears allowing you to maintain the period intervals for the selected warehouse. After you maintain the planning run report options, display AMV362 appears again, allowing you to select the next planning warehouse to maintain.

```
AMV362                               Maintain Period Intervals
Select a planning warehouse
Planning warehouse . . . . . aA3

F24=Cancel
```

What to do

- Select a valid planning warehouse and press **Enter**. Go to display AMM120.
- To cancel this session, use **F24**. Go to menu AMMM20.

Function keys

F24=Cancel ends processing and any data you typed is ignored. The Planning Run Options menu (AMMM20) appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Select a planning warehouse.

Planning warehouse [?]: Type the planning warehouse to review or maintain period intervals.

AMM120—Maintain Period Intervals

Use this display to update the Report Period Intervals, the Combine Requirements Intervals, and the Price Break Literals used by the application. This display shows the three report period intervals that can be used to summarize requirements within the period time frames on the Requirements Planning Report (AMM3A1). This display also shows Combine codes.

```

AMM120                               Maintain Period Intervals

Enter interval size in days for warehouse *** *****
REPORT CODE 1
 1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20
nnn nnn

REPORT CODE 2
 1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20
nnn nnn

REPORT CODE 3
 1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20
nnn nnn

Enter interval size in days for combine codes      Enter price break literals
Combine code 1 . . . . . nnn                      (for combine codes 5 thru 9)
Combine code 2 . . . . . nnn                      5 . . . aaaaaA7
Combine code 3 . . . . . nnn                      6 . . . aaaaaA7
Combine codes 4 thru 9 . . . nnn                   7 . . . aaaaaA7
                                                    8 . . . aaaaaA7
                                                    9 . . . aaaaaA7

F24=Cancel      F17=Accept for update
  
```

What to do

- To change the planning dates, type the information requested and press **Enter** to validate the information.
- To accept the information now shown as a result of your changes, use **F17**. Go to menu AMMM20.
- To cancel this session, use **F24**. Go to menu AMMM20.

Function keys

F17=Accept for update (appears only after new data has been entered) causes the data presently on the display to be stored permanently in the application files and the Date Interval Records report (AMM130) to be printed, showing the planned dates and the report period intervals. The Planning Run Options menu (AMMM20) appears again.

F24=Cancel end processing and any data you typed is ignored. The Maintain Period Intervals display (AMV362) appears again.

Fields

Enter interval size in days for warehouse. The top three sets of fields are report period intervals that you can use to summarize generated requirements to be printed on the Requirements Planning Report (AMM3A1). Three intervals are available, each containing 20 periods. A period interval code field in each Item Balance (ITEMBL) record lets you designate selected items on a given report. You can select a report code for the entire report regardless of the interval codes in the Item Balance records. (See “AMM3F0—Requirements Planning Report Options”.)

Report code: 1, 2, and 3. Type in the period length for each of the periods. A maximum of 999 days is allowed in each period for up to 20 periods. When zero is entered for a period, all remaining periods for that report code must be zero.

The first period (of each report code) begins at the planning start date, and each code runs as long as it is represented by the total of the 20 periods. Any generated requirement falling before the start date is listed individually. Any generated requirement falling after the 20th period is not printed. (Planner requirements are always listed individually; only generated requirements are summarized.) See “Planning run” for more discussion and an example.

The lower part of the display is used to specify four interval lengths to be used during a planning run to combine generated requirements. Combining requirements during planning results in one record per combined interval, containing the interval date and the total required that date. However, this makes it impossible to trace the source (peg to the parent) of the requirements.

Enter interval size in days for combine codes. Type the interval size in days for each of the four combine intervals. Each value must be a positive number. There are only four intervals, even though there are nine codes, as codes 4 through 9 all use the same interval.

Enter price break literals (for combine codes 5 through 9). Combine codes 5 through 9 allow you to designate a literal that you want to appear on the Purchase Planning Report (AMM3B1) for all items assigned that code. For example, you may use steel bars, but you get the best price if you purchase the steel in tons. The Purchase Planning Report lists all items for each vendor, with the quantity required by interval shown. Then, totals are printed by vendor for each price break category appropriate to that vendor. These totals are calculated using the price break conversion factor for each Item, and are listed identified by the price break literal associated with combine codes 5 through 9.

Type the purchase unit of measure for combine codes 5 through 9 (up to 7 characters).

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Option 3. Work With Warehouses (AMMM20)

Use this option to create, change, delete, or review warehouses.

The displays in this option are the same as those explained in “Option 5. Work With Warehouses (AMMM10)” on page 3-72.

Option 4. Planning Run Execution Options (AMMM20)

Use this option to maintain the planning run execution for a selected warehouse.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouse you select.

What information you need:

- Planning warehouse
- Customer backlog orders to be combined
- Time phased allocations
- Level to plan
- Whether contracts are required for auto-release

What reports are printed: None.

What forms you need: None.

The basic steps to plan run execution options follow each display.

AMV363—Planning Run Execution Options—Select a planning warehouse

Use this display to select the planning warehouse for which you want to maintain the planning run execution options. Planning run execution options may be different for each planning warehouse.

Note: You must be authorized to the proper level of security in the warehouse you select.

This display appears when you select option 4 on the Planning Run Options menu (AMMM20).

```
AMV363                      Planning Run Execution Options
Select a planning warehouse
Planning warehouse . . . . . aA3

F24=Cancel
```

What to do

- Select a valid planning warehouse and press **Enter**. Go to display AMM151.
- To cancel this session, use **F24**. Go to menu AMMM20.

Function keys

F24=Cancel ends processing and any data you typed is ignored. The Planning Run Options menu (AMMM20) appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Select a planning warehouse.

Planning warehouse [?]. Type in the planning warehouse for which you want to review or maintain planning run execution options.

AMM151—Planning Run Execution Options—Select tailoring options

This display allows you to maintain the planning run execution options.

```

AMM151                Planning Run Execution Options
Planning warehouse . . . . . : *** *****

Select tailoring options
Combine customer backlog orders . . . A 0=No, 1=Yes
Time phased allocations . . . . . A 0=No, 1=Yes
Level to plan master level items . . . nn
Clear quantity sold with extract . . . A
Warehouse reschedule code . . . . . n 1=None, 2=Out, 3=In, 4=Both
Minimum days to reschedule orders . . nnnnn
Rescheduling frozen zone in days . . . nnnnn
Maximum demand sources to track . . . nnn
Track demand sources for on hand qty n 0=No, 1=Yes
Cancel exception code . . . . . A
Due date in past - manufacturing order A
Due date in past - purchase order . . A
Due date in past - schedule . . . . . A
Contract required for auto release . . A 1=Y,2=N/Stop,3=N/Warn,4=N
Extract requisitions . . . . . A 1=Y,2=Y/Only MRP created,3=N
Safety stock lead time . . . . . A 1=LT,2=Current Date,3=CMTILT,4=CMFLT

F24=Cancel
    
```

What to do

- To maintain the planning run execution options, type the information requested in the Select tailoring options field and press **Enter**. Go to display AMV363.
- To cancel this session, use **F24**. Go to display AMV363.

Function keys

F24=Cancel ends processing and any data you typed in is ignored. The Planning Run Execution Options display (AMV363) appears again.

Fields

Planning warehouse/description. The planning warehouse for which you want to review or maintain planning run execution options, and its description.

Select tailoring options.

Combine customer backlog orders. Answer **1** if you want customer backlog orders to be combined by the manufacturing scheduled date. If you combine customer orders, multiple customer orders for the same item on the same day are represented as one record in the Requirements (REQMTS) file. Also, orders that are combined lose their order identification and the literal COMBINE appears on MRP displays and reports in place of the order number.

Answer **0** if you do not want customer backlog orders to be combined by the manufacturing scheduled date. If you do not combine customer orders, multiple customer orders for the same item on the same day are represented as multiple records in the Requirements (REQMTS) file.

If COM is not interfacing, a message appears.

Time phased allocations. Answer 1 if you want time phased allocations. Answer 0 if you do not want time phased allocations.

See "Time-phased allocations" for more details.

Level to plan master level items. Type a value 0 through 99. This is the planning level or low level code that the planning runs process to when you select Master Level Item (MLI) planning. For example, if you specify a level of 02, the MLI planning run plans all items with low level code of 0, 1, or 2. An item with low level code equal to 3 or greater is not planned.

Clear quantity sold with extract. This field represents the total quantity of an item sold since the last MRP generation in which it was cleared. It is used to adjust the available quantity to avoid planning for requirements which have already been filled and sold.

Type in one of the following codes to indicate if you want quantity sold cleared:

- 0** No (Default). Clear Quantity Sold Since Last Plan bucket (CURPL) only after an MRP current date change.
- 1** Yes. Clear Quantity Sold Since Last Plan bucket (CURPL) when you request an extract.

A default of 0 causes MRP to function as it has in the past.

Warehouse reschedule code: Applies to automatic rescheduling of a scheduled receipt or firm planned order. Type one of the following codes:

- 1** (Default). Cannot be rescheduled automatically
- 2** Can be scheduled out
- 3** Can be scheduled in
- 4** Can be scheduled both out and in

During a planning run, if this value is 1 no reschedule activity will be performed for this warehouse, regardless of the planning run execution options.

Minimum days to reschedule orders. The number of days that the due date of a scheduled receipt or firm planned order must move before it is automatically rescheduled by the system. The default value is 0.

Rescheduling frozen zone in days. Type in the number of days within which a scheduled receipt or firm planned order will not be rescheduled, by item/warehouse.

Maximum demand sources to track. Type in the number of high-level sources of demand to be tracked for an order or schedule. If you enter 0 in this field, no sources of demand will be tracked for any orders in this warehouse. If you enter a number greater than 0, that indicates how many top level sources you want to track for each planned order in this warehouse.

Track demand sources for on hand qty: Type in one of the following codes to define if you want to track the demand sources for the on hand quantities.

- 0** Do not track demand sources for on hand quantities.
- 1** Track demand sources for on hand quantities.

Cancel exception code. Type in one of the following codes to define which method you want to use to process cancel exception codes in automatic rescheduling.

- 0 Do not take action on CANCEL exception codes
- 1 Reschedule to end of the calendar, less one month

Due date in past - manufacturing order. Type in one of the following codes to define how you want past due scheduled receipts and firm planned orders to be handled for automatic rescheduling of manufacturing orders.

Blank Keep the same date.

- 1 Set the new due date to the greater of the system date or current date, if the new due date is prior to the greater of the system date or the current date.

Due date in past - purchase order. Type in one of the following codes to define how you want past due scheduled receipts and firm planned orders to be handled in automatic rescheduling of purchase orders.

Blank Keep the same date.

- 1 Set the new due date to the greater of the system date or current date, if the new due date is prior to the greater of the system date or the current date.
- 2 Reschedule with the new date, but set on the hold code in the POMAST record, if the new due date is prior to the greater of the system date or the current date. (For Purchase items.)

Due date in past - schedule. Type in one of the following codes to define how you want past due scheduled receipts and firm planned orders to be handled in automatic rescheduling of planning schedules.

Blank Keep the same date.

- 1 Set the new due date to the greater of the system date or current date, if the new due date is prior to the greater of the system date or the current date.

Contract required for auto release. Use this field to select how you want to handle items with contracts or quotes during auto release and the planning run. This option allows you to perform auto release without a valid contract or quote. You can also specify if you want the release to occur if an item has an expired contract present. Type one of the following codes:

- 1 Yes, a contract/quote is required for auto release.
- 2 No, a contract/quote is not required for auto release to Purchasing. However, the purchase order is not released if an expired contract exists for an item.
- 3 No, a contract/quote is not required for auto release to Purchasing. The purchase order is released with a warning message if an expired contract is encountered.
- 4 No, a contract/quote is not required for auto release to Purchasing. Any contracts/quotes are ignored.

Extract requisitions. Use this field to select how you want to extract requisitions during the planning run. Type one of the following:

- 1 All requisitions will be extracted from Purchasing.
- 2 Only requisitions created through MRP will be extracted.
- 3 No requisitions will be extracted.

Safety Stock lead time. Use this field to select how you want the requirement to be handled for items with safety stock during the planning run. Type one of the following codes:

- 1 Due on the MRP Current Date plus the manufacture or purchase lead time for the item.
- 2 Due on the MRP Current Date.
- 3 Due on the MRP Current Date plus the cumulative material lead time (CMTLT) for the item.
- 4 Due on the MRP Current Date plus the cumulative manufacturing lead time (CMFLT) for the item.

Option 5. Planning Run Report Options (AMMM20)

Use this option to review or maintain the choices for printing planning run reports.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouse you select.

What information you need: A valid planning warehouse.

What reports are printed: None.

What forms you need: None.

The basic steps to set the planning run report options follow each display.

AMV364—Planning Run Report Options—Select a planning warehouse

Use this display to select the planning warehouse for which to maintain the planning run report options. Planning run report options can be different for each planning warehouse.

Note: You must be authorized to the proper level of security in the warehouse you select.

When you select option 5 on the Planning Run Options (AMMM20) menu, the Planning Run Report Options Display (AMV364) appears.

```
AMV364                Planning Run Report Options
Select a planning warehouse
Planning warehouse . . . . . aA3

F24=Cancel
```

What to do

- Select a valid planning warehouse and press **Enter**. Go to display AMM201.
- To cancel this session, use **F24**. The Planning Run Options menu (AMMM20) appears again.

Function keys

F24=Cancel ends processing and causes any data you typed to be ignored. The Planning Run Options menu (AMMM20) appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Select a planning warehouse.

Planning warehouse [?]. Type the planning warehouse for which you want to maintain planning run report options.

AMM201—Planning Run Report Options

Use this display to maintain the planning run report options for the selected warehouse.

This display appears after a valid planning warehouse has been selected on display AMV364. Planning run report options may be different for each planning warehouse.

```

AMM201                Planning Run Report Options
Planning warehouse . . . . . : *** *****
Select one or more reports
  MLI Requirements VS Forecast/Customer Orders . . . . . A  0=No, 1=Yes
  Requirements planning . . . . . A  0=No, 1=Yes
  Purchase planning . . . . . A  0=No, 1=Yes
  Order recommendation by item . . . . . A  0=No, 1=Yes
  Order recommendation by exception . . . . . A  0=No, 1=Yes
  Reschedule activity . . . . . A  0=No, 1=Yes

F24=Cancel
  
```

What to do

- Select one or more reports to print automatically, when a planning run is executed, by typing **1** (Yes) next to each report field and pressing **Enter**.

Note: If you answered Yes to **Requirements planning**, display “AMM202—Requirements Planning Additional Options” appears.

- To cancel this session, use **F24**.

Function keys

F24=Cancel ends processing and any data you typed in to be ignored. The “AMV364—Planning Run Report Options—Select a planning warehouse” display appears again.

Fields

Planning warehouse. The planning warehouse number and description you selected on display AMV364.

Select one or more reports.

MLI Requirements VS Forecast/Customer Orders. This field is used to specify whether the MLI Requirements VS Forecast/Customer Orders report (AMM221) should print automatically when a planning run is executed.

Requirements planning. This field is used to specify whether the Requirements Planning report (AMM3A1) should print automatically when a planning run is executed.

Purchase planning. This field is used to specify whether the Purchase Planning report (AMM3B1) should print automatically when a planning run is executed.

Order recommendation by item. This field is used to specify whether the Order Recommendation by Item report (AMM3C1) should print automatically when a planning run is executed.

Order recommendation by exception. This field is used to specify whether the Order Recommendation by Exception report (AMM3C1) should print automatically when a planning run is executed.

Reschedule activity. This field is used to specify whether the Reschedule Activity report (AMM3M1) should print automatically when a planning run is executed.

AMM202—Requirements Planning Additional Options

Use this display to specify which items you want included along with the format of the detail information on the report.

This display appears only if you selected yes to **Requirements planning** on the Planning Run Report Options display (AMM201).

```

AMM202                Requirements Planning Additional Options
Planning warehouse . . . . . : ATL  ATLANTA WAREHOUSE

Items selected . . . . . 1  1=All items
                             2=Master level items only

Include all items . . . . . 1  0=No
                             1=Yes

Date interval . . . . . 1  1=Plan 1
                             2=Plan 2
                             3=Plan 3
                             4=Item designated
                             5=Full detail

F24=Cancel
    
```

Function keys

F24=Cancel ends processing and any data you typed in to be ignored. The Planning Run Report Options--Select a planning warehouse (AMV364) display appears again.

Fields

Planning warehouse. The planning warehouse number and description you selected on display AMV364.

Items selected. Type one of the following:

- 1 All items. Causes the Requirements Planning Report (AMM3A1) to print.
- 2 Master level items only. Causes the Master Items Planning Report (AMM3A1) to print for master level items only.

Include all items. Type one of the following:

- 0 No. Causes the Specify Items to Include window to appear so you can select one of these options:
 - 1 With detail
 - 2 With any exception
 - 3 With an order exception of expedite, reschedule, or defer
 - 4 Planned on last generation
- 1 Yes. Causes the report to be printed for all items controlled by MRP (determined by the item's order policy code in the Item Plan file).

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--------------------------	-----------------------

Date interval. (Date Interval is a synonym for Period Interval.) Type in the number that corresponds to the method to be used in presenting the requirements for each item included in the report.

- 1, 2,
or 3** Causes each item on the report to be printed with its requirements summarized according to the differing period intervals you set up using the Maintain Period Intervals display (AMM120). See “Combining requirements”.
- 4** Item designated: Causes the amount of detail contained in the report to be dependent upon the Period Interval Code (0—3) contained in each item’s Item Balance record. A Period Interval code of 0, which causes full detail to be printed, is assumed by the application if no entry exists in the Item Balance Period Interval Code.
- 5** Full detail: Causes all requirements for all of the items to be included on the report, regardless of the Period Interval Code in the Item Balance record.

Option 6. Initiate Planning Run (AMMM20)

Use this option to start the MRP planning run.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouse you select.

What information you need:

The range of planning warehouses you would like to submit planning runs for and the type of planning run that you want to run:

- Full planning run —generation
- Full planning run—net change
- MLI planning run—generation
- MLI planning run—net change

Whether you want to extract customer orders from COM, transfer the new master schedule from MPSP, perform purchasing auto-release to PUR and IM, and reschedule schedule orders and schedules with IM.

What reports are printed:

- Order Review Status (AMM611)
- Planning Run Status (AMM381)
- Planning Run Exception Report (AMM321)
- Planning Run Status Report (AMM381)

What forms you need: None.

The basic steps to initiate planning runs follow each display.

This menu option is enabled for Automated Job Submission. See Appendix E.

Note: If EPDM is activated, and the warehouse you select is defined for EPDM, the system uses the EPDM Item Revision file data base instead of the PDM data base.

AMM300—Initiate Planning Run

Use this display to initiate a planning run. The following are considerations for interfacing applications:

- If MPSP is installed and interfacing, you can transfer master schedules from MPSP to MRP.
- If COM is installed and interfacing, you can extract customer orders for informational and planning purposes.
- If EC is installed, expected customer orders that are selected for planning are netted against the actual customer orders and the remaining quantities also are included.
- If ISL is installed, released intersite orders against a supplying warehouse are included, as they are COM orders against this warehouse.
- If PUR and IM are installed and interfacing, you can initiate the purchase auto-release function upon the planning run completion
- If IM is installed and interfacing, you can automatically reschedule orders and schedules.

For the **From** and **To** ranges on this display, the value you type in the **To** field must be greater than or equal to the value you type in the **From** field when both fields are used. The range begins with and includes the value you type in the **From** field; it ends with and includes the value you type in the **To** field.

If you type a value in the **From** field only, the system ends the range with the highest value for that field. If you type a value in the **To** field only, the system begins the range with the lowest value for that field. If you want to select records by a single value instead of a range, use that value in both the **From** and **To** fields.

```

AMM300                               Initiate Planning Run

Planning warehouse limits
  From warehouse . . . . . aA3
  To warehouse . . . . . aA3

Extract independent demand . . . . . A 0=No, 1=Yes
(COM is NOT interfacing)
Transfer new master scheduled
orders from MPSP . . . . . A 0=No, 1=Yes
(MPSP is NOT interfacing)
Perform purchasing auto release . . . . . A 0=No, 1=Yes
(Purchasing and IM are NOT interfacing)
Automatic reschedule options
  Reschedule purchase orders . . . . . A 0=No, 1=Yes
  Reschedule manufacturing orders . . . . . A 0=No, 1=Yes
  Reschedule production schedules . . . . . A 0=No, 1=Yes
(IM is NOT interfacing)
Planning run type . . . . . A
1=Full planning run - Generation
2=Full planning run - Net change
3=MLI planning run - Generation
4=MLI planning run - Net change

F24=Cancel

```

What to do

- Select a range of planning warehouses you would like to submit planning runs for.

- Type **0** in the **Extract Independent Demand** field if you do not want to extract customer orders. Type **1** to extract customer orders from the customer order data base.
- Type **0** in that field if you do not want to transfer the master schedule. Type **1** to transfer the new master schedule from MPSP to MRP.
- Type **0** in that field if you do not want to perform purchasing auto-release. Type **1** to automatically release purchase orders items at the end of the planning run.
- Type **0** in that field if you do not want automatic reschedule for either purchase or manufacturing orders. Type **1** to allow automatic reschedule for either purchase or manufacturing orders. By selecting automatic reschedule, the planning run will execute its exceptions in real time, plan through all levels, and make changes to the due dates of firm planned orders and scheduled receipts. This option is only valid if the interface to IM is active.
- Type the number **1, 2, 3, or 4** in that field that corresponds to the type of planning run that you want to run. When you complete these tasks, press **Enter**. Go to display AMM303.
- To cancel this session, use **F24**. Go to menu AMMM20.

Function keys

F24=Cancel ends processing and any data you typed in is ignored. The Planning Run Options menu (AMMM20) appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Planning warehouse limits.

From warehouse/To warehouse [?]. The range of warehouses you want to submit planning runs for.

Extract independent demand. Type **1** to extract customer orders, including released intersite orders, and expected customer orders from the respective data bases for informational and planning purposes. Type **0** if you do not want to extract those at this time.

If COM is not interfacing, a message appears and you cannot type in this field.

If EC is installed, expected customer orders are netted against the actual customer orders and the remaining quantities also are included.

Transfer new master scheduled orders from MPSP. Type **1** to transfer the new master schedule (planned and firm planned orders) from MPSP to MRP.

If MPSP is not interfacing, a message appears and you cannot type in this field.

Perform purchasing auto release. Type **1** to automatically release purchase order items at the end of the planning run. Type **0** if you do not want to perform purchasing auto release.

If Purchasing and/or Inventory Management are not interfacing, a message appears.

Reschedule purchase orders. Type **1** to automatically reschedule purchase order items. Type **0** if you do not want to reschedule purchase orders.

If Inventory Management is not interfacing, a message appears and you cannot type in this field.

Reschedule manufacturing orders. Type **1** to automatically reschedule manufacturing orders. Type **0** if you do not want to reschedule manufacturing orders.

If Inventory Management is not interfacing, a message appears and you cannot type in this field.

Reschedule production schedules. Type **1** to automatically reschedule production schedules. Type **0** if you do not want to reschedule production schedules.

If Repetitive Production Management is not interfacing, a message appears and you cannot type in this field.

Planning run type. Type the number that corresponds to the type of planning run that you want to run:

- 1** Full planning run—Generation. Allows you to perform a planning run covering all items planned by MRP. Planned orders are replanned (except for firm planned orders) and dependent requirements are regenerated.
- 2** Full planning run—Net change. Allows you to perform a planning run covering all items planned by MRP; however, the planning run starts with only those items that have had activity since the last planning run.

If you maintain horizon values (other than release and review days) this option is not available because all items have become active.
- 3** MLI planning run—Generation. Allows you to perform a planning run covering only the bill of material levels you requested during planning run execution options.
- 4** MLI planning run—Net change. Allows you to perform a planning run covering only the bill of material levels for master level items, as described in MLI planning run — Generation. Planned orders are replanned and requirements regenerated, as described in Full planning run — Net change.

Note: If you maintain horizon values (other than release days) this option is not available because all items have become active.

AMM303—Initiate Planning Run

This display appears when you press **Enter** on display AMM300.

```
AMM303                               Initiate Planning Run

YOU CAN SELECT A SPECIFIC DATE AND TIME
TO START THE PLANNING RUN.

TO START THE PLANNING RUN NOW,
PRESS ENTER.

TO START THE PLANNING RUN LATER,
ENTER A DATE AND TIME:

      DATE  nn / nn / nn
      TIME  nn : nn

F19=Return to Select   F24=Cancel
```

What to do

Type in the date and time you want to start the planning run.

Function keys

F18=Refresh restores the display to its status before you made any changes.

F19=Return to Select returns you to the Initiate Planning Run display (AMM300).

F24=Cancel ends processing and any data you typed is ignored. You are returned to the AMMM20 menu.

Fields

Date. Type the date you want to start the planning run.

Time. Type the time you want to start the planning run.

Chapter 5. Planning and Financial Reports

When you select option 3 on the Main Menu (AMMM00), the “Planning and Financial Reports menu (AMMM30)”, appears. From this menu you can request a variety of reports, in addition to the reports that are printed automatically during a planning run. (You control which reports are printed during a planning run by your responses to the Planning Run Report Options.) Reports selected from this menu can be printed at any time, and reflect the results of the last planning run.

Planning and Financial Reports menu (AMMM30).....	5-2
Option 1. Requirements Planning (AMMM30).....	5-4
Option 2. MLI Requirements VS Forecast/Customer Orders (AMMM30)	5-7
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Planning and Financial Reports menu (AMMM30)

```
AMMM30                      Material Requirements Planning          *****
                          Planning and Financial Reports

Type option or command; press Enter.

  1. Requirements Planning
  2. MLI Requirements VS Forecast/Customer Orders
  3. Purchasing Planning
  4. Order/Schedule Recommendation - Exception Sequence
  5. Order/Schedule Recommendation - Item Sequence
  6. Cash Flow Reports >>
  7. Warehouse Relationships
  8. Reschedule Activity
  9. Purchase Order Revisions
 10. Source of Demand

==> _____

F3=Exit      F4=Prompt   F9=Retrieve   F10=Actions
F11=Job status F12=Return   F22=Messages
```

Option 20.Requirements Planning. Use this option to request printing of the Requirements Planning Report (AMM3A1). When you select this option, a report selection display appears so that you can specify planning warehouse and planner limits, and other options concerning the format of the report. For each planning warehouse that exists in the range you specify, a separate batch job is submitted to the job queue.

Option 21.MLI Requirements VS Forecast/Customer Orders. Use this option to request printing of the MLI Versus Forecast/Orders report (AMM221). When you select this option, a report selection display appears so that you can specify planning warehouse and planner limits for the report. For each planning warehouse that exists in the range you specify, a separate batch job is submitted to the job queue.

Option 22.Purchase Planning. Use this option to request printing of the Purchase Planning Report (AMM3B1). Printing of this report consolidates all items for each vendor, giving totals and converting to purchasing unit of measure, if required. When you select this option, a report selection display appears so that you can specify planning warehouse limits for the report. For each planning warehouse that exists in the range you specify, a separate batch job is submitted to the job queue.

Option 23.Order/Schedule Recommendation — Exception Sequence. Use this option to request printing of the Order/Schedule Recommendation by Exception report (AMM3C1). This report lists all planning exceptions for each planner sequenced by exception type. When you select this option, a report selection display appears so that you can specify planning warehouse limits for the report. For each planning warehouse that exists in the range you specify, a separate batch job is submitted to the job queue.

Option 24. Order/Schedule Recommendation — Item Sequence. Use this option to request printing of the Order/Schedule Recommendation by Item report (AMM3C1). This report lists all planning exceptions for each planner sequenced by vendor number, then item number. Thus, all exceptions for a single item appear together. When you select this option, a report selection display appears so that you can specify planning warehouse limits for the report. For each planning warehouse that exists in the range you specify, a separate batch job is submitted to the job queue.

Option 25. Cash Flow Reports. Use this option to go to a secondary menu, Cash Flow Reports (AMMM36), from which you can select various cash flow reports and maintain the cash flow report statistics. This menu is shown on page 5-19.

Option 26. Warehouse Relationships. Use this option to request printing of the Warehouse Relationships Report (AMM3K1). When you select this option, a report selection display appears so that you can specify planning warehouse limits and other options concerning the format of the report. Only one job is scheduled in the job queue for this menu option, and all of the warehouses that fall in the range you specified are printed on the same report.

Option 27. Reschedule Activity. Use this option to request printing of the Reschedule Activity Report (AMM3M1). When you select this option, a report selection display appears so that you can specify planning warehouse limits and other options concerning the format of the report. Only one job is scheduled in the job queue for this menu option, and all of the information that falls in the range you specified is printed on the same report.

Option 28. Purchase Order Revisions. Use this option to request printing of the Purchase Order Revisions Report (AMV7A1). When you select this option, a report selection display appears so that you can specify vendor and date limits and other options concerning the format of the report. Only one job is scheduled in the job queue for this menu option, and all of the information that falls in the range you specified is printed on the same report.

Option 29. Source of Demand. Use this option to request printing of the Source of Demand for Scheduled Receipts report (AMM3N1). When you select this option, a report selection display appears so that you can specify planning warehouse limits and other options concerning the format of the report. Only one job is scheduled in the job queue for this menu option, and all of the information that falls in the range you specified is printed on the same report.

Option 1. Requirements Planning (AMMM30)

Use this option to print the Requirements Planning Report for the warehouses you selected. This report is described in “Requirements Planning Report or Master Items Planning Report (AMM3A1)”.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouses you select.

What information you need: The range of planner numbers and planning warehouses for which you want requirements to be printed (optional).

What reports are printed: Requirements Planning Report (AMM3A1).

What forms you need: None.

The basic steps to request the report are listed below the display.

AMM3F0—Requirements Planning Report Options

Use this display to request that a planning report is printed, and to specify which items you want included along with the format of the detail information on the report.

This display allows you to choose which planning warehouse you would like to report against. You may select a single planning warehouse or a range of planning warehouses. For each planning warehouse which falls in the range selected, a separate report is scheduled in the batch system. You may also select what type of items should be printed (all items, or MLI items), what categories of items to include (all items, items with exceptions, or items planned on the last generation), what date intervals to use (plan 1 is interval 1, plan 2 is interval 2, plan 3 is interval 3, item designated uses the period interval code for each item, full detail prints full detail for each item), and a range of planner limits you would like to print.

Note: If MPSP is installed and interfacing, planning data for master scheduled items may be incomplete because MPSP, not MRP, plans these items.

For the From and To ranges on this display, the value you type in the **To** field must be greater than or equal to the value you type in the **From** field when both fields are used. The range begins with and includes the value you type in the **From** field; it ends with and includes the value you type in the **To** field.

If you type a value in the **From** field only, the system ends the range with the highest value for that field. If you type a value in the **To** field only, the system begins the range with the lowest value for that field. If you want to select records by a single value instead of a range, use that value in both the **From** and **To** fields.

```
AMM3F0                Requirements Planning Report Options

Planning warehouse limits
  From warehouse . . . . . ATL
  To warehouse . . . . . ATL

Planner limits
  From planner . . . . . 0
  To planner . . . . . 99999

Items selected . . . . . 1  1=All items
                             2=Master level items only

Include all items . . . . . 1  0=No
                             1=Yes

Date interval . . . . . 4  1=Plan 1
                             2=Plan 2
                             3=Plan 3
                             4=Item designated
                             5=Full detail

F24=Cancel
```

What to do

- To print the report, type the information requested and press **Enter**. The system schedules the report for printing. Go to menu AMMM30.
- To cancel the session, use **F24**. Go to menu AMMM30. Select another option, or return to the Main Menu (AMMM00).

Function keys

F24=Cancel ends processing and any data you typed is ignored. No report is scheduled for printing. The Planning and Financial Reports menu (AMMM30) appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Planning warehouse limits.

From warehouse/To warehouse [?]. The range of warehouses to print on the report.

Planner limits.

From planner/To planner [?]. The range of planners you want to show on the report.

Items selected. Type the number that corresponds to the report you want.

- 1 All items. Causes the Requirements Planning Report (AMM3A1) to print.
- 2 Master level items only. Causes the Master Items Planning Report (AMM3A1) to print for master level items only.

Include all items. Type one of the following:

- 0 No. Causes the Specify Items to Include window to appear so you can select one of these options:
 - 1 With detail
 - 2 With any exception
 - 3 With an order exception of expedite, reschedule, or defer
 - 4 Planned on last generation
- 1 Yes. Causes the report to be printed for all items controlled by MRP (determined by the item's order policy code in the Item Plan file).

Date interval. (Date Interval is a synonym for Period Interval.) Type in the number that corresponds to the method to be used in presenting the requirements for each item included in the report.

Plan 1, 2, or 3

Causes each item on the report to be printed with its requirements summarized according to the differing period intervals you set up using the Maintain Period Intervals display (AMM120). See "Combining requirements" and "Option 2. Maintain Period Intervals (AMMM20)".

- 4 Item designated. Causes the amount of detail contained in the report to be dependent upon the Period Interval Code (0—3) contained in each item's Item Plan record. A Period Interval code of 0, which causes full detail to be printed, is assumed by the application if no entry exists in the Item Plan Period Interval Code.
- 5 Full detail. Causes all requirements for all of the items to be included on the report, regardless of the Period Interval Code in the Item Plan record.

Option 2. MLI Requirements VS Forecast/Customer Orders (AMMM30)

Use this option to schedule the MLI Versus Forecast/Orders report (AMM221) to print. This report is described in detail in "MLI Versus Forecast/Orders (AMM221)".

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouses you select.

What information you need: The range of planning warehouses and planner numbers for which you want requirements to be printed.

What reports are printed: MLI Versus Forecast/Orders (AMM221).

What forms you need: None.

The basic steps to request the report follow the display.

AMV3H3—MLI Requirements VS Forecast/Customer Orders

Use this display to choose which planning warehouses you would like to report against. You can select a single planning warehouse or a range of planning warehouses. For each planning warehouse that falls in the range selected, a separate report is scheduled in the batch system. You may also select a range of planner limits to print.

Note: You must be authorized to the proper level of security in the warehouses you select.

For the From and To ranges on this display, the value you type in the **To** field must be greater than or equal to the value you type in the **From** field when both fields are used. The range begins with and includes the value you type in the **From** field; it ends with and includes the value you type in the **To** field.

If you type a value in the **From** field only, the system ends the range with the highest value for that field. If you type a value in the **To** field only, the system begins the range with the lowest value for that field. If you want to select records by a single value instead of a range, use that value in both the **From** and **To** fields.

```
AMV3H3          MLI Requirements VS Forecast/Customer Orders

Planning warehouse limits
  From warehouse . . . . . aA3
  To warehouse  . . . . . aA3

Planner limits
  From planner  . . . . . nnnnn
  To planner   . . . . . nnnnn

F24=Cancel
```

What to do

- To print the report, type the information requested and press **Enter**. The system schedules the report for printing. Go to menu AMMM30.
- To cancel the session, use **F24**. Go to menu AMMM30. Select another option, or return to the Main Menu (AMMM00).

Function keys

F24=Cancel ends processing and any data you typed is ignored. The Planning and Financial Reports menu (AMMM30) appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Planning warehouse limits.

From warehouse/To warehouse [?]. The range of warehouses to print on the report.

Planner limits.

From planner/To planner [?]. The range of planners you want to show on the report.

Option 3. Purchase Planning (AMMM30)

Use this option to schedule the Purchase Planning Report (AMM3B1) to print. This report is described in "Purchase Planning Report (AMM3B1)".

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouses you select.

What information you need: None.

What reports are printed: Purchase Planning Report (AMM3B1).

What forms you need: None.

The basic steps to request the report follow the display.

AMV3H0—Purchase Planning Report Options

Use this display to choose which planning warehouse you would like to report against. You may select a single planning warehouse, or a range of planning warehouses. For each planning warehouse which falls in the range selected, a separate report is scheduled in the batch system.

Note: You must be authorized to the proper level of security in the warehouses you select.

This display appears when you select option 3, Purchase Planning, on the Planning and Financial Reports menu (AMMM30).

For the From and To ranges on this display, the value you type in the **To** field must be greater than or equal to the value you type in the **From** field when both fields are used. The range begins with and includes the value you type in the **From** field; it ends with and includes the value you type in the **To** field.

If you type a value in the **From** field only, the system ends the range with the highest value for that field. If you type a value in the **To** field only, the system begins the range with the lowest value for that field. If you want to select records by a single value instead of a range, use that value in both the **From** and **To** fields.

```
AMV3H0                Purchase Planning Report Options

Planning warehouse limits
  From warehouse . . . . . aA3
  To warehouse . . . . . aA3

Planner limits
  From planner . . . . . 0
  To planner . . . . . 99999

F1=Help    F5=Refresh    F24=Cancel
```

What to do

Select a range of planning warehouses that you want to print the selected report for. Go to menu AMMM30. Select another option, or return to the Main Menu (AMMM00).

Function keys

F24=Cancel ends processing and any data you typed is ignored. The Planning and Financial Reports menu (AMMM30) appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Planning warehouse limits.

From warehouse/To warehouse [?]. The range of warehouses to print on the report.

Planner limits.

From planner/To planner [?]. The range of planners you want to show on the report.

Option 4. Order/Schedule Recommendation—Exception Sequence (AMMM30)

Use this option to schedule the Order/Schedule Recommendation by Exception report (AMM3C1) to print. This report is described in "Order/Schedule Recommendation (AMM3C1)".

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouses you select.

What information you need: None.

What reports are printed: Order/Schedule Recommendation by Exception report (AMM3C1).

What forms you need: None.

The basic steps to request the report follow the display.

AMV3H1—Order/Schedule Recommendation—Exception Sequence Report Options

Use this display to choose which planning warehouses you would like to report against. You can select a single planning warehouse or a range of planning warehouses. For each planning warehouse that falls in the range selected, a separate report is scheduled in the batch system. This display appears when you select option 4, Order/Schedule Recommendation—Exception Sequence, on the Planning and Financial Reports menu (AMMM30).

Note: You must be authorized to the proper level of security in the warehouses you select.

For the **From** and **To** ranges on this display, the value you type in the **To** field must be greater than or equal to the value you type in the **From** field when both fields are used. The range begins with and includes the value you type in the **From** field; it ends with and includes the value you type in the **To** field.

If you type a value in the **From** field only, the system ends the range with the highest value for that field. If you type a value in the **To** field only, the system begins the range with the lowest value for that field. If you want to select records by a single value instead of a range, use that value in both the **From** and **To** fields.

```
AMV3H1                      Order/Schedule Recommendation -  
                             Exception Sequence Report Options  
  
Planning warehouse limits  
From warehouse . . . . . aA3  
To warehouse . . . . . aA3  
  
Planner limits  
From planner . . . . . 0  
To planner . . . . . 99999  
  
F1=Help      F5=Refresh      F24=Cancel
```

What to do

Select a range of planning warehouses that you want to print the selected report for. Go to menu AMMM30. Select another option, or return to the Main Menu (AMMM00).

Function keys

F24=Cancel ends processing and any data you typed is ignored. The Planning and Financial Reports menu (AMMM30) appears again.

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Fields

See “AMM3F0—Requirements Planning Report Options” for a description of the fields on this display.

Option 5. Order/Schedule Recommendation—Item Sequence (AMMM30)

Use this option to schedule the Order/Schedule Recommendation by Item report (AMM3C1) to print. This report is described in “Auto Release Error List (AMM651)”

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouses you select.

What information you need: None.

What reports are printed: Order/Schedule Recommendation by Item report (AMM3C1).

What forms you need: None.

The basic steps to request the report follow the display.

AMV3H2—Order/Schedule Recommendation—Item Sequence Report Options

Use this display to choose which planning warehouses you would like to report against. You can select a single planning warehouse or a range of planning warehouses. For each planning warehouse that falls in the range selected, a separate report is scheduled in the batch system.

This display appears when you select option 5, Order/Schedule Recommendation—Item Sequence, on the Planning and Financial Reports menu (AMMM30).

Note: You must be authorized to the proper level of security in the warehouses you select.

For the **From** and **To** ranges on this display, the value you type in the **To** field must be greater than or equal to the value you type in the **From** field when both fields are used. The range begins with and includes the value you type in the **From** field; it ends with and includes the value you type in the **To** field.

If you type a value in the **From** field only, the system ends the range with the highest value for that field. If you type a value in the **To** field only, the system begins the range with the lowest value for that field. If you want to select records by a single value instead of a range, use that value in both the **From** and **To** fields.

```
AMV3H2                      Order/Schedule Recommendation -  
                             Item Sequence Report Options  
  
Planning warehouse limits  
  From warehouse . . . . . aA3  
  To warehouse . . . . . aA3  
  
Planner limits  
  From planner . . . . . 0  
  To planner . . . . . 99999  
  
  
F1=Help      F5=Refresh      F24=Cancel
```

What to do

Select a range of planning warehouses that you want to print the selected report for. Go to menu AMMM30. Select another option, or return to the Main Menu (AMMM00).

Function keys

F24=Cancel ends processing and any data you typed is ignored. The Planning and Financial Reports menu (AMMM30) appears again.

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Fields

See “AMV3H0—Purchase Planning Report Options” for a description of the fields on this display.

Option 6. Cash Flow Reports (AMMM30)

When you select option 6 on the Planning and Financial Reports menu (AMMM30), the secondary menu, Cash Flow Reports (AMMM36), appears. From this menu, you can do the following:

- (Options 1-6) Print any one of six versions of the Manufacturing Cash Flow Analysis report (AMM3D1). This report is described in "Auto Release Error List (AMM651)" on page 8-3.
- (Option 7) Maintain cash flow for each planning warehouse.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouses you select.

What information you need: Range of planning warehouses.

What reports are printed: Manufacturing Cash Flow Analysis report (AMM3D1).

What forms you need: None.

```
AMMM36                      Material Requirements Planning          *****
                             Cash Flow Reports

Type option or command; press Enter.

  1. Cash Flow - Planned, Current
  2. Cash Flow - Planned, Standard
  3. Cash Flow - Open, Current
  4. Cash Flow - Open, Standard
  5. Cash Flow - Both, Current
  6. Cash Flow - Both, Standard
  7. Cash Flow Report Options

==>

F3=Exit      F4=Prompt   F9=Retrieve  F10=Actions
F11=Job status F12=Return  F22=Messages
```

Option 1. Cash Flow—Planned, Current. Use this option to calculate values for planned and firm planned orders; apply current costs.

Option 2. Cash Flow—Planned, Standard. Use this option to calculate values for planned and firm planned orders; apply standard costs.

Option 3. Cash Flow—Open, Current. Use this option to calculate values for open (released) orders; apply current costs.

Option 4. Cash Flow—Open, Standard. Use this option to calculate values for open (released) orders; apply standard costs.

Option 5. Cash Flow—Both, Current. Use this option to calculate values for all types of orders; apply current costs.

Option 6. Cash Flow—Both, Standard. Use this option to calculate values for all types of orders; apply standard costs.

Option 7. Cash Flow Report Options. Use this option to maintain or view tailorable aspects of the cash flow reports.

Options 1-6. Cash Flow Reports (AMMM36)

Use this option to print any one of six versions of the Manufacturing Cash Flow Analysis report (AMM3D1) by using displays AMV3H4 through AMV3H9:

- Planned and firm planned orders using current costs (AMV3H4)
- Planned and firm planned orders using standard costs (AMV3H5)
- Open orders (scheduled receipts) using current costs (AMV3H6)
- Open orders (scheduled receipts) using standard costs (AMV3H7)
- Planned, firm planned, and open orders using current costs (AMV3H8)
- Planned, firm planned, and open orders using standard costs (AMV3H9).

Note: To perform tasks in these menu options, you must be authorized to the proper level of security in the warehouses you select.

Selecting any one of options 1 through 6 causes a one-page summary report to print. You select the order type (planned and firm planned, scheduled receipts, or both) and the cost values (current or standard), by selecting an option on the menu. No data entry is required.

All versions of the report compare projected expenditures to projected income. Absence of item balance records could result in incorrect projected totals in the Cash Flow Reports. Use "Auto Release Error List (AMM651)" for a complete listing of missing item balance records.

The cost values used on this report are maintained by the Product Data Management application.

This report is explained in "Manufacturing Cash Flow Analysis (AMM3D1)".

The basic steps to request the report follow each display.

AMV3H4-AMV3H9—Cash Flow

Use these displays to choose which planning warehouses you would to report against.

Note: You must be authorized to the proper level of security in the warehouses you select.

For the **From** and **To** ranges on this display, the value you type in the **To** field must be greater than or equal to the value you type in the **From** field when both fields are used. The range begins with and includes the value you type in the **From** field; it ends with and includes the value you type in the **To** field.

If you type a value in the **From** field only, the system ends the range with the highest value for that field. If you type a value in the **To** field only, the system begins the range with the lowest value for that field. If you want to select records by a single value instead of a range, use that value in both the **From** and **To** fields.

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Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Planning warehouse limits.

From warehouse/To warehouse [?]. The range of warehouses you want to print on the report.

Option 7. Cash Flow Report Options (AMMM36)

Use this option to maintain cash flow report options for the warehouses you selected.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouse you select.

What information you need: The planning warehouse number.

What reports are printed. None.

What forms you need: None.

The basic steps to request the report follow each display.

AMV365—Cash Flow Report Options

Use this display to select the planning warehouse for which you want to maintain the cash flow report options. Cash flow report options can be different for each planning warehouse.

Note: You must be authorized to the proper level of security in the warehouse you select.

```
AMM165                               Cash Flow Report Options

Select a planning warehouse
Planning warehouse . . . . . aA3

F24=Cancel
```

What to do

- To maintain the cash flow report options, type the information requested and press **Enter**. Go to display AMM190.
- To cancel the session, use **F24**. Go to menu AMMM36.

Function keys

F24=Cancel ends processing and any data you typed in is ignored. The Cash Flow Reports menu (AMMM36) appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Select a planning warehouse.

Planning warehouse [?]. Type the planning warehouse. You can specify cash flow report options uniquely for each planning warehouse.

AMM190—Cash Flow Report Options

Use this display to maintain the cash flow report options for a specific planning warehouse.

```
AMM190                               Cash Flow Report Options
Planning warehouse . . . . . : *** *****

Enter percentage of sales recovered
In current month . . . . . nnn
In 30 days . . . . . nnn
In 60 days . . . . . nnn

To how many months should the remaining cash flow
report percentage be applied . . . . . nn

F24=Cancel
```

What to do

- Type the information requested and press **Enter**. The cash flow options that you specified are saved and display AMV365 appears.
- To cancel the session, use **F24**. Go to menu AMMM36.

Function keys

F24=Cancel ends processing and any data you typed in is ignored. The Cash Flow Report Options display (AMV365) appears again.

Fields

Planning warehouse. The number and description of the planning warehouse you selected on display AMV365.

Enter percentage of sales recovered.

In current month. The percentage of planned requirements you expect to receive payment for within 30 days. Type a value 0 through 100.

In 30 days. The percentage of planned requirements you expect to receive payment for between 30 and 60 days. Type a value 0 through 100; however, your answers to “In current month” and “In 30 days” cannot total more than 100.

In 60 days. The percentage of planned requirements you expect to receive payment for between 60 and 90 days. Type a value 0 through 100; however, “In current month,” “In 30 days,” and “In 60 days” cannot total more than 100.

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If "In current month" plus "In 30 days" plus "In 60 days" is less than 100, go to the next field on this display, (To how many months should the remaining cash flow report percentage be applied.)

If "In current month" plus "In 30 days" plus "In 60 days" is greater than 100, the following message appears, "TOTAL PERCENTAGE OF SALES FOR CASH FLOW REPORT IS GREATER THAN 100 RE-ENTER THE THREE PERCENTAGES." This message appears only if you made a mistake in entering the percentages.

To how many months should the remaining cash flow report percentage be applied. If "In current month," "In 30 days," and "In 60 days" do not account for 100 percent of the planned requirements, type the number of months within which you expect to receive payment. Type a value 1 through 12.

Option 7. Warehouse Relationships (AMMM30)

Use this option to schedule the Warehouse Relationships report (AMM3K1) to print. The warehouse relationships report shows you what type of planning relationships exist in your data base. It is explained in "Auto Release Error List (AMM651)".

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouses you select.

What information you need:

The range of warehouse selection criteria and warehouse relationships selection criteria (demand warehouse, include relation types, item, and planning warehouse).

What reports are printed: Warehouse Relationships report (AMM3K1).

What forms you need: None.

The basic steps to request the report follow the display.

AMM3J0—Warehouse Relationships Report Options

Use this display to show which warehouses are associated with a planning warehouse, and what item overrides exist for the warehouses associated with the planning warehouse. Also, you can select the type of information to print on the report. From this display, you can request to print:

- Only the demand warehouses for a given planning warehouse (or range)
- Only the item override information for a given planning warehouse (or range)
- Both types of information on the same report.

This display allows you to choose various subsetting criteria about the warehouse relationships report. The subsetting information here is the same as the subsetting capability on the interactive warehouse relationships inquiry display.

Note: You must be authorized to the proper level of security in the warehouses you select.

For the **From** and **To** ranges on this display, the value you type in the **To** field must be greater than or equal to the value you type in the **From** field when both fields are used. The range begins with and includes the value you type in the **From** field; it ends with and includes the value you type in the **To** field.

If you type a value in the **From** field only, the system ends the range with the highest value for that field. If you type a value in the **To** field only, the system begins the range with the lowest value for that field. If you want to select records by a single value instead of a range, use that value in both the **From** and **To** fields.

```

AMM3J0                Warehouse Relationships Report Options

Warehouse selection criteria
From warehouse . . . . . aA3
To warehouse . . . . . aA3
Planning warehouse code . . . . . aaA4

Warehouse relationships selection criteria
Demand warehouse . . . . . aaA4
Include relation types
  1 *DEF . . . . . A
  2 *ITEM_IN . . . . . A
  3 *ITEM_OUT . . . . . A
Item . . . . . aaaaaaaaaaA15
Planning warehouse . . . . . aaA4

*ALL
0=Demand
1=Planning

*ALL, *generic*, ....
0=No, 1=Yes
0=No, 1=Yes
0=No, 1=Yes
*ALL, *generic*
*ALL, *generic*

F24=Cancel
  
```

What to do

- To print the report, type the information requested and press **Enter**. The system schedules the report for printing. Go to menu AMMM30.
- To cancel the session, use **F24**. Go to menu AMMM30.

Function keys

F24=Cancel ends processing and any data you typed is ignored. The Planning and Financial Reports menu (AMMM30) appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Warehouse Selection Criteria.

From warehouse/To warehouse [?]. Type a range of planning warehouses for which to submit a report.

Planning Warehouse Code [?]. Type a code (*ALL, 0 for Demand, and 1 for Planning) to represent the type of warehouse you want to include in the range of warehouses. For example, type 1 to have the report include only planning warehouses in the range.

Warehouse relationships selection criteria. For each warehouse you are reporting against (selected in warehouse selection criteria), you can select what type of detail records you would like to print.

Demand Warehouse. You can select all demand warehouses, a generic warehouse name, or a specific warehouse name to print as detail on the report. If the value which is going to print on the detail line of the report does not fit the value you typed in this field, the detail line will not print.

Include relation types. You can select what type of relations you would like to print on the detail lines of the report. Type 1 next to the relation types (*DEF, *ITEM_IN, or *ITEM_OUT) you would like to include, or 0 next to the relation types you would like to exclude. If you select only 1 *DEF records to print, for example, you will have a report which shows at the highest level your source of demand (which demand warehouses are associated with a planning warehouse).

1 *DEF

Demand warehouse definition relation specifies that the warehouse in the planning warehouse column of the display is the demand warehouse's primary planning warehouse (as defined in the Warehouse Master file).

2 *ITEM_IN

Item override input relation that adds demand for an item to a planning warehouse that would normally be excluded due to definition relations that have been previously defined. It is a selective override that refines the condition accomplished by a previous definition relation.

3 *ITEM_OUT

Item override output record causes demand for an item to be transferred to a different planning warehouse. It is a selective override that refines the condition accomplished by a previous definition relation.

Item. You can select all items, a generic item name, or a specific item name to be selected to print as detail on the report. If the value that is going to print on the detail line of the report does not fit the value you enter in this field, the detail line does not print.

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Planning Warehouse. You can select all planning warehouses, a generic warehouse name, or a specific warehouse name to print as detail on the report. If the value that is going to print on the detail line of the report does not fit the value you enter in this field, the detail line does not print.

Option 8. Reschedule Activity (AMMM30)

Use this option to schedule the Reschedule Activity Report (AMM3M1) to print. The report will show you what type of reschedule activity has occurred since the last planning run. It is explained in "Auto Release Error List (AMM651)".

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouses you select.

What information you need: The range of warehouse and planner selection criteria.

What reports are printed. Reschedule Activity Report (AMM3M1).

What forms you need: None.

The basic steps to request the report follow the display.

AMV3HD—Reschedule Activity Report

Use this display to choose which planning warehouses you would like to report against. You may select a single planning warehouse, or a range of planning warehouses. For each planning warehouse which falls in the range selected, a separate report is scheduled in the batch system. You may also select a range of planner limits you want to print.

Note: You must be authorized to the proper level of security in the warehouses you select.

For the **From** and **To** ranges on this display, the value you type in the **To** field must be greater than or equal to the value you type in the **From** field when both fields are used. The range begins with and includes the value you type in the **From** field; it ends with and includes the value you type in the **To** field.

If you type a value in the **From** field only, the system ends the range with the highest value for that field. If you type a value in the **To** field only, the system begins the range with the lowest value for that field. If you want to select records by a single value instead of a range, use that value in both the **From** and **To** fields.

```
AMV3HD                               Reschedule Activity Report

Planning warehouse limits
From warehouse . . . . . aA3
To warehouse . . . . . aA3

Planner limits
From planner . . . . . nnnnn
To planner. . . . . nnnnn

F24=Cancel
```

What to do

- To print the report, type the information requested and press **Enter**. The system schedules the report for printing. Go to menu AMMM30.
- To cancel the session, use **F24**. Go to menu AMMM30. Select another option, or return to the Main Menu (AMMM00).

Function keys

F24=Cancel ends processing and any data you typed is ignored. The Planning and Financial Reports menu (AMMM30) appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Planning warehouse limits.

From warehouse/To warehouse [?]. The range of warehouses you want to print.

Planner limits.

From planner/To planner [?]. The range of planners you want to show on the report.

Option 9. Purchase Order Revisions (AMMM30)

Use this option to schedule the Purchase Order Revisions report (AMV7A1) to print. The report will show you details of purchase orders automatically rescheduled during an MRP planning run or as part of the automatic rescheduling process in order release. It is explained in "Auto Release Error List (AMM651)".

What information you need: The range of vendor selection criteria, the reschedule date limits you want to use, whether or not to set off the purchase revision flag, and whether or not to include changes from Purchasing.

What reports are printed: Purchase Order Revisions report (AMV7A1).

What forms you need: None.

The basic steps to request the report follow the display.

AMM3GB—Purchase Order Revisions Report Options

Use this display to choose which vendor and which reschedule dates you want to appear on the report.

For the **From** and **To** ranges on this display, the value you type in the **To** field must be greater than or equal to the value you type in the **From** field when both fields are used. The range begins with and includes the value you type in the **From** field; it ends with and includes the value you type in the **To** field.

If you type a value in the **From** field only, the system ends the range with the highest value for that field. If you type a value in the **To** field only, the system begins the range with the lowest value for that field. If you want to select records by a single value instead of a range, use that value in both the **From** and **To** fields.

```
AMM3GB                      Purchase Order Revisions Report Options

Vendor limits
  From vendor . . . . . aaaaA6
  To vendor . . . . . aaaaA6

Reschedule date limits
  From date . . . . . nnnnN6
  To date . . . . . nnnnN6

Set off purchase revision flag . . . n 0=No, 1=Yes

Include changes from Purchasing . . . n 0=No, 1=Yes

F24=Cancel
```

What to do

- To print the report, type the information requested and press **Enter**. The system schedules the report for printing. Go to menu AMMM30.
- To cancel the session, use **F24**. Go to menu AMMM30. Select another option, or return to the Main Menu (AMMM00).

Function keys

F24=Cancel ends processing and any data you typed is ignored. The Planning and Financial Reports menu (AMMM30) appears again.

Fields

Vendor limits.

From vendor/To vendor. Type a range of vendor numbers for which to submit a report.

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Reschedule date limits.

From date/To date. Type a range of dates for which to submit a report.

Set off purchase revision flag. Type **0** if you do not want to set off the purchase revision flag. Type **1** if you do want to set off the purchase revision flag.

Include changes from Purchasing. Type **0** if you do not want to include changes from Purchasing. Type **1** if you do want to include changes from Purchasing.

Option 10. Source of Demand (AMMM30)

Use this option to schedule the Source of Demand for Scheduled Receipts report (AMM3N1) to print. The report will show you details of the sources of demand for existing manufacture and purchase scheduled receipts. It is explained in "Auto Release Error List (AMM651)".

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouses you select.

What information you need: The range of selection criteria for planning warehouse, planner, order number, and item number.

What reports are printed: Source of Demand for Scheduled Receipts (AMM3N1).

What forms you need: None.

The basic steps to request the report follow the display.

AMV3HE—Source of Demand Report

Use this display to choose which planning warehouses you would like to report against. You may select a single planning warehouse, or a range of planning warehouses. For each planning warehouse which falls in the range selected, a separate report is scheduled in the batch system. You may also select a range of planner limits, order number limits, or item number lists you would like to print.

Note: You must be authorized to the proper level of security in the warehouses you select.

For the **From** and **To** ranges on this display, the value you type in the **To** field must be greater than or equal to the value you type in the **From** field when both fields are used. The range begins with and includes the value you type in the **From** field; it ends with and includes the value you type in the **To** field.

If you type a value in the **From** field only, the system ends the range with the highest value for that field. If you type a value in the **To** field only, the system begins the range with the lowest value for that field. If you want to select records by a single value instead of a range, use that value in both the **From** and **To** fields.

```

AMV3HE                               Source of Demand Report

Planning warehouse limits
From warehouse . . . . . aA3
To warehouse . . . . . aA3

Planner limits
From planner . . . . . nnnnn
To planner. . . . . nnnnn

Order number limits
From order number . . . . . aaaaaA7
To order number . . . . . aaaaaA7

Item number limits
From item number . . . . . aaaaaaaaaA15
To item number . . . . . aaaaaaaaaA15

F24=Cancel

```

What to do

To print the report, type the information requested and press **Enter**. The system schedules the report for printing. Go to menu AMMM30. To cancel the session, use **F24**. Go to menu AMMM30. Select another option, or return to the Main Menu (AMMM00).

Function keys

F24 Cancel ends processing and any data you typed is ignored. The Planning and Financial Reports menu (AMMM30) appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Planning warehouse limits.

From warehouse/To warehouse [?]. Type a range of planning warehouses for which to submit a report.

Planner limits.

From planner/To planner [?]. Type a range of planner numbers you want to show on the report.

Order number limits.

From order number/To order number [?]. Type a range of order numbers for which to submit a report.

Item number limits.

From item number/To item number [?]. Type a range of item numbers for which to submit a report.

Chapter 6. Order/Schedule Release and Review

When you select option 4 on the Main Menu, the secondary menu, “Order/Schedule Release and Review (AMMM40)”, appears.

- Options 5 and 6 prevent some other MRP activities from running until order/schedule release processing is completed.
- After order/schedule release has started, you should not cancel it.
- The tasks in Options 5, 6, 7, and 11 also can be executed in batch jobs outside this menu. See Appendix E.

Note: Order-Based Production Management provides a client alternative to reviewing and releasing MRP orders and scheduled receipts.

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Order/Schedule Release and Review (AMMM40)

```

AMMM40                      Material Requirements Planning          *****
                          Order/Schedule Release and Review

Type option or command; press Enter.

    1. Review/Approve Master Level Items
    2. Review/Approve All Items
    3. Check Item Availability Prior to Release
    4. Item Requirements Inquiry
    5. Release Orders
    6. Release Orders with Shop Packet
    7. Auto-Release Purchase Orders
    8. Enter and Maintain Schedules
    9. Source of Demand
   10. Purchase Planning Profile
   11. Create Purchase Planning Schedules
   12. Print and Purge Planning Schedules

==> _____

F3=Exit      F4=Prompt   F9=Retrieve   F10=Actions
F11=Job status  F12=Return  F22=Messages

```

Option 8. Review/Approve Master Level Items. Use this option to review orders for master level items only, to approve orders for release, and to record decisions on expedite, defer, or cancel exceptions on released orders.

Option 9. Review/Approve All Items. Use this option to review orders for all items, to approve them for release, and to record decisions on expedite, defer, and cancel exceptions on released orders.

Option 10. Check Item Availability Prior to Release. Use this option to request shortage reports to analyze manufacturing orders pending release.

You can choose the Order Shortage Report-MRP Availability Check (AMI4W1), the Item Shortage Report-MRP Availability Check (AMI4Q1), or both. The Order Shortage Report gives a component listing for orders with shortages, identifying the short components. The Item Shortage Report lists all items required for orders being released, with the quantity required for each order, and a running available balance for each item.

You can include in the analysis the following types of orders:

- All orders due for release up to the order review date (or an earlier date you supply)
- All orders recommended for release in the planning run
- Only orders approved for release using menu options 1 or 2 above.

Option 11. Item Requirements Inquiry. Use this option to inquire about the requirements plan for items. The displays for this option are discussed in “Option 1. Maintain Forecast (AMMM10)” on page 3-3.

Option 12. Release Orders. Use this option to perform the order/schedule release run, which:

- Releases all orders approved for release in options 1 and 2
- Changes planned orders to scheduled receipts

- Changes component requirements to allocations
- Removes the component pending allocations.

When you select this option, the Order Action Detail report (AMM631) is printed, listing any expedite, defer, or cancellation recorded against released orders, as well as purchase orders released.

This option calls the standard Inventory Management order release procedure, called by option 2 on the Order/Schedule Release and Closeout—Purchase/Manufacture menu (AMIM40), in Inventory Management. Therefore, order shortage or item shortage reports are printed if requested during application tailoring of Inventory Management. However, shop packets are not created. See the discussion in option 6.

Option 13. Release Orders with Shop Packets. Use this option to perform an order/schedule release run in a manner similar to option 5. In addition, shop packets are created for released manufacturing orders, according to the options chosen during application tailoring for Inventory Management and Production Control and Costing, if installed and interfacing.

Option 14. Auto-Release Purchase Orders. Use this option to release all planned and firm planned orders for purchased items for which MRP generated an exception message of RELEASE or EXPEDITE.

Option 15. Enter and Maintain Schedules. Use this option to enter and maintain schedules. This option performs the same operation as option 4 on Repetitive Production Management's Schedule Management menu (AMQM40).

Option 16. Source of Demand. Use this inquiry option to review all sources of demand. Source of demand can be selected by order, item, or warehouse, or by any combination of order, item, and warehouse.

Option 17. Purchase Planning Profile. Use this option to create and maintain purchase planning profiles used for creating planning or delivery schedules. The profiles allow you to specify important information about planning schedules: what the schedules contain and how they are organized, how frequently they are created and sent to suppliers, whether they need buyer review before sending, and information about resource authorization and forecast types.

Option 18. Create Purchase Planning Schedules. Use this option to extract information from the MRP planned orders and create the Purchase Planning Schedule (AMM84RP). You can print schedules for mailing, fax them if Telex/Fax/400 is installed and interfacing, or send them to trading partners via EDI as 830/DELFOR planning or delivery schedule transactions using the Electronic Commerce (EC) application. This option allows you extract by planning warehouse all planned (including firm) orders for requisitions or purchase orders.

Option 19. Print and Purge Planning Schedules. Use this option to selectively print purchase planning schedules. Optionally, you can also purge all schedules older than a specified date.

Options 1 and 2. Review/Approve Master Level Items/All Items (AMMM40)

Use menu options 1 and 2 on menu AMMM40 to review the orders for a planner and take action. These options show you the same displays with one difference:

- Option 1 shows only the orders for master level items.
- Option 2 shows the orders for all items.

The displays are described in alphanumeric order.

There are two ways of inquiring into orders to review or approve them for release:

- You can see them using planner sequencing, which permits you to review the orders in sequence by item number, within vendor number, within planning warehouse, within planner number.
- You can see them explicitly, which means you can ask to review the orders for a specific item indicated by its unique planning warehouse and item number.

You can also bypass items and exceptions:

- You can bypass reviewed items, allowing you to selectively review only those items that have not been reviewed since the last planning run.
- You can bypass certain exceptions by designating the minimum number of days associated with an items' exception message of reschedule, expedite, or defer.

Once you find the item, all orders within the release or review horizon pertaining to it appear. You can perform any of these actions:

- Release the order (R).
- Firm the order (F).
- Change the order (C).
- Cancel the order (X).
- Check availability of needed components (A).
- Check source of demand (D)
- Approve all orders (for a planner) recommended for release.

Set the starting point for review. You can begin the review at any point you specify. Typically you want to start at the beginning of the items for which you are responsible as a planner, or the beginning of a certain category of items. To do so, you need to enter only the planner number and the item type. See "Accessing information" on page 2-6.

If you want to review the items supplied by a specific vendor, enter the vendor, in addition to the two fields previously mentioned. If you are interrupted while reviewing items, and the work station is used for other purposes while you are away, you can restart where you left off by entering the Item number of the item you were reviewing when you were interrupted, along with the other fields described. The application performs a generic search of any data provided in the **Planner number**, **Planning warehouse number**, **Vendor number**, and **Item number** fields, so that exact matches do not need to be entered.

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For example, all items of a certain type begin with the character S in the first position, and you want to review those particular items. Also assume, for simplicity, that all those items are manufactured, so that none of them has a vendor assigned. You could enter the planner number, the appropriate item types, and only the letter S in the **Item number** field. The application retrieves the first item of that type. For another example, let's say that you, as a planner, are responsible for both manufactured and purchased items, and that you want to review the purchased item first. Enter the planner number, the appropriate item type, and the letter **A** in the **Vendor** field. The application retrieves the first item with a vendor number assigned. As you become more experienced with the application, you will find these techniques helpful, and you may find other examples unique to your environment.

What information you need:

- Planner numbers
- Planning warehouses
- Vendor numbers
- Item numbers
- Items to include.

What reports are printed: None.

What forms you need: None.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouses you select.

The basic steps to review and approve Items follow each display.

AMM621—Review/Approve Items—Select a planner’s items

Use this display to establish search parameters and initiate a sequential search of all items that satisfy those parameters (see the discussion following the “Fields” section). This display is used to approve for release all orders for a planner that have been recommended for release in the planning run.

This display appears when you select option 1 or option 2 on menu (AMMM40) or when you select **F1** on one of the Review/Approve Items displays (AMM622, AMM625, AMM629, AMM62A, or AMM62B).

Note: If you selected menu option 1 (Review/Approve Master Level Items), the application shows only master level items. If you selected menu option 2 (Review/Approve All Items), the application shows all items.

Note: You must be authorized to the proper level of security in the warehouses you select.

```
AMM621                                Review/Approve Items

Select a planner's items
Planner number . . . . . nnnnn
Planning warehouse . . . . . aA3

Select starting positions
Vendor number . . . . . aaaaA6
Item number . . . . . aaaaaaaaaaaaA15

Enter selection criteria
Items to include . . . . . A   1=With detail
                               2=With any exception
                               3=With a release exception
                               4=With an order exception of
                               expedite, reschedule or defer
                               5=Items planned on last generation

Bypass reviewed items . . . . . A   0=No, 1=Yes

Select items where order exception
days are greater than . . . . . nnn

F2=Select by item  F17=Planner approval  F18=Exception approval  F24=Exit
```

What to do

- To review or approve orders, type the information requested and press **Enter**. If you typed 1, 2, 3, 4, or 5 in the **Items to include** field, go to display AMM622.
- To see a specific item, use **F2**. Go to display AMM629.
- To exit this session, use **F24**. Go to menu AMMM40.

Function keys

F2=Select by item causes the Review/Approve Items—Select a planner’s items display (AMM629) to appear, allowing access to a specific item by item number alone.

F17=Planner approval causes the Review/Approve Items (Approve a Planner's Items for Release) display (AMM62B) to appear. This display allows you to approve all orders (for a planner) recommended for release, instead of individually releasing each order on the Review/Approve Items—Order/Schedule Status display (AMM622).

Note: F17 is not available in MLI mode.

F18=Exception approval causes the Review/Approve Items display (AMM6A1) to appear so you can approve updates for exception messages of expedite, reschedule, defer, and cancel. Firm planned orders as well as scheduled receipts are updated in ORDREV. Use F18 when rescheduling is active and you have selected not to automatically reschedule certain orders and items.

F24=Exit ends processing and any data you typed in is ignored. The Order/Schedule Release and Review menu (AMMM40) appears again.

Fields

All fields, except *Items to include*, are optional.

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Select a planner's items.

Planner number. Type the number of the planner for the item (or group of items). If no items are found for this planner or the last item for this planner has been shown, the message PLANNER HAS CHANGED appears. When this occurs, the application shows the next planner number in this field so you can continue.

If you press **Enter** without typing in a planner number, the application assumes zero for planner number and shows the first item, if any, for planner zero.

Planning warehouse [?]. Required. Type the planning warehouse for the item you want to review.

Select starting positions.

Vendor number (from Item Balance file) [?]. Type the number of the vendor (or supplier for which you want to review items). If you handle many items supplied by different vendors and want to review all items supplied by one vendor, typing in that vendor number causes the application to begin sequenced review with the first item for that vendor.

If you press **Enter** without typing in a vendor number, the application shows the first item for this planner that does not have a vendor number assigned in the Item Master file. If all items for this planner have vendor numbers assigned, the application shows the first item for the first vendor.

Item number [?]. Type the number of the first item that you want to review.

If you press **Enter** without typing an item number, the application shows the first item satisfying the other parameters entered.

Enter selection criteria.

Items to include. Type the number (1 through 5) that corresponds to the activity you want to perform. Types 1 through 3 allow you to review orders for items individually.

- 1** With detail. Allows you to review all items that contain some type of planning information.
- 2** With any exception. Limits the review to those items that were identified as having a planning exception in the last MRP planning run.
- 3** With a release exception. Shows only items with planned or firm planned orders recommended for release by the planning programs (those with exception 31 or 51—This Order Recommended for Release).
- 4** With an order exception of expedite, reschedule or defer. Limits the review to those items that contain an expedite, reschedule, or defer exception. When this option is selected, an additional input field becomes available to allow the severity of the exception to be qualified.
- 5** Items planned on last generation. Limits the review to those items that were planned in the last MRP planning run. In a generation run, all items are planned, but in a net change run, only items with inventory or file maintenance since the previous full planning run are planned.

Bypass reviewed items. Type **1** (Yes) to skip any reviewed items that have a bypass flag set. The bypass flag is set by pressing **F10** while reviewing items. Type **0** (No) to see all items, including those already reviewed.

Select items where order exception days are greater than. This field is only applicable for option 4 (With an order exception of expedite, reschedule, or defer) on the Items to include selection. If you did not select option 4, this field is not available for input. This field allows you to select the magnitude of the exception being reviewed. If you entered 10, only orders that have an expedite, reschedule, or defer of greater than 10 days are included in the review.

AMM6A1—Review/Approve Items (Exceptions)

Use this display to select the type of exception to be processed for the planning warehouse you selected on display AMM621.

This display appears when you use **F18** on display AMM621.

```
AMM6A1                                Review/Approve Items
Planning warehouse . . . . . : *** *****
Planner . . . . . : *****

Exceptions to be processed
  Expedite (32,33) . . . . . A 0=No, 1=Yes
  Reschedule (41,42) . . . . . A 0=No, 1=Yes
  Defer (61,62) . . . . . A 0=No, 1=Yes
  Cancel (71,72) . . . . . A 0=No, 1=Yes

Operating function key 18 causes the selected exceptions to be actioned
for all firm planned orders and scheduled receipts for the selected planner
and warehouse. Orders may not have had a previous action applied.

F1=Select by planner  F18=Accept for update  F24=Exit
```

What to do

To select the type of exception to be processed for the planning warehouse you selected on display AMM621, type the information requested and press one of the function keys to execute your request.

Function keys

F1=Select by planner causes the Review/Approve Items—Select a planner’s items display (AMM621) to appear again.

F18=Accept for update causes the selected exception records to be processed.

F24=Exit ends processing and any data you typed in is ignored. The Order/Schedule Release and Review menu (AMMM40) appears again.

Fields

Planning warehouse. The warehouse number and description you selected on display AMM621.

Planner. The planner number you selected on display AMM621.

Exceptions to be processed.

Expedite (32, 33)

Type **0**=No or **1**=Yes to indicate whether or not you want this exception to be processed.

Reschedule (41, 42)

Type **0**=No or **1**=Yes to indicate whether or not you want this exception to be processed.

Defer (61, 62)

Type **0**=No or **1**=Yes to indicate whether or not you want this exception to be processed.

Cancel (71, 72)

Type **0**=No or **1**=Yes to indicate whether or not you want this exception to be processed.

You cannot process an exception for an order that has had a previous action applied.

The exceptions are applied permanently when Order Release is run.

If you chose action code:	This display appears:
D (Demand)	AMM771

- The descriptions for each display explain how to complete the action selected.
- To exit this session, use **F24**. Go to menu AMMM40.

Function keys

F1=Select by planner causes the Review/Approve Items—Select a planner’s items display (AMM621) to appear.

F2=Select by item causes display AMM629 to appear, allowing access to another item by item number alone.

F6=Next item or **F7**=Previous item causes one of the following displays to appear:

- If you are in planner sequencing mode and more items exist for this planner, the Review/Approve Items—Order/Schedule Status display (AMM622) appears again with the next (**F6**) or previous item (**F7**) for this planner. If no more items exist for this planner, the Review/Approve Items—Select a planner’s items display (AMM621) appears again.
- If you are in explicit item mode, the Review/Approve Items—Select a planner’s items display (AMM629) appears and allows you to enter the next item number.

F10=Set bypass tags this item as having been reviewed and lets you skip this item in future displays if you enter Yes for Bypass Reviewed Items on the Review/Approve Items—Select a planner’s items display (AMM621). Otherwise, this function key works the same as **F6**.

F12=ISL Inquiry causes a window to display where you can enter an intersite order number and view the InterSite Order Inquiry panel (BED132A). This function key appears only if ISL is installed.

F21=Item detail causes the Item Detail displays (AMM171 through AMM176) to appear, showing additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs. See “Option 1. Maintain Forecast (AMMM10)” on page 3-3 for a discussion of the Item detail displays.

F24=Exit ends processing and any data you typed in on this display is ignored. The Order/Schedule Release and Review menu (AMMM40) appears again.

Fields

Item. The number and description for the item.

Item types. If you are using sequenced inquiry, this field contains ALL, DETAIL, (3)EXCEPTIONS, (4)EXCEPTIONS, and PLANNED, indicating the choice you made on display AMM621. If you entered an item number on the Review/Approve Items—Select a planner’s items display (AMM629), this field contains EXPLICIT.

Planning WHS. The owning warehouse for the associated data.

Start Date (STDT). The planning start date is the earliest date the application allows the planner requirements to exist, and then only if they are “held.” This date is also the

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starting point for the report period intervals, used to summarize generated requirements for printing. The date is set using option 1, Maintain Horizon Values, on the Planning Run Options menu (AMMM20).

Current Date (CU DT). The planning current date is also set by choosing option 1, Maintain Horizon Values, on the Planning Run Options menu (AMMM20). This date is used by the planning run programs as the current date. No forecast or planner requirements can exist earlier than this date, except in the case of a “held” requirement, which can be held until the start date.

Planner number. The number of the planner for this item.

Vendor. The vendor number assigned to this item and recorded in the Item Balance file. Usually, this is the primary supplier of the item.

Available. The item’s available inventory, adjusted back to the last planning run. The field is calculated as follows:

On-hand inventory - (Receipts since the last planning run - Shipments since the last planning run) - (Manufacturing allocation quantity adjusted by Future allocation quantity)

This field represents the starting available balance (on-hand minus allocated to manufacturing) for the last planning run. The body of the display presents all the orders eligible for action by the planner, and identifies each one with a sequence number for ease of operation.

(MOHTQ - (RECPL minus CURPL)) - (MALQT - FALQT)

Enter sequence no/action. These two fields are the only available entry fields on the display. Both are required to take action on an order. Enter the sequence number (SEQNO) for an order, and select an action code from those shown: R, F, C, X, A, or D.

- Release (R) and firm (F) actions are valid only for planned and firm planned orders, not for released orders. R, F, C, and X are not valid for REP scheduled receipts.
- Availability check (A) can be performed only on planned and firm planned manufacturing orders.
- Change (C) and Cancel (X) actions are valid for all order types but, for released orders, they update the MRP files (and thus the MRP displays) and produce an Order Action Detail report. However as mentioned earlier, they do not update the Order Master records.

Once you have typed information in these two fields, press **Enter** to select an order and indicate an action. The appropriate display for completing the action appears.

SEQN. A sequence number is assigned to each order for ease of selecting an order for action.

Action. This column contains a highlighted question mark if the order on this line is flagged with a planning exception (or recommendation) and you have taken no action. If you have taken action, this field notes the action entered:

R Release
F Firm

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X Cancel
A Availability
C Change

This action represents decisions that you entered but which are not yet reflected in the permanent XA files. When Order/Schedule Release, option 5 or 6 on the Order/Schedule Release and Review menu (AMMM40) is selected, this column changes to blank, and the order type changes, if appropriate, to indicate that the master files have been updated.

Note: Regardless of the action (firm, cancel, change, or release), the permanent files are not updated until the Order Release program (option 5 or 6 on menu AMMM40) has been run, except for pending allocations for the “components” of orders approved for release. See the Review/Approve Items—Review or Update Order Status display (AMM62A).

Type (derived from ORSOR). This field classifies the order as one of the following:

- RECEIPT for released orders
- FIRM or PLANNED for unreleased orders
- PLNSCH for planned (unreleased) schedules.

Str Date (OSDTE or NSDTE). The order start date. For released orders with activity reported, this is always the actual start date. For all other kinds of orders, this is always the scheduled start date. Before planner action, it is the date scheduled by the planning run. After planner action, it is the date indicated by the planner.

Due Date (ODDTE or NDDTE). The date the order is required. Before planner action (for released orders and firm planned orders), this is the date of the order as of the last planning run. For planned orders, this is the date the order is required as determined by the last planning run. After planner action (in all cases), it is the date indicated by the planner.

CD (PMCDE). One of following codes appears:

P Purchase orders
S Schedules
M Manufacturing orders
R Requisitions
I intersite orders

ORD/SCH (NNUMB). Order number for released manufacturing, purchase, or intersite orders, or schedule number for released schedules.

Quantity (ORQTY or NEQTY). The order quantity. Before planner action, the quantity as of the planning run. After planner action, the quantity as indicated by the planner.

Exception (ORERC). The planning exception (or recommendation) for this order, if any, determined during the last planning run.

For a complete list of exceptions, see “Planning exceptions” on page 2-48.

In the case of actions taken regarding released orders, this column contains PENDED after the Order/Schedule Release option has been selected, indicating that the MRP files have been updated, but noting that the master files must be updated using File

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Maintenance in Inventory Management. This column is removed after the next planning run.

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Notes:

1. You can experiment with releasing, changing, and canceling orders that appear on this display without updating any permanent files, so long as you remember that any action taken to any order type is reversible. To reverse the action, enter the order's sequence number and the action code **C** (change). When the next display appears, change all values to equal the values shown on the right of the Change display, enter action code **C** again (if necessary), and press **Enter**. Display AMM622 appears again with the order reset back to its original status.
2. When you cancel a planned or firm planned order, the requirement for the order must also be cancelled. If MRP or MPSP created the requirement for the order, cancellation of the requirement must be done to the schedule in that application.
3. Requisitions are not reflected in MRP unless MRP created the requisition.

AMM625—Review/Approve Items—Update Order/Schedule Status

Use this display to firm, change, or cancel orders where those actions are allowed.

This display appears when you select valid actions of Firm (F), Change (C), or Cancel (X) on the Review/Approve Items—Order/Schedule Status display (AMM622) (Firm is invalid for released orders); or when you select an action of Firm (F) on display AMM62A.

- When firming a planned order, use this display to change any of the four key characteristics of the order before it is actually firming:
 - Manufacture/Purchase/Schedule Code
 - Quantity
 - Start Date
 - Due Date.
- Only an item identified as an intersite item in ISL/MISL can have an order firming as an intersite order, and only for the default warehouse for that item. You can firm without releasing an order for an intersite item as a manufacturing or a purchase order. ISL assumes all planned and firm planned intersite orders for identified intersite items will be supplied by the default warehouse. To override the default warehouse you must release the order.
- When changing planned orders, the application records the change permanently (so the next planning run does not erase it). This firms the planned order with the change applied.
- When changing released orders, Manufacture/Purchase/Schedule code cannot be changed. Order quantity cannot be changed for manufacturing orders with activity reported (Order status is 40 or greater).
- When canceling orders, this display is presented as a verification that you entered the right sequence number on the Review/Approve Items—Order/Schedule Status display (AMM622).

Existing information about the order is presented in the body of the display. The specifics of the order that are shown in the right column under **Planned Value** can be changed. For a firm or planned order, start date, due date, quantity, and the manufacture/purchase code are shown. For a released order, order status and order number also appear. For a released purchase order, the actual vendor number also appears.

To change or firm with changes, enter the desired information into fields in the **Enter overrides** column. These fields already contain the recommended value generated during the planning run by the application. In some instances, this is a copy of the right column, as for planned orders. If a planner has previously acted upon this order (Action is Change or Firm), these fields contain the values entered by that planner. In the case of a firm planned or released order with an expedite or defer exception message pertaining to it, the application calculates when the order is really required and shows that date in the **Due Date** under the **Enter overrides** column. Because the application assumes that the start date must change the same number of work days as the due date, it also shows a new recommended order start date (except for a released order that has been started, where actual start date appears in both columns).

```

AMM625                Review/Approve Items - Update Order/Schedule Status

Item . : *****      *****      Item types . : *****
Planning WHS . : ***    Start Date : **/**/**  Current Date : **/**/**
Planner number : *****  Vendor . . : *****  Available . . : *,***,***.***
Order type . . : *****  Exception : ** *****  Action . . . : *****
Order number . . : *****  Order status: nn    Order quantity: *,***,***,***
Actual vendor . : *****      Open quantity : *,***,***,***

Enter overrides
Start date . . . . . nnnnnn          Planned Value
Due Date . . . . . nnnnnn          **/**/**
Quantity . . . . . nnnnnnn.nnn      *,***,***.***
Schedule/receipt quantity . . . . . nnnnnnn.nnn
Manufacture/Purchase/Schedule code . A          *
Order accounting class . . . . . aA3          ***
Order reschedule code . . . . . N          *
Item revision . . . . .          *****
Alternate BoM ID . . . . .          *****
Routing ID . . . . .          *****
Routing version . . . . .          *****
Enter Action . . A   R=Release, F=Firm, C=Change, X=Cancel, A=Avail, D=Demand

F1=Select by planner  F2=Select by item  F3=Resume inquiry  F13=Select process
F21=Item detail      F24=Cancel
    
```

What to do

- To approve the order, type the information requested and press **Enter**. The following table summarizes the displays that appear after you type an action code and press **Enter**.

If you chose action code:	This display appears:
R (Release)	AMM62A
F (Firm)	AMM622
C (Change)	AMM622
X (Cancel)	AMM622
A (Availability)	AMM626
D (Demand)	AMM771

- The descriptions for each display explain how to complete the action selected.
- To cancel this session, use **F24**. Go to menu AMMM40.

Function keys

F1=Select by planner causes the Review/Approve Items—Select a planner’s items display (AMM621) to appear.

F2=Select by item causes the Review/Approve Items—Order/Schedule Status display (AMM622) to appear.

F3=Resume inquiry causes the Review/Approve Items—Order/Schedule Status display (AMM622) to appear again.

F13=Select process causes the Select Item Process display (AMVTIPOD) to appear where you can select a process which will override the Alternate BoM ID, Revision, Routing ID, and Routing version fields if the order is a planned or firm planned order. If the order is already released, you cannot select a process.

F21=Item detail causes the Item Detail displays (AMM171 through AMM176) to appear, showing additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs. See "Option 4. Item Requirements Inquiry (AMMM10)" on page 3-38 for a discussion of these displays.

F24=Cancel ends processing and any data that you typed in on this display is ignored. The Order/Schedule Release and Review menu (AMMM40) appears again.

Fields

Order type (derived from ORSOR). This field classifies the order as one of the following:

RECEIPT

Released orders

FIRM PLANNED

Unreleased orders

PLNSCH

Planned (unreleased) schedules.

Exception (ORERC). The planning exception (or recommendation) for this order, if any, from the last planning run. For a complete list of exceptions, see "Planning exceptions" on page 2-48.

Action. This field indicates if a previous action has been taken on this order. Possible values are:

- Release
- Firm
- Change
- Cancel
- Availability

Order/Schedule number. The actual order number assigned to this order.

Order/Schedule status (ORSTA, OSTAT or PSTAT). The two-position order status indicator maintained by the IM and PC&C (Production Control and Costing) applications for each order in the Order Master record.

For manufacturing orders, the possible values are:

- 10** Order is released, but not started.
- 40** Order is started (either material or labor or both reported).
- 45** Order has been reported received complete into stock.
- 50** Labor has been reported complete on order.
- 55** Both labor and material have been reported complete.
- 99** Order has been canceled.

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For open orders or schedules, the possible values are:

- 00** Planned order/schedule not released
- 10** Order/schedule released, not started
- 40** Activity reported (schedule primed)
- 55** Order/schedule complete

For purchase orders, the possible values are:

- 10** Order is released, but no activity reported.
- 20** Some material has been reported received at dock.
- 30** Some material has been reported received at inspection.
- 40** Some material has been reported received to stock.
- 50** Order has been reported received complete into stock.
- 99** Order has been canceled.

Order/schedule quantity (QTYORB). The original order quantity.

Actual vendor (OVEND). The actual vendor number assigned at order release.

Open quantity (OPNQTY). The quantity of the item remaining open on the order; that is, the original order quantity minus the quantity received minus quantity scrapped minus quantity in split orders plus any deviation quantity. Negative quantity indicates over received.

Planned Value. These fields (**Start Date**, **Due date**, **Quantity**, and **Manufacture/Purchase/Schedule code**, and, if a released order, **Order/Schedule number** and **Order/Schedule status**, and if a released purchase order **Actual vendor**) contain the values of the order as of the last planning run (or the last order release run, if order release has been run since the planning run). These fields are all described on the Review/Approve Items—Order/Schedule Status display (AMM622) except for Order/Schedule status and Actual vendor.

Start date (NSDTE). Type in the order start date you want. The date entered must not be earlier than the application Current Date.

For a released order with activity reported (order status of 40 or greater for manufacturing orders, 20 or greater for purchase orders), the actual start date is used (also same as the right column).

For manufacturing orders, this is the date component materials are scheduled. By changing this date on a planned or firm planned order, you can reschedule the requirements for components for this order. (Note that changing a planned order automatically makes that order a firm planned order.) This field always has data in it, even before you enter a date. The application preloads the field with recommended values.

Note: Changing the scheduled start date has no affect on the schedule.

For a planned order, **Start Date** is the planned start date (same as the right column on the display). For a firm planned order or released order with no activity reported, the date shown, if different from the scheduled start date in the right column, is the recommended start date. If an expedite, reschedule, or defer exception exists for this order, the application determined (during the planning run) how many days the order has to be rescheduled to meet the current requirements. This number, days to offset exception (PODAZ), is the actual number of days between the order due date and the date the order is required. The application stores this number in its files and uses it to calculate a recommended order due date (see **DUE DATE**) and a recommended order start date.

You may want to (or have to) override this recommended start date. The application is merely offering a recommendation, based on a simple calculation, to help you make your decision.

Due Date (NDDTE). Type in the order due date you want. The date entered must not be earlier than the application Current Date. This field also appears with a recommended value. For a planned order, it is the planned due date (same as the right column, on the display). For all other kinds of orders, released with or without activity, or firm planned orders, the date shown, if different from the scheduled date in the right column, is the recommended due date, given the fact that a planning exception exists for this order. If an expedite, reschedule, or defer exception exists for this order, the application calculated the recommended date as discussed for the previous field, **Start Date**.

Quantity (NEQTY). Type in the order quantity you want (a number from 1 to 9999999.999). You cannot enter information for released manufacturing orders with activity reported (status 40 or greater) in this field.

Schedule/receipt quantity (UQTY). Type the order quantity.

Manufacture/Purchase/Schedule code (NPMCD). This field is valid only for planned or firm planned orders, and designates whether components are planned for this order (they are planned for manufacturing orders and schedules). Type in one of the following codes:

P	Purchase order
R	Purchase requisition, if PUR is installed
I	Intersite order, if ISL is installed
M	Manufacturing order
S	Repetitive schedule, if REP is installed

Intersite orders can be firm only for items designated as intersite items in ISL/MISL, and the default warehouse for the item is assumed. To designate an intersite order for a non-intersite item, or to override the default supplying warehouse for an intersite item, you must release the order.

Order accounting class. Class, defined by your company, to group or classify orders for accounting purposes.

Order reschedule code. One of the following codes to indicate whether or not an individual manufacturing order or purchase order line item can be rescheduled automatically by the system.

- 0** Default to item reschedule code. This is the default.
- 1** Cannot be rescheduled automatically.
- 2** Can be scheduled out
- 3** Can be scheduled in
- 4** Can be scheduled both out and in

Enter Action. Type in one of the action codes shown on the display:

- R** Release
- F** Firm
- C** Change
- X** Cancel
- A** Avail (Availability)
- D** Demand

Actions R (release) and A (availability) have the same effect as they did on the previous display. Actions F (firm), C (change), and X (cancel) cause the action to be completed (unless an error is noted), as far as the interactive entry of the action is concerned; the Review/Approve Item—Order/Schedule Status display (AMM622) appears again with the action noted, and you can proceed with further activity. Action D (demand) causes the Source of Demand display (AMM771) to appear.

Item revision (ITRV). The revision identifier associated with this item. This field appears only if EPDM is activated.

Alternate BoM ID (ALTS). The identifier of the alternate bill of material associated with this item process. This field appears only if EPDM is activated.

Routing ID (RTID). The identifier of the routing associated with this alternate bill of material. This field appears only if EPDM is activated.

Routing version (RTVR). The version of the routing associated with this alternate bill of material. This field appears only if EPDM is activated.

AMM626—Review/Approve Items—Component Availability

Use this display to review the availability of components required for a planned order. It shows the quantity required, the quantity available, and the quantity short for each component, and highlights the quantity available and the quantity short if it is not sufficient for the order.

This display appears when you select action A (Availability) on display AMM622, AMM625, or AMM62A.

This display does the following:

- Lists all the components for the item that are in effect as of the start date of this order, as determined by the engineering effectivity dates in the Product Structure file.
- Calculates quantity required for each component by multiplying the order quantity by the “quantity per” in the product structure of each component.
- Calculates the quantity available for allocation for each component by subtracting quantities already reserved from on-hand inventory.
- Compares required quantity to available quantity, and highlights any available quantity that is short.
- Gives the detail used to calculate available quantity (pending allocations, actual allocations, and on-hand) (see the field descriptions for this display).
- Shows total on order for each component, giving a preliminary indication of whether more of that component can be obtained than is presently in stock (on-hand).
- Highlights the component item number if the component item is a phantom.

The benefit of this display (and the associated processing of the interactive order review and release programs) is that the application keeps track of the total quantity of a given component required for all orders pending release, and notifies you when you are about to over-commit the inventory of that component. Continuous tracking is performed on the materials required for manufacturing orders: from planning through assigning them as pending allocations (at the time of order approval) through allocating them (at the time of order release). This helps prevent shortages at the time of order picking.

Note: As you change order quantities and manufacture/purchase designations of planned and firm planned orders, the application continuously reflects those changes in the **Pending Manufacturing Allocations** field, where orders approved for release are involved. This lets you evaluate the effect of changes before actually releasing the orders in question.

If the ordered item contains a phantom in its product structure, changing the required quantity after the order has been flagged for release may cause unpredictable results in the **Pending Manufacturing Allocation** field until after the next planning run. This can happen when available inventory changes after the order is flagged for release. (See “AMM626—Review/Approve Items—Component Availability” for further information on phantom items.)

In case of a shortage, you may need additional information about the item being planned. You can interrupt the Review/Approve Item display and select Item Requirements Inquiry to see additional information for that item; such as requirements, orders, and peg-to information. You can then return to the Review/Approve Items—Component Availability display (AMM626).

```

AMM626                Review/Approve Items - Component Availability

Item . : *****      *****      Planning WHS . : ***
Planner number : ***** Vendor . . : ***** Available . . : *,***,***.***

Order type . . : ***** Start date : **/**/** Quantity . . . : *****.***
Order . . : ***** Due date . . : **/**/** Exception . . . : ** *****
                                           View 3 of 3 More: <

Component Item  Description                Item
*****          *****                    Type Vendor Planner Short Lead Time
*****          *****                    *   ***** ***** *   *****
*****          *****                    *   ***** ***** *   *****
    
```

```

AMM626                Review/Approve Items - Component Availability

Item . : *****      *****      Planning WHS . : ***
Planner number : ***** Vendor . . : ***** Available . . : *,***,***.***

Order type . . : ***** Start date : **/**/** Quantity . . . : *****.***
Order . . : ***** Due date . . : **/**/** Exception . . . : ** *****
                                           View 2 of 3 More: < >

Component Item  MFG      CUS
*****          Allocated Allocated Shortage On Hand On Order
*****          *****.*** *****.*** *****.*** *****.*** *****.***
*****          *****.*** *****.*** *****.*** *****.*** *****.***
    
```

```

AMM626                Review/Approve Items - Component Availability

Item . : *****      *****      Planning WHS . : ***
Planner number : ***** Vendor . . : ***** Available . . : *,***,***.***

Order type . . : ***** Start date : **/**/** Quantity . . . : *****.***
Order . . : ***** Due date . . : **/**/** Exception . . . : ** *****
                                           View 1 of 3 More: >

Component Item  Required                AVAIL to
*****          *****                Allocate
*****          *****                *****.*** *****.*** *****.***
*****          *****                *****.*** *****.*** *****.***
*****          *****                *****.*** *****.*** *****.***
*****          *****                *****.*** *****.*** *****.***
*****          *****                *****.*** *****.*** *****.***
*****          *****                *****.*** *****.*** *****.***
*****          *****                *****.*** *****.*** *****.***
*****          *****                *****.*** *****.*** *****.***
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*****          *****                *****.*** *****.*** *****.***
*****          *****                *****.*** *****.*** *****.***
*****          *****                *****.*** *****.*** *****.***
*****          *****                *****.*** *****.*** *****.***
*****          *****                *****.*** *****.*** *****.***

F3=Resume inquiry  F4=Resume order  F20=Right  F21=Item detail  F24=Exit
    
```

What to do

- To continue reviewing more orders that are not shown on this display, use **ROLL UP/DOWN**.
- To return to display AMM622, use **F3**.
- To return to display AMM625, use **F4**. Go to display AMM625.

- To show additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs, use **F21**.
- To exit this session, use **F24**. Go to menu AMMM40.

Function keys

F3=Resume inquiry causes the Review/Approve Items—Order/Schedule Status display (AMM622) to appear again.

F4=Resume order returns you to either Review/Approve Items—Update Order/Schedule Status display (AMM625) or the Review/Approve Items—Update Order/Schedule Detail display (AMM62A), depending on the display from which you requested availability.

F19=Left shows information to the left of what you currently see. You can press **F19** when you see More: < in the upper right part of the display.

F20=Right shows information to the right of what you currently see. You can press **F20** when you see More: > in the upper right part of the display.

F21=Item detail causes the Item Detail displays (AMM171 through AMM176) to appear, showing additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs. See “Option 4. Item Requirements Inquiry (AMMM10)” on page 3-38 for a discussion on the Item detail displays.

F24=Exit ends processing and the Order/Schedule Release and Review menu (AMMM40) appears again.

Fields

Item. Number of the item, which can be any raw material, manufactured or purchased part, subassembly, assembly, or end item.

Planning WHS. The planning warehouse for the associated data.

Planner number. The number of the planner for this item.

Vendor. The vendor number assigned to this item and recorded in the Item Balance file. Usually, this is the primary supplier of the item.

Available. The item's available inventory, adjusted back to the last planning run. The field is calculated as follows: on-hand inventory, minus the difference of the receipts since the last planning run and the shipments since the last planning run, minus the manufacturing allocation quantity adjusted by the future allocation quantity. This field represents the starting available balance (on-hand minus allocated to manufacturing) for the last planning run. The body of the display presents all the orders eligible for action by the planner, and identifies each one with a sequence number for ease of operation.

(MOHTQ minus (RECPL minus CURPL)) minus (MALQT minus FALQT).

Order type (derived from ORSOR). One of the following appears:

RECEIPT Released manufacturing or purchase orders

FIRM Firm planned orders

PLANNED Planned orders (not firmed by a planner).

Start date. The order start date.

Quantity. The order quantity.

Order number/Schedule number. The order number or schedule number for schedule controlled items.

Due date. The order due date.

Exception (ORERC). The planning exception (or recommendation) for this order, if any, from the last planning run. For a complete list of exceptions, see “Planning exceptions”.

Component Item. The item number of the component item.

Required or Assigned. The quantity of the component item required for the order. If a component appears more than once in the bill of materials for a parent item, the required quantity is summed and the cumulative results are shown. In most cases, “Required” is the column heading. If the order has been approved for release (Action in the order header is Release), the column heading is “Assigned” and the quantity shown is the quantity assigned to this order. In this case, the quantity is included in the **Pending MFG ALLOC** field for the component.

AVAIL to Allocate. This field contains the quantity of the component item available to fill the requirements of this order. If the quantity available does not cover the required or assigned quantity, it is highlighted. If you are viewing an order that has been approved for release (**Action** field contains Release), then the quantity of each component required for this order has already been assigned to this order, and is not included in this figure. This figure is still highlighted if it is not enough to cover this order. If this is the case, the field contains a negative number (since a greater quantity has been “committed”—either allocated or pending allocation—than is available).

MOHTQ minus PALOC minus MALQT minus PLREQ plus FALQT

Pending MFG ALLOC (PALOC). This field contains the total quantity of the component item reserved for orders approved for release; that is, the total required to cover all orders that are presently approved for release. If the order you are viewing has been approved for release (**Action** field contains Release), its assigned quantity is included in this amount.

MFG & CUS Allocated. This field contains the total quantity of the component item allocated to released manufacturing orders and to customer orders that have had their picking list printed minus future allocations

(MALQT plus PLREQ minus FALQT)

MFG Allocated (MALQT). Manufacturing allocations for this component.

CUS Allocated (PLREQ). Pick list requirements for this component.

Shortage. The shortage that exists for the component item. The shortage quantity equals Required quantity less available-to-allocate quantity. This quantity shows

shortages only. If the planned order has been selected for release, the shortage is equal to the available-to-allocate quantity.

On Hand (MOHTQ). This field contains the quantity of the component item presently in stock.

Total On Order. The total quantity of the component item presently on open (released) manufacturing and purchase orders (MPRPQ plus MPUPQ).

Description. The description of the component item.

Item Type. Code that best describes the type of item:

- 0 Phantom
- 1 Assembly or subassembly
- 2 Fabricated item
- 3 Raw material
- 4 Purchased item
- 9 User option (Special)
- F Feature
- K Kit

Vendor. Number of the primary supplier of this item.

Planner. User-assigned code that identifies the person responsible for planning the replenishment strategy for this item.

Short. Flag indicating if component is short.

Cmlt Matl Lead Time. Total number of days to produce an item assuming no material is on hand. It is the sum of the longest standard purchasing or standard manufacturing lead time at each level rolled up through the bill of material.

AMM629—Review/Approve Items—Select a planner's items

Use this display to directly access an item by its planning warehouse and item number. If you do not know the item number of the item whose orders you want to review, use F1 to go to the Review/Approve Items—Select a planner's items (AMM621) display. You can then search through the file, starting at any point, and use F6 on the Review/Approve Items—Order/Schedule Status display (AMM622) to step from item to item once the first item appears.

This display appears when you select **F2 Select by item** on display AMM621, AMM622, AMM62A, or AMM62B.

Note: You must be authorized to the proper level of security in the warehouses you select.

```
AMM629                                Review/Approve Items
Select a planner's items
Planning warehouse . . . . . aA3
Item Number . . . . . aaaaaaaaaaA15

F1=Select by planner  F24=Exit
```

What to do

- To review the requirements for an item, type the planning warehouse and item number. Press **Enter**. Go display AMM622.
- To see the items in planner sequence, use **F1**. Go to display AMM621.
- To exit this session, use **F24**. Go to menu AMMM40.

Function keys

F1=Select by planner causes the Review/Approve Items—Select a planner's items display (AMM621) to appear.

F24=Exit ends processing and any data you typed in on this display is ignored. The Order/Schedule Release and Review menu (AMMM40) appears again.

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Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Select a planner's items.

Planning warehouse [?]. Type the planning warehouse for the item you want to review.

Item number [?]. Type the item number of the item whose orders you want to review.

AMM62A—Review/Approve Items—Update Order/Schedule Detail

Use this display to approve an order for release or to change an order that has been previously approved for release.

This display appears when you enter action code R (Release) on the Review/Approve Item—Update Order/Schedule Status display (AMM625) or the Item—Update Order/Schedule Status display (AMM622) against a firm or planned order.

You can approve releases for purchase, intersite, and manufacturing orders, as well as releases against blanket purchase orders. Firm and planned orders for master scheduled items released by MRP are updated to a released status in MPSP (Master Production Schedule Planning). Any maintenance activity to master scheduled orders in MRP will automatically be made in MPSP during order release. The application shows default values. If no problems exist, press **Enter** to accept the default values. You can override any values presented and enter data where the default is “no data” (for example, Job Number).

Note: When you approve for release a manufacturing order that has components, each component for the order is updated to reflect your intention of releasing it. The Pending manufacturing allocations field for each component is increased by the quantity required for that order. This maintains the quantity available to allocate to other orders. See “AMM626—Review/Approve Items—Component Availability”. This **Pending allocation** field is maintained, as necessary, when the order is changed, canceled, or reset (approval withdrawn, using the change action) to its original status.

With the exception of **Order number** and **Vendor** (see the field descriptions for these fields), all available entry fields on this display are optional. If you decide not to release this order, use **F3 Resume inquiry** to return to the Review/Approve Items—Order/Schedule Status display (AMM622). If you want to make changes to the order, enter them into the fields below the heading **Enter overrides**. These fields may contain default values that were generated during the last planning run or values that were previously entered for the order from this display. In any case, you can enter new values into these fields as necessary.

```

AMM62A      Review/Approve Items - Update Order/Schedule Detail

Item : ***** Item types : Explicit
Planning WHS : *** Start Date : **/**/** Current Date : **/**/**
Planner number : ***** Vendor : ***** Available : ; * * * * *
Order type : ***** Exception : * * ***** Action : * * * * *
Enter overrides                               Planned Value
Order start date ..... nnnnnn                **/**/**
Order due date ..... nnnnnn                  **/**/**
Quantity ..... nnnnnn.nnn                    * * * * *
Manufacture/Purchase/Schedule code . A
Order number ..... aaaaaA7
Order reschedule code ..... *                * *****
Vendor ..... aaaaA6 Alternate BoM ID . . . *****
Job number ..... aaaaaaaaaA12 Item revision . . . *****
Reference ..... aaaaaaaA10 Routing ID . . . *****
Order accounting class . aA3 Routing version . . *****
                               Routing/BoM . . . n / n
Priority ..... A
Follow Date ..... nnnnnn
Enter Action . . A R=Release, F=Firm, C=Change, X=Cancel, A=Avail, D=Demand

F1=Select by planner F2=Select by item F3=Resume inquiry F13=Select process
F21=Item detail F24=Cancel
    
```

What to do

- The following table summarizes the displays that appear after you type an action code and press **Enter**.

If you chose action code:	This display appears:
R (Release)	AMM62A or AMM62D
F (Firm)	AMM625
C (Change)	AMM625 or AMM62A
X (Cancel)	AMM625 or AMM62A
A (Availability)	AMM626
D (Demand)	AMM771

- To see the items in planner sequence, use **F1**. Go to display AMM621.
- To see a specific item, use **F2**. Go to display AMM629.
- To return to display AMM622, use **F3**.
- To show additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs, use **F21**.
- To exit this session, use **F24**. Go to menu AMMM40.

Function keys

F1=Select by planner causes the Review/Approve Items—Select a planner's items display (AMM621) to appear.

F2=Select by item causes the Review/Approve Items—Select a planner's items display (AMM629) to appear, allowing access to another item by item number.

F3=Resume inquiry causes the Review/Approve Items—Order/Schedule Status display (AMM622) to appear again.

F13=Select process causes the Select Item Process display (AMVTIPOD) to appear where you can select a process which will override the **Alternate BoM ID**, **Revision**, **Routing ID**, and **Routing version** fields if the order is a planned or firm planned order. If the order is already released, you cannot select a process.

F21=Item detail causes the Item Detail displays (AMM171 through AMM176) to appear, showing additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs. Refer to "Option 4. Item Requirements Inquiry (AMMM10)" on page 3-38 for a discussion on the Item detail displays.

F24=Cancel ends processing and any data that you typed in on this display is ignored. The Order/Schedule Release and Review menu (AMMM40) appears again.

Fields

Planned Value. These fields (**Order start date**, **Order due date**, **Quantity**, and **Manufacture/Purchase/Schedule code**, and, if a released order, **Order/Schedule number**) contain the values of the order as of the last planning run.

Order start date (NSDTE). Type the date you plan to start the order. This date cannot be earlier than the current date.

Order due date (NDDTE). Type the planned completion date for this order. This date cannot be earlier than the current date.

Quantity (NEQTY). Type the quantity required for this order.

Manufacture/Purchase/Schedule code (NPMCD). Type one of the following:

- M** Item on this order is to be manufactured
- P** Item on this order is to be purchased
- S** Item on this order is a repetitive schedule
- B** This is a release against an existing blanket purchase order
- R** This item is a requisition (if PUR is installed, or I if it is an intersite order (if ISL/MISL is installed).

Order number (NNUMB). If **Manufacture/Purchase/Schedule code** entered is M, P, or S, you can type an order number or leave this field blank. If the field is left blank, the application assigns an order number. If the **Manufacture/Purchase/Schedule code** is B, the application will attach the release to the first available blanket order found. If none exists, an error message will be displayed.

Order reschedule code (ORRC). Code used to indicate whether or not an individual manufacturing order or purchase order line item can be rescheduled automatically by the system.

- 0** Default to item reschedule code. This is the default.
- 1** Cannot be rescheduled automatically
- 2** Can be scheduled out
- 3** Can be scheduled in
- 4** Can be scheduled both out and in

Vendor (NVEND). If the **Manufacture/Purchase/Schedule code** is P, this field is required, and you must type the number of the vendor supplying the item.

Alternate BoM ID (ALTS). The identifier of the alternate bill of material associated with this item process. This field appears only if EPDM is activated.

Job number (JOBNO). Type the number of the customer job associated with this order. This field can be used to associate an order back to a customer order number entered in the COM application. Also, multiple manufacturing orders with the same job number can be grouped for reporting purposes in the PC&C application.

Item revision (ITRV). The revision identifier associated with this item. This field appears only if EPDM is activated.

Reference (REFNO). Type a reference number that you want to be printed on reports associated with this order. Multiple manufacturing orders with the same reference number can be grouped for reporting purposes in the PC&C application.

Routing ID (RTID). The identifier of the routing associated with this alternate bill of material. This field appears only if EPDM is activated.

Order accounting class. Class, defined by your company, to group or classify orders for accounting purposes.

Routing version (RTVR). The version of the routing associated with this alternate bill of material. This field appears only if EPDM is activated.

Routing/BoM (derived from NERTG). This field specifies whether the routing is to be retrieved and used for controlling the operations of this order. If PC&C is installed and interfacing, and a routing existed for the item during the last generation, and if this is a manufacturing order, then this field defaults to Y (YES); otherwise, it defaults to N (NO). If PC&C is not installed and interfacing, this field must be N (NO).

BoM is used to indicate whether the product structure (Bill of Material) is used to allocate materials when this order is released if this is a manufacturing order. If a product structure existed for this item during the last generation, this field defaults to Y (YES). Otherwise, it defaults to N (NO). This field is can be changed from here.

Priority (derived from NEPRI). If this order has a lead time code of M, type a code to override the priority calculation of dispatch lists created in PC&C. The higher the code, the higher the priority. For example, 9 is higher than 0, which is higher than Z, which is higher than A, which is higher than blank.

If this order has a lead time code of P, type a priority override number from 1 through 9. The priority number allows you to control where this purchase order will appear on Prioritized Work Lists. 1 is no priority; 9 is highest priority.

Follow Date (FOLDT). For purchase orders, the follow-up date is the date that the goods are expected to arrive on premises (at the dock). The default value for this field is the due date minus the purchase lead time adjustment. If Purchasing is interfacing with MRP, the default value for this field is the due date minus the purchase lead time adjustment minus the safety lead time. The follow-up date can be used to select purchase orders for reporting purposes in the Inventory Management application.

Enter Action. Type one of the action codes shown on the lower part of the display:

R Release. Updates the order as released, increases the pending manufacturing allocations for each component of the order if the Manufacture/Purchase/Schedule code is M, and causes the Review/Approve Items—Order/Schedule Status display (AMM622) to appear again with the action noted.

If ISL is installed, and the Manufacture/Purchase/Schedule code is I, when you press Enter a window displays that allows you to choose the transfer warehouse for the supplying warehouse for this order. If a default warehouse has been established for this item or planner, it will display, and can be overridden. If a default warehouse has not been established, you must enter the transfer warehouses for the warehouse that will supply this order.

F Firm. Causes the Review/Approve Items—Update Order/Schedule Status display (AMM625) to appear.

C Change. Updates the order with any changes and causes the Review/Approve Items—Order/Schedule Status display (AMM622) to appear again.

Note: If you changed all the entries you made in the **NEW VALUES** column back to **CURRENT VALUES**, the change may be used to withdraw approval of an order that was previously approved for release. In this case, the pending manufacturing allocations for the components are reduced.

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- X** Cancel. Records an action of cancel for the order and causes display AMM622 to appear again with the action noted. If the order was a planned order that was previously approved, canceling it results in reducing the pending manufacturing allocations for the components.
- Note:** If you attempt to change or cancel a released intersite order, edits are performed to determine whether ISL tailoring permits change/delete, whether the intersite order is locked, and whether it is shipped complete. If any of the edits fail, you cannot change or cancel the intersite order.
- A** Availability. Causes the Review/Approve Items—Component Availability display (AMM626) to appear.
- D** Demand. Causes the Source of Demand display (AMM771) to appear.

AMM62B—Review/Approve Items—Approve a planner's orders for release

Use this display to approve for release, all planned and firm planned orders for a single planner that have been recommended for release by MRP.

When orders are released for master scheduled planned and firm planned orders, the corresponding orders in MPSP files are updated to a "released" (open) status. This display appears when you select item type 4 and **F17 (Planner release approval)** on the Review/Approve Items—Select a planner's items display (AMM621).

Notes:

1. You should not use this display until you have reviewed all the orders (planned and firm planned) recommended for release and have decided that they should be released.

This option can save you considerable time at a work station. However, it is not a substitute for planner review of orders due for release, because it approves all orders regardless of whether they contain material shortages. It saves the most time after the application has been installed and the order policies, lead times, and so on, are adjusted to the point where most orders are released as planned, without change.

2. It is recommended that you not use this function until your MRP environment has stabilized to the point where you can release most orders without shortages.

You might want to run the pre-release material availability reports (option 3 on menu AMMM40), selecting all orders recommended for release (Select order type 2=Recommend for release on display AMM680) before using this function.

3. If reports indicate that the majority of the planned orders recommended for release should be released, you could use this function to approve all of them and then individually change the few orders you do not want to release back to their original status (using action code C=Change). Then release the orders (using option 5 or 6 on menu AMMM40). Using this technique, you can analyze all orders, but you have to take individual action only on the exceptions—that cannot be released as planned.

```
AMM62B                                Review/Approve Items
Planning warehouse . . . . . : *** *****
Planner . . . . . : *****

Selecting function key 17 causes all planned orders and firm planned
orders for the selected planner and warehouse to be automatically approved
for release.

Orders selected for approval must meet the following criteria.

    Orders must contain an exception message of '51 RELEASE' or '31 EXPDTE'.
    Orders may NOT have had a previous action applied (cancel, firm...).
    Orders for S-number items will NOT be approved for release.
    Requisitions will NOT be approved for release.
    Scheduled control items will NOT be approved for release.

F1=Select by planner   F2=Select by item   F17=Accept for update   F24=Cancel
```

What to do

- To end this request and see the items in planner sequence, use **F1**. Go to display AMM621.
- To end this request and to see a specific item, use **F2**. Go to display AMM629.
- To approve for release all planned and firm planned orders which meet the criteria listed on the display, use **F17**. Go to display AMM622.
- To cancel this session, use **F24**. Go to menu AMMM40.

Function keys

F1=Select by planner causes the Review/Approve Items—Select a planner’s items display (AMM621), to appear again.

F2=Select by item causes the Review/Approve Items—Select a planner’s items display (AMM629) to appear, allowing access to one item by item number.

F17=Accept for update updates all of the planned and firm planned orders which meet the criteria listed on the display. This action updates the **Pending manufacturing allocation** field for the components for manufactured items as you had released them individually released using displays AMM622 and AMM62A.

F24=Cancel ends processing without updating any orders for release and the Order/Schedule Release and Review menu (AMMM40) appears again.

Fields

Planning warehouse. The planning warehouse for the associated data.

Planner. The planner whose orders are being approved.

AMM62C—Review/Approve Items—Approve Order for Release

Use this display to approve a manufacturing order for release or change an order that has been previously approved. It has a similar function to the Review/Approve Items—Update Order/Schedule Detail display (AMM62A).

This display appears when you select a customer order on the Review/Approve Items—Select Order for Release display (AMM62D).

```

AMM62C          Review/Approve Items - Approve Order for Release

Item . : *****          *****          Item types . : Explicit
Planning WHS . : ***      Start Date : **/**/**  Current Date : **/**/**
Planner number : *****  Vendor . . : *****  Available . . : *,**,***.***
Order type . . . . . : *****
Exception . . . . . : ** *****
Action . . . . . : *****
S-Number . . . . . : *****
Enter overrides
Order start date . . . . . nnnnnn          Customer order value
Order due date . . . . . nnnnnn          **/**/**
Quantity . . . . . nnnnnnn.nnn          **/**/**
Order number . . . . . aaaaaA7          *,**,***.***
Order reschedule code . . . . . *          * *****
Vendor . . . . . aaaaA6          Alternate BoM ID . . *****
Job number . . . . . aaaaaaaaaA12       Item revision . . . *****
Reference . . . . . aaaaaaaA10         Routing ID . . . . . *****
Order accounting class . aA3          Routing version . . *****

Priority . . . . . A

Enter Action . . A  R=Release, F=Firm, C=Change, X=Cancel, A=Avail, D=Demand

F1=Select by planner  F2=Select by Item  F3=Resume inquiry  F13=Select process
F21=Item detail      F24=Cancel
    
```

What to do

- To release the order without changing any of the values shown and return to display AMM62D, press **Enter**. Go to display AMM62B.
- If ISL is installed and interfacing, and the Manufacture/Purchase/Schedule code is I, the default inter-warehouse source selection will be displayed for approval or override when you press **Enter**. Pressing **Enter** again will update the order as released.
- To update the order as released, type **R** in the **Action** field and press **Enter**. Go to display AMM62B.
 - To update the order with any changes and return to display AMM62D, type **C** in the **Action** field and press **Enter**. Go to display AMM62B.
 - To perform a component availability check using the same S-Number as that found on the display AMM62D, type **A** in the **Action** field and press **Enter**. Go to display AMM62B.
 - To return this request and see the items in planner sequence, use **F1**. Go to display AMM62B.
 - To return to display AMM629, use **F2**.
 - To return to display AMM622 with no updates, use **F3**.
 - To show additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs, use **F21**.

- To cancel the session, use **F24**. Go to menu AMMM40.

Function keys

F1=Select by planner causes the Review/Approve Items—Select a planner's items display (AMM621), to appear again.

F2=Select by Item causes the Review/Approve Items—Select a planner's items display (AMM629) to appear, allowing access to one item by item number.

F3=Resume inquiry returns you to the Review/Approve Items—Order/Schedule Status display (AMM622). Fields on AMM622 are updated the same way as when you use this function key on the Review/Approve Items—Select Order for Release display (AMM62D).

F13=Select process causes the Select Item Process display (AMVTIPOD) to appear where you can select a process which will override the **Alternate BoM ID**, **Revision**, **Routing ID**, and **Routing version** fields if the order is a planned or firm planned order. If the order is already released, you cannot select a process.

F21=Item detail causes the Item Detail displays (AMM171 through AMM176) to appear, showing additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs. See "Option 4. Item Requirements Inquiry (AMMM10)" for a discussion on the Item detail displays.

F24=Cancel ends processing and any data that you typed in on this display is ignored. The Order/Schedule Release and Review menu (AMMM40) appears again.

Fields

S-Number (SNMBR). The alphanumeric description of the options and features required on the item by the customer.

Customer order value. The fields (**Order start date**, **Order due date**, **Quantity**, and **Order/Schedule number**) contain the values of the customer orders.

Order start date (NSDTE). Type in the date you plan to start the order. This date cannot be earlier than the current date.

Order due date (NDDTE). Type in the planned completion date for this order. This date cannot be earlier than the current date.

Quantity (NEQTY). Type in the quantity required for this order.

Order/Schedule number (NNUMB). You can type in an order number or leave this field blank. If you leave it blank, the application assigns an order number.

Order reschedule code (ORRC). Code used to indicate whether or not an individual manufacturing order or purchase order line item can be rescheduled automatically by the system.

- 0 Default to item reschedule code. This is the default.
- 1 Cannot be rescheduled automatically
- 2 Can be scheduled out
- 3 Can be scheduled in
- 4 Can be scheduled both out and in

Vendor (NVEND). If the **Manufacture/Purchase/Schedule code** is P, this field is required, and you must type the number of the vendor supplying the item.

Alternate BoM ID(ALTS). The identifier of the alternate bill of material associated with this item process. This field appears only if EPDM is activated.

Job number (JOBNO). Type the number of the customer job associated with this order. This field can be used to associate an order back to a customer order number entered in the COM application. Also, multiple manufacturing orders with the same job number can be grouped for reporting purposes in the PC&C application.

Item revision (ITRV). The revision identifier associated with this item. This field appears only if EPDM is activated.

Reference (REFNO). Type a reference number that you want to be printed on reports associated with this order. Multiple manufacturing orders with the same reference number can be grouped for reporting purposes in the PC&C application.

Routing ID (RTID). The identifier of the routing associated with this alternate bill of material. This field appears only if EPDM is activated.

Order accounting class. Class, defined by your company, to group or classify orders for accounting purposes.

Routing version (RTVR). The version of the routing associated with this alternate bill of material. This field appears only if EPDM is activated.

Routing/BoM (derived from NERTG). This field specifies whether the standard routing is to be retrieved and used for controlling the operations of this order. If PC&C is installed and interfacing, and a routing existed for the item during the last generation, and if this is a manufacturing order, then this field defaults to YES; otherwise, it defaults to NO. If PC&C is not installed and interfacing, this field must be NO.

BoM is used to indicate whether the product structure (Bill of Material) is used to allocate materials when this order is released if this is a manufacturing order. If a product structure existed for this item during the last generation, this field defaults to YES. Otherwise, it defaults to NO.

If EPDM is enabled to MRP, this field is replaced with the Item revision, Alternate BoM ID, Routing identifier, and Routing version fields.

Priority (derived from NEPRI). Type in a code to override the priority calculation of dispatch lists created in PC&C. The higher the code, the higher the priority. For example, 9 is higher than 0, which is higher than Z, which is higher than A, which is higher than blank.

Enter Action. Type in one of the action codes:

- R** Release. Updates the order as released, increases the pending manufacturing allocations for each component of the order if the Manufacture/Purchase/Schedule code is M, and causes the Review/Approve Items—Order/Schedule Status display (AMM622) to appear again with the action noted.

If ISL is installed and interfacing, and the Manufacture/Purchase/Schedule code is I, the default inter-warehouse source selection will be displayed for approval or override when you press **Enter**. Pressing **Enter** again will update the order as released.
- F** Firm. Causes the Review/Approve Items—Update Order/Schedule Status display (AMM625) to appear.
- C** Change. Updates the order with any changes and causes the Review/Approve Items—Order/Schedule Status display (AMM622) to appear again.

Note: Changing action with all values staying the same as the original values results in an “unrelease” the same as on the Review/Approve Items—Update Order/Schedule Detail display (AMM62A).
- X** Cancel. Records an action of cancel for the order and causes display AMM622 to appear again with the action noted. If the order was a planned order that was previously approved, canceling it results in reducing the pending manufacturing allocations for the components.
- A** Availability. Performs a component availability check on the Review/Approve Items—Component Availability display (AMM62E) for the release you selected, using the specified S-number.
- D** Demand. Causes the Source of Demand display (AMM771) to appear so you can review the sources of demand for the order item being processed.

- To return to display AMM622 and update the **Action** field to Release (if the quantity of customer orders) or Partial (if the total is less), use **F3**. Go to display AMM622.
- To return to display AMM622 and update the **Action** field to Availability, regardless of the quantity released, use **F17**. Go to display AMM622.
- To show additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs, use **F21**.
- To cancel this session, use **F24**. Go to menu AMMM40.

Function keys

F3=Resume inquiry returns you to the Review/Approve Items—Order/Schedule Status display (AMM622). If any customer orders were selected for release against a planned order, then the **Action** field for this planned order is updated to:

- RELEASE, if the total quantity of all customer orders released is equal to or greater than the planned or firm planned order quantity.
- PARTIAL, if the total is less.

F17=Close order returns you to the Review/Approve Items—Order/Schedule Status display (AMM622) and updates action to “Release” regardless of the total quantity released.

F19=Left shows information to the left of what you currently see. You can use **F19** when you see More: < in the upper right part of the display.

F20=Right shows information to the right of what you currently see. You can use **F20** when you see More: > in the upper right part of the display.

F21=Item detail causes the Item Detail displays (AMM171 through AMM176) to appear, showing additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs. See “Option 4. Item Requirements Inquiry (AMMM10)” on page 3-38 for a discussion on the Item detail displays.

F24=Cancel ends processing and any data you typed in is ignored. The Order/Schedule Release and Review menu (AMMM40) appears again.

Fields

Item. The number for the item.

Planner number (PLANN). The number of the planner for this item.

Order type (OTYPE). This field classifies the order as either RECEIPT (for released orders), or FIRM or PLANNED (for unreleased orders).

Planned order quantity (POQTY). The quantity needed to fulfill requirement of this MLI.

Exception (ORERC). The planning exception (or recommendation) for this order, if any, determined during the last planning run.

Items remaining. The number of items that have not been released for this planned order. A running total to make the amount of released orders equal to the amount of the original planned order.

Enter sequence no. The position order identification number from the left-hand column on the display.

Enter action. Type one of the action codes available on this display:

- R** Release moves the selected order information to the Review/Approve Items—Approve Order for Release display (AMM62C), and fills in the display information for release approval.
- A** Availability performs a component availability check on the Review/Approve Items—Component Availability display (AMM62E) for the release you selected, using the specified S-Number.

SEQ (Sequence Number) (SEQNO). The system assigned sequence number of the manufacturing order shown on the line.

Act. This column may either be blank or contain REL. If you release an order and return to the Review/Approve Items—Select Order For Release display (AMM62D), REL appears in the Act column next to the SEQ for that order.

Quantity (CWQTY). Customer order quantity.

Due Date (NDDTE). Planned completion date for this order.

S-Number (SNMBR). The alphanumeric description of the options and features required on the item by the customer.

WHS. The warehouse against which this customer order was taken.

Order (NNUMB). The tracking mechanism to track data through the system.

Itm Seq. The line item sequence number from a customer order.

Rls. Sequential number assigned by the system to identify individual releases on a customer order line item.

Customer (CUSNO). The customer number to identify the customer for this order.

Ship-to (SHNO). Identification number assigned to a ship-to record. The ship-to number is used in order entry to indicate that the ship-to name and address associated with the ship-to number are to override the customer name and address in the Customer Master file for the order.

AMM62E—Review/Approve Items—Component Availability

Use this display to review the availability of S-number components required for an order. It shows the quantity required, the quantity available, and the quantity short for each component, and highlights the quantity available and the quantity short if it is not sufficient for the order.

This display appears when you select action A (Availability) on display AMM62C or AMM62D.

This display does the following:

- Lists all the components for the item that are in effect as of the start date of this order, as determined by the engineering effectivity dates in the Product Structure file.
- Calculates quantity required for each component by multiplying the order quantity by the “quantity per” in the product structure of each component.
- Calculates the quantity available for allocation for each component by subtracting quantities already reserved from on-hand inventory.
- Compares required quantity to available quantity, and highlights any available quantity that is short.
- Gives the detail used to calculate available quantity (pending allocations, actual allocations, and on-hand) (see the field descriptions for this display).
- Shows total on order for each component, giving a preliminary indication of whether more of that component can be obtained than is presently in stock (on-hand).
- Highlights the component item number if the component item is a phantom.

The benefit of this display (and the associated processing of the interactive order review and release programs) is that the application keeps track of the total quantity of a given component required for all orders pending release, and notifies you when you are about to over-commit the inventory of that component. Continuous tracking is performed on the materials required for manufacturing orders: from planning through assigning them as pending allocations (at the time of order approval) through allocating them (at the time of order release). This helps prevent shortages at the time of order picking.

Note: As you change order quantities and manufacture/purchase designations of planned and firm planned orders, the application continuously reflects those changes in the Pending Manufacturing Allocations field, where orders approved for release are involved. This lets you evaluate the effect of changes before actually releasing the orders in question.

If the ordered item contains a phantom in its product structure, changing the required quantity after the order has been flagged for release may cause unpredictable results in the Pending Manufacturing Allocation field until after the next planning run. This can happen when available inventory changes after the order is flagged for release. (See the description of display AMM626, described earlier in this chapter, for further information on phantom items.)

- To return to display AMM62C or AMM62D (the previous display), use **F4**.
- To show additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs, use **F21**.
- To exit this session, use **F24**. Go to menu AMMM40.

Function keys

F3=Resume Inquiry causes the Review/Approve Items—Order/Schedule Status display (AMM622) to appear again.

F4=Resume order returns you to either the Review/Approve Items—Approve Order for Release display (AMM62C) or the Review/Approve Items— Select Order for Release display (AMM62D), depending on the display from which you requested availability.

F19=Left shows information to the left of what you currently see. You can press **F19** when you see More: < in the upper right part of the display.

F20=Right shows information to the right of what you currently see. You can press **F20** when you see More: > in the upper right part of the display.

F21=Item detail causes the Item Detail displays (AMM171 through AMM176) to appear, showing additional detail about the item, such as order policy, lead time, lot-sizing quantities, and costs. Refer to “Option 4. Item Requirements Inquiry (AMMM10)” on page 3-38 for a discussion on the Item detail displays.

F24=Exit ends processing and the Order/Schedule Release and Review menu (AMMM40) appears again.

Fields

Item. Number of the item, which can be any raw material, manufactured or purchased part, subassembly, assembly, or end item.

Planning WHS. The planning warehouse for the associated data.

Planner number. The number of the planner for this item.

Vendor. The vendor number assigned to this item and recorded in the Item Balance file. Usually, this is the primary supplier of the item (see “Accessing information” and “Assigning items to planners and vendors” in this book).

Available. The item’s available inventory, adjusted back to the last planning run. The field is calculated as follows: on-hand inventory, minus the difference of the receipts since the last planning run and the shipments since the last planning run, minus the manufacturing allocation quantity adjusted by the future allocation quantity. This field represents the starting available balance (on-hand minus allocated to manufacturing) for the last planning run. The body of the display presents all the orders eligible for action by the planner, and identifies each one with a sequence number for ease of operation. (MOHTQ minus (RECPL minus CURPL)) minus (MALQT minus FALQT).

Order type (derived from ORSOR). One of the following appears:

RECEIPT for released manufacturing or purchase orders
FIRM for firm planned orders
PLANNED for planned orders (not firmed by a planner).

Start date. The order start date.

Quantity. The order quantity.

Order/Schedule. The order number or schedule number for schedule controlled items.

Due date. The order due date.

Item sequence. The line item sequence number from a customer order.

S-number. The alphanumeric description of the options and features required on the item by the customer.

Release. Sequential number assigned by the system to identify individual releases on a customer order line item.

Component Item. This field contains the item number of the component item.

Required or Assigned. This field contains the component item required for the order. If a component appears more than once in the bill of materials for a parent item, the required quantity is summed and the cumulative results are shown. In most cases, "Required" is the column heading. If the order has been approved for release (Action in the order header is Release), the column heading is "Assigned" and the quantity shown is the quantity assigned to this order. In this case, the quantity is included in the Pending MFG ALLOC field for the component.

AVAIL to Allocate. This field contains the quantity of the component item available to fill the requirements of this order. If the quantity available does not cover the required or assigned quantity, it is highlighted. If you are viewing an order that has been approved for release (Action field contains Release), then the quantity of each component required for this order has already been assigned to this order, and is not included in this figure. This figure is still highlighted if it is not enough to cover this order. If this is the case, the field contains a negative number (since a greater quantity has been "committed"—either allocated or pending allocation—than is available). (MOHTQ minus PALOC minus MALQT minus PLREQ plus FALQT.)

Pending MFG ALLOC (PALOC). This field contains the total quantity of the component item reserved for orders approved for release; that is, the total required to cover all orders that are presently approved for release. If the order you are viewing has been approved for release (Action field contains Release), its assigned quantity is included in this amount.

MFG & CUS Allocated. This field contains the total quantity of the component item allocated to released manufacturing orders and to customer orders that have had their picking list printed minus future allocations (MALQT plus PLREQ minus FALQT).

MFG Allocated (MALQT). Manufacturing allocations for this component.

CUS Allocated (PLREQ). Pick list requirements for this component.

Shortage. The shortage that exists for the component item. The shortage quantity equals Required quantity less available-to-allocate quantity. This quantity shows shortages only. If the planned order has been selected for release, the shortage is equal to the available-to-allocate quantity.

On Hand (MOHTQ). This field contains the quantity of the component item presently in stock.

Total On Order. The total quantity of the component item presently on open (released) manufacturing and purchase orders (MPRPQ plus MPUPQ).

Description. The description of the component item.

Item Type. Code that best describes the type of item:

- 0 Phantom
- 1 Assembly or subassembly
- 2 Fabricated item
- 3 Raw material
- 4 Purchased item
- 9 User option (Special)
- F Feature
- K Kit

Vendor. Number of the primary supplier of this item.

Planner. User-assigned code that identifies the person responsible for planning the replenishment strategy for this item.

Short. Flag indicating if component is short.

Cmlt Matl Lead Time. Total number of days to produce an item assuming no material is on hand. It is the sum of the longest standard purchasing or standard manufacturing lead time at each level rolled up through the bill of material.

Function keys

F12=Return causes the display from which you requested demand information to appear again.

F24=End of job ends processing and the menu where you started this task appears again.

Fields

Order. The order number for the associated data.

Item. The item number for the associated data.

Sequence. The sequence number for the associated data.

Warehouse. The planning warehouse for the associated data.

Release. Sequential number assigned by the system to identify individual releases on a customer order line item.

Source of demand. This field displays the customer order or other top level requirement that generated this manufacturing order or purchase order item. For PC&C, the value +++ indicated that there are more sources of demand for this order than were tracked, due to selected planning run execution options. If the requirement is a customer order, the following fields appear:

Order: The customer order number.

Line: Line item sequence associated with shipment release detail information.

Release: Date customer manufacturing is due.

Possible values follow. MSSR refers to the Master Schedule Source Planning code.

BLENDED The larger of forecast and customer requirements (MSSR=C)

CUSONLY Combined customer orders (MSSR=C)

Cxxxxxx Customer order number ((MSSR=D or E). The customer order appears in the format of 01-CO-nnnnnnnn.

FORCAST Forecast quantity (MSSR=F)

GENDMND Generated component quantity based on parent planned orders (MSSR not D or E)

MANUAL Manually entered demand. Source of demand is optional at time of entry (MSSR=M)

M FCST Manual forecast

M HELD Manual held requirement

M REQMT Manual requirement

MSAFETY Safety quantity (MSSR=D or E)

Mxxxxxx Manufacturing order number

NEG QOH Negative quantity on hand

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P FCST Propagated forecast

P REQMT Propagated requirement

PRODPLN Production planned quantity (MSSR=P)

Sxxxxxx Repetitive Manufacturing order, allocated quantity

XS FCST Forecast quantity in excess of customer requirements (MSSR=D)

Demand item. The top level source of demand for this component.

Due date. The due date of the top level source of demand.

Quantity required. The quantity of this item that is required.

Option 3. Check Item Availability Prior to Release (AMMM40)

A display appears when you select option 3 on the Order/Schedule Release and Review menu (AMMM40). The report it generates is useful for checking availability of inventory prior to releasing orders. However, if you only want to check certain items for a particular order, you can use the Review/Approve Items—Component Availability display (AMM626), described earlier in this chapter.

The Item Shortage Report-MRP Availability Check (AMI4Q1) 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 available inventory committed for each order, the date that inventory is required, commitments to customer orders (if COM is installed and interfacing), and the material allocations for released manufacturing orders. Both the customer orders and the inventory allocations are time-phased, that is, they are detailed by the date they are required. Manufacturing and purchase receipts are detailed by the date they are scheduled to be received. Compare the allocated quantity printed on the component line of the report to the allocated quantity in the total line for the item. The quantities are highlighted if they do not match because the planning system (MRP) and the execution system (IM) are not consistent. The discrepancy must be corrected, or disruptions occur.

If COM is installed and interfacing, compare the picked requirements printed on the component line of the report to the picked requirements in the total line for the item. If the two do not match (are highlighted), inventory is inaccurate in either the planning or the execution system, and, again, disruptions occur as orders are released. Use COM to correct this problem.

The Item Shortage Report can also be used to identify trends or characteristics of your order release system. Note that although individual items may be exceptions (due to changed lead times, for example), it is the overall order release system that you should consider.

The following are some of the things you might look for as you review the report:

The available balance is a value calculated on the report.

Available = A - B - C, where:

- A** On-hand quantity plus scheduled receipts (on date to be received)
- B** Customer orders (on requested date), and
- C** Material allocation (on required date)

If the available balance remains positive beyond the lead time of the item and allocation is excessive, the report indicates that the manufacturing orders are being released too early. This usually causes false shortages and inflated inventory levels.

If the available balance remains positive beyond the time it takes to pick an order and if pick requirements are excessive, the report indicates that customer orders are being printed for picking too early and that you could make more effective use of inventory.

The Order Shortage Report-MRP Availability Check (AMI4W1) indicates which orders of a group have shortages along with a component list. The quantity short is printed on the report in detail. The report also notes any conflicts caused by releasing 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 the Order Shortage Report and Item Shortage Report, you can identify an order's shortage and use the detail on the Item Shortage Report to free up inventory for that order. Using the component list, you can find:

- Which items have shortages.
- How short you are in quantity, given the components available.
- How much longer it will take to produce the full order.

You can use MRP's inquiry to see the impact of these alternatives and make your decision as to the best action to take.

You may also want to check the Item Shortage report to see if you can take additional action, such as postponing or rescheduling other orders requiring the same items or expediting replenishment orders that will satisfy the shortage.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouses you select.

What information you need: None.

What reports are printed:

- Item Shortage Report-MRP Availability Check (AMI4Q1)
- Order Action Summary (AMM632)
- Order Shortage Report-MRP Availability Check (AMI4W1)

What forms you need: None.

The basic steps to do Check Item Availability are listed below the display.

AMM680—Check Item Availability Prior to Release

Use this display to specify which orders you want to check for shortages, and which shortage reports you want to print by item, by order, or by both to identify shortages.

You can choose to see all orders, only those recommended by MRP for release, or only those approved by the planner for release. You can also enter a review date to see only those orders that are to be released prior to that date.

Note: You must be authorized to the proper level of security in the warehouses you select.

```
AMM680          Check Item Availability Prior To Release
Planning Warehouse . . . . . aA3
Select Shortage Report Sequence . . . n  1=By Item
                                           2=By Order
                                           3=By Item and Order
Select Order Type . . . . . n  1=All
                                           2=Recommend For Release
                                           3=Approved Only
Limit Report by Review Date . . . . . nnnnnn  0=All
                                                Valid Date

F24=Cancel
```

What to do

- To simulate the order release and print the reports, type the information requested and press Enter. The system schedules the specified reports for printing. Go to menu AMMM40.
- To cancel this session, use F24. Go to menu AMMM40.

Function keys

F24=Cancel cancels processing and any data you typed in is ignored. No report is scheduled for printing. The Order/Schedule Release and Review menu (AMMM40) appears again.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Planning warehouse [?]. Required. Type the planning warehouse for the item you want to review.

Select Shortage Report Sequence. Type the number that corresponds to the reports you want.

1=By Item: Prints the Item Shortage Report-MRP Availability Check (AMI4Q1), which analyzes all the components required to release the orders selected for analysis. All requirements for each component are listed, in date required sequence, and a running total of inventory availability is printed for that item.

2=By Order: Prints the Order Shortage Report-MRP Availability Check (AMI4W1), that shows the orders with shortages and provides a complete list of (component) items required for each order, and identifies the short components for each order.

3=By Item and Order: Prints both reports.

Select Order Type. Type the number that indicates what orders you want to analyze for shortages.

1=All: Includes all planned and firm planned orders with a start date on or before the Review Date (see Optional Report Limits below).

2=Recommend for Release: Includes all orders recommended for release by MRP. All orders that have a start date on or before the Release Date, (identified during the planning run with a 51 (release) or 31 (expedite) exception). This firm planned or planned order is due for release.

3=Approved Only: Includes all orders that have been approved for release by the planners.

Limit Report by Review Date. The review date appears and serves as the cutoff date for the report. Orders having start dates later than this date are not considered. For purposes of the shortage reports, you can use a cutoff date earlier than the review date by replacing the date shown with your new date. This field is not usually used unless order type 1 is selected, but can be used with any option to limit the number of orders analyzed.

Option 4. Item Requirements Inquiry (AMMM40)

When you select option 4 on the Order/Schedule Release and Review menu (AMMM40), the Item Requirements Inquiry displays appear. These are the same displays as those explained in “Option 4. Item Requirements Inquiry (AMMM10)”.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouses you select.

Option 5. Release Orders (AMMM40)

When you release orders using options 5 or 6, you are actually releasing the planned or firm planned orders approved for release (in options 1 and 2 on AMMM40) on the planning system (MRP) to the execution system (IM).

Notes:

1. Once you have started order release, you should not cancel it.
2. Schedule the time when you will be releasing orders, as some other MRP activity is prohibited while order release is in progress.
3. To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouses you select.

If MPSP is installed and interfacing, MRP updates the orders in the MPSP files (after releasing them) to a released status and adjusts the order quantities as necessary.

If ISL/MISL is installed, and intersite orders have been approved for release in options 1 and 2 on AMMM40, this menu option submits a job to create customer orders for the intersite items in the supplying warehouse, using COM offline files. It also updates the status of the intersite orders in ISL/MISL. This menu option also releases any intersite orders created in ISL/MISL using the Work With InterSite Orders menu, option 1, Work With Orders, if option 2, Release Orders, on that menu has not been run.

If you select 1=Yes to "Update scheduled receipts" on panel AMV3H5, and intersite orders have been approved for change or delete in options 1 and 2 on AMMM40, this menu option submits a job to update the customer orders in the supplying warehouse, using COM offline files, and updates the intersite orders in ISL/MISL.

The corresponding generated requirements for allocated components are reduced or deleted depending on the quantity of the order that was released.

When you select option 5 on menu AMMM40 the Release Orders display (AMV3HB) appears. When you select option 6, the Release Orders With Shop Packet display (AMV3HC) appears. Both options 5 and 6 on menu AMMM40 release orders to Inventory Management. The only difference is that option 6, Release Orders with Shop Packet, prints a shop packet for that order for use on the shop floor (if Production Control and Costing is installed and interfacing) or prints a picking list if it is not installed and interfacing. If you do not request a shop packet during order release, someone using IM or PC&C can later request either the picking list or the shop packet.

What information you need:

Range of planning warehouses or planners.

What reports are printed:

The reports that are printed during order release depend on the type of orders you are releasing. The reports are listed below. Before each report one or more numbers appear in parentheses. These numbers indicate when the report is printed, as follows:

- 1** Changing or canceling a released purchase or manufacturing order
- 2** Releasing manufacturing orders with IM interfacing
- 3** Releasing purchase orders with IM interfacing
- 4** Firming planned orders
- 5** Releasing manufacturing orders with PC&C interfacing
- 6** Releasing intersite orders with ISL/MISL interfacing
- 7** Changing or cancelling released intersite orders

The order release reports:

- (2) Manufacturing Orders Released (AMI4O1)
- (5) Miscellaneous Detail Addition (AMC260)
- (5) Operations Detail Addition(AMC250)
- (1,2,3) Order Action Detail (AMM631)
- (1,2,3,4) Order Action Summary (AMM632)
- (2) Order Release-Detail Purge (AMI4C)
- (2,3,4) Order Release Batch Extract (AMI4M)
- (5) Order Release Routing Expansion (AMC240)
- (2,3) Order Release Summary (AMI4N)
- (2,3,4) Order Review Status(AMM611)
- (2) Order Shortage Report-Order Release (AMI4W2)
- (2,3,4) Planned Order Error List (AMM661)
- (3) Purchase Orders Released (AMI4R1)
- (5) Summary Maintenance Scheduler (AMC600)
- (6,7) Intersite Orders-Customer Order Report (BEP135)
- (6,7) Off-Line Order Entry-Rejected Orders(AMBGCPFR)
- (6,7) Off-Line Order Entry-Accepted Orders(AMBGEPFR)

What forms you need: None.

The basic steps to Release Orders are listed below each display.

This menu option is enabled for Automated Job Submission. See Appendix E.

AMV3HB—Release Orders

Use this display to specify for which planning warehouses or planners you want to release orders.

This display appears when you select option 5 on the Order/Schedule Release and Review menu (AMMM40).

Note: You must be authorized to the proper level of security in the warehouses you select.

```
AMV3HB                               Release Orders

Planning warehouse limits
From warehouse . . . . . aA3
To warehouse   . . . . . aA3

Planner limits
From planner   . . . . . nnnnn
To planner     . . . . . nnnnn

Update scheduled receipts . . . . . A  0=No, 1=Yes

F24=Cancel
```

What to do

Select a range of planning warehouses and/or planners and press Enter. The system schedules the orders for release and reports for printing. Go to menu AMMM40.

Function keys

F24=Cancel ends processing and any data you typed in is ignored. Order release is scheduled for execution.

Fields

For the **From** and **To** ranges on this display, the value you type in the **To** field must be greater than or equal to the value you type in the **From** field when both fields are used. The range begins with and includes the value you type in the **From** field; it ends with and includes the value you type in the **To** field.

If you type a value in the **From** field only, the system ends the range with the highest value for that field. If you type a value in the **To** field only, the system begins the range with the lowest value for that field. If you want to select records by a single value instead of a range, use that value in both the **From** and **To** fields.

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

Planning warehouse limits.

From warehouse/To warehouse [?]: These fields allow you to select a range of planning warehouses for which to release orders. To release orders for a specific planning warehouse, enter the same warehouse in both the From warehouse and To warehouse fields. To release orders for all defined planning warehouses, leave in the From warehouse field blank, and type 999 in the To warehouse field.

Planner limits.

From planner/To planner [?]: These fields allow you to select a range of planners for which to release orders. To release orders for a specific planner, enter the same identifier in both the From planner and To planner fields. To release orders for all defined planners, leave the From planner field blank, and type 999 in the To planner field.

Update scheduled receipts. Type one of the following:

- 0** No, do not update schedule receipts. This is the default.
- 1** Yes, update schedule receipts for a manufacturing order or purchase order line item or intersite order

Note: If you select 0=No, any changes or cancellations made to scheduled receipts are not fully processed during order release. These changes or cancel recommendations are printed on the Order Action Detail report (AMM631) but are not automatically processed by Inventory Management. You must ensure that these changes or cancel recommendations are entered using Inventory Management's data entry batch.

Option 6. Release Orders with Shop Packet (AMMM40)

Whenever you want to release the orders that you have approved for release using options 1 and 2 and create a shop packet, use option 6 on menu AMMM40.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouses you select.

What information you need: Range of planning warehouses or planners.

What reports are printed:

The reports that are printed during order release depend on the type of orders you are releasing. The reports are listed below. Before each report one or more numbers appear in parentheses. These numbers indicate when the report is printed, as follows:

- 1 Changing or canceling a released purchase or manufacturing order
- 2 Releasing manufacturing orders with IM interfacing
- 3 Releasing purchase orders with IM interfacing
- 4 Firming planned orders
- 5 Releasing manufacturing orders with PC&C interfacing
- 6 Releasing intersite orders with ISL installed
- 7 Changing or cancelling released intersite orders

The order release reports:

- (2) Manufacturing Orders Released (AMI4O1)
- (5) Miscellaneous Detail Addition (AMC260)
- (5) Operations Detail Addition (AMC250)
- (1,2,3) Order Action Detail (AMM631)
- (1,2,3,4) Order Action Summary (AMM632)
- (2) Order Release—Detail Purge (AMI4C)
- (2,3,4) Order Release Batch Extract (AMI4M)
- (5) Order Release Routing Expansion (AMC240)
- (2,3) Order Release Summary (AMI4N)
- (2,3,4) Order Review Status (AMM611)
- (2) Order Shortage Report-Order Release (AMI4W2)
- (2,3,4) Planned Order Error List (AMM661)
- (3) Purchase Orders Released (AMI4R1)
- (5) Shop Packet Labor Tickets (AMC340)
- (2,5) Shop Packet Summary List (AMC280)
- (2) Shop Packet Worksheet—Materials (AMI9I1)
- (2) Shop Packet Worksheet—Operations (AMI4H1)
- (5) Summary Maintenance Scheduler (AMC600)
- (2) Warehouse Location Sequence Extract (AMI9E1).
- (6,7) Intersite Orders-Customer Order Report (BEP135)
- (6,7) Off-Line Order Entry-Rejected Orders(AMBGCPFR)
- (6,7) Off-Line Order Entry-Accepted Orders(AMBGEPFR)

What forms you need: None.

The basic steps to release orders with shop packet are listed below the display. This menu option is enabled for Automated Job Submission. See Appendix E.

AMV3HC—Release Orders With Shop Packet

Use this display to specify for which planning warehouses or planners you want to release orders with shop packet.

This display appears when you select option 6 on the Order/Schedule Release and Review menu (AMMM40).

Note: You must be authorized to the proper level of security in the warehouses you select.

```
AMV3HC                      Release Orders With Shop Packet

Planning warehouse limits
From warehouse . . . . . aA3
To warehouse   . . . . . aA3

Planner limits
From planner   . . . . . nnnnn
To planner     . . . . . nnnnn

Update scheduled receipts . . . . . A  0=No, 1=Yes

F24=Cancel
```

What to do

Select a range of planning warehouses and/or planners and press **Enter**. The system schedules the orders for release and the reports for printing. Go to menu AMMM40.

Function keys

F24=Cancel ends processing and any data you typed in is ignored. Order release is scheduled for execution. The Order/Schedule Release and Review menu (AMMM40) appears again.

Fields

See “AMV3HB—Release Orders” for a description of the fields on this display.

Option 7. Auto-Release Purchase Orders (AMMM40)

Use this option to automatically release purchase orders which the planning run has generated. The planning run plans purchase orders to cover demand across the planning horizon. If the planned order has an exception code of Release or Expedite, the planned order may be automatically converted into a purchase order or requisition by the Purchase Order Auto Release option. The Purchase Order Auto Release option may be evoked from this MRP menu option or it may be selected as a run-time option to the MRP planning run.

Overview

In order to generate purchase orders or requisitions automatically, items must be flagged for automatic release in the Item Plan record. In addition, for purchase orders, not requisitions, a valid contract that is associated with a primary quote may be required to determine price, vendor, terms, and ship via codes for the items before orders can be generated. This contract must be for the primary vendor specified in the Item Balance (ITEMBL) file. Also, the buyer number to be used on the purchase order should be in the primary quotation. If a buyer number does not exist in the primary quotation, then one must be entered in the Item Master C-Record.

You can specify whether a contract is required, both at the warehouse level and at the item warehouse level. In the Planning Run Execution options, you can set the "Contract required for auto release" code for all items in the warehouse. In Item Balance file maintenance, using the "Contract required code" in the ITMPLN file, you can override that setting for individual items.

You can use a fixed blanket order, which must be created in Purchasing (using option 4, Enter/Edit Purchase Orders, on menu AM6M10), either along with, or instead of, contracts to help you control the auto-release process. A fixed blanket order contains a pre-established quantity (limit), and a latest due date (limit). Releases added to the blanket through MRP auto-release may not exceed either the quantity or date limit.

An open purchase order report in Purchasing lets you view the fixed blanket orders that are approaching either their date or quantity limits. As you approach the quantity limit of the fixed blanket order, you may create in Purchasing a new fixed blanket order.

When a planned order exceeds the quantity remaining on the first fixed blanket, as long as the due date limit of the first fixed blanket has not been reached, auto-release will split the planned order into two releases, both on the same date:

- One against the first fixed blanket for its remaining quantity
- One against the new fixed blanket for the remaining planned order quantity

This process "closes out" the first blanket order by consuming the entire quantity exactly, then automatically rolls over to the new blanket.

Fields controlling auto-release

Purchase order auto release is controlled by three fields defined in the Item Plan (ITMPLN) file.

Firm time fence: Establishes an offset to be used with the auto-release function for purchase orders and requisitions. The number of days entered is added to the MRP current date to establish this fence.

Authorized time fence: Establishes an offset to be used with the auto-release function for blanket purchase orders. The number of days entered is added to the MRP current date to establish this fence. If the firm and authorized time fences are left with zero days, the MRP release date will be used.

Auto-release code: Establishes an item's type of auto-release and its eligibility for the auto-release function.

Performing the auto-release

The application provides safeguards to protect against the accidental automatic release of purchase orders. When the auto-release purchase orders option is selected in MRP, automatic release for planned orders fitting the following criteria occur. To be selected, planned orders must:

- Have an auto release code greater than zero in the Item Plan file (ITMPLN)
- Have a start date less than the purchasing time fence, if established
- Have an exception code of RELEASE or EXPEDITE if the purchasing time fence is not established
- If a contract is required for the item, the planned order quantity must not exceed the remaining contract quantity, and the order due date must not be later than the contract expiration date.
- A fixed blanket must exist if either of these conditions is true:
 - The auto release code is 6 or 7
 - The auto release code is 4 or 5, purchase orders are being approved, and the item is not pre-approved (it is not flagged in the Item Master or in the Contract Master file)
- If a fixed blanket exists, the planned order quantity must not exceed the remaining fixed blanket quantity, and the order date must not be later than the "latest due date" for the fixed blanket. If the planned order quantity exceeds the remaining quantity on the fixed blanket, and a second fixed blanket exists for the vendor, the planned order quantity will be split into two releases. One release will be created against the first fixed blanket for the remaining fixed blanket quantity. A second release will be created against the second fixed blanket for the remaining planned order quantity.
- Contain an order quantity not exceeding the Maximum Quantity in ITMPLN.

In addition, to release a purchase order (auto-release code 2-7) there must be a vendor defined in the Item Balance file.

Auto-release codes

Auto-release code	Type of release	Purchasing time fence (MRP current date plus:)
0	None	Not applicable
1	Requisition	Firm time fence
2	Held purchase order	Firm time fence
3	Purchase order	Firm time fence
4	Held blanket purchase order	Greater of Firm or Authorized time fence
5	Blanket purchase order	Greater of Firm or Authorized time fence
6	Fixed blanket required	Greater of Firm or Authorized time fence
7	Held fixed blanket required	Greater of Firm or Authorized time fence

Auto-release processing

You must execute the MRP Planning run before you perform auto-release processing. This option uses the purchasing horizon times for purchased items to build the Order Review file.

You can release purchase orders and requisitions from MRP in several ways, all using MRP menu options.

- First, you can choose to have MRP Auto Release run immediately after the planning run completes.
- Or, you can choose to run the MRP Planning Auto Release as a separate menu option any time after a planning run.
- If you choose not to use auto release, you can use the normal MRP Review/Approval process to individually consider each order. Then choose MRP Order Release to create purchase orders and requisitions for each manually approved order.

During auto release, if a candidate is found for automatic requisition creation, a record is added to the Requisition file with a requisitioner identification of MRP AUTO. The planned order is changed to firm planned order and updated with the requisition number. If the requisition is later used to create an order, the next MRP planning run will change the firm planned order to a scheduled receipt.

If a candidate is found for automatic purchase order or blanket release creation, records are added to the Purchase Order Master and Detail files and the planned order is changed to a scheduled receipt. The planned order is also updated with the purchase order number.

What information you need:

Range of planning warehouses or planners.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouses you select.

What reports are printed:

The reports that are printed during order release depend on the type of orders you are releasing. The reports are listed below. Before each report one or more numbers appear in parentheses. These numbers indicate when the report is printed, as follows:

- 1** Releasing purchase orders with IM interfacing
- 2** Firming planned orders

The order release reports:

- (1, 2) Auto Release Error List (AMM651)
- (2) Order Action Detail (AMM631)
- (1, 2) Order Action Summary (AMM632)
- (1, 2) Order Release Batch Extract (AMI4M)
- (2) Order Release Summary (AMI4N)
- (1, 2) Order Review Status (AMM611)
- (1, 2) Planned Order Error List (AMM661)
- (2) Purchase Orders Released (AMI4R1)

What forms you need: None.

The basic steps to Auto-Release Purchase Orders are listed below the display.

This menu option is enabled for Automated Job Submission. See Appendix E.

AMV3HA—Auto-Release Purchase Orders

Use this display to specify for which planning warehouses or planners you want to auto-release purchase orders.

This display appears when you select option 7 on the Order/Schedule Release and Review menu (AMMM40).

Note: You must be authorized to the proper level of security in the warehouses you select.

```
AMV3HA                      Auto-Release Purchase Orders

Planning warehouse limits
  From warehouse . . . . . aA3
  To warehouse . . . . . aA3

Planner limits
  From planner . . . . . nnnnn
  To planner . . . . . nnnnn

F24=Cancel
```

What to do

- Select a range of planning warehouses and/or planners and press **Enter**. The system schedules the orders for release and the reports for printing. Go to menu AMMM40.

Function keys

F24=Cancel ends processing and any data you typed in is ignored. Order release is scheduled for execution. The Order/Schedule Release and Review menu (AMMM40) appears again.

Fields

See “AMV3HB—Release Orders” for a description of the fields on this display.

Option 8. Enter and Maintain Schedules (AMMM40)

Use this option to help develop your production plan. You may enter and maintain planned schedules, change the quantity on released schedules, and determine how well your production plan meets the extracted demand requirements. You can run the carry forward processing to update carry forward quantities for summary schedules. An immediate demand extract can be run for a specific warehouse/item combination. You can also review material availability for a specific schedule and line load hours.

This information shown includes release horizon date, and last carry forward date and time. You can enter a warehouse, item, line or planner, and schedule criteria.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouse you select.

What information you need: The item, line, or planner for each schedule that you want to see.

What reports are printed: The Carry Forward Audit report (AMQ44RP).

What forms you need: None.

The basic steps to enter and maintain schedules are listed below each display.

AMQ441—Enter and Maintain Schedules (Select)

Use this display to select production requirements, to select schedules to review and maintain, to begin the demand extract, to begin the lot sizing function, and to perform the carry forward function. Schedules are selected by item, line, or planner. You can use the Display Horizon From/To fields to control the dates presented on the ensuing displays.

This display appears when you select option 4 on menu AMQM40 or option 8 on menu AMMM40 if multiple warehouse support is not active. If multiple warehouse support is active, this display follows display AMQ440.

```

DATE **/**/**          ENTER AND MAINTAIN SCHEDULES  SELECT  AMQ441  **
WAREHOUSE             ***          LAST CARRY FORWARD PERFORMED **:**:** **/**/**
RELEASE HORIZON DATE **/**/**          WAREHOUSE ***
                                           LINE      *****
                                           ITEM      *****
                                           S-NUMBER  *****

      DISPLAY HORIZON          FROM      nnnnnn  TO      nnnnnn

      SEQUENCE                 n
      1 LINE                   aaaA5
      2 ITEM                   aaaaaaaaaaaaA15
      3 PLANNER                nnnnn

      SELECT                   n
      1 ALL SCHEDULES
      2 ALL EXCEPTIONS
      3 EXCEPTIONS INSIDE RELEASE HORIZON
      4 EXCEPTIONS OUTSIDE RELEASE HORIZON

      F02 NEXT ITEM/LINE/PLNR  F19 RETURN TO SELECT  F22 CARRY FORWARD
                               F21 LOT SIZE                    F24 END OF JOB
  
```

What to do

- To see selected schedules, press **Enter**. Go to display AMQ442.
- To see the next sequential item, line, or planner, use **F02**.
- To begin the lot sizing function, use **F21**.
- To perform the carry forward function, use **F22**.

Function keys

F02 NEXT ITEM/LINE/PLNR goes to next item, line, or planner based on your Sequence criteria.

F19 RETURN TO SELECT returns to the Select display (AMQ440) so you can select another warehouse.

F21 LOT SIZE creates schedule lots from all individual unreleased schedules within the chosen warehouse and display horizon that meet the selection criteria.

F22 CARRY FORWARD calculates the carry forward quantities.

F24 END OF JOB shows you the menu again, so you can choose another schedule option or end this activity.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

WAREHOUSE (HOUSE). The warehouse selected on display AMQ440 or the default planning warehouse.

LAST CARRY FORWARD PERFORMED. The time and date that the last carry forward function was performed.

The next four fields give you more information about the last carry forward function. They could have been selected from this display or could have run automatically during schedule purge.

WAREHOUSE (HOUSE). The warehouse associated with the last carry forward function performed.

LINE (WKCTR). The line number associated with the last carry forward function performed.

ITEM (ITNBR). The item number associated with the last carry forward function.

S-NUMBER. The S-number associated with the last carry forward function performed.

RELEASE HORIZON DATE (ODUDT). The date used when selecting exceptions inside the release horizon or exceptions outside the release horizon.

DISPLAY HORIZON FROM/TO. Type in the first and last dates for which you want to review schedules.

SEQUENCE. Required. Type in one of the following:

- 1 Process all items with the production line specified as the primary line for that item. Only items with records in the Item Line file will be displayed.
- 2 Process all schedules for a specific item.
- 3 Process all schedules for a specific planner.

LINE (WKCTR) [?]. Type in a line number to select schedule information for items with this line specified as the primary line.

ITEM (ITNBR) [?]. Type in an item number to select schedule information for a specific item.

PLANNER (PLANN). Type in the code of the person responsible for planning and scheduling this finished item.

SELECT. Required. Type in one of the following:

- 1 Retrieves all schedules selected on the **Sequence** field.
- 2 Selects all exceptions which have a calculated proposed change value or line hours scheduled greater than line hours available or less than minimum percentage.
- 3 Selects those exceptions that are inside the release horizon.
- 4 Selects those exceptions that are outside the release horizon.

Function keys

F02 NEXT ITEM shows the display again with data for the next item that has demand or schedule activity.

F05 SCHEDULE ADD allows you to enter single item schedules for a day or across multiple days for a specific line, item, and date.

F06 SELECT ALL allows you to select all the schedule dates appearing on the display.

F09 DATA QUEUE STATUS shows you display AMQX31.

F12 ADDITIONAL FIELDS toggles to show you the remaining schedule quantity or the original schedule quantity.

F13 USE PROPOSED CHG performs schedule maintenance to update all schedules on the selected dates with proposed changes. The display appears again with the updated information.

F15 RECALC SCHEDULES allows you to recalculate the schedule and operation start dates for the schedules you selected.

F16 EXTRACT DEMAND NOW extracts the current production requirements for this item/warehouse and performs the smoothing function, if appropriate. Display AMQ442 appears again.

F19 RETURN TO SELECT returns to the Select display (AMQ441) so you can select another record.

F24 END OF JOB shows you the menu again, so you can choose another option or end this activity.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

SEQUENCE BY. ITEM, LINE, or PLANNER appears depending on the type you selected on display AMQ441.

PRIMARY LINE (WKCTR). The production line where the item is usually manufactured.

PLANNER (PLANN). The code of the person responsible for planning and scheduling this finished item.

WH (Warehouse) (HOUSE). The warehouse selected on display AMQ440 or the default planning warehouse.

ITEM (ITNBR). The item number for which the summary data is shown.

CARRY FWD (CFWD). The calculated carry forward quantity. This field appears only if you are running a schedule that is part of a production campaign.

SMOOTHING CODE (SMHCD). The code specifies if and how smoothing is applied to an item in production.

Blank No smoothing.

- 1** REP Schedule Release Horizon plus one workday used to begin smoothing.
- 2** Smoothing begins with the schedule date where the first net demand occurs in the net demand column.

SMOOTHING START DATE (SMHDT). Type in a date to override the smoothing code. This date is used to begin smoothing if it is greater than the system date.

SEL (Select). Required. This field allows you to select specific schedules for review and maintenance, and to perform a material check. Type in **1** beside each schedule that you want to review and maintain.

SCHED DATE (ODUDT). The date the item's schedule is due to be completed.

NET DEMAND (EQNTY). The demand quantity for the item for this date since the last extract run. Net demand from COM is calculated by applying inventory against total demand. The field is highlighted if MRP exception codes exist. From MRP, net demand is the sum of planned orders plus scheduled receipts minus schedules proposed from deletion.

Note: Net demand has scrap added. Also, in MRP the schedule is netted by scrap quantity, and a planned schedule possibly might be created for scrap.

REMAINING SCHED QTY (ORQTY). The quantity of the item remaining to be produced on this date. When you use **F12** the display also shows you the original quantity scheduled.

ORIGINAL SCHED QTY (ORQTY). The quantity of the item originally scheduled for production on this date. When you use **F12** the display shows you the remaining quantity scheduled.

MULT SCHD. The code that indicates if this date has multiple schedules. The values are * for Yes and blank for No.

PROPOSED CHANGE (ORQTY). The recommended quantity change to the schedule for this date. (Net demand for this date minus quantity scheduled.)

SCHED HOURS. The number of line hours allocated to this schedule. Schedule hours includes allowances for the carry forward quantity.

LINE HOURS SCHED. The total production hours scheduled on the lines this item is scheduled.

LINE HOURS AVAIL. The total hours available on the lines this item is scheduled on a specific date.

ORIGINAL SCHED QTY (ORQTY). The total quantity of the item scheduled to be produced on this date. When you use **F12**, the display only shows you the quantity remaining to be produced.

AMQ44A—Enter and Maintain Schedules, Add

Use this display to create a single item schedule for a day or across multiple days for a specific line, item, or date.

This display appears after data is entered and edited on display AMQ442.

```

DATE **/**/**          ENTER AND MAINTAIN SCHEDULES      ADD      AMQ44A  **
                        ENTRY

PRIMARY LINE  *****  PLANNER  *****
WH *** ITEM *****
LOT *,**,* ** MIN *,**,* ** MAX *,**,* ** QTY/ ***** **
CHANGEOVER HOURS  **.*  FLOW TIME **.* ** ITEM RATE ***** ** P/C  *

SCHEDULE
DATE          NET DEMAND      REMAINING  MULT  PROPOSED  SCHED  -LINE HOURS-
**/**/**    *,**,* **.* **  * **.* **.* **.* **.* **.* **.* **.* **.* **.* **.*
SCHEDULE DATE      nn/nn/nn
PRODUCTION LINE    aaaa5      REVISION  aaaaA6
S-NUMBER           aaaaaaaaaaaaaaaaaa20
SCHEDULE QUANTITY  nnnnnnn.nnn
NUMBER OF DAYS     nn
IN QUANTITY        nnnnnnn.nnn
REFERENCE          aaaaaaaaa10
ALTERNATE ROUTING  aa
CARRY FORWARD OPT  a
RESCHEDULE CODE    n      CONSUME DATE      nn/nn/nn      ACCOUNTING CLASS *

F02 NEXT SCHEDULE DATE  F03 PREVIOUS DISPLAY  F14 SELECT PROCESS  F24 END OF JOB

```

What to do

- To create a schedule for a specific line, item, and date, type in the required information.
- To end schedule add, use **F24**.

Function keys

F02 NEXT SCHEDULE DATE shows the next schedule date if multiple days were selected on display AMQ442.

F03 PREVIOUS DISPLAY shows display AMQ442 again.

F14 SELECT PROCESS appears only if EPDM is activated and shows the Select Item Process display (AMVTIP01) so you can select an effective process for this item. If you do not select a particular process, the system will default to the primary process that is current for the revision on the order's start date.

If the warehouse of the order is associated with a site, order entry will automatically assign the primary process that is effective for the item revision based on the order's start date. You can only have one primary process effective at a time for an item revision; however, you may have alternate processes that are available. If you want to choose another process, use **F14** before you press **Enter** on this display. The Select Item Process display will show you the primary effective process and any alternate processes that are effective as of the order's start date. It is described at the end of this section.

F24 END JOB shows you the menu again, so you can choose another option or end this activity.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

PRIMARY LINE (WKCTR). The production line where the item is usually manufactured.

PLANNER (PLANN). The code of the person responsible for planning and scheduling this finished item.

WH (Warehouse) (HOUSE). The warehouse selected on display AMQ440 or the default planning warehouse.

ITEM (ITNBR). The item number for which the summary data is shown.

SCHED START OPTION. Code used to determine where in the production cycle the first schedule of the day is positioned.

- 1 This day's production will begin with the Changeover Time for this schedule.
- 2 This day's production will begin with the Flow Time for this schedule. (Changeover will be scheduled on the previous day.)
- 3 This day's production will begin with the Cycle Time for the item. (Changeover and Flow Time will be scheduled on the previous day.) This is the default value.

LOT. The target quantity, in pieces, for schedules created through lot sizing.

MIN (MINQY). The least allowable quantity, in pieces, for a schedule created by lot sizing.

MAX (MAXQY). The greatest allowable quantity, in pieces, for a schedule created by lot sizing.

QTY/ (Quantity Per) (CONDS). The description of a standard container and quantity of the finished item that can be placed in the container.

CHANGEOVER HOURS (CHGOV). Amount of time needed to set up the production line to begin producing the first item in the schedule.

FLOW TIME (FLWTIM). Elapsed time (in hours) required to produce one unit of a scheduled item on a continuously-operating production line.

ITEM RATE (PCSHR). Rate at which items are produced on the production line, stated in either pieces per hour or cycle time (time between pieces coming off the line).

P/C (PCYYFL). Code indicating the contents of the item rate field:

- C** Item rate is expressed as cycle time between pieces.
- P** Item rate is expressed as pieces per hour.

The next eight fields appear only if you selected a date on display AMQ442:

SCHEDULE DATE (ODUDT). The date the item's schedule is due to be completed.

NET DEMAND (EQNTY). The demand quantity for the item for this date since the last extract run. Net demand is calculated by applying inventory against total demand.

Note: Net demand has scrap added. Also, in MRP the schedule is netted by scrap quantity, and a planned schedule possibly could be created for scrap

REMAINING SCHD QTY (ORQTY). The quantity of the item remaining to be produced on this date. When you use **F12** the display also shows you the original schedule quantity.

MULT SCHD. The code that indicates if this date has multiple schedules. The values are * for Yes and blank for No.

PROPOSED CHANGE (ORQTY). The recommended quantity change to the schedule for this date. (Net demand for this date minus schedule quantity.)

SCHED HOURS. The number of line hours allocated to this schedule. Schedule hours includes allowances for the carry forward quantity.

LINE HOURS SCHED. A summary of the line hours scheduled for this item across all lines where this item is scheduled for the day.

LINE HOURS AVAIL. The difference between line hours of capacity and the apportioned line hours scheduled for the day.

SCHEDULE DATE (ODUDT). Type in the date the item's schedule is due to be completed. If you did not select a date on the previous display, this field becomes enterable.

PRODUCTION LINE [?]. Type in the production line to which you want to schedule the work. This field defaults to the primary line value in the ITEMPL file.

REVISION (REVS1) [?]. This field appears only if EPDM is activated. If smoothing is not activated, accept the default of *CUR to see the current revision based on the start date, or type a revision number to see a specific revision.

S-NUMBER (SNM1) [?]. Type in the features and options code for the item. S-number appears if you chose feature/options support during EPDM/PDM tailoring.

SCHEDULE QUANTITY (ORQTY). Type in the quantity of the item to be scheduled for each day.

NUMBER OF DAYS. Type in the number of days over which the schedule is spread. This is used with **DATE** to determine the first date of the schedule and overlays schedules if they already exist.

IN QUANTITY (ORQTY). Type in the largest quantity that you want produced by the schedule. If you are limited by the supply of a critical component, enter the number of scheduled items that can be produced with the component's available stock.

SCHEDULE QUANTITY is calculated by multiplying **IN QUANTITY** by **CURRENT CUMULATIVE YIELD**. If both **SCHEDULE QUANTITY** and **IN QUANTITY** are entered, **IN QUANTITY** is ignored.

REFERENCE (REFNO). Type in the user-defined code used to provide additional information.

ALTERNATE ROUTING (ARCOD). Type in the code that selects alternate operations for the item. This code is sometimes called a Select Code.

CARRY FORWARD OPT (Carry forward option). The code that identifies whether this schedule uses carry forward processing:

- 1** Schedule is not part of a production campaign.
- 2** Schedule is part of a production campaign.
- 3** This is the last schedule in a production campaign.

RESCHEDULE CODE. Type in the code used to indicate whether or not orders for the item (by item/warehouse) can be rescheduled automatically by the system.

- 0** Default to item reschedule code. This is the default.
- 1** Cannot be rescheduled automatically.
- 2** Can be scheduled out.
- 3** Can be scheduled in.
- 4** Can be scheduled both out and in.

CONSUME DATE. The date at which to begin consumption of planned orders in MRP.

ACCOUNTING CLASS (ORAC). Class, defined by your company, to group or classify orders for accounting purposes.

Fields

SEQUENCE BY. ITEM, LINE, or PLANNER appears depending on the type you selected.

PRIMARY LINE (WKCTR). The production line where the item is usually manufactured.

PLANNER (PLANN). The code of the person responsible for planning replenishment for manufactured and purchased material.

WH (Warehouse) (HOUSE). The warehouse selected on display AMQ440 or the default planning warehouse.

ITEM (ITNBR). The item number for which the summary data is shown.

CARRY FWD (Carry Forward Quantity) (CFWRD). The calculated carry forward quantity. (Schedule quantity minus quantity completed from previous day.)

SMOOTHING CODE (SMHCD). The code specifies if and how smoothing is applied to an item in production. The field can be overridden by the smoothing start date.

blank No smoothing
1 System date plus one workday used to begin smoothing
2 First net demand date used to begin smoothing

SMOOTHING START DATE (SMHDT). An override to the smoothing code. This date is used if it is greater than the system date.

SCHED DATE (ODUDT). The date the item's schedule is due to be completed.

SEL (Select) (SELWK). Type in **1** beside each S-number that you want to review.

S-NUMBER (SNMBR). The features and options code for the item. S-number appears if you chose feature/options support during EPDM/PDM tailoring.

NET DEMAND (EQNTY). The total demand quantity for this date for the item and S-number since the last extract run. Net demand from COM is calculated by applying inventory against total demand. This field is highlighted if MRP exception codes exist. From MRP, net demand is the sum of planned orders plus scheduled receipts minus schedules proposed for deletion.

REMAINING SCHED QTY (ORQTY). The quantity of the item remaining to be produced on this date. When you use **F12** the display also shows you the original quantity scheduled.

ORIGINAL SCHED QTY (ORQTY). The quantity of the item originally scheduled to be produced on this date. When you use **F12**, you can see the remaining quantity scheduled.

PROPOSED CHANGE. The recommended quantity change to the schedule for this date. (Net demand for this date minus quantity scheduled.)

AMQ445—Enter and Maintain Schedules, Detail (Change)

Use this display to enter schedules and assign schedules over multiple production lines for a specific schedule date. It also allows you to sequence schedules, check component shortages and line utilization, and change the schedule quantity field.

This display appears after you enter a selection on display AMQ442 if the item is not a model item. For a model item it appears after a selection on display AMQ444.

```

DATE **/**/**          ENTER AND MAINTAIN SCHEDULES          CHANGE    AMQ445  **
                        DETAIL

SEQUENCE BY ***** PRIMARY LINE ***** PLANNER *****
WH *** ITEM ***** LEAD TIME ***.*
LOT *,**,*.*.*.* MIN *,**,*.*.*.* MAX *,**,*.*.*.* QTY/ ***** *,**,*.*.*.*
                        REMAINING
SCHED DATE   NET DEMAND   SCHED QTY   PROPOSED CHG   S-NUMBER
**/**/**    *,**,*.*.*.*   *,**,*.*.*.*   *,**,*.*.*.*   *****

View 1 of 3
----- QUANTITY ----- SCHED --- LINE HRS ----
SEL  DATE  LINE  REV  SCHEDULE      IN  REFERENCE  HOURS  SCHED  AVAIL  VAR
-   nnnnnn  aaaA5  aaaaA6  nnnnnnnn.nnn  nnnnnnnn.nnn  aaaaaaaA10  ***.*  ***.*  ***.*  ***.*
-   nnnnnn  aaaA5  aaaaA6  nnnnnnnn.nnn  nnnnnnnn.nnn  aaaaaaaA10  ***.*  ***.*  ***.*  ***.*
-   nnnnnn  aaaA5  aaaaA6  nnnnnnnn.nnn  nnnnnnnn.nnn  aaaaaaaA10  ***.*  ***.*  ***.*  ***.*
-   nnnnnn  aaaA5  aaaaA6  nnnnnnnn.nnn  nnnnnnnn.nnn  aaaaaaaA10  ***.*  ***.*  ***.*  ***.*
-   nnnnnn  aaaA5  aaaaA6  nnnnnnnn.nnn  nnnnnnnn.nnn  aaaaaaaA10  ***.*  ***.*  ***.*  ***.*
-   nnnnnn  aaaA5  aaaaA6  nnnnnnnn.nnn  nnnnnnnn.nnn  aaaaaaaA10  ***.*  ***.*  ***.*  ***.*

ROLL UP/DOWN      F05 SCHEDULE ADD      F09 MATERIAL CHECK      F18 REFRESH
F02 NEXT VIEW    F07 SEQUENCE SCHEDULES  F10 SOURCE OF DEMAND    F19 RETURN
                  F13 USE PROPOSED CHG  F24 END JOB
+

```

```

View 2 of 3
SEL  DATE  LINE  ORIGINAL SCHED  ALT  -- CARRY FWD --  RESCH
      SCHED QTY REVISION NUMBER  STS  RTG  SAC  OPT  QUANTITY  CODE
-   nnnnnn  aaaA5  nnnnnnnn.nnn  aaaaA6  nnnnnnnn  nn  aa  nnn  A  nnnnnnnn.nnn  A
-   nnnnnn  aaaA5  nnnnnnnn.nnn  aaaaA6  nnnnnnnn  nn  aa  nnn  A  nnnnnnnn.nnn  A
-   nnnnnn  aaaA5  nnnnnnnn.nnn  aaaaA6  nnnnnnnn  nn  aa  nnn  A  nnnnnnnn.nnn  A

ROLL UP/DOWN      F05 SCHEDULE ADD      F09 MATERIAL CHECK      F18 REFRESH
ROLL UP/DOWN    F07 SEQUENCE SCHEDULES  F10 SOURCE OF DEMAND    F19 RETURN
F03 PREV VIEW    F13 USE PROPOSED CHG  F14 SELECT PROCESS      F24 END JOB
+

```

```

View 3 of 3
SEL  DATE  LINE  ORIGINAL SCHED  MRP  MRP DUE  RESCH
      SCHED QTY NUMBER  STS  EXCEPTION  DATE  CODE
-   nnnnnn  aaaA5  nnnnnnnn.nnn  nnnnnnnn  nn  nn  nnnnnn  nnnnnn  A
-   nnnnnn  aaaA5  nnnnnnnn.nnn  nnnnnnnn  nn  nn  nnnnnn  nnnnnn  A
-   nnnnnn  aaaA5  nnnnnnnn.nnn  nnnnnnnn  nn  nn  nnnnnn  nnnnnn  A

ROLL UP/DOWN      F07 SEQUENCE SCHEDULES  F10 SOURCE OF DEMAND    F18 REFRESH
F03 PREV VIEW    F09 MATERIAL CHECK      F13 USE PROPOSED CHG  F19 RETURN
F05 SCHEDULE ADD  F13 USE PROPOSED CHG  F24 END JOB
+

```

What to do

- To sequence schedules, type **1** in the **SEL** field and use **F07**. Go to display AMQ441 under option 5, Sequence Schedules.

- To see the next view of information, use **F02**.
- To see the previous view of information, use **F03**.
- To create a single item schedule for a day or across multiple days, use **F05**.
- To perform a material check, type **1** in the **SEL** field and use **F09**. Go to display AMQ4L2.
- To see the source of demand, type **1** in the **SEL** field and use **F10**. Go to display AMM771.
- To update schedule quantity changes, use **F13**.

Note: When you press **Enter** after entering changes, message AM-9155 RECORDS UPDATED OR ADDED appears and the body of the display shows the effect of the changes you entered. Press **Enter** to continue with the next selected record. If no more selections are made, the previous Summary display (either AMQ442 or AMQ444) appears again.

If you enter a different date from the one in the header and press **Enter**, message AM-9155 appears and the body of the display shows only the records for the date in the header. The record for the different date is updated but not shown. To see this date, you must return to the Summary display (AMQ442) and select that date.

- To cancel what you typed in on this display, use **F18**.
- To return to the Enter and Maintain Schedules (Select) display (AMQ441), use **F19**.

Function keys

F02 NEXT VIEW shows you the next page of schedules.

F03 PREV VIEW shows you the previous page of schedules.

F05 SCHEDULE ADD shows you display AMQ44A to allow you to create a schedule.

F07 SEQUENCE SCHEDULES shows you the Sequence Schedules display (AMQ452) to allow you to determine the order in which the schedules are built.

F09 MATERIAL CHECK shows you the Component Material Check display (AMQ4L2) to allow you to check the schedules for component shortages.

F10 SOURCE OF DEMAND shows you the Source of Demand display (AMM771) to allow you to check the sources of demand for this schedule.

F13 USE PROPOSED CHG updates the schedules with the recommended change quantities. This display (AMQ445) appears again with the updated information.

F18 REFRESH DISPLAY shows the display again without any changes made since the last time you used a function key or **Enter**.

F19 RETURN TO SELECT returns to the Select display (AMQ441) so you can select another record.

F24 END OF JOB shows you the menu again, so you can choose another schedule option or end this activity.

Fields

[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

SEQUENCE BY. ITEM, LINE, or PLANNER appears depending on the type you selected.

PRIMARY LINE (WKCTR). The production line where the item is usually manufactured.

PLANNER (PLANN). The code of the person responsible for planning replenishment for manufactured and purchased material.

WH (Warehouse) (HOUSE). The warehouse selected on display AMQ440 or the default planning warehouse.

ITEM (ITNBR). The item number selected on display AMQ441.

LEAD TIME (LTMAN). The manufacturing lead time in days.

LOT (SLTQIL). The target quantity, in pieces, for schedules created through lot sizing.

MIN (SMNQIL). The least allowable quantity, in pieces, for a schedule created by lot sizing.

MAX (SMXQIL). The greatest allowable quantity, in pieces, for a schedule created by lot sizing.

QTY/ (Quantity Per) (CONDS). The description of a standard container and quantity of the finished item that can be placed in the container.

SCHED DATE (ODU DT). The date the item's schedule is due to be completed.

NET DEMAND (EQNTY). The total demand quantity for this date for the item and S-number since the last extract run. Net demand from COM is calculated by applying inventory against total demand. This field is highlighted if MRP exception codes exist. From MRP, net demand is the sum of planned orders plus scheduled receipts minus schedules proposed for deletion.

REMAINING SCHED QTY (ORQTY). The quantity of the item remaining to be produced on this date. When you use **F12**, the display also shows you the original schedule quantity.

ORIGINAL SCHED QTY (ORQTY). The total quantity of the item scheduled for production on this date.

PROPOSED CHG. The recommended quantity change to the schedule for this date. (Net demand for this date minus quantity scheduled.)

S-NUMBER (SNM BR). The features and options code for the item. S-number appears if you chose feature/options support during EPDM/PDM tailoring.

SEL (Select). Type in **1** and use **F07** or **F09** to select specific schedules for review.

DATE. Required. Type in the date the schedule is due to be completed.

LINE (WKCTR) [?]. Required. Type in the production line on which you want to schedule the work.

ORIGINAL SCHED QTY (ORQTY). Type in the quantity of the item to schedule into production.

REVISION (WSRVAD) . This field appears only if EPDM is activated. Accept the default of *ALL to see all revisions. Type *CUR to see the current revision based on the current system. Type a revision number instead of a schedule number to see a specific revision.

IN QUANTITY. Type in the quantity to be entered into the process.

REFERENCE (REFNO). Type in the user-defined code used to provide additional information.

SCHED HOURS. The number of line hours allocated to this schedule. Changeover hours plus (flow time hours minus cycle time) plus (the sum of schedule quantity and carry forward quantity, multiplied by the cycle time) minus overlap hours.

LINE HOURS SCHED. The total line hours of all items scheduled on this line for a specific date.

LINE HOURS CAP. The daily capacity of hours available for this production line.

LINE HOURS AVAIL. The difference between the line's capacity and its apportioned line hours for the day.

SCHED NUMBER (ORDNO). The number of the associated schedule.

STS (STATUS) (OSTAT). The code that indicates the status of the schedule.

00	Planned order/schedule not released
10	Order/schedule released, not started
40	Activity reported (schedule primed)
55	Order/schedule complete

ALT RTG (ARCOD). Type in the code that selects an alternate operation for the item.

SAC. Class, defined by your company, to group or classify orders for accounting purposes.

CARRY FORWARD OPT (Carry forward option). The code that identifies whether this schedule uses carry forward processing:

1	Schedule is not part of a production campaign.
2	Schedule is part of a production campaign.
3	This is the last schedule in a production campaign.

CARRY FWD QUANTITY (CFWRD). The calculated carry forward quantity (Schedule quantity minus quantity completed from previous schedules).

RESCH CODE (ORRC). Type in the code used to indicate whether or not order/schedules for the item (by item/warehouse) can be rescheduled automatically by the system.

- 0** Default to item reschedule code. This is the default.
- 1** Cannot be rescheduled automatically.
- 2** Can be scheduled out.
- 3** Can be scheduled in.
- 4** Can be scheduled both out and in.

MRP EXCEPTION. The planning exception (or recommendation) for this order, if any, determined during the last planning run.

For a complete list of exceptions, see "Planning Exceptions" in the *Material Requirements Planning User's Guide*.

MRP DUE DATE. The date the order/schedule is required. Before planner action (for released orders and firm planned orders), this is the date of the order/schedule as of the last planning run. For planned order/schedules, this is the date the order/schedule is required as determined by the last planning run. After planner action (in all cases), it is the date indicated by the planner.

AMQ4L2—Component Material Check (Review)

Use this display to check the availability of components for a specific schedule. Availability is based on each component's required date.

This display appears when you use **F09 MATERIAL CHECK** on display AMQ445.

```

DATE **/**/**          COMPONENT MATERIAL CHECK          REVIEW          AMQ4L2  **
SCHED NBR ***** SCHED DATE **/**/** LINE ***** S-NBR *****
WH *** ITEM ***** REVISION *****

REM SCHED QTY  *,***,***,***-

COMPONENTS          QTY REQ          ONHAND          AVAILABLE
SEQ  REQ DATE      ALLOCATED      ON ORDER
***** **/**/** ***** ** ***** **
***** **/**/** ***** ** ***** **
***** **/**/** ***** ** ***** **
***** **/**/** ***** ** ***** **
***** **/**/** ***** ** ***** **
***** **/**/** ***** ** ***** **
***** **/**/** ***** ** ***** **
***** **/**/** ***** ** ***** **
***** **/**/** ***** ** ***** **

HIGHLIGHTED AVAILABLE QUANTITIES SHOW SHORTAGE
                                USE ROLL UP/DOWN          F08 SHOW ALL COMPONENTS
                                F03 PREVIOUS DISPLAY        F12 ADDITIONAL FIELDS
                                                                F24 END OF JOB
+

```

What to do

- To return to the **Enter** and Maintain Schedules Detail (Change) display (AMQ445), use **F03**. Go to display AMQ445.
- To see all of the components for a selected schedule, use **F08**. To see shortages for a selected schedule, use **F08** again.
- To see additional fields, use **F12**. To return to the original display format, use **F12** again.

Function keys

F03 PREVIOUS DISPLAY shows you the previous display (AMQ445).

F08 SHOW SHORTAGES shows you the shortages from the selected schedules. Using F08 a second time changes the description to **SHOW COMPONENTS**, which shows all of the components for the selected schedules.

F12 ADDITIONAL FIELDS allows you to review the second line of fields on the display. Using **F12** a second time returns you to the original format of one line of fields.

F24 END OF JOB shows you the menu again, so you can choose another schedule option or end this activity.

Fields

SCHED NBR (ORDNO). The associated schedule number.

SCHED DATE (ODUPT). The date the item's schedule is due to be completed.

LINE (WKCTR). The production line where the item is usually manufactured.

WH (Warehouse) (HOUSE). The warehouse selected on display AMQ440 or the default planning warehouse.

ITEM (ITNBR). The item number selected on display AMQ441. The description of the item also appears.

REVISION. This field appears only if EPDM is activated. The revision number associated with this item.

REM. SCHED QTY (ORQTY). The quantity of the item remaining to be produced on this date (scheduled quantities less their receipts).

COMPONENTS (ITNBR). The material used in the production of the scheduled item and the operations shown.

QTY REQ (ORQTY). The quantity of the component required to produce the schedule.

ONHAND (ORQTY). The quantity currently in inventory for this component.

AVAILABLE (ORQTY). The net quantity not yet committed to a production schedule. (Onhand plus on order minus allocated.)

SEQ. The user-defined sequence number used to uniquely identify the component.

REQ DATE. The date the component is required for production.

ALLOCATED (ORQTY). The total quantity of this component allocated through the required date.

ON ORDER (ORQTY). The total quantity of this component scheduled or on order through the required date.

AMVTIP01—Select Item Process

Use this display to select an effective process for the item associated with the order you entered on display AMQ44A.

This display appears when EPDM is activated and you select **F14 SELECT PROCESS** on the Enter and Maintain Schedules - Add display (AMQ44A).

```

AMVTIP01                               Select Item Process      DATE **/**/** *****
Site . : ***                           *****
Item . : *****                        *****
Rev . . : *****                       Effective... **/**/** **/**/**

Position to . . . . aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaA40

Type option: then press ENTER.
  1=Select

Opt  Pri  Eff From  Eff To  Description
n   *   **/**/**  **/**/**  *****

F3=Exit      F7=Backward    F8=Forward    F12=Cancel
              F20=Right
  
```

```

Opt  Pri  Eff From  Eff To  Alt BOM ID  Routing ID  Version
n   *   **/**/**  **/**/**  *****    *****    *****

F3=Exit      F7=Backward    F8=Forward    F12=Cancel
F19=Left
  
```

What to do

Type **1** in the **Opt** field beside the process you want to assign to the item and press **Enter**. Use the **Position to** field to move to a specific item process.

Option 9. Source of Demand (AMMM40)

Use this option to review the sources of demand for an item. Source of demand can be selected by order, item, or warehouse, or by any combination of order, item, and warehouse.

What information you need:

- Order number (for a scheduled receipt)
- Item number
- Sequence number
- Warehouse
- Release number.

What reports are printed: None.

What forms you need: None.

The basic steps to do Source of Demand are explained in “AMM771—Source of Demand” on page 6-49.

Option 10. Purchase Planning Profile (AMMM40)

Use this option to create and maintain the purchase planning profiles used for purchase planning schedules.

The purchase planning profiles allow you to define a sequence of periods as templates for creating schedules. They allow you to define important information about the schedules, such as:

- How often to create and send planning schedules to suppliers
- Whether schedules need a buyer review before being sent
- The types of authorization or forecast
- Period lengths
- Number of periods

After you create a profile, you can assign it to items in one of the following ways:

- At the vendor level, by entering the planning profile ID in the Vendor Master record.
- At the item/warehouse level, by entering the planning profile ID in the Item Plan record.

Using option 11 on AMMM40, you create the schedules themselves and based on the setting of the media flag in the Vendor Master, print the schedules, fax the schedules to the vendor, if the Fax Interface and Telex/Fax/400 are installed, and/or EDI the schedules to the vendor as EDI 830/DELFOR planning/ delivery schedule transactions, using the Electronic Commerce (EC) application.

Using options 11 or 12 on AMMM40, you print the schedules for reference, mailing, or manual faxing.

What information you need:

- Schedule frequency
- Whether buyer review is needed
- Types of planning authorization
- For each schedule type, the period length and number of periods

What reports are printed: Purchase Planning Profile report (AMMPPP1P).

What forms you need: None.

Commands you can use:

- WRKPLNPRF (Work with Purchase Planning Profiles)
- CRTPLNPRF (Create Purchase Planning Profile)
- CPYPLNPRF (Copy Purchase Planning Profile)
- DSPPLNPRF (Display Purchase Planning Profile)
- CHGPLNPRF (Change Purchase Planning Profile)
- DLTPLNPRF (Delete Purchase Planning Profile)

The basic steps to create purchase planning profiles are listed below each display.

- To delete an existing purchase planning profile, type **4** in the Option field beside the profile you want to delete and press **Enter**. A Confirm Delete display appears, asking you to press Enter to confirm your choices for deletion.
- To display the information for a purchase planning profile, type **5** in the Option field and press **Enter**. The Display Purchase Planning Profile display (AMMDPP01) appears. This display looks exactly like the Change Purchase Planning Detail display (AMMCPP01), except that you cannot change any fields.
- To print a purchase planning profile, type **6** in the Option field and press **Enter**. The Purchase Planning Profiles Audit report (AMMPP1P) is printed.

Function keys

F1=Help

Shows information about this panel. Pressing F1 or pressing the help key shows you the same information.

F3=Exit

Ignores any options or changes you typed on the current panel, ends the current task, and returns to the panel where you started.

F4=Prompt

Provides assistance for the option or options you selected in the list or provides assistance for the command you typed on the command line. A command is the same as a function. For example, WRKITM means the function 'Work with Items'. If you did enter a command, you see a list of parameters (choices) you can use with that command.

F5=Refresh

Clears any changes you made and returns the panel to the way it originally appeared. If any fields on the panel have default values, those defaults appear.

F7=Backward

Shows the previous set of entries for the list. You can press F7 when you see *More: -* in the upper right part of the panel.

F8=Forward

Shows the next set of entries for the list. You can press F8 when you see *More: +* in the upper right part of the panel.

F9=Retrieve

Shows the last command you entered from the command line with any parameters you selected. Press F9 again to see the next-to-last command, and so on.

F10=Header options

Shows a window with all the valid options for the object identified at the top of this panel. The list includes options already supplied and those defined by your company.

F11=Job status

Shows a list of your current system and job information. You can see the status of your current job, including: system ID, date, job number, and job name; your ID and your workstation ID; the default output queue and output queue library; and the XA environment.

F12=Cancel

Ignores any options or changes you typed on the current panel, and returns to the previous panel. Processes any other options you typed on the previous panel.

F13=Repeat

Repeats the option in *Option* from where the cursor is to the end of the list but ignores any other options typed for items earlier in the list.

F16=User options

Shows the options your company has currently defined for this function.

Use F16 to work with user options. On the list that appears, you can type the option you want to perform against the user option you select. There is more information about a user option than can fit on the panel. You can use function keys to see more to the left or to the right of the view you currently see. Unless you change the sequence, you see views in this order:

1. Operator information
2. Programmer information.

F17=Subset

Shows a panel where you can create a subset of a list. You can narrow the list down to a smaller group that contains only those entries that meet all the criteria you enter.

You can subset this list by planning warehouse, item number, company, and customer number.

F18=Change defaults

Shows a panel where you can select which view of the information you want to see first.

F19=Left

Shows information to the left of what you currently see. You can press F19 when you see *More: <* in the upper right part of the panel.

F20=Right

Shows information to the right of what you currently see. You can press F20 when you see *More: >* in the upper right part of the panel.

F22=Messages

Shows a list of all the messages currently sent to this panel. From the list, you can choose to see secondary message text for any of the messages.

F24=More keys

Shows additional function keys you can use on this panel.

Fields

Position to. Type a value in this field to skip to a particular entry in the list. Use it for quick repositioning of the list, not for creating a subset of the list. Choose from the following:

***TOP**

Type *TOP to go to the top of the list.

***BOT**

Type *BOT to go to the bottom of the list.

Name or partial name

Type the full or partial name or number of the entry you want to skip to in the list. The list starts with the first entry that begins with the string of characters or numbers you typed. If no entry matches the string, the list begins with the one immediately preceding the position you want.

Profile ID. Number identifying the purchase planning profile.

Profile description. Text describing the purchase planning profile.

Schedule frequency. Defines how often you want to send the planning schedule to the supplier.

Contents	Index
-----------------	--------------

- 1 Daily
- 2 Twice a week
- 3 Weekly
- 4 Every 2 weeks
- 5 Every 4 weeks
- 6 Monthly
- 7 Every 2 months
- 8 Quarterly

Buyer review required. Indicates whether you want the buyer to review the planning schedule before you send it.

- 0 (No) Review is not required. Transfer the schedule electronically to the supplier if EC is installed and the Vendor Master file indicates that planning schedules are to be sent to the vendor.
- 1 (Yes) Buyer review is required. Store the planning schedule and notify the buyer through Work With Buyer Activity that it is available for review.

AMMAPP01—Create Planning Profile

Use this display to create a new purchase planning profile, adding detailed information about the schedule.

The detail lines in the profile define the scope, or length, of the profile and the specific content of the schedule. You determine the following:

- The total length of the schedule: by the number of periods you define and the their length (Period length and Number of periods). For example, 52 periods, each 7 days long, define a schedule of one year.
- The level of detail in the schedule: by the period lengths you define. For example, 12 periods, each 7 days long, plus 10 periods, each 28 days long, define a schedule of one year.
- The level of your commitment to this schedule with your vendor: by the Type code defined on each line. That is, are you authorizing the vendor to take any action based on this schedule, or is the schedule merely for planning purposes?

This display appears when you type 1 and add a new profile ID on the blank first line of the list on the Work With Purchase Planning Profiles display (AMMWPP01).

```

AMMAPP01                Create Planning Profile
Profile . . . . . : nnnnN6 aaaaaaaaaaaaaaaaaaaaaaaaaA30
Type information; then press Enter.                                Page 1 of 1
Profile details
Schedule frequency . . . . . N (1-8)
Buyer review needed. . . . . N (0-No 1=Yes)

Type          Period length   Number of periods
A *****
A *****                N2                nN3

F1=Help      F3=Exit      F5=Refresh
F7=Backward  F8=Forward   F12=Cancel   F24=More keys

```

What to do

Type in the details about this profile and press Enter. At a minimum, you must enter one line containing a type, period length, and number of periods.

Function keys

F1=Help

Shows information about this panel. Pressing F1 or pressing the help key shows you the same information.

F3=Exit

Ignores any options or changes you typed on the current panel, ends the current task, and returns to the panel where you started.

F5=Refresh

Clears any changes you made and returns the panel to the way it originally appeared. If any fields on the panel have default values, those defaults appear.

F7=Backward

Shows the previous set of entries for the list. You can press F7 when you see *More: -* in the upper right part of the panel.

F8=Forward

Shows the next set of entries for the list. You can press F8 when you see *More: +* in the upper right part of the panel.

F10=Header options

Shows a window with all the valid options for the object identified at the top of this panel. The list includes options already supplied and those defined by your company.

F11=Job status

Shows a list of your current system and job information. You can see the status of your current job, including: system ID, date, job number, and job name; your ID and your workstation ID; the default output queue and output queue library; and the XA environment.

F12=Cancel

Ignores any options or changes you typed on the current panel, and returns to the previous panel.

F22=Messages

Shows a list of all the messages currently sent to this panel. From the list, you can choose to see secondary message text for any of the messages.

F24=More keys

Shows additional function keys you can use on this panel.

Fields

Profile. Number identifying the purchase planning profile.

Profile description. Text describing the purchase planning profile.

Schedule frequency. Defines how often you want to send the schedule to the supplier.

- | | |
|---|----------------|
| 1 | Daily |
| 2 | Twice a week |
| 3 | Weekly |
| 4 | Every 2 weeks |
| 5 | Every 4 weeks |
| 6 | Monthly |
| 7 | Every 2 months |
| 8 | Quarterly |

Buyer review required. Indicates whether you want the buyer to review the planning schedule before you send it.

- | | |
|---|---|
| 0 | (No) Review is not required. Transfer the schedule electronically to the supplier if EC is installed and the Vendor Master file indicates that planning schedules are to be sent to the vendor. |
| 1 | (Yes) Buyer review is required. Store the planning schedule and notify the buyer through Work With Buyer Activity that it is available for review. |

Type. Code indicating the level of commitment for the line in the purchase planning profile. It is not necessary to define all type codes in a profile.

A or Make Authorized to build product.

B or Buy Authorized to buy materials.

C or Firm Forecast for schedule is firm.

D or Plan Forecast for schedule is planned only.

blank (Default) Line not used.

The system arranges the types in ascending sequence: all of the A (Make) types, then the B (Buy) types, and so on. The result is a profile that defines the periods when the supplier is authorized to build the product, followed by the periods when the supplier is authorized to buy materials, followed by the forecast for the periods.

Period length. The length in days of the planning period for this type. Use full calendar days (7 days per week), not work days.

Number of periods. The number of periods of this type and length, for the schedule.

AMMCP01—Change Purchase Planning Detail

Use this display to maintain an existing purchase planning profile.

This display appears when you type option 2 next to any of the existing purchase planning profiles on the Work With Purchase Planning Profiles display (AMMWPP01). The information that you have already defined for this profile appears on this display. You can then change the fields as needed.

```

AMMCP01          Change Purchase Planning Detail
Profile Id . . . . :   *****   aaaaaaaaaaaaaaaaaaaaaaaaaA30
Type information; then press Enter.                               Page 1 of 1

Profile details
Schedule frequency . . . . . N   *****
Buyer review required. . . . . N   (0=No 1=Yes)

Type                Period length   Number of periods
A *****          N2              nN3

F1=Help           F3=Exit           F5=Refresh
F7=Backward      F8=Forward      F12=Cancel      F24=More keys
  
```

What to do

Change the information about the profile, as needed, and press Enter.

Function keys

F1=Help

Shows information about this panel. Pressing F1 or pressing the help key shows you the same information.

F3=Exit

Ignores any options or changes you typed on the current panel, ends the current task, and returns to the panel where you started.

F5=Refresh

Clears any changes you made and returns the panel to the way it originally appeared. If any fields on the panel have default values, those defaults appear.

F7=Backward

Shows the previous set of entries for the list. You can press F7 when you see *More: -* in the upper right part of the panel.

F8=Forward

Shows the next set of entries for the list. You can press F8 when you see *More: +* in the upper right part of the panel.

F10=Header options

Shows a window with all the valid options for the object identified at the top of this panel. The list includes options already supplied and those defined by your company.

F11=Job status

Shows a list of your current system and job information. You can see the status of your current job, including: system ID, date, job number, and job name; your ID and your workstation ID; the default output queue and output queue library; and the XA environment.

F12=Cancel

Ignores any options or changes you typed on the current panel, and returns to the previous panel.

F22=Messages

Shows a list of all the messages currently sent to this panel. From the list, you can choose to see secondary message text for any of the messages.

F24=More keys

Shows additional function keys you can use on this panel.

Fields

Profile ID. Number identifying the purchase planning profile.

Profile description. Description of the purchase planning profile.

Schedule frequency. Defines how often you want to send the schedule to the supplier.

- 1 Daily
- 2 Twice a week
- 3 Weekly
- 4 Every 2 weeks
- 5 Every 4 weeks
- 6 Monthly
- 7 Every 2 months
- 8 Quarterly

Buyer review required. Indicates whether you want the buyer to review the planning schedule before you send it.

0 (No) Review is not required. Transfer the schedule electronically to the supplier if EC is installed and the Vendor Master file indicates that planning schedules are to be sent to the vendor.

1 (Yes) Buyer review is required. Store the planning schedule and notify the buyer through Work With Buyer Activity that it is available for review.

Type. Code indicating the level of commitment for the line in the purchase planning profile. It is not necessary to define all type codes in a profile.

A or Make Authorized to build product.

B or Buy Authorized to buy materials.

C or Firm Forecast for schedule is firm.

D or Plan Forecast for schedule is planned only.

blank (Default) Line not used.

The system arranges the types in ascending sequence: all of the A (Make) types, then the B (Buy) types, and so on. The result is a profile that defines the periods when the supplier is authorized to build the product, followed by the periods when the supplier is authorized to buy materials, followed by the forecast for the periods.

Period length. The length in days of the planning period for this type. Use full calendar days (7 days per week), not work days.

Number of periods. The number of periods of this type and length, for the schedule.

Option 11. Create Purchase Planning Schedules (AMMM40)

Use this option to create purchase planning schedules, based on the purchase planning profiles, and print paper copies, send them via EDI, and/or fax them, based on the media flags in the Vendor Master file.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouse you select.

Purchase planning schedules allow you to share forecasting and material planning information with trading partner vendors, to assist them in material and production planning. Their primary purpose is to provide planned and forecasted order information, with an option to include your authorization to the vendor to commit resources (buy the materials or buy the materials and make the product).

At the completion of this option, paper copies of planning schedules are printed either one of the following conditions is true:

- The Print media flag for Planning Schedules in the Vendor Master file is set to Y (yes).
- You override the Vendor Master setting by answering Y to Print all schedules created on display AMM800.

At the completion of this option, electronic copies of planning schedules are sent to suppliers using EDI transaction 830/DELFOR if all of the following conditions are met:

- Electronic Commerce (EC) is installed and set up for sending the EDI 830/DELFOR transaction.
- The Purchase Planning Profile is identified in the Vendor Master or Item Plan file.
- The EDI media flag for Planning Schedules in the Vendor Master file is set to Y (yes).
- Buyer approval is not required in the Purchase Planning Profile.

Note: The override in Print all schedules created does not apply to EDI transmission.

If buyer approval is required, the buyer is notified through the Work With Buyers Activity and becomes responsible for reviewing, maintaining, and sending the schedules.

At the completion of this option, the document is sent to the fax output queue to be faxed to suppliers if all of the following conditions are met:

- Telex/Fax/400 is installed and interfacing.
- The Purchase Planning Profile is identified in the Vendor Master or Item Balance file.
- The Fax media flag for Planning Schedules in the Vendor Master file is set to Y (yes).
- Buyer approval is not required in the Purchase Planning Profile.

Note: The override in Print all schedules created does not apply to fax transmission.

If buyer approval is required, the buyer is notified through the Work With Buyers Activity and becomes responsible for reviewing, maintaining, and sending the schedules.

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What information you need:

- The schedule frequencies to be included
- Start date for first period in the schedule
- Earliest due date to include in the schedule

What reports are printed: Purchase Planning Schedule (AMM84RP)

What forms you need: None.

The basic steps to create purchase planning schedules are listed below the display.

This menu option is enabled for Automated Job Submission. See Appendix E.

AMM800—Purchase Planning Schedules

Use this display to define the purchase planning schedules to be created, and optionally to be printed or sent to vendors. See page 6-102 for conditions that cause printing, electronic transmission, or Faxing to occur.

```
AMM800                                Purchase Planning Schedules

Create purchase planning schedules for planning warehouses:
aA3 aA3 aA3 aA3 aA3 aA3 aA3 aA3 aA3 aA3

Create purchase planning schedules for items with frequencies:
All . . . . . A           Weekly . . . . . A           Monthly . . . . . A
Daily . . . . . A         Every 2 weeks. A       Every 2 months . A
Twice a week. A          Every 4 weeks. A       Quarterly . . . . . A

Start date for first period . . . . . NNNNNN
Earliest due date to include . . . . . NNNNNN

Reference number . . . . . **/**/** **:*:*

Print all schedules created . . . . . A

F1=Help    F3=Exit    F5=Refresh    F12=Return
```

What to do

Type details about the purchase planning schedules to be created, and press **Enter**.

- If you have multiple planning warehouses, enter the IDs of the ones for which you want to create schedules.
- Select the schedules to be created by specifying the frequencies to be included. Answer Y (Yes) next to each frequency for which you want to create purchase planning schedules.
- Enter the start date for the first period of the schedules and the earliest due date for planned and firm planned orders you want included in the schedules.
- You can also override the normal print setting in the Vendor Master file to print paper copies of all of the schedules you create, for example, for testing and cutover purposes.

You must enter at least one valid planning warehouse ID and frequency.

Function keys

F1=Help

Shows information about this panel. Pressing F1 or pressing the help key shows you the same information.

F3=Exit

Ignores any options or changes you typed on the current panel, ends the current task, and returns to the panel where you started.

F5=Refresh

Clears any changes you made and returns the panel to the way it originally appeared. If any fields on the panel have default values, those defaults appear.

F12=Return

Ignores any information you typed and returns you to the previous menu or the Application Selection menu if you are on the Main Menu, or asks if you want to exit XA if you are on the Application Selection menu.

Fields

Create purchase planning schedules for planning warehouses. If you have more than one planning warehouse, type in the IDs of the warehouses for which you want to create purchase planning schedules.

Create purchase planning schedules for items with frequencies. Type Y (Yes) next to each frequency for which you want to create purchase planning schedules.

Start date for first period. Type in the starting date for the first period in the purchase planning schedules being created.

Earliest due date to include. Type in the earliest due date you want to include in the schedule. Use this field if you want to include overdue planned orders.

Reference number. Reference information for the purchase planning schedule.

You can use this 30-position alphanumeric field for your own reference. When first displayed, the creation date and time appear, but you can replace them with other more meaningful text.

Print all schedules created. Y (yes) or N (no). Whether you want to print paper copies of all purchase planning schedules you create, regardless of the **Print?** setting for planning schedules in the Vendor Master file. This override is useful for testing and cutover purposes.

Option 12. Print and Purge Planning Schedules (AMMM40)

Use this option to print a selection of purchase planning schedules and optionally remove them from the system.

Note: To perform tasks in this menu option, you must be authorized to the proper level of security in the warehouse you select.

You may want to print purchase planning schedules for reference, or to mail or fax manually to suppliers. You may want to purge purchase planning schedules created before a certain date to reduce the size of the Purchase Planning Schedules files or because the information is no longer of use.

What information you need:

- Buyer limits
- Vendor number limits
- Item number limits
- Planning warehouse limits
- Planning schedule date limits
- Date before which you want to purge schedules

What reports are printed: Purchase Planning Schedule (AMM84RP).

What forms you need: None.

The basic steps to Print and Purge Purchase Planning Schedules are listed below the display.

F5=Refresh

Clears any changes you made and returns the panel to the way it originally appeared. If any fields on the panel have default values, those defaults appear.

F12=Cancel

Ignores any options or changes you typed on the current panel, and returns to the previous panel.

Fields

Buyer limits. Range of buyers for which you want to print schedules.

Vendor number limits. Range of vendor numbers for which you want to print schedules.

Item number limits. Range of item numbers for which you want to print schedules.

Planning warehouse limits. Range of planning warehouses for which you want to print schedules.

Planning schedule date limits. Range of planning schedule dates for which you want to print schedules.

Purge schedules created before. All purchase planning schedules created prior to the date you enter here will be purged. If blank, no purchase planning schedules are purged.

Chapter 7. Work with Calendars

When you select option 5 on “The MRP Main Menu”, the “AMVWWC0R—Work With Calendars” on page 7-2 appears. From this display you can:

- See a list of the available calendars
- Change, Copy, Delete, or Display a calendar.
- Add a new calendar

What information you need: Calendar names and descriptions.

What reports are printed: None.

What forms you need: None.

Note: This section illustrates only those displays used in adding or changing calendar information. Those displays that allow you to view information only are the same as the maintainable displays but you cannot change any of the information shown.

AMVWWC0R—Work With Calendars	7-2
AMVWWC1R1—Add Calendar Header	7-4
AMVWWC1R2—Add Calendar Header	7-5
AMVWWC1R3—Edit Calendar - Years	7-6
AMVWWC1R4—Change Calendar - Header	7-7
AMVWWC1R6—Change Calendar - Years.....	7-9
AMVWWC1R7—Change Calendar - Year	7-11
AMVWWC2R—Change Calendar - Month.....	7-12

AMVWVC0R—Work With Calendars

Use this display to select the calendar you want to change, copy, delete, or display. You can use **F6** to add a new calendar.

This display appears when you select option 8 on the IM File Maintenance menu (AMIM70), option 6 on the PCC File Maintenance menu (AMCM70), or option 5 on the MRP Main menu (AMMM00).

MORE: — + on the right part of the display indicates that more lines are in the list than are currently shown. If you see a minus sign, use **ROLL DOWN** to see elements higher in the list. If you see a plus sign, use **ROLL UP** to see elements lower in the list.

```

Date  **/**/**          Work with Calendars          AMVWVC0R  **
Position to calendar . . aaaaaaaA10

Type options; press Enter.
  2=Change  3=Copy  4=Delete  5=Display

Opt  Calendar  Def  Description
nn  *****  *  *****

More:

F3=Exit  F5=Refresh  F6=Add  F7=Forward  F8=Backward
    
```

What to do

To select the calendar you want to view or maintain, type in an option number in the Opt field for the appropriate calendar and press **Enter**. The appropriate display appears for you to continue the task.

Function keys

F3=Exit returns you to the menu where you started.

F5=Refresh causes this display to appear again with the most current information.

F6=Add causes display AMVWVC1R1 to appear where you can begin to create a new calendar.

F7=Forward allows you to scroll to the next page of calendars.

F8=Backward allows you to scroll to the previous page of calendars.

Fields

Position to calendar. If you want a specific calendar to appear at the top of the list in the Calendar field, type in the name of that calendar.

Opt. Type in one of the following:

- 2 CHANGE. Use this option to change an existing calendar. When you use this option, the “AMVWWC1R4—Change Calendar - Header” window appears so you can change the calendar description or change the calendar to/from default status.
- 3 COPY. Use this option to copy an existing calendar. When you use this option, the Copy Calendar window appears so you can enter the new (target) calendar’s name and description. When you press **Enter** the window closes, and the new calendar appears as the first entry in the list.
- 4 DELETE. Use this option to delete a calendar that already exists. The system checks to see that the calendar is not being used in the Warehouse Master, Facility Master, or Work Center files and if it is not used, the Delete Calendar Confirmation display (AMVWWC4R) appears when you press **Enter** to give you the opportunity to review the calendars you have selected for deletion. That display is not illustrated in this manual.
- 5 DISPLAY. Use this option to view detailed information about a calendar. When you use this option, the Display Calendar -Header window appears. This window and the windows that follow it are the same as the Change Calendar - Header windows except that all fields are display only.

You can select more than one option before pressing **Enter**. When you press **Enter** all of the options you selected are processed in sequence.

Calendar name. The identifier assigned to the calendar is displayed.

Def. Y or N appears to indicate if this is a default calendar name.

Description. The description of the calendar is displayed.

AMVWWC1R1—Add Calendar Header

Use this display to enter calendar header information for a new calendar. It is the first of two displays you will use.

This display appears when you select **F6=Add** on the Work with Calendars display (AMVWWC0R).

```

Date  **/**/**          Add Calendar - Header          AMVWWC1R1  **
Type information, press Enter.                               Page 1 of 2

Calendar name          aaaaaaaaaA10
Calendar description   aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaA35
Default calendar      n      (0=No, 1=Yes)
First year            nnnn
Default daycodes
Sun      N      Valid daycodes:
Mon      -      "- " = Workday
Tue      -      "N" = Non-workday
Wed      -
Thu      -
Fri      -
Sat      N

F5=Refresh      F12=Return
    
```

What to do

Type in the required information and press **Enter**. Page two (AMVWWC1R2) appears for you to continue the task.

Function keys

F5=Refresh causes this display to appear again with the most current information.

F12=Return returns to the previous display without making any changes.

Fields

Calendar name. Type in the unique identifier you want to use for this calendar.

Calendar description. Type in the unique description you want to use for this calendar.

Default calendar (Default). Type **0** or **1** to indicate if this is a default calendar name.

First year. Type in the first year you want to use on this calendar.

Default daycodes. Accept the default day codes or type in the ones you want to use for this calendar.

AMVWWC1R2—Add Calendar Header

Use this display to enter calendar header information for a new calendar. It is the second of two displays you will use.

This display appears when you press **Enter** on the Add Calendar - Header display (AMVWWC1R1).

```

Date **/**/**          Add Calendar - Header          AMVWWC1R2  **
Type information, press Enter.                          Page 2 of 2

Manufacturing period type          n      0=12 monthly periods/year
                                       1=13 four-week periods/year
                                       2=12 four or five week
                                       periods/year

Mfg. period type '2' only:
Quarter 1-weeks/period             nnn   (445-454-544)
Quarter 2-weeks/period             nnn
Quarter 3-weeks/period             nnn
Quarter 4-weeks/period             nnn

First day of schedule week         n      (1=Sun, 2-6=Mon-Fri, 7=Sat)

F5=Refresh      F12=Return

```

What to do

Type in the required information and press **Enter**. The Edit Calendar - Years display appears for you to continue the task.

Function keys

F5=Refresh causes this display to appear again with the most current information.

F12=Return returns to the previous display without making any changes.

Fields

Manufacturing period type. Type in the type of period you want to use for this calendar. If you enter period type **2**, you must complete the next field as well.

Mfg. period type '2' only. Type in the unique periods for each quarter.

First day of schedule week. Type in the number that corresponds to the first day of the schedule week for this calendar.

AMVWWC1R3—Edit Calendar - Years

Use this display to select the calendar years you want to change or display.

This display appears when you press **Enter** on the Add Calendar - Header display (AMVWWC1R2). The calendar name and description appears at the top of the display.

```

Date  **/**/**                Edit Calendar - Years                AMVWWC1R3  **
Calendar. . . . . : *****
                                     *****

Type information, press Enter.
2=Change    5=Display

Opt      Year
n        ****
n        ****
n        ****
n        ****
n        ****

F3=Exit    F10=Create Calendar    F12=Return
    
```

What to do

Type in the option for the action you want to perform against a specific year and press **Enter**. The appropriate display appears for you to continue the task.

Function keys

F3=Exit returns you to the Work with Calendars display. A warning pop-up window appears to allow you to create the calendar before exiting.

F10=Create Calendar creates valid work days for this calendar in the Calendar file. and returns you to the Work with Calendars display. A pop-up window appears to allow you to create the calendar before exiting.

F12=Return returns to the previous display without making any changes. A warning pop-up window appears to allow you to create the calendar before returning to the previous display.

Fields

Calendar. The unique identifier for this calendar is displayed.

Opt. Type in **2** to change a year or **5** to display a year in this calendar.

Year. The individual year in this calendar is displayed.

AMVWWC1R4—Change Calendar - Header

Use this display to change calendar header information.

This display appears when you select option **2=Change** on the Work with Calendars-display (AMVWWC1R1). The calendar name and description appears at the top of the display. You can change the description.

```

Date **/**/**          Change Calendar - Header          AMVWWC1R4  **
Type information, press Enter.

Calendar name          *****
Calendar description   aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaA35
Default calendar      n      (0=No, 1=Yes)
First year            ****
Default daycodes
Sun      N      Valid daycodes:
Mon      -      "- " = Workday
Tue      -      "N" = Non-workday
Wed      -
Thu      -
Fri      -
Sat      N
Created date          **/**/**          Changed date          **/**/**
Created time          **:**:**          Changed time          **:**:**
Created by            *****          Changed by            *****

F5=Refresh      F12=Return
    
```

What to do

Type in the required information and press **Enter**. The information is updated and the Change Calendar - Years display (AMVWWC1R6) appears for you to continue the task.

Function keys

F5=Refresh causes this display to appear again with the most current information.

F12=Return returns to the previous display without making any changes.

Fields

Calendar name. The unique identifier for this calendar is displayed.

Calendar description. Type in the unique description you want to use for this calendar.

Def calendar. If you change this field from 0 (No) to 1 (Yes), a pop-up window appears where you can select a different default calendar name.

First year. The first year used on this calendar is displayed and cannot be changed here.

Default daycodes. The default day codes are displayed and cannot be changed here.

AMVWWC1R6—Change Calendar - Years

Use this display to select the calendar years you want to change or display.

This display appears when you press **Enter** on the Change Calendar - Header display (AMVWWC1R4). The calendar name and description appears at the top of the display.

```

Date **/**/**          Change Calendar - Years          AMVWWC1R6  **
Calendar. . . . . : *****  *****

Type information, press Enter.
2=Change    5=Display

Opt      Year
n        ****
n        ****
n        ****
n        ****
n        ****

F3=Exit    F6=Add new year  F10=Create Calendar  F12=Return
    
```

What to do

Type in the option for the action you want to perform against a specific year and press **Enter**. The appropriate display appears for you to continue the task.

Function keys

F3=Exit returns you to the Work with Calendars display. A warning pop-up window appears to allow you to create the calendar before exiting.

F6=Add new year causes a pop-up window to appear that reminds you that this action will drop the first year from the beginning of the calendar and add the next year to the end of the calendar. You can press **Enter** to add new year or use **F12** to return.

F10=Recreate Calendar recreates valid work days for this calendar in the Calendar file. and returns you to the Work with Calendars display. A pop-up window appears to allow you to recreate the calendar before exiting.

F12=Return returns to the previous display without making any changes. A warning pop-up window appears to allow you to create the calendar before returning to the previous display.

Fields

Calendar name. The unique identifier for this calendar is displayed.

Opt. Type in **2** to change a year or **5** to display a year in this calendar.

Year. The individual year in this calendar is displayed

AMVWWC1R7—Change Calendar - Year

Use this display to select the month you want to change on a calendar.

This display appears when you select option **2=Change** on the Change Calendar - Years display (AMVWWC1R6) or the Edit Calendar - Years display (AMVWWC1R3). The calendar name and description appears at the top of the display.

```

Date **/**/**                Change Calendar - Year                AMVWWC1R7  **
Calendar. . . . . : *****
Calendar year . . . : ****
Type options; press Enter.
2=Change
                                1111111111222222222233
Opt  Month                    1234567890123456789012345678901
n   January                    *****
n   February                    *****
n   March                       *****
n   April                       *****
n   May                         *****
n   June                        *****
n   July                        *****
n   August                      *****
n   September                   *****
n   October                    *****
n   November                    *****
n   December                   *****

F12=Return
    
```

What to do

Type in the option for the action you want to perform against a specific month and press **Enter**. The appropriate display appears for you to continue the task.

Function keys

F12=Return returns to the previous display without making any changes. A warning pop-up window appears to allow you to create the calendar before returning to the previous display.

Fields

Calendar name. The unique identifier for this calendar is displayed.

Calendar year. The individual year in this calendar is displayed..

Opt. Type in option **2** in the field next to the appropriate month of this individual year. Press **Enter** to display Change Calendar - Month (AMVWWC2R).

Chapter 8. Report descriptions

This chapter contains samples of all of the reports the MRP application produces. MRP provides a variety of reports and report options to assist you in creating and managing a materials planning system. Although you can always use the comparative displays (forecasting, master level items scheduling, item requirements inquiries, and order release activities), the reports provide supporting information necessary for historical and comparative analysis. Depending on which functions you choose when you tailor the application to your company's needs, you may not need some of the reports described.

Each report has a unique identification number in the upper right corner. You can use either the identification number or the report name to identify a report. The MRP reports described in this chapter are grouped in alphabetical order.

Table 8-1. (Page 1 of 2) List of reports, sorted by report name

Report	ID	See page
Auto Release Error List	AMM651	8-3
Create Purchase Planning Schedules Audit	AMM81RP1	8-4
Date Interval Records	AMM130	8-5
Expected Customer Orders	AMM87RP1	8-7
Item Shortage Report -MRP Availability Check	AMI4Q1	8-9
Job Cancellation Message Log	AXZ10	8-12
Maintain Expected Customer Order Audit	AMMPEC0P	8-13
Manufacturing Cash Flow Analysis	AMM3D1	8-14
Master Items Planning Report	AMM3A1	8-17
MLI Resource Report	AMM222	8-18
MLI Versus Forecast/Orders	AMM221	8-20
Order Action Detail	AMM631	8-29
Order Action Summary	AMM632	8-31
Order Review Status	AMM611	8-32
Order/Schedule Recommendation by Exception	AMM3C1	8-33
Order/Schedule Recommendation by Item		
Order Shortage Report -MRP Availability Check	AMI4W1	8-36
Planned Order Error List	AMM661	8-39
Planning Run Exception Report	AMM321	8-40
Planning Run Status Report	AMM381	8-42
Purchase Order Revisions	AMV7A1	8-43
Purchase Planning Profiles Audit	AMMPPP1P	8-44
Purchase Planning Report	AMM3B1	8-46
Purchase Planning Schedule	AMM84RP	8-48
Requirements Planning Report	AMM3A1	8-50
Reschedule Activity Report	AMM3M1	8-57
Source of Demand for Scheduled Receipts	AMM3N1	8-58

Table 8-1. (Page 2 of 2) List of reports, sorted by report name

Report	ID	See page
Warehouse Relationships	AMM3K1	8-60

Table 8-2. List of reports, sorted by report ID

ID	Report	See page
AMI4Q1	Item Shortage Report -MRP Availability Check	8-9
AMI4W1	Order Shortage Report -MRP Availability Check	8-36
AMM130	Date Interval Records	8-5
AMM221	MLI Versus Forecast/Orders	8-20
AMM222	MLI Resource Report	8-18
AMM3A1	Master Items Planning Report Requirements Planning Report	8-17
AMM3B1	Purchase Planning Report	8-46
AMM3C1	Order/Schedule Recommendation by Exception Order/Schedule Recommendation by Item	8-33
AMM3D1	Manufacturing Cash Flow Analysis	8-14
AMM3K1	Warehouse Relationships	8-60
AMM3M1	Reschedule Activity Report	8-57
AMM3N1	Source of Demand for Scheduled Receipts	8-58
AMM321	Planning Run Exception Report	8-40
AMM381	Planning Run Status Report	8-42
AMM611	Order Review Status	8-32
AMM631	Order Action Detail	8-29
AMM632	Order Action Summary	8-31
AMM651	Auto Release Error List	8-3
AMM661	Planned Order Error List	8-39
AMM81RP1	Create Purchase Planning Schedules Audit	8-4
AMM84RP	Purchase Planning Schedule	8-48
AMM87RP1	Expected Customer Orders	8-7
AMMPEC0P	Maintain Expected Customer Order Audit	8-13
AMMPPP1P	Purchase Planning Profiles Audit	8-44
AMV7A1	Purchase Order Revisions	8-43
AXZ10	Job Cancellation Message Log	8-12

Auto Release Error List (AMM651)

```

NORTHCREEK IND. NO. 01          AUTO RELEASE ERROR LIST          DATE 8/07/
** TIME 9:41:47 PAGE 1 AMM651

PLANNING WAREHOUSE ABC The ABC warehouse

ERROR          ITEM          START    DUE          QUANTITY  NEW QUANTITY  VENDOR ORDER
NO VENDOR      7001          07/13/** 07/19/**    950.000
NO VENDOR      7001          07/13/** 07/19/**    200.000
NO VENDOR      03425         07/19/** 07/19/**    1,000.000
NO CONTRACT    03370 054480   03/06/** 07/19/**    100.000
NO CONTRACT    03370 054480   05/05/** 09/20/**    100.000
-ORDER SPLIT: 0345637      05/05/** 09/20/**    150.000    100.000 V12366 P000056
-FIXED BLANKETS- 7001          05/05/** 09/20/**    50.000    50.000 V12366 P000134
7001          07/13/** 07/19/**    200.000
    
```

ORDERS TO BE FIRMED * 3 TO BE RELEASED 0

To print this report, use option 7 on menu AMMM40. It lists the error, item, start and due dates of the planning run, and the quantity of the item in error.

Fields

PLANNING WAREHOUSE. The planning warehouse for the associated data.

ERROR. Reason the error was generated.

ITEM. Item number against which the error was generated.

VENDOR. Vendor number for the item, if one exists.

START. Date the order is scheduled to start.

DUE. Date the order is planned to be completed.

QUANTITY. Quantity of the ordered or scheduled item.

Create Purchase Planning Schedules Audit (AMM81RP1)

```

Create Purchase Planning Schedules Audit
AMM81RP1 UserID****                               **/**/**      Page 1
                                                    **/**/**      SystemID EE
Create purchase planning schedules for planning warehouses:
-----
Create purchase planning schedules for items with frequencies:
All . . . . . N      Weekly . . . . . N      Monthly . . . . . N
Daily . . . . . N      Every 2 weeks. N      Every 2 months . N
Twice a week. N      Every 4 weeks. N      Quarterly . . . . . N

Start date for first period:      **/**/**
Earliest due date to include:     **/**/**

Reference number:                  **/**/** **      **:**:**_____

Print all schedules created:      N

Totals for schedules created:
Schedules created:                ***,***,***
Schedules printed:                ***,***,***
Schedules sent:                   ***,***,***
Schedules need buyer review      ***,***,***

**End of report**

```

To print this report, select option 11 on menu AMMM40. This report shows information about planning schedules you have created for printing or sending electronically through Electronic Commerce (EC) using the ANSI X.12 830 or EDIFACT DELFOR transaction. It is printed whenever you create purchase planning schedules.

Fields

Create purchase planning schedules for planning warehouse. Planning warehouses for which you have created purchase planning schedules.

Create purchase planning schedules for items with frequencies. Identifies the frequencies you used to select which purchase planning schedules to create.

Start date for first period. The start date of the first period in the planning schedule.

Earliest due date to include. If you wanted to include overdue planned orders, this field shows the due date that you specified, which is earlier than the start date for the first period.

Reference number. Number assigned to the schedules by the system.

Print all schedules created. Indicates whether you chose to print all of the planning schedules created.

Totals for schedules created. These fields list the total number of planning schedules created, printed, sent, or specified as needing buyer review.

Date Interval Records (AMM130)

NORTHCREEK IND.	NO. 01	DATE INTERVAL RECORDS	DATE 10/11/
** TIME 15.37.01	PAGE 1	AMM130	

PLN WHS ABC	
PLANNING DATES	
START	9/20/**
CURRENT	10/11/**
RELEASE	10/18/**
ALLOCATION	10/19/**
REVIEW	11/12/**
END	12/31/**

CODE	INTERVAL 1	INTERVAL 2	INTERVAL 3	
1	9/20/**	9/20/**	9/20/**	E AM-5017 PERIOD INTERVAL DATE OUTSIDE CALENDAR
2	9/21/**	10/04/**	9/27/**	
3	9/24/**	10/18/**	10/04/**	
4	9/25/**	11/01/**	10/11/**	
5	9/26/**	11/15/**	10/18/**	
6	9/27/**	12/03/**	10/25/**	
7	10/04/**	12/17/**	11/01/**	
8	10/11/**	12/31/**	11/08/**	
9	10/18/**	12/31/**	11/15/**	
10	10/25/**	12/31/**	11/26/**	
11	11/01/**	12/31/**	12/03/**	
12	11/08/**	12/31/**	12/10/**	
13	11/15/**	12/31/**	12/17/**	
20	12/31/**	12/31/**	12/31/**	E AM-5016 PERIOD INTERVAL DATE BEYOND CALENDAR

To print this report, select options 1 or 2 on menu AMMM20. This report is a copy of the period intervals and planning dates in effect. It is printed whenever the planning dates are changed as the date intervals are being rebuilt.

Fields

PLN WHS. The planning warehouse for the associated data.

START. The start date of the planning horizon which is determined by taking the current date you enter minus the number of overdue days you enter. This start date is the earliest date MRP allows for master level item requirements. It is also the date from which the report period intervals are calculated.

CURRENT. The date from which the other planning dates are derived. When you change this date, the planning horizon shifts. Typically, the current date is changed weekly and net change planning is run daily.

RELEASE. The date of release, which is determined by adding the number of release days you enter to the current date. Orders scheduled to start on or before this date are marked for release.

ALLOCATION. The date that indicates when MRP treats allocations as immediate allocations or time-phased allocations. The time-phased allocation option allows you to use the item's lead time and to specify an allocation fence to help determine when MRP treats allocations as immediate allocations or time-phased allocations.

Allocations are treated as immediate allocations if the allocation required date is within the time-phased allocation fence (TPAF) or the lead time, whichever is shorter.

Allocations are treated as time-phased allocations if the allocation required date is beyond the TPAF or the lead time, whichever is shorter.

REVIEW. The review date of the planning horizon, which is determined by adding number of review days you enter to the current date. All orders scheduled to start before or on this date are subject to order release and review and are copied into the Order Review file.

END. The last working day of the fifth year in the five-year calendar.

PERIOD NUMBER. The period number.

INTERVAL 1. The date associated with this code number.

INTERVAL 2. The date associated with this code number.

INTERVAL 3. The date associated with this code number.

MESSAGE. The period interval date is earlier than the first day of the calendar. The first day of the calendar is substituted for the period interval date.

MESSAGE. The period interval date is later than the last day of the calendar. The last day of the calendar is substituted for the period interval date.

Expected Customer Orders (AMM87RP1)

```

AMM87RP1  UserID****          Expected Customer Orders          *
*/**/**  Page 1
**
:**:**  SystemID EE
**

Print options selected:  Planning warehouse limits:  From warehouse:  N3          To warehouse:  *N3
5                        Planner limits:          From planner:    ***N5         To planner:    ***A
                        Item limits:          From item:       *****N15    To item:       ****
*****N15              Company/Customer limits  From company:   N2          To company:   N2
                        customer:          ***N6         customer:     ****
N6
*N7                      Expected order limits:    From order:     ****N7       To order:     ****
**                      Expected order date limits:  Received from:  **/**/
**      Received to:    **/**/

Purge orders received before:  **/**/

Warehouse:  ***  *Whs desc*****A25

Planner:  ***A5  Item:  *ItemNum***A15  *Itmdesc*****A30  UM:  **  Reference no:  *****
- **/**/  ** ;** ;**

Company:  **  Cust:  *****A8  Expected Order No:  *****A7  Date received:  **/**/
**      User update:  *A3

Contact:  *****A40  Phone:  *****A10  Cust item:  *****
**A30

Make:  **/**/  *****.*** | **/**/  *****.*** | **/**/  *****.*** | **/**/  *****.*** | **/
**/**  *****.***
Make:  **/**/  *****.*** | **/**/  *****.*** | **/**/  *****.*** | **/**/  *****.*** | **/
**/**  *****.***

Totals:  MAKE:  *****.**

Buy:  **/**/  *****.*** | **/**/  *****.*** | **/**/  *****.*** | **/**/  *****.*** | **/
**/**  *****.***
Buy:  **/**/  *****.*** | **/**/  *****.*** | **/**/  *****.*** | **/**/  *****.*** | **/
**/**  *****.***

Totals:  BUY:  *****.**

Firm:  **/**/  *****.*** | **/**/  *****.*** | **/**/  *****.*** | **/**/  *****.*** | **/
**/**  *****.***
Firm:  **/**/  *****.*** | **/**/  *****.*** | **/**/  *****.*** | **/**/  *****.*** | **/
**/**  *****.***

Totals:  FIRM:  *****.**

Plan:  **/**/  *****.*** | **/**/  *****.*** | **/**/  *****.*** | **/**/  *****.*** | **/
**/**  *****.***
Plan:  **/**/  *****.*** | **/**/  *****.*** | **/**/  *****.*** | **/**/  *****.*** | **/
**/**  *****.***

Totals:  PLAN:  *****.**

**End of report**

```

To print this report, use option 7 on menu AMMM10. This report shows the expected customer orders received as part of EDI transaction 830/DELFOR for the ranges you selected. Ranges print on the first page. The report is sequenced by warehouse, planner, item, and company/customer. Expected order quantities are shown up to five per line, with the period type identified as Make (type A), Buy (type B), Firm (type C), or Plan (type D). Totals are shown for each type present in the report.

Fields

Print options selected. The range of expected customer orders you selected to print. 'From' and 'To' (starting and ending) limits are shown for these criteria:

- Planning warehouse ID

- Planner ID
- Item number
- Company/customer numbers
- Expected order number
- Expected order date

Purge orders received before. If you purged expected customer orders, the date before which all expected customer orders were purged.

Warehouse. Code defined by your company that identifies the warehouse in which this item is currently stocked.

Planner. ID of the planner associated with the item.

Item. Number of the item, which can be any raw material, manufactured or purchased part, subassembly, assembly, or end item.

UM. The unit of measure for the item.

Reference no. Reference information for the expected customer order.

Company. Unique identifier for a particular company.

Cust. Unique number that identifies a customer.

Expected order no. Number that identifies the expected customer order.

Date received. Date that the expected customer order was received.

User update. (Yes or No) Whether the order has been updated.

Contact. Contact person at the customer site for the order.

Phone. Phone number of the customer contact.

Cust item. The customer's identifying information for the item.

Make. Date and expected order quantity for orders authorized to be made.

Buy. Date and expected order quantity for orders whose materials are authorized to be purchased.

Firm. Date and expected order quantity treated as firm forecast.

Plan. Date and expected order quantity treated as planning forecast only.

Item totals. Totals by type of order (make, buy, firm, or planned).

Item Shortage Report-MRP Availability Check (AMI4Q1)

GATEWAY MFG CO		ITEM SHORTAGE REPORT				DATE 10/11/				
**	TIME 19.52.07	PAGE	1	AMI4Q1	---					MRP AVAILABILITY CHECK ---

COMPONENT	WH	DESCRIPTION			TYP	PLANNER	PICK REQ	ALLOCATED	ON	
HAND										
02892	1	LOCK CLIP			4	907	0	0	0 2	
6,834										
ORDER	ITEM/SALESMAN	WH	DESCRIPTION/CO-							
CUSTOMER	REQ DATE	DUE DATE	REQ QTY	RECEIPTS	REMAINING					
M000200	27003-20	1	PUMP ASSEMBLY			11/18/**	12/23/			
**	250		26,584							
DEMAND:		C000145	C014268							

ORDER	ITEM	WH	DESCRIPTION			REQ DATE	DUE DATE	REQ QTY	RECEIPTS	REMA
INING	SHORT	***								
M000180	26006-21	1	TANK 10 BY 18 INCHES			11/10/**	12/16/			
**	1,500		1,450- SHORT ***							
DEMAND:		P	FCST							

COMPONENT	WH	DESCRIPTION			TYP	PLANNER	PICK REQ	ALLOCATED	0	
N HAND										
99544-RM	1	ROUND STOCK 5/8 DIA -								
CRS	3	905	0			0	5,327			
ORDER	ITEM	WH	DESCRIPTION			REQ DATE	DUE DATE	REQ QTY	RECEIPTS	REM
AINING										
M000210	27004-01	1	HANDLE			11/22/**	12/22/			
**	2,000		3,327							
DEMAND:		M	REQMT	C001672	CA12980					

To print this report, use option 3, 5, 6, or 7 on menu AMMM40. This report is similar to "Order Shortage Report-MRP Availability Check (AMI4W1)" on page 8-36.

Fields

COMPONENT. The unique alphanumeric item number of this component.

WH. The warehouse location for the component.

DESCRIPTION. The description or name of this component.

TYP. Code that best describes the type of item:

- 0 Phantom
- 1 Assembly or subassembly
- 2 Fabricated item
- 3 Raw material
- 4 Purchased item
- 9 User option (Special)
- F Feature
- K Kit

PLANNER. The planner code identifies the person responsible for planning the replenishment for manufacturing or purchase items.

PICK REQ. The pick list requirements, including customer allocations.

ALLOCATED. The manufacturing allocated quantity.

ON HAND. The on-hand total quantity.

ORDER. The source of this allocation. If the order number starts with M, it is a manufacturing order. If it starts with C, it is a customer order number. If it starts with S, it is a scheduled order number. If PLANNED appears, it is a planned order. If FIRMED appears, it is a firm planned order.

ITEM/SALESMAN. The parent item of this allocation if this is a planned order, firm planned order, or open manufacturing order. The salesman if this is an open customer order.

WH. The warehouse location for the item.

DESCRIPTION. The description or name of the parent item.

REQ DATE. The date the component is required in order to meet the scheduled completion date.

DUE DATE. Date the order is scheduled to be completed.

REQ QTY. The quantity required to complete the order. This field is the result of multiplying the order quantity by the quantity per in the parent assembly.

RECEIPTS. The quantity on order that is scheduled to be received. It is added to the available balance.

REMAINING. The inventory quantity remaining after subtracting the quantity required for this allocation from the available balance.

Asterisks appear to highlight various conditions:

SHORT. SHORT is printed if the available balance is negative.

CONFLICT. CONFLICT is printed if the shortage will not exist under a RELEASE COMPLETE ONLY condition.

ALLOCATIONS VARIANCE. ALLOCATIONS VARIANCE is printed if the allocation detail is not equal to the allocated quantity.

PICK VARIANCE. PICK VARIANCE is printed if the order detail for picked requirements is not equal to the pick list requirements.

DEMAND. The customer order or other top level requirement that generated this manufacturing order or purchase order item. Possible values are listed below. MSSR refers to the Master Schedule Source Planning code.

BLENDED The larger of forecast and customer requirements (MSSR=B)

CUSONLY Customer orders (MSSR=C)

Cxxxxxx Customer orders, not combined (MSSR=D or E). The customer order shows in the format of 01-CO-nnnnnnnn.

FORCAST Forecast quantity (MSSR=F)

GENDMND Generated component quantity based on parent planned orders (MSSR not D or E)

Mxxxxxx	Manufacturing order number
MANUAL	Manually entered demand. Source of demand is optional at time of entry (MSSR=M)
M FCST	Manual forecast
M HELD	Manual held requirement
M REQMT	Manual requirement
SAFETY	Safety stock
NEG QOH	Negative quantity on hand
P FCST	Propagated forecast
P REQMT	Propagated requirement
PRODPLN	Production planned quantity (MSSR=P)
Sxxxxxx	Repetitive Manufacturing order, allocated quantity
XS FCST	Forecast quantity in excess of customer requirements (MSSR=D)

Maintain Expected Customer Order Audit (AMMPEC0P)

```

AMMPEC0P *****          Maintain Expected Customer Order Audit          **/**/
**   Page   1                                                    **:***:
***** EE
Planner:   333   Warehouse: MPA                Co / Customer: 01/   325   Periods: 10
Item: MPC201   MPA COMPONENT 201              Firm: 5/15/
93         10.000   *** Before Change ***
Planner:   333   Warehouse: MPA                Co / Customer: 01/   325   Periods: 10
Item: MPC201   MPA COMPONENT 201              Firm: 5/15/
93         9.000   *** After change ***

** End of report **

```

To print this report use option 6 on menu AMMM10. This report shows maintenance activity for expected customer orders received from trading partners as part of the EDI transaction 830/DELFOR. The report shows orders changed or deleted. The report prints whenever you maintain expected customer orders.

Fields

Planner. The number of the planner associated with the item.

Warehouse. The number of the planning warehouse containing the item that is part of the order.

Co/Customer. The company number and customer number for the order.

Periods. The number of periods defined for the planning schedule.

Item. The item number and description.

Make. Date required and expected order quantity for items authorized to be made.

Buy. Date required and expected order quantity for items whose materials are authorized to be purchased.

Firm. Date required and expected order quantity for items, as firm forecast.

Plan. Date required and expected order quantity for items, as a planned forecast.

Before change. Information for this part of the order before changes were made.

After change/Deleted. Information for this part of the order after changes were made or after the order was deleted.

Manufacturing Cash Flow Analysis (AMM3D1)

GATEWAY MFG CO		NO. 01	MANUFACTURING CASH FLOW ANALYSIS							DATE 10/11/		
** TIME 15.20.07		PAGE 1	AMM3D1									
PLANNING WAREHOUSE ABC		The ABC warehouse										
COST - CURRENT												
ORDERS - BOTH												
FACTOR - X 1												
MONTH	OCT	NOV TOTAL	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
SALES INCOME												
FORECAST	18,481	25,937 232,797	18,481	22,156	18,481	18,481	18,481	22,156	18,481	18,481	22,156	11,025
BACKLOG		15,173 33,803	134	11,027	2,513	38	38	38	19		199	4,624
EXPECTED	1,326	1,403 48,757	4,690	5,854	6,518	6,962	5,971	5,520	3,893	2,961	2,794	865
MLI PLAN	4,307	8,300 36,274	6,108	3,252	1,579	1,505	1,520	1,535	15,550	1,565	1,580	3,473
EXPENDITURES												
PURCHASE DETAIL NOT AVAILABLE												
LABOR		3,974 4,675	535		76					90		
OVERHEAD DETAIL NOT AVAILABLE												
TOTAL	500	39,579 125,510	67,553	503	3,535	5	1,003	56	5	197	12,568	1,006
TOTAL MAY NOT BALANCE BECAUSE OF COST OVERRIDE												
INVENTORY		35,647 141,849	101,430	109	3,590	171	109	171	171	109	171	171
NET MOVEMENT												
MONTH	2,467	31,279- 3,806	61,445- 90,237-	2,748	1,956-	1,500	571	1,479	1,545	1,368	10,987-	
CUMULATIVE	90,237-	31,279-	92,724-	89,976-	91,932-	90,432-	89,915-	88,436-	86,891-	85,523-	96,510-	94,043-
MONTH	OCT	NOV TOTAL	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
NOTE -												
THE FOLLOWING PERCENTS												
D THE ARE USED TO SPREA												
AT THE MLI PLAN STARTING												
DATE REQUIRED												
.004	.004	.004			.030	.020	.010	.004	.004	.004	.004	.004

To print this report, use options 1, 2, 3, 4, 5, or 6 on menu AMMM36. This is a one-page summary report that identifies planned cash commitments over the next 12-month period, including forecast, customer backlog, expected backlog, planned requirements income and labor, and material and inventory expenses. Unit quantity information is retrieved from MRP and MPSP files. The quantity in each record is multiplied by the appropriate cost or price and added into the proper monthly

summary. The month used is based on the due date for purchase orders and start date for manufacturing orders.

Fields

PLANNING WAREHOUSE. The planning warehouse for the associated data.

COST - CURRENT. This field identifies whether current or standard cost was selected.

ORDERS - BOTH. This field identifies whether planned orders, open orders, or both were selected.

FACTOR. The detail on this report is multiplied by this factor to arrive at unit amounts.

MONTH. All figures shown in the body of the report are in 13 columns. Twelve months are shown starting at the current month. The last column contains a cumulative total of the twelve monthly columns.

SALES INCOME.

FORECAST: The forecast quantity extended by the base price. The result is added to the appropriate month.

BACKLOG: The backlog (shown if COM is installed and interfacing). Customer orders are extended by the base price, and the result is added to the appropriate month.

EXPECTED: The expected backlog (shown if EC is installed). Expected customer orders selected for planning are extended by the base price, and the result is added to the appropriate month.

MLI PLAN: The MRP and MPSP requirements are extended by the base price and spread by sales percentage shown at the end of the page for the appropriate month. For example, using the percents shown on the report, if 100 units are due in January and they have a price of \$1.00 each, then \$30.00 is added to January, \$20.00 is added to February, \$10.00 is added to March, and \$4.00 is added to each month from April through October.

The MLI plan units used for the MLI plan dollar calculation described above varies by demand source.

- If only MRP is installed and interfacing, it uses MRP's MLI requirements.
- If both MRP and MPSP are installed and interfacing, it uses the sum of MLI requirements plus the appropriate MPS planning source demand. The MPS planning source codes and MSI demand used are:

B, D	Blended demand
C, E	Customer orders
F	Forecasts
P	Item production plan
M	Manually entered firm planned orders

EXPENDITURES.

PURCHASE: The orders you selected (planned, open, or both) extended by purchase content (standard or current) and added to the month after the due date.

LABOR: The orders you selected (planned, open, or both) extended by labor content (standard or current) and added to the month after the start date.

OVERHEAD: The orders you selected (planned, open or both) extended by overhead content (standard or current) and added to the month after the start date.

TOTAL: The total monthly expenditures, including purchase, labor, and overhead. The orders you selected (planned, open or both) extended by lower level purchase, labor, and overhead cost (standard or current) and added to the appropriate month.

***INVENTORY*:** The orders you selected (planned, open, or both) extended by lower level purchase, labor, and overhead cost (standard of current), and added to the appropriate month. Not included in monthly total.

NET MOVEMENT.

MONTH CUMULATIVE: The total expenditures for each month subtracted from the MLI plan to show net income per month.

CUMULATIVE NET MOVEMENT: The cumulative net movement by month.

PERCENTAGE OF SALES RECOVERED. The percentage of sales you expect to receive payment for in the applicable month. You enter these figures using menu AMMM36, option 7, Cash Flow Report Options.

Master Items Planning Report (AMM3A1)

This report is explained in “Requirements Planning Report or Master Items Planning Report (AMM3A1)”.

MLI Resource Report (AMM222)

NORTHCREEK IND.		NO. 01	MLI RESOURCE REPORT								DATE 10/11/
**	TIME 14.35.19	PAGE 1	AMM222								
PLANNING WAREHOUSE ABC			The ABC warehouse					FROM PLANNER	0 TO PLANNER 99		
999											
MONTH	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	
SEP	OCT										
UNITS	1,917	3,417	2,521	2,058	1,037	1,147	563	343	343	343	
343	343										
CUMULATIVE	1,917	5,334	7,855	9,913	10,950	12,097	12,660	13,003	13,346	13,689	
14,032	14,375										
COST	34,746	49,976	112,593	77,602	1,736	1,832	1,210	1,018	1,018	1,018	
1,018	1,018										
CUMULATIVE	34,746	84,721	197,314	274,916	276,652	278,484	279,694	280,712	281,730	282,748	
283,766	284,784										
PRICE	70,384	104,121	228,936	161,661	4,986	5,175	3,899	3,521	3,521	3,521	
3,521	3,521										
CUMULATIVE	70,384	174,506	403,442	565,103	570,089	575,264	579,163	582,683	586,204	589,724	
593,245	596,765										
WEIGHT	938,249	1,748,168	816,618	561,968	418	468	268	168	168	168	
168	168										
CUMULATIVE	938,249	2,686,417	3,503,035	4,065,003	4,065,421	4,065,889	4,066,157	4,066,325	4,066,493	4,066,661	
4,066,829	4,066,997										
LABOR	7,525	10,628	25,036	17,111	336	336	313	313	313	313	
313	313										
CUMULATIVE	7,525	18,153	43,189	60,300	60,636	60,972	61,285	61,598	61,911	62,224	
62,537	62,850										
MONTH	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	
SEP	OCT										

This one page summary is printed at the end of the MLI Versus Forecast/Orders report (AMM221). It identifies potential resource commitments over the next 12 month period, including amount, labor, and weight.

Manual and propagated requirements for master level items are added to the appropriate month based on the due date of the requirement.

Fields

PLANNING WAREHOUSE. The planning warehouse for the associated data.

12-MONTH ARRAY. The 12-month array starting with the current month.

UNITS. The MRP and MPSP requirements added to the appropriate month.

CUMULATIVE. The cumulative or running totals for each resource printed per month.

COST. The MRP and MPSP requirements extended by cost. The result is added to the appropriate month.

PRICE. The MRP and MPSP requirements extended by price. The result is added to the appropriate month.

WEIGHT. The MRP and MPSP requirements extended by weight. The result is added to the appropriate month.

LABOR. The MRP and MPSP requirements extended by labor cost. The result is added to the appropriate month.

MLI Versus Forecast/Orders (AMM221)

NORTHCREEK IND.		NO. 01	MLI VERSUS FORECAST/ORDERS				DATE 10/11/
** TIME 14.35.19	PAGE 2	AMM221					
PLANNING WAREHOUSE ABC		The ABC warehouse	SITE		ATL		
** CURRENT DATE 11/07/**						START DATE 10/17/	
26006-20	147.000	A8300004	TANK 8 BY 12 INCHES	EA 02	00901	2,000.000	
NUMBER OF DAYS SUPPLY TO BE ORDERED						AVG. SAL	
ES	.96						
-----ITEM-----	ENG/DRAW NO----	-----DESCRIPTION-----					
UM LV PLANNER	VENDOR	STD LOT	AVAILABLE				
REPLAN 1 PRINT	MIN	210.000	TYPE M	VAR 0	WEIGHT	8.000	LOCATION
Y 70							QT
TYPE 1 FORCAST 1	MAX	.000	PUR .0	CMLT 0	SAFETY	10.000	SHRINK .001
R PER 1							NB
ORDPOL F COMBINE 0	MULT	7.000	MFG 25.0		CARRY	.200	CLASS 21
R SIZ 22							PE
MLI M MAXLN	FOQ	.000			PRBKCNV	.0000	PUM
UNIT COST	11.26410000	SETUP COST	75.00000000	UNIT PRICE	15.950		
-----PERIOD BALANCES-----					-----CURRENT BALANCES-----		
ACTIVITY	ISSUE	RECEIPTS	ADJUSTMENTS	ON HAND	ON ORDER	ALLOCATED	
	.000	.000	.000	147.000	10.000	12.000	
	.000						
PLANNING EXPECTED	PLANNER	PLAN	GREATER	FORECAST	ORDER	EXPECTED	
DATE TYPE REQUIREMENTS	VS DEMAND	DEMAND	DEMAND	DEMAND	DEMAND REFERENCE	INVENTORY	
RECEIPTS REFERENCE							
5/20/** FCST REQ	12.000	.000	12.000	12.000		13.000	
6/06/** FCST REQ	12.000	.000	12.000	12.000		1.000	
6/08/							
**		.000				141.000	140
.000 M-PLAN							
6/10/** CUST MANUAL	125.000	12.000	125.000	125.000	125.000	28.000	
6/22/** FCST REQ	12.000	12.000	12.000	12.000		16.000	
7/10/							
** FCST REQ	12.000	12.000	12.000	12.000		24.000	20
.000 M-PLAN							
7/26/							
** FCST REQ	12.000	12.000	12.000	12.000		32.000	20
.000 M-PLAN							
9/21/							
**		12.000				132.000	100
.000 M-PLAN							
9/23/** MANUAL	100.000	112.000				132.000	
10/18/** MANUAL	150.000	262.000				272.000	
140.000 M-PLAN							

To print this report, use option 2 on menu AMMM30, or option 6 on menu AMMM20. A display is presented, and you are asked to select run time options. You can also tailor your application to automatically print this report at the end of a planning run. See "Option 5. Planning Run Report Options (AMMM20)".

Fields

PLANNING WAREHOUSE. The planning warehouse for the associated data.

SITE. The site associated with this planning warehouse.

START DATE. The start date of the planning run, which is determined by subtracting the number of overdue days you enter from the current date. It sets the overdue horizon.

CURRENT DATE. The date from which the other planning dates are derived. When you change this date, the planning horizon shifts.

ITEM. The alphanumeric identification of the item in inventory.

ENG/DRAW NO. The number used to identify a drawing of an end-item.

DESCRIPTION. A description of the inventory item is used on invoices and reports.

UM. The unit used to express on-hand quantity and issue quantity.

LV. A code that indicates the lowest level in any product structure that this item is used.

PLANNER. A code that identifies the person responsible for planning the replenishment for manufacturing or purchase items.

VENDOR. The number identifying the primary vendor for this item.

STD LOT. The amount of this item that is produced in one manufacturing run. MRP uses the standard lot size with the planned order quantity and the variable lead time to calculate a quantity-dependent lead time. See "Quantity-based lead-times" on page 2-31.

AVAILABLE. The item's available inventory adjusted back to the last planning run. The quantity remaining for planning after subtracting the allocations and activity since the last planning run: available = on-hand quantity minus allocated quantity minus activity since last plan.

AVG. SALES. The average quantity sold per period. This value is recalculated during each Inventory Management period-end close.

ITEM CODES.

REPLAN: The flag indicating if any activity for this item has been generated by COM, IM, PDM, or MRP as a signal for replanning this item.

0	No activity
1	Activity
2	Planning exception.

TYPE: Code that best describes the type of item:

0	Phantom
1	Assembly or subassembly
2	Fabricated item
3	Raw material
4	Purchased item
9	User option
F	Feature
K	Kit

ORDPOL: The Order Policy code used when ordering this item.

A	Discrete order quantity
B	Order point, order quantity
C	Order point, order up to level
D	Fixed quantity
F	Part period balancing (standard cost)
G	Time periods of supply
H	Discrete above a minimum quantity
I	Part period balancing (current cost)
Z	User option.

MLI: The code that indicates whether this item is to be planned by the planner, forecaster, or MRP.

blank Not master level item (MLI)

M MLI (multiple source); manual and generated requirements cause planned orders to be created for this item

S MLI (single source); only manual requirements cause planned orders to be created. Generated requirements are treated as if they were external demand on this report.

PRINT: The code that indicates whether this master level item is printed on this report.

blank Is always printed

L Is printed only if this item's low level code is less than or equal to the MRP planning level you specified on the Planning Run Execution Options.

S Service usage. Is not printed on the MLI Versus Forecast/Orders report.

FORECAST: The code that indicates whether forecasts or requirements are to be propagated for the item.

0 Do not propagate

1 Propagate as forecasts

2 Propagate as requirements.

COMBINE: The code that indicates how to combine requirements for this item in the requirements planning run. You assign this code to this item in PDM's file maintenance. The price break literals refer to the price break unit of measure constants to be used on the Purchase Planning Report.

0 Do not combine requirements

1 Combine interval 1

2 Combine interval 2

3 Combine interval 3

4 Combine interval 4

5 Price break literal 5

6 Price break literal 6

7 Price break literal 7

8 Price break literal 8

9 Price break literal 9

MAXLN: The maximum number of lines to be printed for the item.

blank One page

A All pages.

LOTSIZE.

MIN: The minimum order quantity MRP uses when creating a planned order.

MAX: The maximum order quantity MRP uses when creating a planned order.

MULT: The order quantity rounding factor. The planned order quantity is rounded to a multiple of this quantity; for example, multiples of 10.

FOQ: The quantity of an item that is ordered or planned by MRP if the item's Order Policy code is D. If the item's Order Policy code is G, the number of days supply is printed here.

LEADTIME.

TYPE: Specifies this item as a manufactured or purchase item and determines which lead time is used for planning.

M Manufacture
P Purchase

PUR: The number of days needed to acquire this item, including the purchase lead time adjustment.

MFG: The number of days needed to manufacture this item, including the manufacturing lead time adjustment.

VAR: The portion of total manufacturing lead time that is dependent on the quantity produced.

CMLT: The longest length of time involved to accomplish an activity. It is found by reviewing each bill of material path below the item. Whichever path adds up to the greatest number defines cumulative material lead time.

UNIT COST. The cost of one stocking unit of this item, based on either standard or current costs.

This field shows current cost when the Order Policy code is I (part-period balancing, current cost). When the Order Policy code is I, the system gets the first cost value available from the sequence of fields listed below:

Sequence	Type	Cost Used	File Used
1	Current	Current unit cost (CURUC)	Item Master
2	Current	Last unit cost (LCOST)	Item Balance
3	Standard	Unit cost default (UCDEF)	Item Master

Note: If a zero is found in the field first searched, MRP looks at the next cost.

This field shows standard cost when the Order Policy code is not I. The system gets the first cost value available from the sequence of fields listed below:

Sequence	Type	Cost Used	File Used
1	Standard	Standard unit cost (STDUC)	Item Master
2	Standard	Last unit cost (STDUC)	Item Balance

Sequence	Type	Cost Used	File Used
3	Standard	Unit cost default (UCDEF)	Item Master

SETUP COST. The standard or current setup cost, depending on the Order Policy code. Current cost is printed if the Order Policy code is I. If current cost is zero, standard setup cost is used.

UNIT COST. The manually entered unit price of the item.

ITEM CHARACTERISTICS.

WEIGHT: The weight of each item unit.

SAFETY: The quantity of an item carried in excess of expected demand to meet unexpected increases in demand.

CARRY: The carrying rate for holding inventory, expressed as a yearly percentage of the item cost or value. If this value is zero, the company carrying rate entered when IM was installed is used instead.

PRBKCNV: The price break conversion factor used by MRP to convert planning units to purchase units expressed by the price break literal assigned to this item.

LOCATION: The item's location in the warehouse.

SHRINK: The shrinkage factor used as a multiplier to adjust gross requirements not covered by on-hand quantity to reflect expected scrap and losses due to other causes.

If you are using operation yield, MRP considers both shrinkage and adjusted quantity per, which includes operation yield. Therefore, if you are using operation yield, you probably want a shrinkage factor of zero. Only in cases where there is additional loss of the parent item after production is complete, such as testing or breakage in packaging, do you want to use a shrinkage factor and operation yield.

CLASS: The item class for this item according to how you classified your items into groups.

PUM: The purchase unit of measure used if it is different from the stocking unit of measure.

FORECAST.

QTY: The quantity of the item to be forecasted in a forecast period.

NBR PER: The number of periods this item is to be forecasted.

PER SIZ: The number of days per forecast period.

PERIOD BALANCES.

ISSUE: The quantity of goods issued without charge for internal department use, and the unused quantity returned to inventory for this month.

RECEIPTS: The number of units of a particular item received during the current month.

ADJUSTMENTS: The sum of the changes made to the quantity of an inventory item for the current month.

CURRENT BALANCES.

ON HAND: The on-hand total quantity.

ON ORDER: The on-order quantity, which is the sum of the manufacturing and purchase orders open for this item.

ALLOCATED: The total quantity of this item committed or allocated to manufacturing orders.

ACTIVITY: The total quantity difference since the last planning run. Activity = quantity received (Inventory Transaction codes RP and RM) since last plan minus quantity sold (Inventory Transaction code SA) since last plan. The quantity received is set to zero every planning run, and the quantity sold is set to zero if the current date has changed or during an extract of independent demand when you specify "1" (Yes) to Clear Qty, on the Planning Run Execution Options display (AMMM151).

PLANNING DATE. The date used to align the report detail. MLI requirements use required date, forecast date is the date the forecast is available, backlog uses the customer order promise dates, and expected receipts use due date or available date.

TYPE. The type of master level requirement (derived from RQSOR):

MANUAL: A requirement manually entered by the planner in maintain master level item schedules. FCST and ISL/MISL also can generate manual requirements.

ET MANUAL: If EC is installed, and manual requirements have been created for expected customer orders, they are identified by ET MANUAL, where T is the expected order type of A, B, C, D, or E:

- A** Make - Customer authorizes you to build the product, but not to ship it
- B** Buy - Customer authorizes you to buy product materials, but not to build the product
- C** Firm - Customer firm forecast (no authorization)
- D** Plan - Customer planning forecast (no authorization)
- E** Expected orders of multiple types have been combined.

CUST MANUAL: A requirement automatically entered by the extract independent demand function. Customer order manual requirements may be maintained (through the maintain master level item schedules) if they are in the frozen zone. Customer order manual requirements in the free zone may not be maintained because they are discarded and regenerated on the next execution of the extract independent demand function.

CUST HELD: A requirement automatically entered by the extract independent demand function for items with a Plan Customer Order Code (CTPO) = 5, or a customer order manual requirement that has been held in maintain master level item schedule. Being held requirements, they will be retained until the planning Start Date. You can maintain customer order manual held requirements (through

the maintain master level item schedule) if they are in the frozen zone. You cannot maintain customer order manual held requirements in the free zone because they are discarded and regenerated on the next execution of the extract independent demand function.

Note: If ISL/MISL is installed, released intersite orders against this warehouse are stored as customer orders, and can therefore generate CUST MANUAL and CUST HELD requirements.

HELD: A manual requirement which has been held in maintain master level item schedules. Normally, when requirements become past due (become earlier than the Current Date, because the Current Date advanced past them), requirements are dropped by the application during the planning run. However, requirements can be retained until the planning Start Date by holding them.

FCST REQ: A forecast requirement propagated by the application in a planning run from forecast generation fields entered in the Item Balance (ITEMBL) and Item Plan (ITMPLN) records prior to the run. This information is considered a requirement on the planning process. (The master level forecast code (MLFC) for this item is 2).

This entry serves as a requirement and a forecast, and will appear in two columns (PLANNER_REQUIREMENTS and FORECAST DEMAND) on the report.

PLANNER REQUIREMENTS. The quantity of the item required on this date. This quantity is used by the planning run as a gross requirement and begins the planning process. Planner requirements are sometimes called the supply plan—the figure negotiated between sales and manufacturing: the quantity of an item to be supplied to finished goods stock on (or by) a certain date.

PLAN VS DEMAND. The sum of the planner requirements through that line minus the sum of the demand through that line. This column compares the planner requirements (supply plan) with the demand that those requirements must cover (Greater Demand).

GREATER DEMAND. The demand that must be covered by planner requirements: the greater of the sales forecast or the sales backlog (booked customer orders and received expected customer orders). The application assumes that marketing will sell its forecast; so when the forecast exceeds the backlog of orders, it is assumed that more orders will be booked; therefore, the forecast is used as the demand. When orders exceed the forecast, the orders are used to represent the demand.

The demand is shown by forecasting interval: the time between forecast records. Each forecast record represents the initial demand for a period. The customer orders and expected customer orders are accumulated, and if they exceed the forecast quantity during an interval, the total of the orders appears in this column.

FORECAST DEMAND. The quantity of this item forecast for this date. This forecast either was entered manually on display AMM451, Review Forecast/Orders, and propagated by the application during a planning run using data in the forecast generation fields in the Item Plan, or loaded by FCST, or by ISL/MISL for planned intersite orders against this warehouse.

ORDER DEMAND. The real or actual sales for this item. If COM is installed and interfacing, this includes customer orders. If EC is installed, this also includes expected customer orders selected for planning. If ISL/MISL is installed, released intersite orders against this warehouse, stored as customer orders, are also included.

REFERENCE. The type of demand (derived from RQSOR or RQCID) shown in the ORDER DEMAND column. This column will either contain a customer order number, or a code identifying the type of requirement which is being displayed. If EC is installed, expected customer orders also appear. One of the following may appear.

Customer orders: If it starts with B, it is a customer blanket order. This quantity does not affect demand per period

If multiple customer orders have been combined, CO-COMBINED appears.

If it starts with C, it is a direct sales order or a release against a blanket order or a released intersite order against this warehouse. In any case, it is included in the calculation of greater demand.

Note: If a customer order is preceded with an F it is an option ordered on the sale of an end configuration or model line. MRP does not use this order in any calculations because it is already included in the generated requirements coming from the end item.

Expected customer orders: For a single expected customer order, the identifier is ET and the expected order number, and T identifies the type of order as A, B, C, or D. Where multiple expected orders have been combined, ET COMBINED appears, where T is one of the following order types:

- A** Make. Customer authorizes you to build the product, but not to ship it.
- B** Buy. Customer authorizes you to buy materials, but not to build the product.
- C** Firm. Customer firm forecast (no authorization).
- D** Plan. Customer planning forecast (no authorization).
- E** Expected orders of multiple types have been combined.

PG (Peg To): A requirement generated by a parent item requiring this item as a component.

CB (Combine): A generated requirement that has been combined according to combine codes in order to show the total requirement needed by this date. Pegging is not possible for this type of generated requirement.

SM (Structure Maintenance): A generated requirement that may be inaccurate due to product structure maintenance in the Product Data Management (PDM) application. A planning run will correct this requirement.

AL (Time-phased allocations): A requirement that is a future time-phased allocations for a released manufacturing order.

Some of the values which may display in the reference field may be preceded by either an F, an asterisk (*) or both. If the field is preceded by an F, then the parent of this item is a feature. If the field is preceded by an asterisk, then the associated requirement is not included in the Greater Demand calculation.

Customer orders: Blanket orders (*B 01-CO1234567) are not included in any calculations but releases against blanket orders are included in the calculations.

Options (F *01 CO1234567) ordered on the sale of an end configuration or model line are not used in any calculations because they are already included in the generated requirements coming from the end item.

Generated Requirements: If a generated requirement (other than safety stock) is preceded by an asterisk, then the MLI code for that item is M. An MLI type M item is planned by the application in a planning run. Generated requirements are therefore not included in the Greater Demand calculation because they have already been planned for.

An MLI type S item is planned by the planner and only manual requirements are planned by the application in a planning run for these items. The generated requirements for these items are therefore included in the Greater Demand calculation so the planner may enter manual requirements to offset them.

EXPECTED INVENTORY. A time-related running balance showing the expected inventory balance. Uses the available balance minus the demand per period plus the expected receipts for the appropriate period. All generated requirements are subtracted from this balance.

EXPECTED RECEIPTS. The quantity expected to be received this date.

REFERENCE. The expected receipt type.

The following prefixes identify the type of receipt:

M	Manufacturing order
P	Purchase order
R	Requisition
S	Schedule
U	Unreleased schedule
X	Intersite order
*B	Blanket purchase order

Note: The asterisk signifies that this value is not included in the Project Balance calculation. (Blanket purchase orders are stored for informational purposes only. The releases against a blanket order, not the blanket header are actually used in calculations).

For planned and firm planned orders, this field contains:

M-xxxx	= Manufacturing Order
P-xxxx	= Purchase Order
S-xxxx	= Schedule
R-xxxxxx	= Requisition

where xxxx = PLAN for a planned order or FIRM for a firm planned order.

Order Action Detail (AMM631)

GATEWAY MFG CO		NO. 01	ORDER ACTION DETAIL		PLANNER 901	DATE 10/11/		
** TIME 15:56:34		PAGE 1	AMM631					
PLANNING WAREHOUSE ABC The ABC warehouse								
ORDER/SCHEDULE NUMBER	ITEM	STATUS	EXCEPTION	START DATE	DUE DATE	QUANTITY OPEN	ORD ACTG CLS	COMMENTS
M000230	03423	10	DEFER	11/01/**	11/11/**	200		
		ORIGINAL VALUES	-	11/01/**	11/11/**	200		
		CHANGE TO	-	11/07/**				
M000250	03425	10	DEFER	11/01/**	11/11/**	1,200		
		ORIGINAL VALUES	-	11/01/**	11/11/**	1,200		
		CHANGE TO	-	6/01/**	7/10/**			
M000190	26006-22	10	EXPEDITE	11/14/**	12/24/**	1,000		
		ORIGINAL VALUES	-	11/14/**	12/24/**	1,000		
		CHANGE TO	-	11/07/**	12/07/**			THIS SCHEDULED RECEIPT HAS BEEN CHANGED
P0020	27000-02	10	CANCEL					
		ORIGINAL VALUES	-	6/12/**	12/01/**	6,000		
		CHANGE TO	-	CANCEL				
P0040	03385	10	CANCEL					
		ORIGINAL VALUES	-	6/12/**	11/25/**	6,000		
		CHANGE TO	-			100		
P0071	03591-08	10	CANCEL					
		ORIGINAL VALUES	-	6/12/**	12/17/**	2,000		
		CHANGE TO	-	CANCEL				
P0070	03591-10	10	EXPEDITE	BLANKET RELEASE				
		ORIGINAL VALUES	-	6/12/**	12/17/**	1,000	VENDOR: V23456	BUYER: B2345
		CHANGE TO	-	11/07/**	11/07/**			
P0070	03591-10	00	RELEASE					
		ORIGINAL VALUES	-	11/10/**	11/10/**	163	VENDOR: V23456	BUYER: B2345
		CHANGE TO	-				SEND PURCHASE ORDER TO VENDOR	

To print this report, use options 5, 6, or 7 on menu AMMM40. Purchase and manufacturing orders (scheduled receipts) requiring date or quantity changes are listed on this report. This becomes the data entry form to be used by Inventory Management's order maintenance. Released purchase orders are also detailed on this report to remind you to send a purchase order to the vendor before any purchase activity is done. Space is provided for notation and comments.

Fields

PLANNING WAREHOUSE. The planning warehouse for the associated data.

ORDER/SCHEDULE NUMBER. The purchase or manufacturing order number. If planned order is for a purchase item and the order number was not entered in MRP during order/schedule release and review, this field contains a P only.

ITEM. The unique alphanumeric identification of this item.

STATUS. The Manufacturing Order Status code identifies the reporting status of an open order.

EXCEPTION. If the planning exception is “expedite,” “reschedule,” or “defer,” MRP prints a recommended start or due date for a new start date. The order release displays show MRP’s recommended start and new dates for orders with these three exceptions.

START DATE. The date the order is scheduled to start.

DUE DATE. The date the order is planned to be completed.

NEW START DATE. The new start date for this order.

NEW DUE DATE. The new due date for this order.

ORDER QUANTITY. The order quantity.

NEW ORDER QUANTITY. The new order quantity for this order.

ORD ACTG CLS. Class defined by your company, to group or classify orders for accounting purposes.

COMMENTS. The section used for the planner’s comments on this document before handing it over to the people using the Inventory Management application.

MESSAGE. The message, “This scheduled receipt has been changed,” appears to flag any scheduled receipt that has changed to reflect changes to the planned order.

MESSAGE . The message, “Blanket release,” appears for a release against a blanket order.

MESSAGE. The message, “Send purchase order to vendor,” appears for a purchase order release.

VENDOR. The number of the vendor for the purchase order.

BUYER. The number of the buyer for the purchase order.

Order Action Summary (AMM632)

NORTHCREEK IND. NO. 01 ORDER ACTION SUMMARY DATE 8/07/
 ** TIME 9.41.51 PAGE 1 AMM632

PLANNING WAREHOUSE ABC The ABC warehouse RECORD DESCRIPTION	RECORD COUNT
SCHEDULED RECEIPTS APPROVED FOR MAINTENANCE	0
MANUFACTURING ORDERS APPROVED FOR RELEASE *	0
PURCHASE ORDERS APPROVED FOR RELEASE	0
ORDERS TO BE FIRMED *	2
PLANNED/FIRM PLANNED ORDERS TO BE CANCELED *	0
* NOT PRINTED ON ORDER ACTION DETAIL	

GATEWAY MFG OPQ NO. 01 ORDER ACTION SUMMARY DATE 10/11/
 ** TIME 16.27.06 PAGE 1 AMM632

RECORD DESCRIPTION	RECORD COUNT
ORDERS SELECTED FOR SHORTAGE REPORT	33

To print this report, use options 5, 6, or 7 on menu AMMM40. This report summarizes the order release activity or the number of orders on the shortage reports. It is printed whenever the transaction file is created by MRP prior to the initialization of Inventory Management's order release or order shortage report calculations.

Fields

PLANNING WAREHOUSE. The planning warehouse for the associated data.

SCHEDULED RECEIPTS APPROVED FOR MAINTENANCE. The number of the scheduled receipts approved for maintenance. The detail for these receipts is shown on the Order Action Detail report.

MANUFACTURING ORDERS APPROVED FOR RELEASE * The number of the MRP manufacturing planned orders that have been approved for release.

PURCHASE ORDERS APPROVED FOR RELEASE. The number of the MRP purchase planned orders that have been approved for release.

ORDERS TO BE FIRMED * The number of the planned orders to be firm.

PLANNED/FIRM PLANNED ORDERS TO BE CANCELED * The number of the planned and firm planned orders that have been selected for cancellation.

ORDERS SELECTED FOR SHORTAGE REPORT. The number of planned/firm planned orders selected for the Item Shortage Report.

Order Review Status (AMM611)

DAVECO INC. NO. 01 ORDER REVIEW STATUS DATE 9/15/
** TIME 9.07.42 PAGE 1 AMM611

PLANNING WAREHOUSE ABC The ABC warehouse

ACTIVE ORDER REVIEW RECORDS - 106

To print this report use options 5, 6, or 7 on menu AMMM40, or option 6 on AMMM20. This report shows the number of active records in the Order Review file and is printed whenever the Order Review file is rebuilt at the end of a planning run or during order release. It is useful for technical support purposes.

Fields

PLANNING WAREHOUSE. The planning warehouse for the associated data.

ACTIVE ORDER REVIEW RECORDS. The number of active records in the Order Review file.

VENDOR. For a planned order, the primary vendor for this item (the vendor number that is in this item's Item Balance file). For an open order, the number entered when the order was released or last maintained.

ITEM. The unique alphanumeric identification of this item.

ENG/DRAW NO. The engineering drawing number used to identify a drawing of an item.

DESCRIPTION. A description of the inventory item used on invoices and reports.

PM. The Manufacture/Purchase code.

M Manufacture
P Purchase

LV. The lowest level in any product structure that this item is used.

ST. The manufacturing order, the purchase order, or the schedule order status code.

STRT DATE. The date the order is scheduled to start.

DUE DATE. The date the order is planned to be completed.

ORD/SCH. The actual order number if the order is already released. This number becomes the order number if the order is not yet released. The first position of the order number indicates the type of order it is:

M Manufacturing
P Purchasing
R Requisition
S Schedule
U Unreleased Schedule

QUANTITY. The quantity required to complete the order.

UM. The unit used to express on-hand quantity and issue quantity.

RSCH. Code used to indicate whether or not an individual manufacturing order or purchase order line item can be rescheduled automatically by the system.

0 Default to item reschedule code
1 Cannot be rescheduled automatically
2 Can be scheduled out
3 Can be scheduled in
4 Can be scheduled both out and in

EXCEPTN. The Exception code and the descriptive literal are printed for each item. Associated with the Exception code, the literals below are used:

- DATELO
- EXPDTE
- RESCHD
- RELEASE
- MAXIMUM
- DEFER
- CANCEL

- DATEHI

They are explained in "Planning exceptions".

REVISION. The revision associated with this item. This field appears if EPDM is activated.

DEMAND. The customer order or other top level requirement that generated this manufacturing order or purchase order item.

Order Shortage Report-MRP Availability Check (AMI4W1)

GATEWAY MFG CO		NO. 01	ORDER SHORTAGE REPORT			DATE 10/11/		
**	TIME 19.52.41	PAGE 1	AMI4W1	--- MRP AVAILABILITY CHECK ---				
ORDER	ITEM	WH	DESCRIPTION	PLANNER	START DATE	DUE DATE	ORDER QTY	
PLANNED	27003-20	1	PUMP ASSEMBLY	902	11/18/**	12/23/**	250	
DEMAND:		01-CO-000145	01-CO-014268					
COMPONENT	DESCRIPTION	TYP	REQ DATE	REQ QTY	QUANTITY SHORT IF RELEASE			
03904-A	PUMP SHAFT ASSEMBLY	1	11/18/**	250	ALL ORDERS COMPLETE ONLY			
02892	LOCK CLIP	4	11/18/**	250				
03010	PLATE	4	11/18/**	250				
03011	THROW-OFF COLLAR	4	11/18/					
**	250	804	0	CONFLICT	*			
03012	SPRING	4	11/18/					
**	250	201	139	SHORT	***			
03025	PUMP HOUSING ASSEMBLY	1	11/18/**	250				
03370	MOTOR	4	11/18/**	250				
03901	SET SCREW	4	11/18/**	250				
03903	IMPELLER	2	11/18/**	250				
03905	WESAR COLLAR	4	11/18/**	250				
34140-A	CLAMP WITH NUT	4	11/18/**	250				
						ON THIS ORDER	0 OR 62 CAN BE	
RELEASED								
NUMBER OF ORDERS CHECKED -				9	ORDERS SHORT -		4	

GATEWAY MFG CO.		NO. 01	ORDER ACTION SUMMARY			DATE 10/11/		
**	TIME 16.27.06	PAGE 1	AMM632					
RECORD	DESCRIPTION	RECORD COUNT						
ORDERS SELECTED FOR SHORTAGE REPORT		33						

To print this report, select option 3 on menu AMMM40. This report is similar to "Item Shortage Report-MRP Availability Check (AMI4Q1)" on page 8-9.

Fields

ORDER. The source of this allocation. If the order number starts with M, it is a manufacturing order. If it starts with C, it is a customer order number. If it starts with S, it is a scheduled order number. If PLANNED appears, it is a planned order. If FIRMED appears, it is a firm planned order.

ITEM. The parent item of this allocation if this is a planned order, firm planned order, or open manufacturing order. The salesman if this is an open customer order.

WH. The warehouse location for the item.

DESCRIPTION. The description or name of the parent item.

PLANNER. The planner code identifies the person responsible for planning the replenishment for manufacturing or purchase items.

START DATE. The order start date.

DUE DATE. Date the order is scheduled to be completed.

ORDER QTY. The quantity of the finished item being manufactured on this order.

DEMAND. The customer order or other top level requirement that generated this manufacturing order or purchase order item. Possible values are listed below. MSSR refers to the Master Schedule Source Planning code.

BLENDED The larger of forecast and customer requirements (MSSR=B)

CUSONLY Customer orders (MSSR=C)

Cxxxxx Customer orders, not combined (MSSR=D or E). The customer order number appears in the format 01-CO-nnnnnnnn.

FORECAST Forecast quantity (MSSR=F)

GENDMND Generated component quantity based on parent planned orders (MSSR not D or E)

Mxxxxxxx Manufacturing order number

MANUAL Manually entered demand. Source of demand is optional at time of entry (MSSR=M)

M FCST Manual forecast

M HELD Manual held requirement

M REQMT Manual requirement

SAFETY Safety stock

NEG QOH Negative quantity on hand

P FCST Propagated forecast

P REQMT Propagated requirement

PRODPLN Production planned quantity (MSSR=P)

Sxxxxxx Repetitive Manufacturing order, allocated quantity

Xxxxxxx InterSite transfer order

XS FCST Forecast quantity in excess of customer requirements (MSSR=D)

COMPONENT. The unique alphanumeric item number of this component.

DESCRIPTION. The description or name of this component.

TYP. Code that best describes the type of item:

0	Phantom
1	Assembly or subassembly
2	Fabricated item
3	Raw material
4	Purchased item
9	User option (Special)
F	Feature
K	Kit

REQ DATE. The date the component is required in order to meet the scheduled completion date.

REQ QTY. The quantity required to complete the order. This field is the result of multiplying the order quantity by the quantity per in the parent assembly.

QUANTITY SHORT IF RELEASE. The additional quantity necessary to complete this order and only those preceding orders (in start date sequence) selected for release or analysis that have no shortages.

Asterisks appear to highlight various conditions:

CONFLICT. CONFLICT is printed if the shortage will not exist under a RELEASE COMPLETE ONLY condition.

SHORT. SHORT is printed if the available balance is negative.

ON THIS ORDER ... CAN BE RELEASED. The quantity that can be released without a shortage of any component. This value is determined by the status of the critical component within the order.

NUMBER OF ORDERS CHECKED. The number of orders in the batch(es) being released.

ORDERS SHORT. Only orders with shortages are printed on the report.

ORDERS SELECTED FOR SHORTAGE REPORT. The number of planned/firm planned orders selected for the MRP Availability report. Orders selected are based on the report limit date selected.

Planned Order Error List (AMM661)

GATEWAY MFG CO		NO. 01	PLANNED ORDER ERROR LIST			DATE 10/11/			
**	TIME 19.17.28	PAGE 1	AMM661						
PLANNING WAREHOUSE		ABC	The ABC warehouse						
ITEM	-	-	DESCRIPTION	ORDER NUMBER	START DATE	DUE DATE	QUANTITY	TYPE	ACTION
03591-10			WHEEL 12 IN DIA		11/10/**	11/10/**	733	PLANNED	-
NOT RELEASED	*								
27003-20			PUMP ASSEMBLY		10/30/**	11/07/**	240	PLANNED	-
NOT RELEASED	*								
03421			HINGE ARM		9/28/**	11/07/**	240	PLANNED	-
NOT RELEASED	*								
03422			LEVER ARM		9/28/**	11/07/**	680	PLANNED	-
NOT RELEASED	*								

* REQ. PLANNING / INV. MGMT. INTERFACE NOT ACTIVATED

To print this report, use options 5, 6, or 7 on menu AMMM40. This report shows the orders approved for release by MRP's order review/approval function that are rejected by Inventory Management's order release. For example, a duplicate order number prevents an order from being released. It is printed whenever MRP's order release is completed. This report is helpful for technical support uses.

Fields

PLANNING WAREHOUSE. The planning warehouse for the associated data.

ITEM. The alphanumeric identification of the item in inventory.

DESCRIPTION. A description of the inventory item used on invoices and reports.

ORDER NUMBER. The actual order number if the order has already been released. This number becomes the order number for orders not yet released.

START DATE. The date the order is scheduled to start.

DUE DATE. The date the order is planned to be completed.

QUANTITY. The quantity required to complete the order.

TYPE. The term which identifies the requirement order type; in this case, planned orders.

ACTION. The action taken against this item.

Planning Run Exception Report (AMM321)

```

GATEWAY MFG RST NO. 01 PLANNING RUN EXCEPTION REPORT DATE 10/11/
** TIME 10.45.09 PAGE 1 AMM321

PLANNING WAREHOUSE ABC The ABC warehouse

PLANNING RUN TYPE-
FULL GENERATION THE DATE HORIZONS HAVE NOT SHIFTED MPSP ORDERS USED FROM LAST PLANNING RUN

START DATE- 1/07/** RELEASE DATE- 1/08/** ALLOCATION DATE- 4/19/**
CURRENT DATE- 1/29/** REVIEW DATE- 1/29/**

- ITEM - - DESCRIPTION -
NUMBER START DUE QUANTITY TYPE ACTION
03591-10 WHEEL 12 IN DIA 11/21/
** 870 MANUAL DROPPED
99001 SPRAY UNIT 12/18/
** 550 MANUAL DROPPED
99001-1 SPRAY UNIT - PVT LABEL 12/20/
** 43 MANUAL DROPPED

3,305 MRP ITEMS WERE FOUND IN WAREHOUSE A
5 MRP ITEMS WERE FOUND WITH ACTIVITY
32 MRP ITEMS WERE RE-PLANNED
    
```

To print this report, use option 6 on menu AMMM20. This report shows the master level item requirements and the firm planned orders that were dropped from the plan because they were older than the current date or overdue horizon.

Fields

PLANNING WAREHOUSE. The planning warehouse for the associated data.

PLANNING RUN TYPE. The type of planning run you selected:

- Full generation
- Full net change
- MLI generation
- MLI net change.

START DATE. The start date of the planning horizon, which is determined by subtracting the number of overdue days you enter from the current date. It sets the overdue horizon.

CURRENT DATE. The date from which the other planning dates are derived. When you change this date, the planning horizon shifts.

THE DATE HORIZONS HAVE NOT SHIFTED. Identifies whether or not the horizon dates changed since the last planning run.

RELEASE DATE. The release date of the planning horizon, which is determined by adding the number of release days you enter to the current date. It sets the release horizon.

REVIEW DATE. The review date of the planning horizon, which is determined by adding the number of review days you enter to the current date. It sets the review horizon.

ALLOCATION DATE. The allocation date which, shows you when MRP treats allocations as immediate allocations or time-phased allocations.

ITEM. The alphanumeric identification of the item in inventory.

DESCRIPTION. A description of the inventory item used on invoices and reports.

NUMBER. The reference number or the order number for this item.

START. The date this requirement is to be started.

DUE. The date this requirement is needed.

QUANTITY. The quantity of this requirement.

TYPE. The term which identifies the requirement order type:

- Held
- Manual
- Firm
- Policy
- Customer.

ACTION. The action MRP has taken: “dropped.” or “B, C dropped” (in this case, “dropped”). If the MPSP transfer was selected and pending, scheduled receipt exceptions were applied to an item. A message stating pending MPSP changes were used is displayed.

MRP ITEMS WERE FOUND IN WAREHOUSE XXX . Count of the total number of MRP items within the warehouse (always print).

where XXX represents the location of the warehouse.

MRP ITEMS WERE FOUND WITH ACTIVITY. This line appears if you selected a net change run (full or MLI). It represents the number of MRP items that had activity affecting the planning data. See “Option 6. Initiate Planning Run (AMMM20)” on page 4-25 for further information about this decision.

MRP ITEMS WERE RE-PLANNED. This line appears if you selected a net change run (full or MLI). It shows the number of MRP items that were re-planned (number of MRP items having activity and their associated components).

MPSP ORDERS USED FROM LAST PLANNING RUN. This line appears if MPSP is installed and interfacing, and if you selected a MPSP warehouse and requested a MPSP transfer. If the planning run is against a MPSP warehouse and the transfer is not selected, a message stating MPSP orders are being used from the last planning run is displayed.

Note: The message, NO MANUAL REQUIREMENTS/FORECASTS OR FIRMED PLANNED ORDERS WERE DROPPED ON THIS PLANNING RUN, is displayed under the ITEM column if no items were dropped.

Planning Run Status Report (AMM381)

```

DAVECO INC.      NO. 01      PLANNING RUN STATUS REPORT      DATE 9/15/
**  TIME 9.06.32 PAGE 1 AMM381
PLANNING WAREHOUSE ABC The ABC warehouse
REQUIREMENTS GENERATED                212
PLANNED ORDERS GENERATED                123
ITEM BALANCE/PLAN RECORDS MISSING      3 REVIEW JOB LOG FOR SPECIFIC MISSING ITEMS
    
```

```

DAVECO INC.      NO. 01      PLANNING RUN STATUS REPORT      DATE 9/15/
**  TIME 9.06.32 PAGE 2 AMM381      ---MISSING ITEM BALANCE RECORDS---
PLANNING WAREHOUSE ABC The ABC warehouse
-----ITEM-----      -----DESCRIPTION-----
99001-2                SPRAY NOZZLE
    
```

To print this report use option 6 on menu AMMM20. This report shows the number of active records in the Requirements file and Planned Order file, and is generated automatically by the system during a planning run.

Fields

PLANNING WAREHOUSE. The planning warehouse for the associated data.

REQUIREMENTS GENERATED. The number of requirements loaded into the Requirements file during this planning run.

PLANNED ORDERS GENERATED. The number of planned order records loaded into the Planned Order file during this planning run.

ITEM BALANCE/PLAN RECORDS MISSING. The number of Item Balance (ITEMBL) or Item Plan (ITMPLN) records that were expected, but not found in the planning run. Instead of cancelling the job, a message is written to the job log that identifies what items were not found. The items which were missing records were not processed, (handled as if they had an order policy code of B or C). If all balance records were found, this information does not print on the report.

Purchase Order Revisions (AMV7A1)

```

*****
** Time 13:32:28 Page 1 AMV7A1 Purchase Order Revisions Date 8/29/
                                WS ID 01 User T
ERRY
Vendor 56789

Order  Item      Release  Quantity  Reschedule
PDEM05 05235          1         29.000    Date
                                09/15/**

NAMEPLT, CARD
Date changed from 09/01/** to 09/15/**

Order  Item      Release  Quantity  Date
PDEM05 05230          1         23.000    09/25/**

NAMEPLT RETRACTION TM
Date changed from 09/15/** to 09/25/**

```

This report is designed to fit on 8-1/2 by 11 paper, so that you can fax it to vendors, if required. A new page is started for each vendor.

Fields

Vendor. Identifies the vendor.

Order. The order number.

Item. The item number associated with the order.

Release. The release number associated with the order.

Quantity. The quantity of the item.

Reschedule. The rescheduled date of the order.

Description. A description of the item.

Date. The previous date and the new date.

Purchase Planning Profiles Audit (AMMPPP1P)

```

AMMPPP1P  USERID****  Purchase Planning Profiles Audit  **/**/**  Page 1
**:**:**  SystemID EE

*** Created ***
Profile: ****A6 *****A30 Schedule frequency: * *****A20 Review: ***A5
Type: * *****A25 Period length: ** Number of periods: ***
Type: * *****A25 Period length: ** Number of periods: ***
Type: * *****A25 Period length: ** Number of periods: ***
Type: * *****A25 Period length: ** Number of periods: ***

*** After change ***
Profile: ****A6 *****A30 Schedule frequency: * *****A20 Review: ***A5
Type: * *****A25 Period length: ** Number of periods: ***
Type: * *****A25 Period length: ** Number of periods: ***

***Deleted ***
Profile: ****A6 *****A30 Schedule frequency: * *****A20 Review: ***A5
Type: * *****A25 Period length: ** Number of periods: ***
Type: * *****A25 Period length: ** Number of periods: ***
Type: * *****A25 Period length: ** Number of periods: ***
Type: * *****A25 Period length: ** Number of periods: ***
Type: * *****A25 Period length: ** Number of periods: ***
Type: * *****A25 Period length: ** Number of periods: ***

**End of report**

```

To print this report, use option 10 on menu AMMM40. This report shows the records created, deleted, changed, and printed in the purchase planning profiles used for EDI planning schedules.

Fields

Profile. The ID and description of the purchase planning profile.

Schedule frequency. Defines how often you want to send the schedule to the supplier.

- 1 Daily
- 2 Twice a week
- 3 Weekly
- 4 Every 2 weeks
- 5 Every 4 weeks
- 6 Monthly
- 7 Every 2 months
- 8 Quarterly

Review. Indicates whether you want the buyer to review the planning schedule before you send it.

- 0 (No) Review is not required. Transfer the schedule electronically to the supplier if EC is installed and the Vendor Master file indicates that planning schedules are to be sent to the vendor.
- 1 (Yes) Buyer review is required. Store the planning schedule and notify the buyer through Work With Buyer Activity that it is available for review.

Type. Code indicating the level of commitment for the line in the purchase planning profile. It is not necessary to define all type codes in a profile.

A or Make Authorized to build product.

B or Buy Authorized to buy materials.

C or Firm Forecast for schedule is firm.

D or Plan Forecast for schedule is planned only.

The system arranges the types in ascending sequence: all of the A (Make) types, then the B (Buy) types, and so on. The result is a profile that defines the periods when the supplier is authorized to build the product, followed by the periods when the supplier is authorized to buy materials, followed by the forecast for the periods.

Period length. The length of the planning period for this line, in days. Use full calendar days (7 days per week).

Number of periods. Number of periods of this type and length, for the schedule.

Purchase Planning Report (AMM3B1)

GATEWAY MFG CO		NO. 01	PURCHASE PLANNING REPORT				PLANNER 00901	DATE 10/11/			
**	TIME 16.19.17	PAGE	1	AMM3B1							
PLANNING WAREHOUSE		ABC	The ABC warehouse		SITE		ATL				
-----			PRICE BREAK	COMBINE		-----				REQUIRED DATES	-----
VENDOR	-----ITEM-----	UM	CONV FACTOR	CODE	11/09/**	11/16/**	11/24/**	12/01/**	12/08/**	12/15/	
**	12/22/** 1/02/**										
060641	AUTO SWITCH										
	03590	EA									
	10,000										

090326	WHEEL 12 IN DIA										
	03591-10	EA	.1250	6		870		80		1,215	1,480
				6							
				6							
				6							
				6							
	620										
090326	WHEEL 18 IN DIA										
	03591-12	EA	.0833	6			START---	-----	-----		525
				6					START---	-----	
	542										

COMBINE CODE -											
6	TOTALS BY PERIOD			6,960	640	9,720		18,143		11,467	
UNITS -											
POUNDS	ACCRUED BY PERIOD			6,960	7,600	17,320	17,320	35,463	35,463	46,929	

To print this report, use option 3 on menu AMMM30, or option 5 on menu AMMM20. This report is designed to assist the purchasing department by presenting items by their vendor relationships. Manufactured items with a vendor number are also printed on the report. You can also tailor your application to print this report automatically at the end of a full planning run. See "Option 5. Planning Run Report Options (AMMM20)" on page 4-19.

Fields

PLANNING WAREHOUSE. The planning warehouse for the associated data.

SITE. The site associated with this planning warehouse.

VENDOR. The number identifying the primary vendor for this item. Manufactured items with a vendor number are printed.

DESCRIPTION. A description of the inventory item used on invoices and reports.

REQUIRED DATES. The purchase period dates by which the planned orders are grouped. The first (earliest) date is the date used for planning your current releases. Subsequent dates are derived from the Combine code interval and the calendar. For example, if the combine interval for Combine code four is five days, then the first date is the current date and each subsequent date is five work days into the future as determined by the calendar file.

ITEM. The unique alphanumeric identification of this item.

UM. The unit used to express on-hand quantity and issue quantity.

PRICE BREAK

CONV FACTOR. The price break conversion factor used by MRP to convert planning units to purchase units expressed by the price break literal assigned to this item.

COMBINE CODE. The user-defined code indicating how to combine requirements for this item in the requirements planning run. The code is assigned to this item by file maintenance. The price break literals refer to the price break unit of measure constants to be used on the Purchase Planning Report.

0	Do not combine requirements
1	Combine interval 1
2	Combine interval 2
3	Combine interval 3
4	Combine interval 4
5	Price break literal 5
6	Price break literal 6
7	Price break literal 7
8	Price break literal 8
9	Price break literal 9.

Note: Codes 5 through 9 cause combine interval 4 to be used in combining the requirements.

QUANTITY. The quantity planned for this item grouped into the period in which the order is due. START is printed if the order is not yet due for release and appears in the period in which the order is to be started. Quantity is expressed in stocking units.

Note: If the Combine code is 5 through 9 and any one of the periods is not equal to zero, the following 4 items will print.

COMBINE CODE. The Combine code on which the totals are accumulated.

TOTALS BY PERIOD. The total amount, by period, of the items for this vendor. The quantity is divided by the price break conversion factor and is added to the appropriate period total.

UNITS. The units that the quantity is converted to.

ACCRUED BY PERIOD. The period-to-date total of the converted quantity.

Purchase Planning Schedule (AMM84RP)

```

Purchase Planning Schedule
AMM84RP UserID**                **/**/**   Page   1
                                **:**:**   *****   EE

Print options selected:
From buyer:    ***N5           To buyer:    ***N5
From vendor:   ***N6           To vendor:    ***N6
From item:     *****N15      To item:     *****N15
From warehouse: *N3           To warehouse: *N3
From date:     **/**/**       To date:     **/**/**

Purchase Planning Schedule      **/**/**   **:**:**   EE
                                **/**/**   **:**:**

For:  *VendorName*****A25      Ship to: *WhsShipToName*****A25
***** *VendorAddr1*****A25    *WhsShipToAddr1*****A25
      *VendorAddr2*****A25      *WhsShipTpAddr2*****A25
      *VendorCity*****A25      *WhsCity*****A25
      ** *****

Attn: *Contact*****A25         Buyer:  *BuyerName*****A25
      *Phone*****A20          *Review Required**   ** _**_**

Item  *ItemNum****A15  UM: **   Catalog no: *VendCatNumb*****A25
      *Itemdesc*****A30  Alt no:  *OEMN*****A22
      Eng draw no: *EngDrNo****A15
      *ExtPurchDescr1*****A40  Eng draw no:
      *ExtPurchDescr2*****A40  EngDrNo****A15

Planning schedule period type: Finished resource authorization
Period Lengths, Start dates, and Quantities:
**  **/**/**   **/**/**   **/**/**   **/**/**   **/**/**
*****,**.*** | *****,**.*** | *****,**.*** | *****,**.*** | *****,**.***
**  **/**/**   **/**/**   **/**/**   **/**/**   **/**/**
*****,**.*** | *****,**.*** | *****,**.*** | *****,**.*** | *****,**.***
Planning schedule period type: Material resource authorization
Period Lengths, Start dates, and Quantities:
**  **/**/**   **/**/**   **/**/**   **/**/**   **/**/**
*****,**.*** | *****,**.*** | *****,**.*** | *****,**.*** | *****,**.***
Planning schedule period type: Firm forecast
Period Lengths, Start dates, and Quantities:
**  **/**/**   **/**/**   **/**/**   **/**/**   **/**/**
*****,**.*** | *****,**.*** | *****,**.*** | *****,**.*** | *****,**.***
**  **/**/**   **/**/**   **/**/**   **/**/**   **/**/**
*****,**.*** | *****,**.*** | *****,**.*** | *****,**.*** | *****,**.***
Planning schedule period type: Planning forecast
Period Lengths, Start dates, and Quantities:
**  **/**/**   **/**/**   **/**/**   **/**/**   **/**/**
*****,**.*** | *****,**.*** | *****,**.*** | *****,**.*** | *****,**.***
**  **/**/**   **/**/**   **/**/**   **/**/**   **/**/**
*****,**.*** | *****,**.*** | *****,**.*** | *****,**.*** | *****,**.***
Totals: *****:  **,**,**,**,**.*  *****:  **,**,**,**,**.*
*****:  **,**,**,**,**.*  *****:  **,**,**,**,**.*

**End of report**

```

To print this report, use option 11 or option 12 on menu AMMM40. This report displays the purchase planning schedules, which you can mail, fax, or EDI to suppliers. The report is sequenced by buyer, vendor, warehouse, and item, and prints, as directed by the options selected when the menu options was run.

Fields

Print options selected. The from/to limits for buyer, vendor, item, warehouse, and date/time selected to print this report.

For. The vendor name and address for which the planning schedule was created.

Ship to. The ship-to name and address of the warehouse.

Attn. The name and phone number of the vendor contact person.

Buyer. The name and telephone number of the buyer, as well as an indication of the status of the schedule.

- * Review Required *
- * Accepted *
- * Rejected *
- * Do not send to vendor *

* Do not send to vendor * appears when you have created purchase planning profiles but have not yet turned on either the Print, EDI, or Fax flags in the Vendor Master file. The message alerts you to the fact that these schedules are for testing purposes only and should not be mailed or faxed to the vendor.

Item. The number and description of the item.

UM. The unit of measure for the item.

Catalog no. The vendor's catalog number for the item.

Alt no. An alternate number for the item.

Eng draw no. The number for the engineering drawing on which the item appears.

Extra purchasing description. Two lines providing any extra descriptive text for the item.

Planning schedule period types. For each period type, the schedules shows the length of the period, start dates for the period, and quantities. Period types include the four levels of commitment for planning schedules:

- Finished resource authorization (type A/Make)
- Material resource authorization (type B/Buy)
- Firm forecast (type C/Firm)
- Planning forecast (type D/Plan)

Totals. Total quantities for each period type.

Requirements Planning Report or Master Items Planning Report (AMM3A1)

GATEWAY MFG RST NO 01		REQUIREMENTS PLANNING REPORT				DATE 10/11/		
** TIME 10.56.23	PAGE 1	AMM3A1						
PLANNING WAREHOUSE ABC The ABC warehouse SITE ATL								
REQUIREMENTS SELECTED- ALL				DATE INTERVAL- ITEM DESIGNATED		START DATE 12/07/		
** CURRENT DATE 12/29/**								
CURRENT DATE 12/29/**								
-----ITEM----- ENG/DRAW NO-----DESCRIPTION-----								
UM LV	PLANNER	VENDOR	AVAILABLE					
99001			SPRAY UNIT	EA	00	00099		
600.000								
NUMBER OF DAYS SUPPLY TO BE ORDERED -								
-----ITEM CODES-----								
---FORECAST---								
REPLAN 1	PRINT	MIN	100.000	TYPE	M	VAR	.0	
QTY	225			WEIGHT			550.000	
TYPE 1	FORCAST 1	MAX	.000	PUR	0.0	CMLT	.0	
NBR PER	26			SAFETY			21.000	
ORDPOL A	COMBINE 0	MULT	25.000	MFG	7.0		CARRY	
PER SIZ	5						.250	
CLASS							10	
MLI M	MAXLN	FOQ	.000	PRBKCNV			.0000	
UNIT COST	74.41760000	SETUP COST		.0000000			PUM	
150.000							UNIT PRICE	
SMOOTH 2 SMOOTH DATE 10/11/**								
-----PERIOD BALANCES-----								
-----CURRENT BALANCES-----								
ISSUE	RECEIPTS	ADJUSTMENTS	ON HAND	ON ORDER	ALLOCATED	ACTI		
VITY	.000	.000	.000	600.000	.000	.000		
.000								

- - - - R E Q U I R E M E N T S - - - -								
- - - O R D E R S - - -								
PLANNING	REQUIRED	START	ORDER	DUE	PROJE			
CTED	EXCEPTION	DATE	BALANCE	CD	DESCR			
PLANNER	DATE	QUANTITY	TYPE	PEG TO/	REFERENCE	DATE	BALANCE	
12/29/**	DATE	QUANTITY	REFERENCE	DATE	BALANCE	CD	DESCR	
**	700.000	31	EXPDTE	12/29/**	100	M-PLAN	12/29/	
**	1/01/**	660.000	MANUAL				1/01/	
**	40.000						1/10/	
**	1/10/**	21.000	*SAFETY STK				1/15/	
**	40.000			1/14/**	775	M-PLAN	1/15/	
**	1/15/**	770.000	MANUAL				1/24/**	
**	45.000	51	RELEASE				875	
**	2/02/**	880.000	MANUAL			M-PLAN	2/	
**	02/**	40.000						

To print this report, use option 1 on menu AMMM30, or option 5 on menu AMMM20. A display appears and you are asked for run time options. You can also tailor your application to automatically print this report at the end of a full planning run. See "Option 5. Planning Run Report Options (AMMM20)" on page 4-19. If you ask for MLI only, the report title is Master Items Planning Report instead of Requirements Planning Report.

The report sequence is Warehouse/Planner/Vendor/Item.

The information at the top of the Requirements Planning Report identifies the planning warehouse, site, start and current date, which are the same as the MLI Versus Forecast/Orders report with the exception of the following:

Fields

REQUIREMENTS SELECTED. The requirements selected which shows your selection: all, active, or exceptions.

DATE INTERVAL. The date interval which shows your selection: plan 1, plan 2, plan 3, full detail, item designated, or MLI items full detail. See the MLI report for a description of the rest of the fields at the top of this report.

SMOOTH and SMOOTH DATE. The SMOOTH and SMOOTH DATE fields will only appear for scheduled controlled items. The smoothing date is the specific date you want smoothing to begin. This date is used if it is greater than the system date.

ORDERS/SCHEDULE. SCHEDULE (instead of ORDERS) will appear for scheduled controlled items, if Repetitive is installed and interfacing.

GATEWAY MFG OPQ	NO 01	REQUIREMENTS PLANNING REPORT	DATE 10/11/
** TIME 10.25.19	PAGE 1	AMM3A1	
PLANNING WAREHOUSE ABC The ABC warehouse SITE ATL			
REQUIREMENTS SELECTED- ALL		DATE INTERVAL- PLAN 1	START DATE 10/26/
** CURRENT DATE 11/16/**			
CURRENT DATE 11/16			
- ITEM	- -ENG/DRAW NO - -	DESCRIPTION	-
UM LV PLANNER VENDOR		AVAILABLE	
03423	PX00080	TREADLE	EA 03 00901
1,695.000			
NUMBER OF DAYS SUPPLY TO BE ORDERED -			
---ITEM CODES---		-----LOT SIZE-----	-----LEAD-TIME-----
---FORECAST---			AVG. SALES .00
REPLAN 1 PRINT S	MIN 500.000	TYPE M VAR .0	WEIGHT .000 LOCATION M114
QTY 25			
TYPE 2 FORCAST 2	MAX .000	PUR .0 CMLT .0	SAFETY 10.000 SHRINK .005
NBR PER 13			
ORDPOL F COMBINE 0	MULT .000	MFG 11.0	CARRY .200 CLASS 50
PER SIZ 22			
MLI M MAXLN	FOQ .000		PRBKCNV .0000 PUM
UNIT COST	2.00070000	SETUP COST	32.00000000 UNIT PRICE
6.500			
SMOOTH 2		SMOOTH DATE 10/11/**	
-----PERIOD BALANCES-----		-----CURRENT BALANCES-----	
ISSUE	RECEIPTS	ADJUSTMENTS	ON HAND
VITY			ON ORDER
.000	.000	.000	ALLOCATED
			ACTI
			285.000
			1,818.000
			1,980.000

- - - - R E Q U I R E M E N T S - - - -			
- - - O R D E R S - - -			
INTERVAL	COMBINED	INTERVAL	START
ECTED	EXCEPTION		ORDER
DATE	QUANTITY	SHRINKAGE	DATE
NCE	CD	DATE	QUANTITY
11/16/**	62.500	0	5/30/**
**	60.500		1,818
12/01/**	125.000	7	11/16/**
**	1,210.500		1,282
12/04/**	51 RELEASE		M-PLAN
**	10.000		11/16/
12/22/**	1,325.000	3	12/19/**
**	382.500		500
1/23/**	125.000		M-PLAN
**	257.500		12/04/
2/22/**	225.000		1/05/
**	32.500		1/23/
3/26/**	125.000		2/22/
**	460.500		3 3/23/**
4/09/**			556 P-PLAN

If you chose full detail, item designated, or MLI items full detail for the report, you see the following fields in the lower detailed portion of the report:

Fields

PLANNING WAREHOUSE. The planning warehouse for the associated data.

PLANNING DATE. The date used to align the report information. Required quantity uses the required date and orders use the due date.

REQUIRED QUANTITY. The quantity required by this date to meet the manufacturing plan.

TYPE. The type of requirement. The main categories are planner requirements and generated requirements.

Planner requirements.

MANUAL: A requirement manually entered by the planner in maintain master level item schedule. FCST can generate manual requirements also.

CUST MANUAL: A requirement automatically entered by the extract independent demand function. Customer order manual requirements may be maintained (through the maintain master level item schedule) if they are in the frozen zone. Customer order manual requirements in the free zone may not be maintained because they will be discarded and regenerated on the next execution of the extract independent demand function.

ET MANUAL: If EC is installed, and manual requirements have been created for expected customer orders, they are identified by ET MANUAL, where T is the expected order type of A, B, C, D, or E:

- A** Make - Customer authorizes you to build the product, but not to ship it
- B** Buy - Customer authorizes you to buy product materials, but not to build the product
- C** Firm - Customer firm forecast (no authorization)
- D** Plan - Customer planning forecast (no authorization)
- E** Expected orders of multiple types have been combined.

CUST HELD: A requirement automatically entered by the extract independent demand function for items with a Plan Customer Order Code (CTPO) = 5, or a customer order manual requirement that has been held in maintain master level item schedule. Being held requirements, they will be retained until the planning Start Date. You can maintain customer order manual held requirements (through the maintain master level item schedule) if they are in the frozen zone. You cannot maintain customer order manual held requirements in the free zone because they are discarded and regenerated on the next execution of the extract independent demand function.

Note: If ISL/MISL is installed, released intersite orders from other warehouses are stored as customer orders, and can, therefore, generate CUST MANUAL and CUST HELD requirements.

HELD: A manual requirement which has been held in maintain master level item schedule. Normally, requirements are dropped by the application during planning run when they become past due (become earlier than the Current Date, because the Current Date advanced past them). However, requirements can be retained until the planning Start Date by holding them.

FCST REQ: A forecast requirement propagated by the application in a planning run from forecast generation fields entered in the Item Balance and Item Plan records prior to the run. This information is considered a requirement in the planning process. (The master level forecast code (MLFC) for this item is 2).

XXX (intersite requirement): A requirement automatically entered during planning for demand from planned intersite orders on this warehouse. XXX is the identifier of the transfer warehouse associated with the requesting warehouse for the planned order.

Generated requirements.

PEG TO: A requirement generated by a parent item requiring this item as a component.

ALLOCATION: A requirement that is a future time-phased allocation to a released manufacturing order.

STRUCT MNT: A generated requirement that may be inaccurate due to product structure maintenance in the Product Data Management (PDM) application. A planning run will correct this requirement.

COMBINED: A generated requirement that has been combined according to combine codes in order to show the total requirement needed by this date. Pegging is not possible for this type of generated requirement.

SAFETY STK: A requirement for the designated safety stock quantity needed on the current date plus the item's lead time.

SHRINKAGE: A requirement for the quantity planned for scrap and other losses expected before the order is received into stock. The application plans orders taking shrinkage into account. As a result, the quantity planned (or released for open orders) is more than the quantity actually required.

Some of the values which may display in the TYPE field may be preceded by an asterisk. If a requirement is preceded by an asterisk, it is not included in the Projected Balance calculation.

Note: If a generated requirement (other than safety stock) is preceded by an asterisk, then the generated requirement is for an MLI type S item. An MLI type S item is planned by the planner, and only manual requirements are planned by the application in a planning run for these items. The generated requirements for these items are therefore not included in the Projected Balance calculation. The planner is responsible for entering manual requirements to satisfy any generated requirements for S type items. (Blanket purchase orders are stored for informational purposes only. The releases against a blanket order, not the blanket header are actually used in calculations).

PEG TO/PLANNER. The item that generated or created this requirement (peg to) and the planner responsible for the pegged item (planner).

START DATE. The date the order is scheduled to start in order to meet the manufacturing plan.

ORDER QUANTITY. For released orders with no activity reported and for planned and firm planned orders, the quantity released or planned to be released. For released orders with activity reported, the quantity remaining open on the order.

REFERENCE. The following prefixes identify the type of order:

M	Manufacturing order
P	Purchase order
R	Requisition
S	Schedule
U	Unreleased schedule
X	Released intersite order
*B	Blanket purchase order

Note: The asterisk signifies that this value is not included in the Project Balance calculation.

For planned and firm planned orders, this field contains:

M-xxxx	= Manufacturing order
P-xxxx	= Purchase order
S-xxxx	= Schedule
R-xxxxxx	= Requisition

where xxxx = PLAN for a planned order or FIRM for a firm planned order.

Note: Planned intersite orders are shown as planned purchase orders, assuming the lead time code is P.

DUE DATE. The orders are sequenced by their due dates.

PROJECTED BALANCE. A time-related running balance showing the projected balance. Requirements are subtracted from and the orders are added to the available balance for the appropriate period.

EXCEPTION CD AND DESCR. A code and its description from the following list.

- **PENDED**

- 1** A request has been made to cancel the order. Inventory Management's file maintenance must be used to cancel the order
- 2** A request has been made to maintain this order. Inventory Management's file maintenance must be used for any maintenance to the order.

Note: PENDED exceptions do not appear until MRP order release has been completed.

- **DATELO**

- 11** This scheduled receipt's due date is earlier than the planning start date
- 12** This scheduled receipt's due date is earlier than the current horizon date, but is on target with its requirement date.
- 13** This scheduled receipt's start date is earlier than the planning start date and the order has not been started
- 14** This scheduled receipt's start date is earlier than the current date and the order has not been started
- 24** This requirement's due date is earlier than the current date.

- **EXPDTE:** Orders with a planning exception of EXPDTE must be rushed if they are to be completed in time.

- 31 MRP recommends releasing and expediting this firm planned or planned order
- 32 MRP recommends rescheduling and expediting this firm planned order
- 33 MRP recommends expediting this scheduled receipt.
- **RESCHD**: Orders with a planning exception of RESCHD can fall within the normal lead-time.
 - 41 MRP recommends rescheduling this scheduled receipt
 - 42 MRP recommends rescheduling this firm planned order.
- Note**: For more information on EXPDTE and RESCHD see "AMM6A1—Review/Approve Items (Exceptions)".
- **RELEASE**
 - 51 MRP recommends releasing this firm planned or planned order.
- **MAXLIM**
 - 52 The requirements exceed the fixed quantity. The order has been planned discretely.
 - 53 The requirements for this planned order exceeds the maximum quantity. The order has been planned discretely.
 - 54 The requirement quantity exceeds the field capacity; the quantity 9,999,999 is substituted.
 - 55 The planned order quantity exceeds the field capacity; the quantity 9,999,999 is substituted.
- **DEFER**
 - 61 MRP recommends deferring this firm planned order.
 - 62 MRP recommends deferring this scheduled receipt.
- **CANCEL**
 - 71 MRP recommends canceling this firm planned order.
 - 72 MRP recommends canceling this scheduled receipt.
- **DATEHI**
 - 81 The requirement due date is adjusted to the calendar end date.
 - 91 This order's due date is later than the calendar end date.
 - 92 This order's start date is adjusted to the calendar end date.

If you chose plan 1, plan 2, or plan 3 for the Requirements Planning, you see three different fields in the "Requirements" part of the detailed portion of the report. Any requirements that have a due date prior to the planning horizon start date are summarized into interval position 00 with an interval date of 99/99/99. Any requirements that have a due date after the end of the last period are not printed on the report.

INTERVAL DATE. The date of the interval used to align report information. Requirements are combined on required date, and orders are detailed on their due date.

COMBINED QUANTITY. The combined quantity. Generated requirements are summarized for printing on the date interval specified.

INTERVAL POSITION. The interval position. The report shows an interval number between 1 and 20. Interval positions print when you specify a Period Interval code (PINTV) in the Item Plan (ITMPLN).

Safety stock (SAFETY STK) requirement is not subtracted from the projected balance. It is planned to handle unexpected increases in demand. It is shown as available inventory.

SHRINKAGE. Shrinkage is that portion of the original order quantity that you estimate losing before the order is completely received into stock. The system uses this factor to increase order sizes to compensate for nonusable amounts.

Reschedule Activity Report (AMM3M1)

NORTHCREEK IND		RESCHEDULE ACTIVITY REPORT				DATE 6/24/	
**	TIME 18.09.46	PAGE	1	AMM3M1			
	PLANNING WAREHOUSE	MPA	MPA MASTER BALANCE RECORDS	SITE	ATL	PLANNER	111
ORDER	ITEM	DESCRIPTION		QUANTITY	EXCEPTION	DAYS	----DUE DATE----
COMMENT							BEFORE AFTER
M004640	MPP101	MPA PARENT 101		20.000	41 RESCHD	4	7/05/
**		Minimum days					
M004650	MPP101	MPA PARENT 101		5.000	62 DEFER	5	7/19/** 7/26/**
M004670	MPP101	MPA PARENT 101		7.000	41 RESCHD	5	8/09/** 8/02/**
M004680	MPP101	MPA PARENT 101		8.000	41 RESCHD	10	8/23/** 8/09/**
-----				END OF REPORT	-----		

This report shows the action taken on orders or schedules by the automatic rescheduling function. The report is sequenced by item within planner within planning warehouse.

Fields

PLANNING WAREHOUSE. Identifies the planning warehouse.

SITE. Identifies the site associated with this warehouse.

PLANNER. Identifies the planner.

ORDER. The order number of the scheduled receipt.

ITEM. The item number associated with the order.

DESCRIPTION. A description of the item.

QUANTITY. The quantity of the item.

EXCEPTION. See "EXCEPTION CD AND DESCR".

DAYS. The number of work days.

DUE DATE

BEFORE/AFTER. The due date of the order or schedule before and after automatic rescheduling. If the After field is blank, automatic rescheduling did not occur. See Comment field for the reason.

COMMENT. The Comment field gives the reason the order or schedule was not automatically rescheduled. The reason could be due to the value in the Order Reschedule Code field in the MOMAST file, or if the minimum days to reschedule was not met.

Source of Demand for Scheduled Receipts (AMM3N1)

NORTHCREEK IND		Source of Demand for Scheduled Receipts			DATE **/**/	
** TIME **:**:**	PAGE 1	AMM3N1				
Planning warehouse	ATL	ATLANTA WAREHOUSE	Planner	0		
Source of Demand	-----					-----
Order Item	Description	Sequence	Release	Required Qty	Due Date	Order
Line Release						
P000491 1333	CROSS PEN AND PENCIL	2		5.000	4/21/**	NEG QOH
P100548 1333	CROSS PEN AND PENCIL	13		90.000	4/21/**	NEG QOH
-----		End of report		-----		

Fields

Planning warehouse. Identifies the planning warehouse.

Planner. Identifies the planner.

Order. The source order number. If the order number starts with M, it is a manufacturing order. If it starts with C, it is a customer order number. If it starts with P, it is a purchase order. If it starts with S, it is a schedule order number. If it starts with U, it is an unreleased schedule.

Item. The number of the item.

Description. The description or name of the item.

Sequence. The system assigned sequence number of the manufacturing order shown on the line.

Release. The release number associated with the order.

Required Qty. The component item quantity required for the order.

Due Date. The date the order is planned to be completed.

Source of Demand. This field displays the customer order or other top level requirement that generated this manufacturing order or purchase order item. If the requirement is a customer order, the following fields appear:

Order: The customer order number.

Line: Line item sequence associated with shipment release detail information.

Release: Date customer manufacturing is due.

Possible values are listed below. MSSR refers to Manufacturing Schedule Source Planning code.

BLENDED	The larger of forecast and customer requirements (MSSR=B)
CUSONLY	Customer orders (MSSR=C)
Cxxxxxx	Customer orders, not combined (MSSR=D or E). The customer order shows in the format of 01-CO-nnnnnnnn.
FORCAST	Forecast quantity (MSSR=F)
GENDMND	Generated component quantity based on parent planned orders (MSSR not D or E)
Mxxxxxx	Manufacturing order number
MANUAL	Manually entered demand. Source of demand is optional at time of entry (MSSR=M)
M FCST	Manual forecast
M HELD	Manual held requirement
M REQMT	Manual requirement
SAFETY	Safety stock
NEG QOH	Negative quantity on hand
P FCST	Propagated forecast
P REQMT	Propagated requirement
PRODPLN	Production planned quantity (MSSR=P)
Sxxxxxx	Repetitive Manufacturing order, allocated quantity
XS FCST	Forecast quantity in excess of customer requirements (MSSR=D)

Warehouse Relationships (AMM3K1)

NO. 01		WAREHOUSE RELATIONSHIPS			DATE **/**/	
** TIME	9.41.47	PAGE	1	AMM3K1		
PLANNING WAREHOUSE	ABC	The ABC warehouse	SITE	ATL		
DEMAND ANNING WAREHOUSE REHOUSE	DESCRIPTION	RELATION TYPE	ITEM	ITEM DESCRIPTION	PL	WA
DM1	DEMAND WAREHOUSE 1	1 *DEF				
ABC						
DM1	DEMAND WAREHOUSE 1	3 *ITEM_OUT	BLOCK1	4 CYL ENGINE BLOCK		
BBC						
DM1	DEMAND WAREHOUSE 1	3 *ITEM_OUT	BLOCK2	6 CYL ENGINE BLOCK		
BBC						
DM1	DEMAND WAREHOUSE 1	3 *ITEM_OUT	BLOCK3	8 CYL ENGINE BLOCK		
BBC						
DM2	DEMAND WAREHOUSE 2	2 *ITEM_IN	38249	1 INCH O-		
RING	ABC					
DM2	DEMAND WAREHOUSE 2	2 *ITEM_IN	38250	2 INCH O-		
RING	ABC					
DM2	DEMAND WAREHOUSE 2	2 *ITEM_IN	38251	4 INCH O-		
RING	ABC					
DM3	DEMAND WAREHOUSE 3	1 *DEF				
ABC						
DM4	DEMAND WAREHOUSE 4	1 *DEF				
ABC						
DM5	DEMAND WAREHOUSE 5	1 *DEF				
ABC						
*GLOBAL		2 *ITEM_IN	7218543	1 POUND CASING		
ABC						
*GLOBAL		3 *ITEM_OUT	7218544	10 POUND CASING		
BBC						
*GLOBAL		3 *ITEM_OUT	7218545	20 POUND CASING		BBC

To print this report, use option 7 on menu AMMM30. The warehouse relationships report will show you what type of planning relationships exist in your data base. It will show you what demand warehouses will be planned with a planning warehouse, and it will show you what item overrides exist.

Fields

PLANNING WAREHOUSE. The planning warehouse for the associated data.

SITE. The site associated with this planning warehouse.

DEMAND WAREHOUSE. The warehouse that the item resides in. The item(s) are planned in the warehouse specified in the PLANNING WAREHOUSE column.

Note: This field prints in the body of the report.

DESCRIPTION. The description or name of the warehouse

RELATION TYPE. There are three types of relations that can appear in this column. Each type of relation represents a different type of source of demand/warehouse relationship. The three types of relations are: 1 *DEF, 2 *ITEM_IN, or 3 *ITEM_OUT type.

Note: This field prints in the body of the report.

ITEM. The item(s) that reside in the warehouse in the DEMAND WAREHOUSE column of the report. If the item number is blank this is a definition record. Relation of 1 *DEF and all items that reside in the DEMAND WAREHOUSE which do not contain explicit overrides stating otherwise, are planned in the warehouse in the PLANNING

WAREHOUSE column. Items containing explicit overrides are displayed as a relation type of 2 *ITEM_IN or as a relation type of 3 *ITEM_OUT.

Note: This field prints in the body of the report.

ITEM DESCRIPTION. The description or name of the item.

PLANNING WAREHOUSE. The warehouse which the item in the item column of the display is planned in. This item is located in the warehouse specified in the DEMAND WAREHOUSE column.

Note: This field prints in the body of the report.

Appendix A. Effect of order policy codes

Application interfaces	A-1
Order quantity modifiers (MRP only)	A-2
What order policy codes are	A-2
Part period balancing	A-13
Potential data field usage	A-17

This appendix focuses on the effects that order policy codes have in developing purchase and manufacturing orders within the Inventory Management (IM) and Material Requirements Planning (MRP) applications. It discusses application interfaces, order quantity modifiers, inventory carrying costs, and ways of applying policy codes.

The policy codes, their descriptions, and the applications that use them are listed below.

Code	Used by	Meaning
A	MRP	Discrete
B	IM	Order Point, Order Quantity (EOQ)
C	IM	Order Point, Order Up To Level
D	MRP	Fixed Order Quantity
F	MRP	Part Period Balancing - Standard Costs
G	MRP	Time Periods of Supply
H	MRP	Order Discretely Above a Fixed Quantity
I	MRP	Part Period Balancing - Current Costs
Z	MRP	User Defined

Application interfaces

This topic describes how policy codes are handled between IM and MRP given two application interfacing situations:

- IM and MRP are interfacing
- IM and MRP are not interfacing

IM and MRP are interfacing

When IM and MRP are interfacing, IM's Reorder Report (AMIZM) is used to reorder items that are coded as B or C, while MRP's Order/Schedule Release and Review displays are used for all other policy codes that are within the MRP planning warehouse. For order policy Z, you can code your own ordering routine in program AMM34; otherwise, the Z defaults to an order policy of A.

MRP ignores codes B and C; therefore, they are excluded from any processing within MRP. That means if an assembly is coded B or C (order point) and the components are not coded B or C, no requirements can be passed down through the assembly to the components during the generation process. In effect, no orders are created for the

components unless the components have a source of requirements from another assembly.

IM and MRP are not interfacing

When IM and MRP are not interfacing, all items, regardless of order policy, appear on the IM Reorder Report (AMIZM). All MRP policy codes are treated as order policy code B (order point-order quantity), while IM policy codes are treated as defined-B or C. This way, you can precode the order policy code for a future MRP implementation and still have the benefits of an inventory order point system.

IM ignores the order quantity modifiers. See "Order quantity modifiers (MRP only)" for more information.

Order quantity modifiers (MRP only)

When MRP calculates an order quantity, it can modified the order quantity to consider a price break quantity (minimum), a handling situation (multiple), or a constraint situation (maximum). These modifiers are specified in the Item Master B-record, and apply to all MRP policy codes.

Minimum. If the order quantity is less than minimum, it is adjusted upward to meet the minimum criterion. This would be applicable if a vendor specifies a minimum ordering amount, or specifies a quantity for price break. For manufacturing, the minimum is usually determined by an economic order quantity that considers the importance of setup cost to run quantities.

Multiple. Due to handling or packaging considerations, MRP adjusts the order quantity (after applying the minimum modifier) to account for material handling/packaging restrictions, such as 12 to a box, 50 per tub, 5 per fixture.

Maximum. If an order quantity exceeds a specified maximum limit (after applying the minimum and multiple modifiers), an exception message is issued to warn the planner of this condition. If no action is taken against this message the order can be released as calculated. Use this modifier to detect problems with the user data base, (that is, master level scheduling, typing errors), thus preventing shop congestion caused by releasing excessively large orders. In the process industry, it may represent a restriction on vessel or container size.

What order policy codes are

This topic defines order policy codes, describes the conditions under which to use them, and demonstrates their effects on inventory costs.

The number of orders placed, the inventory carried, and the resulting "policy cost" are described using 14 case studies over a one month time period.

The case studies help illustrate the effects of using the codes indiscriminately against a given demand pattern. They describe the orders created by using various order policy codes against a pattern of net requirements over a one month planning period. The requirements repeat themselves every 10 days.

The description for each policy code also contains a table summarizing the cases that apply to that code. See "Summary of policy costs for sample one-month planning period" for a summary of all the cases across the one-month time period.

The calculations used in the tables are:

Order Cost = Number of planned orders x order cost; order cost = \$60

Where a month has 22 working days, the average units in inventory equals S daily available divided by 22 days.

Where item cost is \$70, the average cost of inventory equals the average units in inventory x item cost.

Where the carrying rate is 25% per year, the average inventory carrying cost is calculated by multiplying the average cost of inventory by the result of dividing the carrying rate by 12 months.

The policy cost equals the order cost plus the average inventory carrying cost.

Policy Code A–Discrete

This code creates a planned order equal to the net requirement. Use it where:

Setup, handling or order costs are insignificant

The item has a high unit cost or is subject to spoilage, and you want to minimize inventory levels and carrying costs

Specialty items are produced in a job shop

End-items are produced at a fairly constant rate

Phantom items are defined

Minimizes projected inventory balance.

Case 1–No modifiers

Planned orders are created equal to the individual net requirements. On day 2, the net requirement of 90 results in a planned order for 90 due on day 2. By the end of day 2, the 90 is issued out of inventory and a zero on-hand inventory results.

The application of this policy code results in a high "policy cost" due to the 17 planned orders that would be produced at a \$60 per order acquisition cost. However, inventory carrying costs were kept to a minimum (0) since the incoming orders were immediately consumed out of inventory.

Case 2–No modifiers, 10% shrinkage

Shrinkage is used only within MRP to inflate the net requirement to allow for "scrap." The new net equals the net requirements divided by the result of subtracting the shrinking from 1.00. To calculate the new net for day 2, divided 90 by 1.00 minus 0.10. The result is 100.

The order is created for 100 but only 90 are expected into inventory to meet the requirement on day 2. The “policy cost” was identical to case 1, even though larger planned orders were created.

Case 3–No modifiers, combine code using 5-day periods

Combine codes are used within the MRP generation, and summarize gross requirements (requirements before applying availability) over the specified period into one gross requirement placed on the first day of that period.

MRP counts period intervals beginning with the horizon start date. In case 3, gross requirements on days 1-5, 6-10, 11-15, 16-20, 21-25 would be summarized into gross requirements on days 1, 6, 11, 16, and 21. Since the case studies assume a zero inventory supply, net requirements now equal gross requirements on the above days. The planned order of 270 on day 1 results from a summary of requirements on days 1 through 5 of 0, 90, 100, 60, and 20.

The application of the combine code had the effect of reducing the number of orders from 17 in cases 1 and 2 to 4 orders in case 3 but had the negative effect of increasing inventory carrying costs.

Combine codes are used to advantage when:

An item has a low cost (tendency to build inventory)

No significant structures below item in question (minimize lead time offset)

Pegging is not required

Setting up blanket purchase orders.

Case 4–Minimum = 400

Whenever a net requirement must be satisfied, MRP creates an order for at least the amount specified in the minimum modifier field. If the net is below minimum, order the minimum; if the net is above minimum, order the net.

In case 4, the first requirement of 90 on day 2 results in a planned order of 400 on day 2. An excess quantity was built to satisfy an EOQ-type condition that results in carrying inventory for future net requirements. However, the policy cost is cheaper than the previous example due to the lower average inventory level.

Case 5–Minimum = 400, multiple = 12

On day 2 the net requirement of 90 results in a minimum order of 400. The order is now increased to the nearest multiple of 12 (408) to satisfy the multiple modifier. This modifier had the effect of increasing inventory costs slightly but is used to make best use of material handling/packaging containers for that item.

Sample planning period for policy code A, days 1 to 11 and 12 to 22.

Days 1 to 11		Day and Net Requirement										
Case	Case Description	1 0	2 90	3 100	4 60	5 20	6 90	7 0	8 40	9 450	10 80	11 0
1	No modifiers		p90	p100	p60	p20	p90		p40	p450	p80	
2	10% shrinkage No modifiers		p100	p112	p67	p23	p100		p45	p500	p89	
3	Combine code using 5 days/period No modifiers	p270 270	180	80	20	0	p660 570	570	530	80	0	p270 270
4	Minimum - 400	0	p400 310	210	150	130	40	40	0	p450 0	p400 320	320
5	Multiple - 12 Minimum - 400	0	p408 318	218	158	138	48	48	8	p444 2	p408 330	330

Legend:

p = planned orders

integers (without 'p') = inventory after satisfying requirements

Days 12 to 22		Day and Net Requirement										
Case	Case Description	12 90	13 100	14 60	15 20	16 90	17 0	18 40	19 450	20 80	21 0	22 90
1	No modifiers	p90	p100	p60	p20	p90		p40	p450	p80		p90
2	10% shrinkage No modifiers	p100	p112	p67	p23	p100		p45	p500	p89		p100
3	Combine code using 5 days/period No modifiers	180	80	20	0	p660 570	570	530	80	0	p270 270	180
4	Minimum - 400	230	130	70	50	p400 360	360	320	p400 270	190	190	100
5	Multiple - 12 Minimum - 400	240	140	80	60	p408 378	378	338	p408 296	216	216	126

Policy Code B—Order Point, Order Quantity (EOQ)

When an item's availability (on-hand and on-order—Customer Order Management pick list requirements—allocations) goes below the item's order point, an order is placed for a quantity that is usually determined by an economic order quantity, called EOQ. If the order point field "ORDPT" or the order quantity field "FXORQ" are zero in the Item Balance record, a suggested order point or order quantity is calculated and printed on the Inventory Reorder report (AMIZM). These fields can only be updated by Item Balance file maintenance.

- ORDPT equals the result of multiplying EAANU time Total Lead Time and adding SAFTY, then dividing the sum by ACDAY
- EAANU equals the estimated average annual usage from the Item Balance file
- Total Lead Time equals the fixed plus the adjustable lead time from the Item Balance file
- SAFTY equals safety stock from the Item Balance file

- ACDAY equals the Working days per year from System Control STATIO record
- EOQ equals the square of 2 times EAANU times the sum of Setup cost plus Purchase cost, that whole result divided by the result of multiplying Last unit cost times Annual carrying rate
- Setup cost is from the Item Master A record
- Purchasing cost is the cost of placing an order (from System Control WHOUSE record)
- The last unit cost is from the Item Balance
- The Carrying rate is from the Item Master A-record or from the WHOUSE record
- For the case studies, EOQ is the minimum and is also the fixed order quantity. The calculation is (square root of (2 times 23250 times \$60)) divided by \$70, or 400.

Important considerations for using this policy code are:

- EAANU is calculated at period-end close in Inventory. If the period is not closed at regular intervals, the average becomes distorted.
- Safety Stock is calculated in the XA Forecasting (FCST) application. If FCST is not installed and interfacing, Safety Stock must be calculated manually on a regular basis.
- Safety Stock changes through time.
- Carrying rate can vary considerably by item. If specified by item, it overrides the general rate kept in WHOUSE.

Use policy code B when:

MRP is not interfacing

MRP is interfacing and you do not want MRP to process the item

You want to derive an order quantity that considers past usage, inventory carrying costs, and order placement costs.

Case 6–Not processed in MRP

On the Inventory Reorder report, the item would have appeared with a suggested EOQ of 400.

Items with B order policy codes are not included in the order calculations done by MRP and MPSP.

Policy Code C–Order Point, Order Up To Level

When an item's availability goes below order point, place an order for the difference between availability and the amount of inventory you want to maintain. The level is specified in the Item Balance field "FXORQ." If "FXORQ" is zero, an EOQ is calculated and is used for the specified level amount.

Use policy code C when:

You need to maintain a specified inventory level

You want the difference between order point and order quantity to equal a minimum ordering quantity, possibly for price break purposes.

The XA Forecasting application calculates both the safety stock and order point fields for master level items whose order policy code is B or C. The safety stock and order points for these items are calculated only for Inventory Management's Inventory Reorder Report (AMIZM).

Items with C order policy codes are not included in the order calculations done by MRP and MPSP.

Policy Code D—Fixed Order Quantity

The fixed order quantity is generally based on an EOQ calculation. It is maintained in the "FXORQ" field.

Use policy code D when:

An item's demand is fairly steady

The item's cost is insignificant

Packaging or handling constraints might determine order size

An EOQ type of order quantity is required.

Case 7—Fixed order quantity = 400, maximum = 444

The requirement for 90 on day 2 results in an order for 400 due on day 2. Of the 400, 90 are consumed and 310 are left in inventory.

On day 9, the requirement of 450 exceeds the fixed ordering quantity of 400 and the maximum of 444. In this case, the calculations defaults to a discrete order quantity of 450 and could potentially issue two exception messages:

Order quantity was exceeded, and

Order quantity maximum was exceeded.

Case 8—Fixed order quantity = 400, multiple = 12

This case is similar to Case 7, except that order quantities are rounded to multiples of 12, and it does not issue an exception message on day 9 for exceeding the maximum limit because no maximum modifier is specified.

Sample planning period for policy code D, days 1 to 11 and 12 to 22.

Days 1 to 11		Day and Net Requirement										
Case	Case Description	1 0	2 90	3 100	4 60	5 20	6 90	7 0	8 40	9 450	10 80	11 0
7	Maximum - 440 Fixed order qty - 400	0	p400 310	210	150	130	40	40	0	p450 0	p400 320	320

Days 1 to 11		Day and Net Requirement										
Case	Case Description	1	2	3	4	5	6	7	8	9	10	11
		0	90	100	60	20	90	0	40	450	80	0
8	Multiple - 12 Fixed order qty - 400	0	p408 318	218	158	138	48	48	8	p444 2	p408 338	330

Legend:

p = planned orders

integers (without 'p') = inventory after satisfying requirements

Days 12 to 22		Day and Net Requirement										
Case	Case Description	12	13	14	15	16	17	18	19	20	21	22
		90	100	60	20	90	0	40	450	80	0	90
7	Maximum - 440 Fixed order qty - 400	230	130	70	50	p400 360	360	320	p400 270	190	190	100
8	Multiple - 12 Fixed order qty - 400	240	140	80	60	p408 378	378	338	p408 296	216	216	116

Policy Code F—Part Period Balancing Using Standard Costs

When you use policy code F, MRP dynamically determines variable EOQs through time, using a two-step approach:

Determines a tentative quantity and places an order to meet the first net requirement

Modifies or confirms the quantity of that order by examining the best placement for the next order (look ahead/look back).

Policy code F attempts to avoid placing the next order in a period of low demand.

These steps are repeated until all net requirements are processed.

For an in-depth study of part period balancing, refer to “Part Period Balancing” in this appendix. (Read “Part Period Balancing” before you continue to case 9.)

Use policy code F when:

Demand is erratic

A dynamic EOQ lot sizing technique is desired based on future requirements

Order/setup costs are high.

This technique is sensitive to minor schedule changes.

Case 9—Order cost = \$60, item cost = \$70, carrying rate = 25% per year

This policy resulted in a minimal policy cost on this particular demand pattern. The data fields used in the calculations are:

Days 1 to 11		Day and Net Requirement										
Case	Description	1	2	3	4	5	6	7	8	9	10	11
		0	90	100	60	20	90	0	40	450	80	0

Legend:

p = planned orders

integers (without 'p') = inventory after satisfying requirements

Days 12 to 22		Day and Net Requirement											
Case	Description	12	13	14	15	16	17	18	19	20	21	22	
		90	100	60	20	90	0	40	450	80	0	90	
9	Order cost - \$60			p210					p720				
	Item cost - \$70	100	0	150	130	40	40	0	270	190	190	100	
	Carrying rate - 25%												

Policy Code G—Time Period of Supply

Accumulates all net requirements within the number of days (time period of supply) that you specify in the Item Plan file. It starts the count of days with the first net requirement that it finds. A time period supply of 0 or 1 day would be equivalent to policy code "A"—discrete.

Use policy code G when:

You want enough parts available to cover a specific number of days of production

Unit cost and carrying costs are low

You want to set up blanket order releases

Setup and purchase costs are insignificant

Demand is erratic.

Case 10—5 days of supply

This case had the lowest "policy costs" due to fewer resulting planned orders (4), and low average inventory values. It differs from case 3 (combine code usage) in that internal count starts with the first net requirement encountered. Therefore, the first planned order covers days 2 through 6, while the second planned order covers days 8 through 12. Day 7 is omitted in the start of a new interval because it doesn't have any requirements.

Case 11—5 days of supply, multiple = 12

This case is the same as 11, except that the planned order created is always a multiple of 12.

Case 12–10 days of supply

This case produces the lowest number of planned orders due to the larger “Days of Supply,” but also creates a relatively high carrying cost for this part in inventory. By doubling the days of supply from case 10, the policy cost almost doubles.

Sample planning period for policy code G, days 1 to 11 and 12 to 22.

Days 1 to 11		Day and Net Requirement										
Case	Case Description	1	2	3	4	5	6	7	8	9	10	11
		0	90	100	60	20	90	0	40	450	80	0
10	5 days of supply	0	p360 270	170	110	90	0	0	p660 620	170	90	90
11	Multiple - 12 5 days of supply	0	p360 270	170	110	90	0	0	p660 620	170	90	90
12	10 days of supply	0	p930 840	740	680	660	570	570	530	80	0	0

Legend:

p = planned orders

integers (without 'p') = inventory after satisfying requirements

Days 12 to 22		Day and Net Requirement										
Case	Case Description	12	13	14	15	16	17	18	19	20	21	22
		90	100	60	20	90	0	40	450	80	0	90
10	5 days of supply	0	p270 170	110	90	0	0	p660 620	170	90	90	0
11	Multiple - 12 5 days of supply	0	p276 176	116	96	6	6	p660 626	176	96	96	6
12	10 days of supply	p930 840	740	680	660	570	570	530	80	0	0	p90 0

Policy Code H–Order Discretely Above a Fixed Quantity

This policy summarizes requirements through time until the fixed quantity is exceeded. This summarized quantity is then placed as an order on the first day that had a net requirement. The fixed quantity is specified in “FXORQ”.

If the maximum lot size is equal to the fixed order quantity, the planned order quantity will equal the fixed order quantity adjusted by any quantity modifiers and shrinkage factor. Multiple orders may be planned on the same date if needed to cover the requirement. The maximum lot size is in “MAXQ”.

Use this policy when the vendor/manufacturer specifies a minimum order quantity.

Case 13–Fixed order quantity = 400

The first order of 400 was generated by summarizing net requirements from day 2 on until the sum of requirements was equal to or greater than 400.

Case 14—Fixed order quantity = 400, multiple = 12

This case is similar to case 13, except the order quantities are in multiples of 12.

Sample planning period for policy code H, days 1 to 11 and 12 to 22.

Days 1 to 11		Day and Net Requirement										
Case	Case Description	1	2	3	4	5	6	7	8	9	10	11
		0	90	100	60	20	90	0	40	450	80	0
13	Fixed order qty - 400	0	p400 310	210	150	130	40	40	0	p450 0	p440 360	360
14	Multiple - 12 Fixed order qty - 400	0	p408 318	218	158	138	48	48	8	p444 2	p444 366	366

Legend:

p = planned orders

integers (without 'p') = inventory after satisfying requirements

Days 12 to 22		Day and Net Requirement										
Case	Case Description	12	13	14	15	16	17	18	19	20	21	22
		90	100	60	20	90	0	40	450	80	0	90
13	Fixed order qty - 400	270	170	110	90	0	0	p490 450	0	p420 340	340	250
14	Multiple - 12 Fixed order qty - 400	276	176	116	96	6	6	p492 452	2	p420 340	340	250

Policy Code I—Part Period Balancing Using Current Costs

The calculations are the same as policy code "F," except that current costs are used. The search order for using current costs are current unit cost, last cost and unit cost default.

Summary of policy costs for sample one-month planning period

This table summarizes the overall costs of the policy codes as illustrated by the case studies.

Policy Code	Case	Day Net Requirement	Number of orders	Order cost	Average units in inventory	Average cost of inventory	Inventory carrying cost	Order policy cost
A	1	No modifiers	17	1020	0	0	0	1020
A	2	10% shrinkage No modifiers	17	1020	0	0	0	1020
A	3	Combine code using 5 days/period No modifiers	5	300	230	16100	335	635
A	4	Minimum - 400	5	300	173	12110	252	552

Policy Code	Case	Day Net Requirement	Number of orders	Order cost	Average units in inventory	Average cost of inventory	Inventory carrying cost	Order policy cost
A	5	Multiple - 12 Minimum - 400	5	300	185	12950	270	570
B,C	6	Not processed in MR P						
D	7	Maximum - 440 Fixed order qty - 400	5	300	173	12100	252	552
D	8	Multiple - 12 Fixed order qty - 400	5	300	185	12950	270	570
F	9	Order cost - \$60 Item cost - \$70 Carrying rate - 25%	4	240	143	10010	209	449
G	10	5 days of supply	4	240	134	9380	195	435
G	11	Multiple - 12 5 days of supply	4	240	136	9520	198	438
G	12	10 days of supply	3	180	463	32410	675	885
H	13	Fixed order qty - 400	5	300	168	11760	245	545
H	14	Multiple - 12 Fixed order qty - 400	5	300	175	12250	255	555

Part period balancing

This section describes the concepts of part period balancing.

The part period algorithm

The part period concept is based on the following reasoning: If one part (that is, one unit) is held in inventory for one period, it incurs a particular holding cost; if it is held two periods, it incurs twice the holding cost. Two parts held one period incur the same cost as one part held two periods, and three parts held two periods incur the same cost as two parts held three periods.

If the number of parts held in inventory is multiplied by the number of periods over which they are held, the dimension "part period" is derived. If we express ordering costs in this new dimension, a simple and effective lot sizing technique results.

By dividing the ordering costs (including setup, if any) by the inventory holding costs per part per period, ordering costs are expressed in part periods. See the following example:

The ordering cost for part no. 123 is \$50 and the inventory holding cost is \$0.50 per unit per period. Therefore:

$\$50 \text{ divided by } \$0.50 = 100 \text{ parts per period, or } 100 \text{ part periods.}$

The term part periods, in this instance, is analogous to person days. If, for example, a particular job costing \$200 for labor can be performed by one laborer working alone,

or by any number working in various combinations. If labor costs are \$20 per person per day, then the value of the job expressed in person days is \$200 divided by 20, which is 10 people for one day, or 10 person days.

Once ordering costs for each part number are converted to part periods, this calculation need be done again only if there is a change in material and labor costs, setup, inventory holding, or other related costs. (You can modify the algorithm to permit use of a different holding cost for each period.)

A simplified version of part period is described first. This version is a necessary part of a more accurate version, described later.

Simple part period balancing (PP simple)

An item’s economic part period (EPP) is defined as the quantity, if carried for one period, where the item’s carrying cost is equal to it’s setup cost. Assume the economic part period value of a particular part number to be 100, and the demand by periods to be d1, d2, d3, and so on through dn. Assume also that no holding costs are incurred for items consumed in the period in which they are ordered. To determine the reorder point and the reorder quantity, use this equation until the value of this expression exceeds 100.

$$(O) d1 + (1) d2 + (2) d3 + (3) d4 + \dots$$

Perform setup activities in the period that causes the value to exceed 100. The reorder quantity is then the sum of the demands of the periods covered by the order. Specific examples for computing economic lot sizes are shown in this table:

Period	Demand	Part Period Value	Cumulative Part Period	Setup Period?	Cumulative Costs (see note)
1	20	0	0	Yes	50
2	20	(1x20)	20	No	60
3	25	(2x25)	70	No	85
4	35	(3x35)	155	Yes	N/A
(4)	(35)	(0)	(0)	No	135
5	30	(1x30)	30	No	150
6	10	(2x10)	50	No	160
7	10	(3x10)	80	No	175
8	15	(4x15)	140	Yes	N/A

Note: Computing cumulative costs is not required by part period; it is shown for comparison with the other algorithms described.

Assume the setup costs to be \$50.00 and inventory holding \$0.50 per part per period. The economic part period value of this item is \$50 divided by \$0.50, or 100. This value is maintained in the part number record.

A setup is made in period 1 and we wish to determine the quantity to be manufactured. In the table, the demand of 20 units for period 1 is consumed in the same period in which it is produced and therefore incurs no part period costs.

The demand for period 2, if ordered in period 1, is held for one period, incurring a holding cost of (1×20) or 20 part periods. Therefore, deduct 20 from the 100 part periods available for the item, leaving a balance of 80 part periods.

The demand for period 3 is held two periods, incurring a cost of (2×25) or 50 part periods, leaving a new balance of 30 part periods.

The part period requirements of (3×35) or 105 part periods for period 4 exceed the balance of 20 available, signaling the need for a setup in this period.

The ordering quantity for period 1 is the sum of the demands for periods 1, 2 and 3—that is, 65.

A second example, stated in a slightly different way, clarifies the procedure. Refer back to the table.

A second order is placed in period 4, and the ordering quantity is undetermined.

The demand for period 5 is (1×30) or 30 part periods, substantially less than the 100 available. Add these 30 part periods to the (2×10) or 20 part periods incurred in period 6. This is a total of 50 part periods.

Period 7 contributes (3×10) or 30 part periods for a total of 80, and note that we have not exhausted the supply of part periods.

Finally, we try to satisfy the demand for period 8 (4×15) and find the supply inadequate. This is the signal for a setup in period 8.

The ordering quantity for period 4 in this case is 85, and the number of periods covered is four. In the first setup, 65 pieces were ordered to cover three periods, and in this setup, 85 pieces were ordered to cover four periods.

As you can see, part period is a variable-order-quantity, variable-order-point system that provides the flexibility required for computing economic lot sizes. PP simple works well for demand sets that do not vary widely between periods.

Regular part period balancing (PP regular)

Regular part period balancing uses the same calculations described for the simple version. It is most useful where there are large variations in demand, because it uses the part period look ahead and look back features to provide significantly greater overall accuracy and reduce or eliminate many of the larger errors that creep into the simple version.

The look ahead and look back features. The part period look ahead and look back features help locate unusual combinations of demand that can result in an unusually large error (and therefore, high cost).

Once the decision for setup is made, the look ahead and look back features examine demand patterns for at least two periods after and for one period before the setup period. If demand on either or both sides of the setup period is substantially greater than the setup period demand, MRP adjusts the setup period to level off the demand pattern.

For example, assume \$100 to be the setup cost and \$1.00 to be the holding cost per item per period. (The item's economic part period value is 100.)

Period	Demand	Part Periods	Cumulative Part Periods	PP Simple Setups?	PP Simple Cumulative Costs	PP Regular Setups?	PP Regular Cumulative Costs
1	10	0	0	Yes	100	Yes	100
2	90	90	90	No	190	No	190
3	10	20	110	Yes	290	No	210
4	90	–	–	No	380	Yes	310
5	10	–	–	Yes	480	No	320
6	90	–	–	No	570	No	420

When the cumulative part periods exceed 100 (the economic part period for this item), a setup is tentatively recommended (see columns for cumulative part periods and PP simple setups for examples). Before accepting the decision as final, the look ahead feature is invoked to compare period 3's part period value (which is 20) with period 4's demand (which is 90). If the part period value is equal to or less than the demand, the setup period is moved ahead to period 4. If not, the original decision stands. In this case, the decision to move the setup to period 4 was a good one.

The next example shows how the look back feature operates. Assume the same setup and holding cost as for the previous example:

Period	Demand	Part Periods	Cumulative Part Periods	PP Simple Setups?	PP Simple Cumulative Costs	PP Regular Setups?	PP Regular Cumulative Costs
1	10	0	0	Yes	100	Yes	100
2	20	20	20	No	120	No	120
3	40	80	100	No	200	Yes	220
4	10	0	0	Yes	300	No	230
5	20	20	20	No	320	No	270
6	40	80	100	No	400	Yes	370
7	10	–	–	Yes	500	No	380

The demand for tentative setup period 4 is compared with the previous period as follows: If $2 \leq d_t \leq d_{t-1}$, then set up in the previous period. In this case, (10×2) is less than 40; therefore the setup period becomes 3 rather than 4.

This algorithm has several advantages:

It performs well over both short and long horizons.

It is accurate for demand cycles with both large and small variations between periods.

For a horizon that is equal to one part period planning cycle, regular part period balancing is invariably optimal.

The look back feature is not invoked if the look ahead feature succeeds in moving the setup to a future period.

Potential data field usage

The following chart shows you potential data field usage for each policy code. Combine requirement and shrinkage factor fields are used in calculating net requirements and may ultimately affect the lot size and/or due date of the order.

The table uses the following abbreviations to identify the field usage:

- C—refers to cost fields.
- R—refers to the carrying rate field.
- U—refers to setup cost.
- 1,2,3—refers to search order, where one is first and three is last.
- X—means the field is used, but has no search priority.

Field Description	Policy Codes									
	A	B	C	D	F	G	H	I	Z	
ITEM MASTER-A										
UCDEF	Unit Cost Default		C2	C2		C3			C3	
STDSU	Standard Setup Cost		X	X		X			U2	
CARRY	Carrying Rate		R1	R1		R1			R1	
ITEM MASTER-B										
STDUC	Standard Unit Cost					C1				
CURUC	Current Unit Cost								C1	
CURSU	Current Setup Cost								U1	
ITEM PLAN										
CMRQ	Combine Requirements	X			X	X	X	X	X	X
MLIC	Master Level Item Code	X	X	X	X	X	X	X	X	X
SHFC	Shrinkage Factor	X			X	X	X	X	X	X
ORDP	Order Policy Code	X	X	X	X	X	X	X	X	X
NODS	Time Periods of Supply						X			
PDDY	Days Per FCST Period	X			X	X	X		X	
MLFC	Master Level FCST Code	X			X	X	X		X	
FRPD	Number of FCST Periods	X			X	X	X		X	
MINQ	Minimum Quantity	X			X	X	X	X	X	
MULQ	Multiple Quantity	X			X	X	X	X	X	
MAXQ	Maximum Quantity	X			X	X	X	X	X	

		Policy Codes								
Field Description		A	B	C	D	F	G	H	I	Z
ITEM BALANCE										U
FRQTY	Forecast Quantity	X			X	X	X		X	
LTCOD	Lead Time Code (M/P)		X	X						S
LTMAN	Lead Time - Mfg.		X	X						E
LTADM	Adjusted Lead Time - Mfg.		X	X						R
LTPUR	Lead Time - Pur.		X	X						
LTADP	Adjusted Lead Time - Pur.		X	X						D
LCOST	Last Unit Cost		C1	C1					C2	E
STDUCB	Standard Unit Cost					C2				F
ORDPT	Order Point		X	X						I
FXORQ	Fixed Order Quantity		X	X	X			X		N
SAFTY	Safety Stock		X	X						E
EAANU	Est. Avg. Annual Usage		X	X						D
PSTRUC										
LTADJ	Component Lead Time	X	X	X	X	X	X	X	X	
FOPPF	Feat/Opt. Plan Factor	X	X	X	X	X	X	X	X	
QPACY	Quantity Per Current Adj.	X	X	X	X	X	X	X	X	
SYSCTL-WHOUSE										
CLDPM	Calendar Days/Month					X			X	
CARRYF	Carrying Rate		R2	R2		R2			R2	
SYSCTL-STATIO										
OCOST	Cost Of Placing Order		X	X		X			X	
ACDAY	Business Days/Year		X	X						
SYSCTL-XMREPT										
IMRPI	IM-to-MRP Interface	X			X	X	X	X	X	X
MRSECO										
LEVEL	Level to Plan MLIs	X			X	X	X	X	X	

Appendix B. Security areas

The options on the CAS Security Maintenance menu (AMZM38) allow you to protect application tasks from unauthorized users. You can define security areas and then define specific tasks associated with each area.

Security areas protect access to a group of menu options. The following table shows the application security areas and their associated menu options and task IDs. To print a report of all application areas, see the description of the Generate reports option in the Security Maintenance chapter of the *CAS User's Guide*.

You can authorize users to tasks with three methods:

1. You can define security areas and then define specific tasks associated with each area.
2. You can authorize users to individual menu options.
3. You can authorize users to inquiry and update tasks by individual warehouse, in MRP, MPSP, and ISL/MISL.

See the *CAS User's Guide* for additional information on methods 1 and 3.

Security area	Menu/ option	Description	Task ID
MRP Shared Application Security Clearances	AMMM10/5	Work With Warehouses	WRKWHSM NT
	AMMM20/3	Work With Warehouses	WRKWHSM NT
Cash Flow Reports	AMMM36/1	Cash Flow—Planned, Current	AMMM3601
	AMMM36/2	Cash Flow—Planned, Standard	AMMM3602
	AMMM36/3	Cash Flow—Open, Current	AMMM3603
	AMMM36/4	Cash Flow—Open, Standard	AMMM3604
	AMMM36/5	Cash Flow—Both, Current	AMMM3605
	AMMM36/6	Cash Flow—Both, Standard	AMMM3606
	AMMM36/7	Cash Flow Report Options	AMMM3607
Order Review/Approval	AMMM40/1	Review/Approve Master Level Items	AMMM4001
	AMMM40/2	Review/Approve All Items	AMMM4002
Order Release/Auto-Release	AMMM40/5	Release Orders	AMMM4005
	AMMM40/6	Order Release with Shop Packet	AMMM4006
	AMMM40/7	Auto-Release Purchase Orders	AMMM4007
Calendar File Maintenance	AMMM00/5	Work with Calendars	AMMM0005
Maintain Forecast	AMMM10/1	Maintain Forecast	AMMM1001
Maintain Master Level Item Schedules	AMMM10/3	Master Level Item Schedules	AMMM1003

Security area	Menu/ option	Description	Task ID
Planning Reports/Item Requirements Inquiry	AMMM30/1	Requirements Planning	AMMM3001
	AMMM30/2	MLI Requirements VS Forecast/ Customer Orders	AMMM3002
	AMMM30/4	Order/Schedule Recommendation - Exception Sequence	AMMM3004
	AMMM30/5	Order/Schedule Recommendation - Item Sequence	AMMM3005
	AMMM30/7	Warehouse Relationships	AMMM3007
	AMMM30/8	Reschedule Activity	AMMM3008
	AMMM30/9	Purchase Order Revisions	AMMM3009
	AMMM30/ 10	Source of Demand	AMMM3010
	AMMM40/3	Check Item Availability Prior to Release	AMMM4003
	AMMM40/9	Source of Demand	AMMM4009
Purchase Planning Reports	AMMM30/3	Purchase Planning	AMMM3003
Planning Selection & Initiation	AMMM10/2	Extract Independent Demand	AMMM1002
	AMMM20/1	Maintain Horizon Values	AMMM2001
	AMMM20/2	Maintain Period Intervals	AMMM2002
	AMMM20/4	Planning Run Execution Options	AMMM2004
	AMMM20/5	Planning Run Report Options	AMMM2005
	AMMM20/6	Initiate Planning Run	AMMM2006
	AMMM40/11	Create Purchase Planning Schedules	AMMM4011
Enter and Maintain Schedules	AMMM10/7	Print and Purge Expected Customer Orders	AMMM1007
	AMMM40/8	Enter and Maintain Schedules	AMMM4008
Work with MRP	AMMM10/6	Maintain Expected Customer Orders	Work With (Subtask MRP)
	AMMM40/ 10	Purchase Planning Profile	Work With (Subtask MRP)
	AMMM40/ 12	Print and Purge Planning Schedules	Work With (Subtask MRP)

Appendix C. Entry and release for orders and schedules

In XA, the term release has different meanings in different applications. This appendix describes the entry and release process in the applications using it. This appendix has two parts: an overview and a detailed explanation for each application

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Details.....	C-7

Overview

The following XA applications have order or schedule entry, create, and/or release functions:

- InterSite Logistics (ISL/MISL)
- Inventory Management (IM)
- Material Requirements Planning (MRP)
- Order-Based Production Management (OBPM)
- Procurement Management (PM)
- Production Control and Costing (PC&C)
- Purchasing (PUR)
- Repetitive Production Management (REP)

Order release refers to releasing manufacturing orders, purchase orders, and intersite orders. Orders may be created by an application such as MRP or entered through a work station as in IM and then released. The **creation or entry** of the order puts information such as order number, part number, quantity, and due date into data entry batches. When you release the order, the open order files are updated with the information you entered along with other application generated information.

Schedule release refers to releasing manufacturing schedules (in REP) similar to the order release process used by manufacturing orders. However, it differs in the way in which schedules are entered and selected for release. The entry process does not use data entry batches, but instead uses a method of processing that bypasses the need for batch control.

Key elements to a manufacturing schedule are warehouse, production line, finished item, the quantity of the item to be built on the line, and the day the quantity is expected to be completed. When the schedule is released, the release process sets up the necessary database records to begin production. In addition to the release, the schedule must also be primed. Priming can be specified at the time of release or done later. Priming must occur before schedules can be reported against.

Releasing a manufacturing order authorizes production to begin on the order; therefore, the shop paperwork is usually produced at this time also. Releasing an intersite order authorizes the supplying warehouse to ship items to you. Releasing a purchase order authorizes a vendor to ship products to you or to perform services for you. Releasing either manufacturing orders, purchase orders, intersite orders, or schedules creates records in the open order files to track and report progress and costs.

The IM application is the cornerstone of order and schedule information. ISL/MISL, MRP, OBPM, PC&C, PM, PUR, and REP all have IM as a prerequisite. The order release functions of MRP and PC&C enhance order releasing in IM by supplying additional release function while REP's release function is all contained within its

application. REP also depends on EPDM or PDM to define production lines, reporting points, and component materials used in the manufacturing process. For IM and PC&C, EPDM or PDM are optional applications.

Manufacturing orders

Inventory Management

Releasing a manufacturing order in IM creates an order master record and an order detail record to hold the allocation information for each component required to complete the order. If the EPDM or PDM application are activated or interfacing, the allocations can optionally be created at order entry or at order release using bill of material information. If EPDM is activated, you can choose an item process to use with the order. Once the order is released, issues of the components are reported through IM and used to update the order detail records and the master record.

Material Requirements Planning

MRP recommends that you release a manufacturing order based on the lead time and the future requirements for the item. Using the MRP order/schedule review and release function, you can approve an order for release. If EPDM is activated, you also can change its item process prior to releasing the order. IM is notified then and actually creates the open order records using its order release process.

Order-Based Production Management

OBPM provides a customizable client interface to creating manufacturing orders. It provides most of the order entry and release function in IM, MRP, and PC&C. In addition, it provides a Reorder Recommendation object that lets you create orders easily for order point items requiring replenishment. It also allows you to copy existing released manufacturing orders or manufacturing history orders to create a new order. OBPM works with either EPDM or PDM.

OBPM also allows maintenance of all types of manufacturing order information, updating the IM and PC&C files.

Production Control and Costing

By itself, PC&C cannot create or release manufacturing orders; it can, however, complete the order release process begun by IM.

There are four basic types of information about a manufacturing order in XA:

- Master data
- Material (component or allocation) data
- Operation (routing) data
- Miscellaneous charges.

In order release, IM controls the master and material information, and PC&C controls the operation routing and miscellaneous charge information.

During IM order release, you can create routings and enter miscellaneous charges as part of the order release process, or you can defer to PC&C to create routings and

enter miscellaneous charges at a later time. If you choose to create routings as part of the IM order release process, IM either calls a standard routing from EPDM or PDM routing files or allows you to type in an alternative routing. IM then passes the routing and any miscellaneous charges to PC&C programs, which automatically complete order release.

If you choose not to enter routing information or miscellaneous charges during IM order release, perhaps because the data is not available or must be provided by another department, you can create the master and material records through IM and then add the routing information and miscellaneous charges later using PC&C's order release options.

In either case, once order release is complete, you must make any further changes to the files through PC&C's file maintenance.

Purchase orders

Inventory Management

When a purchase order is released in IM, records are created in the open order files for tracking receipts against the order. IM does not print the actual purchase order. Once PUR or PM is installed, all purchase orders must be entered through one of those applications..

Material Requirements Planning

MRP recommends the release of purchase orders in the same way that it handles manufacturing orders. Using the MRP order/schedule review and release function, you can authorize the release of a purchase order for an item. IM recognizes this activity and creates the open order records.

If Purchasing is installed and interfacing, you may choose to automatically create purchase orders and requisitions from the MRP planned order file of orders that have been recommended for release. If a requisition is created, the requisition number is posted into the MRP Planned Order file and the order becomes a firm planned requisition order. Then, PUR or PM can use the requisitions to create purchase orders after being reviewed by a buyer.

Order-Based Production Management

OBPM provides a customizable client interface to creating purchase orders and requisitions from two client objects:

- MRP Recommendations (uses the MRP files)
- Reorder Recommendations (an OBPM file)

OBPM requires PM for these capabilities, and uses PM function to create and maintain purchase orders.

Procurement Management

PM provides a customizable client interface to creating and maintaining purchase orders and requisitions. It allows you to combine multiple requisitions on one purchase order. It also allows you to copy existing purchase orders or purchase history orders to create a new order.

Purchasing

When a purchase order is entered in Purchasing, order header and detail records are immediately created in the open order files. There is no separate process to release the purchase order.

Intersite orders

InterSite Logistics

InterSite Logistics (ISL/MISL) can release orders if MRP is not installed, or in exceptional circumstances, where there is no time to wait for an MRP order release or for an MRP planning run, if there is no planned order to release. The intersite order and the associated COM customer order in the supplying warehouse are created.

Inventory Management

IM cannot create or release intersite orders. In fact, intersite orders are almost invisible to IM except that, since intersite orders are scheduled receipts being shipped from offsite, ISL/MISL maintains the quantity on order from intersite orders for an item as part of the on order from purchasing field in the Item Balance file. Therefore, the IM total on order for an item includes intersite orders.

Material Requirements Planning

Typically it is best to release intersite orders in MRP, or in OBPM, the same way manufacturing and purchase orders are released. Minimal data entry is required using the review/approve and release functions, and the MRP files are updated as well. ISL/MISL interfaces with these functions, and creates the intersite order and the associated COM customer order in the supplying warehouse.

Order-Based Production Management

OBPM provides a customizable client interface to creating intersite orders from two client objects:

- MRP Recommendations (uses the MRP files)
- Reorder Recommendations (an OBPM file)

OBPM requires InterSite Logistics for these capabilities, and uses ISL/MISL functions to create and maintain intersite orders.

Manufacturing schedules

Material Requirements Planning

Within MRP, you can review planned orders and exception messages related to schedule controlled items. However, you cannot release these planned orders, since this function is done solely from REP's Release Schedules menu option.

To assist you in working with MRP planned orders, REP provides an Extract Schedule Requirements menu option that copies the MRP planned orders to REP. Within REP, the MRP planned orders are shown as demand on the Enter and Maintain Schedules display. From this display, you can view "demand" and create or adjust schedules individually, or accept all demand as is, which automatically creates or adjusts schedules equal to demand. This latter function is known as Accept Proposed Change.

Repetitive Production Management

Enter and Maintain Schedules is the focal point for determining manufacturing schedules based on an item's demand. Once these schedules are determined and entered, they can be released later through REP's Release Schedules menu option. This option allows a user to select by warehouse, production line, and horizon dates, which schedules are candidates for release. In addition, you can specify if a schedule is to be automatically primed when it is released and if component shortage reports are to be printed.

Summary

For your daily operations, the applications you have installed and activated determine which entry and release activities you perform and which applications you use for those activities. The following table shows the recommended application in which to start order or schedule release for the various combinations of installed applications.

Orders/schedules	IM	IM MRP	IM PC&C	IM PC&C MRP	IM PUR	IM PUR MRP	IM EPDM/PDM REP	IM EPDM/PDM REP MRP	IM ISL/MISL MRP
Manufacturing orders									
Master data	IM	MRP	IM	MRP	IM	MRP	IM	MRP	MRP
Material data (allocations) ^a	IM	MRP	IM	MRP	IM	MRP	IM	MRP	MRP
Routing data ^b	n/a	n/a	IM or PC&C	MRP or PC&C	n/a	n/a	n/a	n/a	n/a
Miscellaneous charges ^c	n/a	n/a	IM or PC&C	IM or PC&C	n/a	n/a	n/a	n/a	n/a
Purchase orders									
Purchase orders	IM	MRP	IM	MRP	PUR	PUR	IM	MRP	MRP
Receiving routing	n/a	n/a	n/a	n/a	PUR	PUR	n/a	n/a	n/a
Intersite orders									
Intersite orders	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	MRP
Schedules									
Material data	n/a	n/a	n/a	n/a	n/a	n/a	REP	REP	MRP
Routing data	n/a	n/a	n/a	n/a	n/a	n/a	REP	REP	n/a
Replenishment data	n/a	n/a	n/a	n/a	n/a	n/a	REP	REP	n/a

Legend:
n/a not applicable

- a. If EPDM or PDM is activated or interfacing, you can use the bill of material to create the allocation records in the open order files.
- b. If EPDM or PDM is activated or interfacing, you can use the standard routing to create the operation records in the open order files. With EPDM activated, you can override the default item process with an alternate.
- c. If AP or IFM is installed and interfacing, you can add miscellaneous charge records to the open order files at a later time through AP or IFM.

Notes:

1. OBPM is not included in the above table because it provides a customizable client interface as an alternative to creating manufacturing, purchase, and intersite orders using the “base” applications shown in the table. IM and PC&C are always required for OBPM, and ISL/MISL, MRP and PUR or PM are required for certain OBPM functions.
2. PM is not included in the above table because it provides a customizable client interface as an alternative to creating purchase orders using PUR, which is required for PM.

Details

The open order data base

All orders and schedules are stored in the open order data base.

- Manufacturing orders have a record in the Manufacturing Order Master file indicating the item to be made, a record in the Manufacturing Order Detail file for each component that goes directly into making that item, and a record in the Manufacturing Order Routing Detail file where one record per operation is stored.
- Purchase orders have one record in the Purchase Order Item Detail file for each item to be purchased. If the item is to be shipped in several installments through a blanket order, there is a record in the Purchase Order Blanket Release Detail file for each shipment, or release, of that blanket order. If Purchasing is installed and interfacing, each purchase order has a record in the Purchase Order Master file and at least one record in the Purchase Order Item Detail file.
- Intersite orders have a record in the Intersite Order file and an associated COM order in the supplying warehouse for the item being transferred.
- Schedules entered but not released are called unreleased schedules. They are reserved in the MOMAST order master file as status 00 records. These records are created when the schedule is initially entered in Enter and Maintain Schedules. When the schedule is released, the status code changes to a status 10 and component records are created in the MODATA allocation file based on the item's bill of material in the PSTRUC product structure file. In addition, operation records are created in the MOROUT operations file from the routing records for the finished item in EPDM or PDM. If priming is selected, replenishment records are created based on a component's supply rules as defined in the ITMLIN item/line definition file.

InterSite Logistics order release

Intersite orders can be released either from planned orders in MRP using the review/approve and release functions, or in ISL/MISL using the work orders and release functions. In either case, an intersite order record is created in the Intersite Order file and an associated COM order is created in the supplying warehouse.

Inventory Management order release

Manufacturing orders

If the IM-to-EPDM or PDM interface is activated, IM order entry allows you to bypass the individual entry of each of the components needed on a manufacturing order. If you enter REL or NOW in the manufacturing order entry field **B/M**, IM order release uses the parent item number and, through the Item Master file, retrieves from the Product Structure file all the component items needed to manufacture that item. This is single-level retrieval. If EPDM is activated and the order is associated with a site, the process identifier determines which bill of material is used to retrieve the component items needed.

The parent item is copied, along with other master manufacturing order data, into a record in the Manufacturing Order Master file. Each component item is copied, along with extended order quantity and unit cost data, into a record in the Manufacturing Order Detail file. The method of unit costing to be used is determined during

application tailoring. The Manufacturing Allocated Quantity field (MALQT) for component items and the On-Order Production Quantity field (MPRPQ) for parent items in the Item Balance file are updated at the end of order release.

If the IM-to-PC&C and IM-to-PDM interfaces are activated and PDM has its optional Routing file, IM order entry allows you to bypass the individual entry of each of the operations needed on a manufacturing order. When YES appears in the manufacturing order entry field **RTG**, IM order release uses the parent item number and, through the Item Master file, retrieves from the Routing file all the operations (including inactive) to manufacture that parent item. If EPDM is activated and the order is associated with a site, the process identifier determines which routing is used to retrieve the operations.

Operation times from the Routing file and rates for those operations from the Work Center Master file are copied into a record in the Manufacturing Order Routing file for each operation.

In addition, if the IM-to-PC&C interface is activated, IM order entry allows you to enter miscellaneous data. This includes anything not covered by assigned material or labor, such as consumable supplies or outside operations. Any miscellaneous data from IM order entry is put into the Manufacturing Order Miscellaneous Detail file by IM order release.

At the conclusion of IM order release, you can print shortage reports that indicate shortages on manufacturing orders, if you specified those reports during installation.

Purchase orders

IM allows you to track purchase orders that you create manually. Data about the purchase order is entered in IM order entry.

You also can enter purchase orders with blanket releases. If you enter YES in the purchase order entry field **BLNKT**, you see a display on which you enter due date and quantity for each blanket release. These orders can be for individual items only; you can have only one item number on any one blanket purchase order.

For each item number/warehouse combination, IM order release copies the purchase order data into a record of the Purchase Order Item Detail file; each of the blanket releases for the purchase order has its own record in the Purchase Order Blanket Release Detail file.

The On-Order Purchase Quantity field for parent items in the Item Balance file is updated at the end of order release.

Consigned or subcontracted orders (where material is supplied to the vendor) should be handled as manufacturing orders.

If Purchasing is interfacing, the IM Reorder Report can generate purchase orders automatically and send them to PUR.

Split orders

You may need a portion of an existing manufacturing order quantity before it is due, or you may need to start work on a manufacturing order that is short some components. IM allows you to split off a portion of the manufacturing order and send it ahead. You

can have up to nine splits per manufacturing order. IM order release creates one additional record in the Manufacturing Order Master file for each split order while updating the Quantity in Split Orders field in the base (original) manufacturing order's Manufacturing Order Master file record. The materials (components) on a manufacturing order are assumed to be issued to the base order, so no material records are automatically created in the Manufacturing Order Detail file for split orders. If EPDM is activated, you can split an order associated with a site as long as the split is for the same site and item revision.

If the IM-to-PC&C interface is activated, you specify the beginning operation for the split order in IM or PC&C. However, if you decide to split an order after activity has been reported on the original order and you are using milestone reporting, this splitting can be done only before or at a milestone start operation or after a milestone stop operation.

Manufacturing order per customer order

This IM function requires both the IM-to-EPDM or PDM and IM-to-COM interfaces to be activated. If you enter the customer order number on the IM order entry display, each release on that customer order appears for approval. Pressing the **Enter** key causes action identical to that of entering a manufacturing order with B/M = REL or NOW. It also puts the customer order number in the Customer Job Number field in the Manufacturing Order Master file. B/M = KEY is not allowed here if the end item has features and options.

IM order release is the same as for regular manufacturing orders.

Customer orders can be for standard items, items with features/options, or items configured by the Knowledge Based Configurator (KBC). For standard items, you can use any option available regarding the bill of material and routing for the item, depending on whether EPDM or PDM is in use.

For items with features/options, the bill of material that was determined when the customer order was entered (and stored with the customer order) is used for the manufacturing order.

For KBC configured items, the bill of material and routing for the item that were built by KBC when the customer order was entered (and stored in KBC) are used for the manufacturing order.

Summary—Inventory Management order release

- Reads the Order Release Data Entry file for order data entered through IM.
- Completes the creation of master records (started in IM order entry): Manufacturing Order Master records for manufacturing orders and Purchase Order Item Detail records for purchase order items.
- Creates detail records: Manufacturing Order Detail records for manufacturing order component items and Purchase Order Blanket Release Detail records for purchase order blanket releases.
- Prints shortage reports specified in the IM Questionnaire.
- Updates the Manufacturing Allocation Quantity (MALQT) field for component items in the Item Balance file.

- Updates the On-Order Production Quantity (MPRPQ) field and the On-Order Purchase Quantity (MPUPQ) field for purchase order items in the Item Balance file.

Note: The orders that are released are only those entered through IM order entry; no planned orders from MRP are handled by order release selected from IM.

At the conclusion of order release, all closed batches in the Order Release Data Entry file have their status changed to finished (if REUSE = NO) or available (if REUSE = YES).

Material Requirements Planning order release

MRP has no order entry. It generates requirements for components of master level items (MLIs) based on MLI requirements entered, propagated, or accepted from Master Production Schedule Planning (MPSP). The on-hand and on-order quantities by date are subtracted from requirements generated, and the net requirements then are offset by lead time, resulting in dated planned orders. If EPDM is activated, the primary item process that is active on the planned order's start date is assigned to the order. Since planned orders are suggestions only, someone must indicate agreement with MRP through Review/Approve and then run order release from MRP.

Summary—Material Requirements Planning order release

- If the MRP-to-IM interface is activated, calls the IM order release procedure and copies planned orders from the Order Review file to Batch 999 of the Order Release Data Entry file. Batch 999 is reserved for this purpose. If the MRP to IM interface is deactivated, orders cannot be released using this interface.
- Prints the Order Action Detail report for those planned order exceptions that could not be performed. This report is needed to do file maintenance in IM to existing manufacturing and purchase orders.
- If the MRP-to-IM interface is activated, updates the Planned Order and Order Review files to reflect newly released manufacturing and purchase orders and adjusts in the Requirements file any associated component requirements that were generated by the MRP planning run. These requirements now have been allocated. If the MRP-to-IM interface is deactivated, prints the Planned Order Error List, showing planned orders approved but not released.
- If ISL/MISL is installed, releases intersite orders and associated COM orders in the supplying warehouse, and updates the Planned Order and Order Review files accordingly.
- If the MRP-to-MPSP interface is activated, component-generated requirements will be adjusted based on the quantity of the order that was released and on the amount of the component allocations. Planned and firm planned orders are adjusted in MPSP by the amount of the order released in MRP. Planned and firm planned orders are updated to show that the orders are released.
- If EPDM is activated, you can override the primary item process with an alternative item process before releasing the order.

Order-Based Production Management order create

- **Manufacturing orders.** OBPM allows manufacturing orders to be created from item warehouse records, customer order line items, MRP planned orders, and

from the OBPM Reorder Recommendations object containing order point items requiring replenishment. It also allows you to copy an open manufacturing order or manufacturing history order to create a new order. While creating the order, you can use bills of material and routings from either EPDM or PDM, or import them from other items or manufacturing orders.

- **Purchase orders.** OBPM allows purchase orders to be created, if PM is installed, from MRP planned orders and from the OBPM Reorder Recommendations object containing order point items requiring replenishment.
- **Intersite orders.** OBPM allows intersite orders to be created, if ISL/MISL is installed.

In all cases, OBPM creates the order directly in the IM, PUR, or ISL/MISL files.

Procurement Management order create

- Purchase orders. PM allows purchase orders to be created from one or more requisitions and, if OBPM is installed, from MRP planned orders and from the OBPM Reorder Recommendations object containing order point items requiring replenishment.

PM creates the order directly into the PUR files.

Production Control and Costing order release

PC&C by itself cannot create or release manufacturing orders. Rather, it allows you to split order release between two departments, Inventory and Production Control, so that Production Control can make last-minute decisions on which work centers to use, based on backlog or on the availability of facilities.

Because of this flexibility, you can choose either to release the order entirely through IM or to complete the release of the order through PC&C. The method you use is determined by your company's policy, but the difference is largely a matter of whether you choose to establish routings through IM or through PC&C. You can also enter miscellaneous charges through either application.

- **Order release completed by IM.** If you choose to use standard routings by answering yes to the routing question on display AMI4A4 (RTG=Y), IM automatically releases the order by creating a manufacturing order record in the Manufacturing Order Master file (MOMAST), retrieving standard routing information from PDM's Routing file (ROUTNG), and passing that information to PC&C's order release programs. These programs create a routing record in the Manufacturing Order Operation Detail file (MOROUT). If you have entered miscellaneous charges, records are also created in the Manufacturing Order Miscellaneous Detail file (MOMISC). As far as the operator is concerned, the order is released completely through IM; PC&C's part in order release is not visible. Any changes to the miscellaneous detail or to the routings can be entered later through PC&C's file maintenance.

If you choose not to use standard routings (RTG=N), you can type in alternative routings and miscellaneous charges, if there are any. IM releases the order automatically, using PC&C's programs, but without using PDM's standard routings. Records are created in the Manufacturing Order Master file (MOMAST), in the Manufacturing Order Operation Detail file (MOROUT), and, if there are miscellaneous charges, in the Manufacturing Order Miscellaneous Detail file (MOMISC). Any changes to these files can be made later using PC&C's file maintenance.

- **Order release completed by PC&C.** If you choose not to use standard routings (RTG=N), but do not choose to type in alternative routings or miscellaneous charges through IM, IM passes the order to PC&C for completion of the order release process. In this case, IM creates records in the Manufacturing Order Master file (MOMAST), but not in the Manufacturing Order Operation Detail file (MOROUT) or the Manufacturing Order Miscellaneous Detail file (MOMISC).

Whoever is responsible for decisions about routings, operation sequence, and miscellaneous and labor charges can complete the release of the order using PC&C's order release options.

In PC&C, as in IM, if EPDM or PDM is also activated or interfacing, you can choose standard routings by typing Y in the SELECT ROUTING field on the PC&C Order Release—Summary Selection display (AMC200), or you can enter alternative routings.

You can enter miscellaneous charges in PC&C on the Order Release—Miscellaneous Detail display (AMC202); or, if AP or IFM is installed and interfacing, you can record miscellaneous charges using those applications.

Whether you complete order release through IM or through PC&C, you can release an order only once. Once miscellaneous detail records are written to MOMISC, or operation details to MOROUT, you must make all changes through file maintenance.

Summary—Production Control and Costing work file release

- Reads the Order Release Data Entry file for operation and miscellaneous data entered.
- Creates detail operation records in the Manufacturing Order Miscellaneous Detail file and connects them to their existing parent manufacturing orders in the Manufacturing Order Master file.
- Prints the Operations Detail Addition report.
- Prints the Miscellaneous Detail Addition report.
- Updates the above-mentioned Manufacturing Order Master file records with the remaining operation/miscellaneous data.

Purchasing order create

- Purchase orders. PUR allows purchase orders to be created from one or more requisitions and, if MRP is installed, from MRP planned orders, directly from MRP order release. You also can enter a purchase order directly.

Repetitive Production Management Schedule Release

REP's schedule release process can be divided into three main segments:

- Entering schedules
- Selecting schedules
- Releasing schedules

Entering schedules

Entering schedules is an online interactive process that allows you to intelligently create a schedule by viewing demand and production line capacity information. It may be ideal to have a production schedule equal demand for a specific date, but if the

capacity to build the schedule is not attainable, then the schedule is not valid. For this reason REP presents both item demand and line utilization information on a single display. This presentation helps a planner develop realistic schedules that meet both criteria.

Before you can enter schedules, you must have created an Item/Line definition of the finished item you want to produce. The Item/Line definition describes an item's manufacturing rates for a specific production line and the component supply technique that it will use. If EPDM is activated, the Item/Line definition considers revisions and item processes.

Schedules are entered using the REP menu option Enter and Maintain Schedules. This option allows you to select the warehouse within which you want to work and then select a sequence of viewing items. You can select to see items by primary production line, planner, or merely in ascending item sequence. If you select by production line or planner, all items having a primary production line or planner specified in their item balance record are shown for the line or planner specified.

Data on the initial Enter and Maintain Schedules display is shown by item and presents a composite of information for all production lines the item is scheduled on. Displayed are total demand quantities, total scheduled quantities, the differences between total demand and what is scheduled, plus total production line utilization for all lines the item is scheduled on. If an item is dedicated to a single production line, then obviously the information shown is a composite of a single item. The purpose of this display is to allow you a view of how schedules are meeting demand and the status of production line capacity in relation to the schedules that have been released.

When you choose one of the dates shown on the initial display, the Enter and Maintain Schedules Detail display appears. The Detail display shows you the total demand for the day, the quantity scheduled to be produced, and the line utilization for each production line on which you currently have a schedule. On the Detail display, you can create schedules or change schedule due dates, quantities, and the production line on which a schedule is run. Schedules that have not been started can be cancelled by changing the schedule quantity to zero.

Using information from the Detail display, you can use function keys to assist in creating or changing schedules. You can create a schedule using the Schedule Add function key. This function key shows a display that allows you to create a schedule for a quantity on a specific date or on a range of dates. If a range of dates is selected, the schedule quantity is prorated over the number of consecutive days you specified. The created schedule is placed in the MOMAST file with a status code of 00.

The Use Proposed Change function key allows you to create or alter schedules to make the scheduled quantity meet the daily demand. Proposed Change is the difference between a day's Net Demand and the quantity scheduled to be produced that day. You can press the function key, after selecting a specific day on the Schedule Entry and Maintenance display, and schedules will be created or altered as needed to meet the daily demand. You also can select a specific schedule on the Detail display and have that schedule's quantity increased or decreased by the proposed change. If you have production constraints that dictate a minimum or maximum production quantity, the schedule quantities are lot sized to fit within the constraints.

Before selecting a schedule for release, the Detail display allows you to navigate to other displays where you can see more information in preparation for schedule release. One display, Material Check, allows you to do an on-line component availability check to help determine if there are any known component shortages.

Another display, Sequence Schedules, allows you to order the sequence in which schedules may be built on a specific date.

Selecting schedules for release

Schedules are selected for release through the Release Schedules menu option. This option allows you to selectively choose schedules for release based on a status code of 00 in the schedules header record. On the Release Schedules Selection display, you can choose the warehouse, the release horizon, the production line you are interested in, and whether a shortage report should print. From this criteria, the application will build a subfile of schedules and display them for your review on the Released Schedules display. Key information shown is planned schedule start date, due date, production line, warehouse, item, description, and reference field. From this list of schedules, you can selectively choose a specific schedule, or all schedules. You can also decide at this time to prime a schedule when it is released.

Releasing schedules

Schedule release merely takes the schedules that you have selected and updates the released schedules data base. The files that are updated were identified previously in the section that describes the open order data base. Any changes to the schedules must be accomplished on the Enter and Maintain Schedules display for date and quantity changes, or the Released Schedule Maintenance display if there are material or operation changes.

Summary—Repetitive Production Management Schedule Release

Schedule entry and release functions can be found on REP's Schedule Management menu. From this menu you can select the following options:

- Extract schedule requirements to bring in schedules from MRP, COM, or the schedule demand interface file
- Enter and maintain schedules to create and change REP schedules
- Select and release schedules to update the released schedules data base.

Appendix D. Coordinating the planning calendars

This appendix gives information to help you coordinate the planning calendars you use for Material Requirements Planning (MRP), Forecasting (FCST), Master Production Schedule Planning (MPSP) (if interfacing), and Inventory Management (IM).

First day of the scheduling week	D-1
Type of manufacturing periods	D-1
FCST, MRP, and MPSP planning horizons.....	D-2
Special planning codes.....	D-3

First day of the scheduling week

The first day of the scheduling week is the day on which your planning occurs. This first day is required for FCST and MPSP. You specify the first day in the Questionnaires for those applications. During installation, several planning date records are created, based on the shop calendar you specified in IM or MRP and the first day of the scheduling week. Once the first day of the scheduling week is established, it should not change since planning information based upon the original first day is not deleted. Therefore, when you load forecasts and requirements again, you will create a second set of forecasted demand for each week, due on a different day; and MRP will respond to both sets of demand.

To successfully change the first day of the scheduling week, follow these steps:

Delete all manufacturing requirements created by FCST in the Demand Interface file (DMDIFF) and the MRP Requirements file.

Reload DMDIFF before the next MPSP planning run.

Generate master schedules again and respond to the exception messages. Many orders will be rescheduled, expedited, or deferred by a few days.

If your manufacturing periods are type 1 or type 2, aggregate item information and review all family and item plans. All period dates will change.

Because of rescheduled orders and shifts in demand, test resources again for family operating plans and master production schedules.

Type of manufacturing periods

The type of multi-week manufacturing periods you choose determines how many reporting periods are available per year and the size of the period. These are the periods that MPSP uses for production planning; MPSP also uses periods for master scheduling when your master schedules extend beyond the number of weekly periods you specify in the FCST questionnaire. You select a manufacturing period when you answer the FCST or the MPSP questionnaire. The available alternatives are:

Manufacturing periods	Reporting periods	Period size
13	13	Four-week periods/year

Manufacturing periods	Reporting periods	Period size
12	12	Four- or five-week periods/year
12	12	Months/year

The type of manufacturing period you choose does not determine the type of accounting periods you use (you choose accounting periods when you answer Question X02 in the CAS Questionnaire). However, you must consider the relationship when you choose a type of manufacturing period, especially when FCST is installed.

The accounting period close process determines the quality of history data (inventory receipts and shipments) used in FCST. An accounting period can be a very flexible time period in order to account for applicable transactions. The applications that support the accounting period close process do not require an accounting period close process for every accounting period. However, FCST requires a period close process for every period defined by the type of manufacturing periods install/tailor question. Therefore, the applications supporting an accounting period close process must define at least as many periods per year as FCST and MPSP use. Acceptable combinations are:

Accounting periods	Manufacturing periods
12	12 months/year
12	12 four-or five-week periods/year
13	12 months/year
13	13 four-week periods/year
13	12 four-or five-week periods/year

If you use 12 accounting periods per year, you cannot use 13 FCST or MPSP manufacturing periods per year.

If you use 13 accounting periods per year and choose FCST or MPSP manufacturing periods, the thirteenth accounting period must be a full accounting period (4 weeks), not a random-length adjustment period.

Once you choose a type of manufacturing period, you should not change it. Changing the type of manufacturing periods may cause unacceptable results in defining FCST seasonality.

FCST, MRP, and MPSP planning horizons

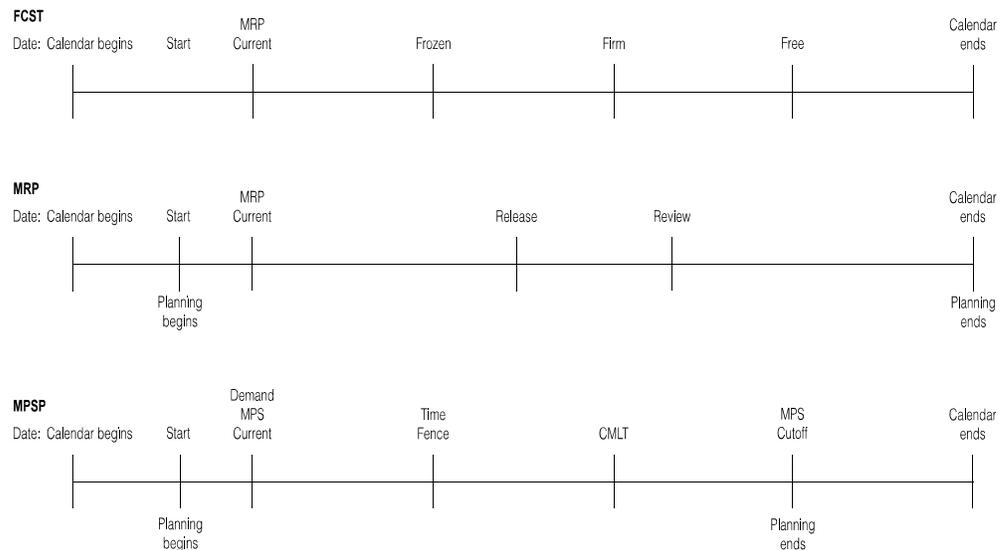
The duration of planning (planning horizon) in FCST, MRP, and MPSP depends on dates that you enter in MRP and MPSP. The list below shows the controlling dates for the planning horizons of FCST, MRP, and MPSP. For more information about how these dates affect planning, see the user's guide for each of these applications.

Planning horizons are specified in FCST, MRP, and MPSP based on several dates.

Application	Date	Based Upon Date
FCST	Frozen	MRP Current
	Firm	MRP Current (overridden by CMLT if applicable)

Application	Date	Based Upon Date
	Free	MRP Current (overridden by MPS Cutoff if applicable)
MRP	Start	MRP Current
	MRP Current	User specified
	Release	MRP Current
	Review	MRP Current
MPSP	MPS Start	MPS Current
	MPS Current	User specified
	MPS Cutoff	MPS Current

The planning horizons for FCST, MRP, and MPSP should be consistent. The following time lines define the relationships among these planning horizons.



Firm: Overridden by CMLT if applicable.

Calendar ends: Overridden by MPS Cutoff if applicable; number of years to forecast determines how far into the future.

CMLT: Item dependent.

MRP/MPS Current: Should be the same date.

Special planning codes

The codes that are entered for certain fields in the Item Master and Item Plan files affect how FCST, MPSP, and MRP plan an item, when FCST or MPSP are installed and interfacing. The codes determine:

- Whether FCST generates a forecast for the item.
- Whether MPSP or MRP plans the item.

The codes are:

Master level item code

FCST—if M or S, the item is forecasted

MRP—a planning item of M or S

Master scheduled item code

FCST—if blank, MRP planned item

MPSP—if M or P, planned in MPSP

Order policy code

FCST—if B or C, no MRP requirements

MRP—if B or C, no MRP requirements

Appendix E. Automated job submission for MRP

XA provides the ability to execute XA batch jobs from outside of the XA menu structure for these Material Requirements Planning (MRP) application tasks.

Command guidelines.....	E-2
Application APIs	E-3
MNTMRPHRZ - Maintain MRP Horizons	E-4
SBMMRPPLN - Submit MRP Planning Run.....	E-6
SBMMRPREL - Submit MRP Order Release.....	E-8
SBMMRPPRL - Submit MRP P.O. Auto Release	E-10
SBMPURPLN - Submit Purchase Planning Schedule.....	E-12

Task	Menu and Option	Command
Maintain MRP Horizon Values	AMMM20-01	MNTMRPHRZ
Initiate MRP Planning Run	AMMM20-06	SBMMRPPLN
MRP Order Release	AMMM40-05	SBMMRPREL
MRP Order Release with Shop Packet	AMMM40-06	SBMMRPREL
Create Purchase Planning Schedules	AMMM40-11	SBMPURPLN

XA provides the necessary architecture modules to enable application tasks to be initiated from sources other than the XA menu system and to be initiated in a batch subsystem. In order to provide the most flexibility, the Cross Application Support (CAS) portion of this activity is done using a series of Application Program Interfaces (APIs). These CAS APIs then can be used by the applications to provide a programmer's interface to each batch job. The end user cannot execute these APIs on the System i command line; they must be called by a batch or interactive program.

Refer to the *CAS Technical Reference Guide* for more information on the APIs and for a list of all the application tasks available.

Command guidelines

This section is intended to provide assistance when you are formulating the name for an XA command. XA command names are patterned after the System i Control Language Standard. This provides an action-object naming structure. Command names are usually composed of a series of three-character abbreviations. The maximum length for a command name is ten characters.

It is acceptable to use the XA application abbreviation in a command name even though some applications have two- or four-character abbreviations. Using the application abbreviation may be necessary to distinguish between printing a REP or COM pick list, for example.

The following lists are only examples of the abbreviations you might choose to use. You can define your own abbreviations for your company.

Action abbreviations:

ADD	Add
CHG	Change
CLR	Clear
CRT	Create
DLT	Delete
DSP	Display
MNT	Maintain
OLM	Offline Maintenance
PRT	Print
SBM	Submit
WRK	Work with

Object abbreviations:

CLN	Component/Line Definition
HRZ	Horizon
ILN	Item/Line Definition
ITM	Item
LOC	Location
OPT	Option
PKL	Pick List
PLN	Plan or Planning
PRL	P.O. Auto Release
PST	Product Structure
REL	Release
RTG	Routing
TGL	Temporary General Ledger
TXR	Transaction Register
USR	User
WHS	Warehouse

Application APIs

The application APIs are shipped in the form of System i commands. The application command may be named SBMxxxxyy, where xxxyyy is unique to each job. For example, the MRP Planning Run may be named SBMMRPPLN.

The MRP Planning Run requires a user to enter the identifier of the warehouse to be planned. After being automated, the SBMMRPPLN command could be used from an XA menu command line:

```
SBMMRPPLN PROMPT(*YES)
```

The command also can be used as part of an System i job, using a user-written CL program similar to this example illustrating the SBMMRPPLN command. The STRXAENV and ENDXAENV commands are required.

```
PGM
STRXAENV ENDS (NN)
SBMMRPPLN PROMPT(*NO) ENDS(NN) FROMWHID(FJN) TOWHID(FJN)
EXTDMD(*YES)
ENDXAENV
ENDPGM
```

If the application task being automated supports interactive prompts, the command would support a prompt parameter in addition to the application parameters required to run the job. The purpose of the prompt parameter is to instruct the application to display the prompt screens or to use the parameter values associated with the command. The prompt parameter has values of *YES and *NO. If the prompt parameter is *YES, the application parameters cannot be specified on the command.

Each application command supports a parameter to designate the XA execution environment. The environment designator is used to validate that the function is being executed in the proper XA environment. Requiring this parameter serves as a precautionary measure to prevent functions from being inadvertently executed against the wrong environment. The environment designator will only be required and validated when the application command is executed with a PROMPT value of *NO.

More detail about each MRP API is included on the following pages.

MNTMRPHRZ - Maintain MRP Horizons

```

                                Maintain MRP Horizons (MNTMRPHZN)

Type choices, press Enter.
Prompt at run-time . . . . . >*NO_          *YES, *NO
XA environment . . . . . _                 Character value
Planning warehouse . . . . . _            Character value
Current date . . . . . _____         Date
Overdue days . . . . . _____         Number
Release days . . . . . _____         Number
Allocation days . . . . . _____       Number
Review days . . . . . _____          Number

                                                    Bottom
F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel   F13=How to use this display
F24=More keys
    
```

Purpose

The Maintain MRP Horizons (MNTMRPHRZ) command is used to maintain the planning horizon dates used in the planning run.

Optional parameters

PROMPT

Specifies whether the function should prompt for the application values at run-time.

***YES:** Application should prompt user for run-time values.

***NO:** Application should use run-time values supplied by command.

ENDS Specify the XA environment designators to be validated when executing the command. If the environment designator specified here does not match the environment designator associated with the current System i job, this function will not execute. This will stop functions from inadvertently being executed against the wrong XA environment.

WHID (Warehouse identifier)

Planning warehouse: The planning warehouse for which you want to maintain horizon values.

CUDT (Current date)

Current date: The date on which you want to base the plan.

OVDP (Overdue days)

Overdue days: The number of days to be subtracted from the Current date to establish the Start date.

RLDP (Release days)

Release days: The number of days to be added to the Current date to establish the Release date.

ALDP (Allocation days)

Allocation days: The number of days to be added to the Current date to establish the Allocation date.

RVDP (Review days)

Review days: The number of days to be added to the Current date to establish the Review date.

SBMMRPPLN - Submit MRP Planning Run

```

Submit MRP Planning Run (SBMMRPPLN)

Type choices, press Enter.
Prompt at run-time . . . . . >*NO_          *YES, *NO
XA environment . . . . . _____          Character value
From warehouse . . . . . *FIRST            Character value, *FIRST
To warehouse . . . . . *LAST              Character value, *LAST
Extract independent demand . . . . . *NO_          *YES, *NO
Transfer MPSP orders . . . . . *NO_          *YES, *NO
Purchasing auto release . . . . . *NO_          *YES, *NO
Auto reschedule P.O.s . . . . . *NO_          *YES, *NO
Auto reschedule M.O.s . . . . . *NO_          *YES, *NO
Auto reschedule Schedules . . . . . *NO_          *YES, *NO
Planning run type . . . . . *FULL_____ *FULL, *FULLNET, *MLI...

Bottom
F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys
    
```

Purpose

The Submit MRP Planning Run (SBMMRPPLN) command is used to initiate a planning run.

Optional parameters

PROMPT

Specifies whether the function should prompt for the application values at run-time.

***YES:** Application should prompt user for run-time values.

***NO:** Application should use run-time values supplied by command.

ENDS Specify the XA environment designators to be validated when executing the command. If the environment designator specified here does not match the environment designator associated with the current System i job, this function will not execute. This will stop functions from inadvertently being executed against the wrong XA environment.

FROMWHID (From warehouse identifier)

***FIRST:** From value will be blank.

warehouse-id: These fields allow you to select a range of planning warehouses for which you want to submit planning runs. For each planning warehouse that exists in the range you specify, a separate batch job is submitted to the job queue. To initiate a planning run for a specific planning warehouse, enter the same warehouse in both the From warehouse and To warehouse fields. To initiate a planning run for all defined planning warehouses, enter *FIRST in the From warehouse field, and *LAST in the To warehouse field.

TOWHID (To warehouse identifier)

***LAST:** To value will be all 9's.

warehouse-id: See the discussion in the FROMWHID field.

EXTDMD (extract demand)

Specifies whether independent demand should be extracted during the planning run.

***NO:** Independent demand is not to be extracted during the planning run.

***YES:** Independent demand is to be extracted during the planning run.

TFRMPSP (transfer MPSP)

Specifies whether MPSP master scheduled orders are to be transferred during the planning run.

***NO:** MPSP master scheduled orders are not to be transferred during the planning run.

***YES:** MPSP master scheduled orders are to be transferred during the planning run.

PURREL (purchase order release)

Specifies whether purchase orders are to be released during the planning run.

***NO:** Purchase orders are not to be released during the planning run.

***YES:** Purchase orders are to be released during the planning run.

RESCHPO (reschedule purchase orders)

Specifies whether purchase orders should be rescheduled during the planning run.

***NO:** Purchase orders are not to be rescheduled during the planning run.

***YES:** Purchase orders are to be rescheduled during the planning run.

RESCHMO (reschedule manufacturing orders)

Specifies whether manufacturing orders should be rescheduled during the planning run.

***NO:** Manufacturing orders are not to be rescheduled during the planning run.

***YES:** Manufacturing orders are to be rescheduled during the planning run.

RESCHSCH (reschedule schedules)

Specifies whether production schedules should be rescheduled during the planning run.

***NO:** Production schedules are not to be rescheduled during the planning run.

***YES:** Production schedules are to be rescheduled during the planning run.

RUNTYPE

Specify the type of planning run to be executed.

***FULL:** Full planning run - generation.

***FULLNET:** Full planning run - net change.

***MLI:** MLI planning run - generation.

***MLINET:** MLI planning run - net change.

SBMMRPREL - Submit MRP Order Release

```

Submit MRP Order Release (SBMMRPREL)

Type choices, press Enter.

Prompt at run-time . . . . . > *NO          *YES, *NO
XA environment . . . . .                Character value
From warehouse . . . . .                *FIRST  Character value, *FIRST
To warehouse . . . . .                  *LAST   Character value, *LAST
Update scheduled receipts . . . . .     *NO     *YES, *NO
Print shop packets . . . . .            *NO     *YES, *NO
From planner . . . . .                  *FIRST  Character value, *FIRST
To planner . . . . .                    *LAST   Character value, *LAST

Bottom
F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys
    
```

Purpose

The Submit MRP Order Release (SBMMRPREL) command is used to perform the order/schedule release run, which:

- Releases all orders approved for release
- Changes planned orders to scheduled receipts
- Changes component requirements to allocations
- Removes the component pending allocations.

When you submit the planning run, the Order Action Detail report (AMM631) is printed, listing any expedite, defer, or cancellation recorded against released orders, as well as purchase orders released.

This command calls the standard Inventory Management order/schedule release procedure in Inventory Management. Therefore, order shortage or item shortage reports are printed if requested during application tailoring of Inventory Management. However, shop packets are not created.

Optional parameters

PROMPT Specifies whether the function should prompt for the application values at run-time.

***YES:** Application should prompt user for run-time values.

***NO:** Application should use run-time values supplied by command.

ENDS Specify the XA environment designators to be validated when executing the command. If the environment designator specified here does not match the environment designator associated with the current System i job, this function will not execute. This will stop functions from inadvertently being executed against the wrong XA environment.

FROMWHID (From warehouse identifier)

***FIRST:** From value will be blank.

warehouse-id: These fields allow you to select a range of planning warehouses for which to release orders. To release orders for a specific planning warehouse, enter the same warehouse in both the From warehouse and To warehouse fields. To release orders for all defined planning warehouses, enter *FIRST in the From warehouse field, and enter *LAST in the To warehouse field.

TOWHID (To warehouse identifier)

*LAST: To value will be all 9's.

warehouse-id: See the discussion in the FROMWHID field.

UPDRECPT (update receipts)

Specifies whether scheduled receipts should be updated during order release.

*NO: Scheduled receipts should not be updated during order release.

*YES: Scheduled receipts should be updated during order release.

SHOPPACK (shop packet print)

Specifies whether shop packets should be printed during order release.

*NO: Shop packets should not be printed during order release.

*YES: Shop packets should be printed during order release.

FROMPLAN (From planner identifier)

*FIRST: From value will be blank.

planner-id: These fields allow you to select a range of planners for which to release orders. To release orders for a specific planner, enter the same planner identifier in both the From planner and To planner fields. To release orders for all defined planners, enter *FIRST in the From planner field, and enter *LAST in the To planner field.

TOPLAN (To planner identifier)

*LAST: To value will be all 9's.

planner-id: See the discussion in the FROMPLID field.

SBMMRPPRL - Submit MRP P.O. Auto Release

```

Submit MRP P.O. Auto Release (SBMMRPPRL)

Type choices, press Enter.
Prompt at run-time . . . . . >*NO_          *YES, *NO
XA environment . . . . .                    Character value
From warehouse . . . . . *FIRST             Character value, *FIRST
To warehouse . . . . . *LAST                Character value, *LAST

Bottom
F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel   F13=How to use this display
F24=More keys
    
```

Purpose

The Submit MRP P.O. Auto Release (SBMMRPPRL) command is used to release all planned and firm planned orders for purchased items for which MRP generated an exception message of RELEASE or EXPEDITE.

Optional parameters

PROMPT

Specifies whether the function should prompt for the application values at run-time.

***YES:** Application should prompt user for run-time values.

***NO:** Application should use run-time values supplied by command.

ENDS Specify the XA environment designators to be validated when executing the command. If the environment designator specified here does not match the environment designator associated with the current System i job, this function will not execute. This will stop functions from inadvertently being executed against the wrong XA environment.

FROMWHID (From warehouse identifier)

***FIRST:** From value will be blank.

warehouse-id: These fields allow you to select a range of planning warehouses for which to auto-release purchase orders. To auto-release purchase orders for a specific planning warehouse, enter the same warehouse in both the From warehouse and To warehouse fields. To auto-release purchase orders for all defined planning warehouses, enter *FIRST in the From warehouse field, and enter *LAST in the To warehouse field.

TOWHID (To warehouse identifier)

***LAST**: To value will be all 9's.

warehouse-id: See the discussion in the FROMWHID field.

SBMPURPLN - Submit Purchase Planning Schedule

```
Submit PUR Planning Schedule (SBMPURPLN)
Type choices, press Enter.
Prompt at run-time . . . . . *YES          *YES, *NO

F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys
```

Bottom

Purpose

The Submit Purchase Planning Schedule Run (SBMPURPLN) command is used to create and print purchase planning schedules, based on the purchase planning profiles and parameters.

Optional parameters

PROMPT AT RUN-TIME

Specifies whether the function should prompt for the application values at run-time. Parameters include planning warehouses, schedule frequencies, start and earliest due dates, reference number, and override to print all schedules created.

***YES:** Application should prompt user for run-time values.

***NO:** Application should use run-time values supplied by command.

ENDS Specify the XA environment designators to be validated when executing the command. If the environment designator specified here does not match the environment designator associated with the current System i job, this function will not execute. This will stop functions from inadvertently being executed against the wrong XA environment.

WHID (warehouse identifier)

***FIRST:** From value will be blank.

Glossary

This glossary defines terms that are important for this application. It does not include all 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 XA publications.

This glossary includes definitions from:

- The American National Dictionary for Information Processing Systems, copyright 1982 by the Computer and Business Equipment Manufacturers Association (CBEMA). Copies may be purchased from the American National Standards Institute, 1430 Broadway, New York, New York 10018. Definitions are identified by symbol (A) after definition.
- The ISO Vocabulary – Information Processing and the ISO Vocabulary – Office Machines, developed by the International Organization for Standardization, Technical Committee 97, Subcommittee 1. Definitions of published sections of the vocabulary are identified by symbol (I) after definition; definitions from draft international standards draft proposals and working papers in development by the ISO/TC97/SC1 vocabulary subcommittee are identified by symbol (T) after definition, indicating final agreement has not yet been reached among participating members.

ABC analysis. See distribution by value.

acknowledgement. A notice to the customer that his order has been received by the vendor activity. P (1) A quantity used by MRP to calculate available inventory. Activity is the difference between current shipments and current receipts since the last planning run. (2) In MRP any factor that invalidates the previous plan for an item (for example, product structure change and order quantity change).

actual costing. The material cost (the actual quantity used at standard cost), direct labor cost (actual hours), and the overhead cost directly applied to an item or shop order.

adjustment. (1) A transaction that changes a specific balance in a master file, such as the quantity on hand of an inventory item. (2) In MPSP, the shipment of production quantities among periods in an item trial plan to achieve level production or build held inventory against later demand. (3) In payroll applications, an amount added to gross or net pay.

allocation. (1) The process of offsetting transaction allocation balances (typically cash and credit notes) against transaction settlement balances (typically invoices). (2) The reserving of available inventory for a requirement, such as an explicit open production order.

alphanumeric. Pertaining to a character set that contains letters, numbers, and usually other characters, such as punctuation marks and mathematical symbols. Synonymous with alphameric. (A)

alternate routing. An alternate physical method or sequence for producing an item. The alternate is generally used because of a machine breakdown or an overload on the machines or work centers specified in the primary (normal) routing.

alternate work center. A work center that can be used in case of breakdowns or overloads in the primary (normal) work center.

ANSI X.12. The American National Standards Institute's set of standards for electronic data interchange (EDI).

anticipated demand. See forecast.

application. (1) The use to which an information processing system is put, for example, a payroll application, an airline reservation application, a network application, keeping track of a company's inventory. (2) The program that performs a particular data processing task; for example, one that provides an inventory report or payroll checks.

application program. A program that performs a particular data processing task; for example, one that produces an inventory report or payroll checks.

application tailoring. The process of selecting application options to satisfy the specific needs of a company.

approval process. (1) In MRP, the process of reviewing planned orders, for master level items or all items, and approving them for release. (2) In Purchasing, the optional process of approving requisitions or purchase orders, using the Wonderware MMS Approval application, before processing is allowed. See the Purchasing User's Guide for details.

approved order. An order that the planner has marked for release.

assembly. The combination of two or more items to make a new item.

audit trail. (1) Data, in the form of a logical path linking a sequence of events, used for tracing the transactions that have affected the contents of a record. (2) Information that allows you to trace the history of an account, item record, order, and so forth. The more recent information may be stored online so you can retrieve it.

auto release. An MRP feature that allows orders generated by the planning run, meeting certain criteria, to be automatically released as purchase orders or requisitions.

automated job submission. An XA feature allowing particular tasks to be initiated from a batch subsystem, rather than the XA menu system, using application programming interfaces (APIs).

automatic rescheduling. An MRP feature allowing the generation run to automatically reschedule released manufacturing orders, released production schedules, released purchase orders, and firm planned orders.

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.

available. The quantity of material on hand minus the quantity allocated to open order minus "activity." See *activity*.

average cost. The cost of each piece of an item in inventory, arrived at by dividing the total value of the item by the number of pieces in inventory.

backorder. An order prepared to cover items which cannot be included in the original shipment, but which will be sent when available.

backlog. Customer orders or customer backlog of orders not yet filled.

bill of material. A list of raw materials or components and the quantities needed to make an item, assembly, or end product. See modular bills.

blanket order. A purchase order allowing multiple shipments, or releases, of an item over time.

calendar. MRP uses a five-year calendar to calculate lead times. You enter the workdays, non-workdays, and holidays into this calendar.

call. To bring a system procedure into effect by specifying its name and any runtime options.

cancel. To end the current job before it is completed.

capacity. A measure of the ability to absorb orders released to the shop floor.

capacity planning. The procedure of adjusting manpower assignments and planning work center machine capacities to meet the master production schedule.

carrying cost. The expense related to holding inventory. Some determining factors are cost of money (interest), warehouse space, insurance, taxes, obsolescence, and spoilage.

cash flow. Movement of money in and out of a business.

character. A digit, letter, or other symbol that is used as part of the organization, control, or representation of data.

character set. A group of characters used for a specific purpose; for example, the set of characters a printer can print.

close. To make a file unavailable for processing.

combine interval. An interval of time (corresponds to code in Item Master) used to combine requirements during planning.

command. A request for the performance of an operation or the execution of a particular program.

common part. A component that is used on multiple master level items.

component. An item used to make a higher level item.

component inventory. All inventory, not on the shop floor, maintained to support the production of finished products.

component lead time adjustment. The number of shop days before the due date of the parent item that this component must be available for the assembly of the parent.

component required date. The date the component is required in order to meet the scheduled completion date.

concurrent processing. A method of processing in which two or more jobs appear to be processing at the same time. The instructions of each job are processed one at a time, but alternate in such a fashion as to make the most efficient use of the system.

consigned components. Components or materials supplied to a subcontractor for incorporation in an assembly or item the subcontractor supplies.

contract. A written agreement between two or more parties, such as a buyer and a seller, stating the terms of their agreement.

console. See system console.

control sheet. A document, generally posted daily with summary totals from other reports, that is used to prove that all entries affecting a master file or ledger have been properly posted and that the master file or ledger itself is correct.

conversion plan. The logistics plan covering the last few weeks and days of the old system and the early portion of the new system.

copy. To read data from a source, leaving the source data unchanged, and to write the same data elsewhere in a physical form that may differ from that of the source; for example, to copy main storage to disk.

current date. The date that MRP recognizes as today. This date may be different from the calendar date. It is one of the inputs to the planning process.

current month percent. The portion of master level requirements from which income is anticipated 30 days after it is scheduled. Used in cash flow calculations.

current setup cost per lot. The total current cost of setting up a production run for this item per lot.

current standard cost. Estimated current cost derived from engineering standards (material and labor) in association with current labor and overhead rates.

current unit cost. The sum of current purchase, labor and overhead content for this and lower levels of this item.

customer order manual requirements. A type of manual requirement created in the demand extract function of MRP. MRP creates these requirements, based on the setting of the plan customer order code, to reflect demand from customer orders. These requirements have the same effect during MRP planning as manually entered or generated requirements.

cycle counting. A continuous physical inventory count at or near specified intervals of time.

cycle stock. The inventory that results from buying or producing larger quantities than are immediately required in order to reduce acquisition costs (setup or transportation).

default. An attribute, option, or value that is assumed when none is specified by the user.

daily capacity. A quantity of work, measured in hours, that a work center can perform in a 24-hour day, including adjustments for unproductive work breaks such as personal time and for work center efficiency.

dedicated. Pertaining to a mode of operation in which a procedure requires all the resources of the system.

definition relation. Accomplish the transfer of demand from the warehouse in which it is received, to the correct planning warehouse.

demand. The required shipment of an item in a specific time period. Orders for shipment in some future time period are not considered part of the current period's demand (may consist of forecast and/or customer orders).

demand warehouse. A demand warehouse represents a point where customer orders and/or forecasts are put into a manufacturing system. In XA, these orders are passed to a planning warehouse where the supply function occurs. In XA, a demand warehouse can also be included in the MRP equation to show a common pool of parts available to the planning process.

dependent demand. A generated requirement for an item which can be derived from a planned order for a higher level item.

dependent transaction. An entry that depends on the creation of a preceding transaction; for example, a receipt is dependent upon a purchase order entry transaction.

discrete order quantity. A rule for determining order size using the period's requirements as a lot size.

distribution by value. An analysis of value characteristics for items, ranking them from high to low. Normal value distributions used in manufacturing include sales volume, gross profit contribution, and inventory value.

due date. (1) The date by which a planned or firm planned order or an open order is to be completed or a purchase order is to be received. (2) The date inventory will be consumed to satisfy a requirement.

economical order quantity (EOQ). A fixed order or production quantity that minimizes the cost of acquiring and carrying an item of inventory.

EDI. See Electronic Data Interchange.

EDIFACT. Electronic Data Interchange for Administration, Commerce, and Transport, a set of standards for international electronic data interchange (EDI).

effective date. The date an engineering change is designated to become effective.

Electronic Data Interchange. The process of transmitting electronic documents or transactions containing pre-defined types of data, using telecommunications networks.

end date. The end of the master level item (MLI) schedule, always the last day of the last year.

end-item. The product shipped to the customer.

engineering bill. The output from a product's design phase.

entry date. The date on which a transaction is entered into a master file.

EOQ. Economical order quantity.

exception. See planning exception.

expected customer order. A schedule of planned purchase orders transmitted electronically from a buyer to a seller using EDI transaction 830 (ANSI X.12) or DELFOR (EDIFACT). In XA, the name for the transaction received from customers.

expected customer order manual requirements. A type of manual requirement created in the demand extract function of MRP. MRP creates these requirements, based on the setting of the plan customer order code, to reflect demand from expected customer orders. These requirements have the same effect during MRP planning as manually entered or generated requirements.

explosion. The calculation of how many of each of the items listed in a bill of material are required to produce a given quantity of the item or product represented by the bill. For example, if 500 of product A are required and A is composed of two Bs, three Cs, one D, and four Es, the explosion determines that 1000 Bs, 1500 Cs, 500 Ds, and 2000 Es are needed.

external demand. See independent demand.

external priority. A user-specified number applied to shop orders which modifies the system's normal priority calculation. It is used in sequencing shop orders at a work center.

feature. The options of an end-item are grouped by feature. A feature can only have end-items as parents and options as components. An end-item can have multiple features and a feature usually has multiple options.

facsimile (FAX) system. A system for transmission of images. The image is scanned at the transmitter, reconstructed at the receiving station, and duplicated on paper.

FAX. See facsimile (FAX) system.

fence. See time fence and time-based allocation fence.

final assembly schedule. A schedule of assembly of products to be shipped to the customer or stocked in anticipation of future sales.

finished goods. Items ready for shipment to a customer, including parts reserved for service.

firm planned order. An order, originally created by MRP, whose date and quantity have been fixed by a planner, but for which no paperwork authorizing production has

been released and no components have been allocated (MRP treats this like a released order).

fixed blanket. See blanket order.

fixed order quantity. A rule for determining order size that assigns a fixed quantity to all planned orders.

floor stock. 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.

forced release. Release of a shop order for which one or more required components are not available.

forecast. An estimate of customer (independent) demand for an item for a specific period in the future.

forecast quantity. The quantity of the item used in the forecast.

free zone. The calendar period, that is beyond the date when the manufacturing schedule is set in place. It varies from one manufacturing system to another depending on plant floor flexibility. It extends to the end of the planning horizon. Orders may be replanned during this period without disrupting the plant floor.

frozen zone. The frozen is that part of the planning horizon where change is not tolerated without authorization by plant management. During this period, orders are in progress and inventory has been committed. Change to the schedule within this period, normally will impact the due dates on open orders, cause tear-down of jobs already running and generally cause turmoil and inefficiency on the plant floor.

generate, generation. In MRP the process of exploding every requirement down through the bills of material and creating planned orders and recommendations for needed components parts as necessary.

generated requirement. A requirement for a component generated because of a requirement existing for this component's parent (dependent demand).

global override. Takes demand for a specific item, regardless where it is received, and places it on a particular planning warehouse.

gross requirement. The required quantity of an item from both higher-level subassemblies and the master level item schedule, prior to netting of available inventory.

held requirement. A requirement that has been designated by the planner to be retained by MRP even though it may be past due. It will be held until the start date.

historical standard cost. A base standard cost that usually remains constant for twelve months and is used as a basis for measuring cost changes.

hot list. A list of shortages that is often developed in manual systems by the advanced staging of components required to produce the assembly.

horizon. A span of time from the current date to some future point. See also planning horizon, overdue horizon, release horizon, and review horizon.

immediate update. The process of updating master files immediately upon receiving a transaction from a work station.

include/exclude inventory flag. The mechanism used by MRP to signal to the system that the balance for a particular item/warehouse should not be considered in the planning process.

independent demand. A requirement originating from an outside source, usually a customer order or forecast.

input data. Data to be processed.

input job queue. A list of jobs waiting to be processed by the system.

inquiry. A request to display information from storage.

inquiry mode. The mode of operation when the system is responding to an inquiry.

inspection. The examining of completed production or purchased items to see that parts meet tolerances and that work has been properly completed. It may or may not be a separate operation.

interactive data entry. A method of entering data in which the system carries on a dialog with a work station operator, alternatively accepting entries and responding to them.

interface. (1) The hardware and programs that permit exchange of information between computer systems or computer applications. (2) The facility to allow information to pass from one application to another.

internal demand. See dependent demand.

intersite order. A planned or open order from a requesting warehouse to a supplying warehouse for an item, in the InterSite Logistics (ISL/MISL) application. MPSP and MRP in the supplying warehouse use as demand the requirements from planned intersite orders from MRP in the requesting warehouse. When an intersite order is released (converted from planned to open), a customer order for it is created in the supplying warehouse, and MPSP and MRP treat it in planning just as they do other customer orders.

interwarehouse transfers of inventory. Any movement of items from one XA warehouse to another. This activity is accomplished within the Inventory Management application. MRP makes recommendations only for individual warehouses.

invalid plan. An invalid material plan will result if any of the planning parameters are incorrect. This could be a misstating of requirements, lead times, available inventory balances or bills of material. This could result in inventory balances that are too high, too low, or simply out of synchronization with true demand patterns.

inventory classification. The division of inventory into groups for analysis and control.

inventory level. The dollar value of inventory currently on the books. It is convenient to think of levels of each type of inventory, because they are controlled by different systems.

inventory management. Controlling a company's goods in a way that ensures economical buying and prompt customer service.

inventory movement. This is locational movement of inventory. It may be within, or between warehouses, or even out to a customer or vendor.

inventory turnover. A value normally calculated by dividing annual cost of sales by current inventory levels. For finished goods only, this would be annual sales divided by finished goods inventory valued at selling price or cost. It is a common measurement value used to give an indication of how well inventory is moving.

inventory write-off. A modification (usually down) of the dollar value of inventory usually resulting from discrepancies of physical inventory and book inventory.

issues. The amount of inventory released for production or sale. See miscellaneous issues, planned issues, unplanned issues.

item. Any raw material, manufactured or purchased part, or assembly.

item data. Data describing products, the component parts and raw materials from which they are made, the bill of material, and the routing indicating the manufacturing process.

item override. A specific item/warehouse combination. It transfers demand for that combination from one warehouse to another.

item_in override. Adds demand for an item to a planning warehouse that would normally be excluded due to definition relations that have been previously defined. It is a selective override that refines the condition accomplished by a previous definition relation.

item_out override. Causes demand for an item to be transferred to a different planning warehouse. It is a selective override that refines the condition accomplished by a previous definition relation.

item reschedule code. Determines whether orders for the item in that warehouse can be rescheduled automatically.

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.

level. A relative point in the assembly process where components are added. Levels help describe assembly dependencies. A level 0 assembly is shipped to the customer. Raw material is the lowest level (highest level number) in a company's bill structure. See low-level code.

load. (1) To enter data or programs into storage; for example, to load a master file. (2) The amount of capacity requirements for manufacturing facilities (usually by time period) based on the master production schedule, the material requirements plan, and standard operating times.

loading. The procedure for determining capacity requirements for manufacturing facilities based on the master production schedule.

lost sale. Customer demand that cannot be met. It should be included in the current sum of demand in order to properly calculate safety stock.

lot sizing. The procedure for determining the planned order quantities from a schedule of net requirements is overridden by minimum, maximum, and multiples.

low-level code. A number that indicates the lowest level in all of a company's bills or material at which a specific item is found.

manufacturing bill. The parts listed used by the shop floor. It may differ from the engineering bill.

manufacturing engineering. Determining the stages and methods of production.

manufacturing lead time. The elapsed time from point of order to receipt in the stockroom of a manufactured item. It is calculated by summing the average wait time (queue) in each work center and adding run and setup time.

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.

margin. The difference between average selling price and projected estimates of current costs.

master file. A file that is permanent, even though its contents may change.

master level item (MLI). Items for which you want to control planning. Master level items are usually end-items, expensive components, and service parts.

master level item scheduling. (1) Your statement of how many of what master level items are needed and when they will be needed. It is the major control point for MRP's planning runs which create planned orders for the component parts of these master level items. (2) In XA, a planning run that only affects the top levels of the bills of material, as defined to the system.

master scheduling plan. See master level item scheduling.

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.

materials requisition. An authorization to issue from the stockroom the material required to produce an order.

menu. A list of items shown to you from which you make a selection.

minimum balance. The stock required to cover expected customer demand during the time it takes to order and receive new stock, plus safety stock. See also safety stock.

minimum days to reschedule. Minimum number of days that an order can move in order for it to be rescheduled automatically.

min-max-multiple. Three factors used in conjunction with other order sizing rules (such as part-period balancing or discrete) to establish upper and lower limits and rounding factors on preliminary order quantities.

miscellaneous issues. Issues that are required, but cannot be identified with any particular shop order; for example, issues consumed in quality control.

MLI. See master level item.

MMS. Wonderware's Maintenance Management System.

modular bills. A technique for structuring bills to help describe end products assembled to customer specifications.

MSSR. Master Schedule Source Planning code.

multi-warehouse. Consisting of more than one planning warehouse.

net change planning. A planning run that replans only those items which have had activity since the last planning run.

net requirements. The requirements remaining after on-hand and released orders have been subtracted from gross requirements.

netting. The function of determining net requirements. See net requirements.

number of forecast periods. The number of periods to be used in the forecast for an item.

number of sales months. Used to spread the anticipated cash flow report percentage beyond the first ninety days. Used for cash flow calculation.

on-hand. (1) Pertaining to stock that is immediately available for shipment. See also available. (2) Pertaining to items available in the stockroom. Stock now in the receiving dock or issued to the shop floor is not considered on-hand stock.

on-order. Pertaining to stock that has been requested but has not been received.

open order. See released order.

operation. A manufacturing or assembly procedure performed on an item. A routing defines the sequence of several operations.

operation sequence number. A number assigned to an operation which defines the sequence within a routing.

option. An item that is one of many items directly related to a feature. An end-item can have many options, and similar options are categorized in groups called features. For example, the option red could be included under the feature color.

order. (1) A request from a customer for goods to be delivered or services to be performed. (2) An authorization to purchase or manufacture.

order due date. The date the order is scheduled to be completed.

order-handling lead time. A standard amount of lead time that is added to the quoted lead time (from the vendor) to determine planning lead time. It compensates for time consumed in vendor selection, purchase order writing, mailing, receipt, inspection, and movement to the stockroom.

ordering costs. The costs associated with the handling of an order, exclusive of setup costs. For purchase items they can include placing the order, receiving, inspection, and materials handling. For manufactured items, the major elements are shop packet preparation, progress reporting, inspection, and materials handling.

order point. (1) 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 selects from a menu of lot sizing techniques, such as discrete, fixed order quantity, order up to quantity, and part-period balancing.

order priority. A numeric value, normally calculated by the system, that is used to sequence events. The due date of the order, or some variation of it, is the most common priority for shop orders.

order quantity. A quantity to be ordered when issuing a replenishment order. See also lot sizing.

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.

overdue horizon. The horizon determined by the difference between the start date and the current (today's) date you enter.

overhead costs. All costs that cannot be applied directly to an item (shop order).

overhead rate/percent. A factor to be applied to direct labor or purchase content; it is used to recover (or distribute) overhead costs.

overlapping operations. The sending ahead of part of a shop order to the next operation before the entire order has been processed at the current operation.

parent. The record to which a chain file list (for example, bill of material) is anchored. The parent for an assembly bill of material list is the assembly record.

part-period balancing (PPB). A lot-sizing technique very similar to EOQ in that it attempts to minimize the sum of the cost of carrying inventory and the cost of acquiring inventory. PPB differs from EOQ in that it uses the current net requirements schedule, rather than a historical usage figure, in performing the calculation to minimize costs.

parts list. See bill of material.

peg, pegging. Keeping track of the relationship between a requirement and its source, whether it is the planned order one level up in the product structure or the

manual requirement entered for the end-item. See single-level pegging, pegging inquiry.

pegging inquiry. A trace of the next highest level which generated a requirement and the possible master level items based on a trace of the planned order.

pending releases. A quantity, posted to component items, that reflects the approval of an order for release to production. The pending release quantity is reversed when the item is allocated. Pending release quantity is used in the calculation of the available balance for all items shown by MRP.

period interval array. A 20-element array used to determine the number of workdays within each of the 20 reporting periods.

perpetual inventory. An up-to-date record of all inventory balances.

phantom bills/items. Subassemblies that are automatically fed to a higher level assembly without intermediate stocking. Their use is not considered a level of production.

physical count. An actual count of all pieces of stock in inventory.

physical inventory. The counting of inventory items to determine the quantity actually on hand. It is usually performed annually in manual systems, but may be done, whenever there is a question as to the actual balance.

picking list. A list of items to be taken from stock.

plan. In MRP, a projection, for items belonging to planning warehouses, of when to produce or purchase materials and how many items are needed.

planned availability. Delivery dates promised to customers by committing available and planned inventory.

planned issues. Issues that are anticipated and can be identified with a particular shop order.

planned order. An order that is generated by 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.

planning bill. See manufacturing bill, super bill.

planning exception. MRP's recommended corrective action; for example, cancel, defer, or reschedule.

planning horizon. A span of time from the current date to some future point, for which plans are generated. See overdue horizon, start date, current date, release date, and review date.

planning lead time. The sum of order-handling lead time, plus quoted (vendor) lead time or manufacturing lead time, plus safety lead time. It is used by material

requirements planning to offset component requirements from the due date of the higher-level assembly in which they are used. It represents an estimate of the average elapsed time from the point of recognizing the need to order until receipt in the stockroom. See order-handling lead time, quoted lead time, manufacturing lead time, safety lead time.

planning run. The computer activity of aligning orders and resources to meet external demand. See generation.

planning schedule. See expected customer order and purchase planning schedule.

planning warehouse. MRP plans for one warehouse at a time. A planning warehouse is typically a manufacturing location, although customer order demand is received at the planning warehouse. It is the entity against which MRP is executed.

PPB. See part-period balancing.

propagate. See generate.

processing unit. The part of a computer system that operates on data.

product cost. The sum of estimated direct material and labor costs plus an appropriate share of overhead costs.

production control. The functional area of the business responsible for the day-to-day scheduling of plant floor resources. Shop order release, expediting, and order tracking are the primary responsibilities of this area.

product structure. A technique for organizing bills of material on a computing system.

prompt. To issue a message to a work station operator requesting information or describing an action that is needed to continue processing.

propagated forecast. A straight-line forecast for a given number of periods, automatically created by MRP's planning run using information in the Item Master file.

propagated requirement. Straight-line external requirements automatically created by MRP's planning run using information in the Item Master file.

pseudo bills. See phantom bills.

purchase lead time. The elapsed time from the point a purchase order is released until the received material is available for issue to your system.

purchase order. A document sent to a vendor requesting goods or services.

purchase order costs. See ordering costs.

purchase planning profile. A template you define containing the frequency, format, and content of purchase planning schedules. After you define the profiles and assign them to vendors or items, MRP uses them to create purchase planning schedules.

purchase planning schedule. A schedule of planned purchase orders transmitted electronically from a buyer to a seller using EDI transaction 830 (ANSI X.12) or DELFOR (EDIFACT). In XA, the name for the transaction sent to vendors.

purchase requisition. A request to the purchasing department authorizing purchase of materials or services.

query. To retrieve records in a specified sequence, according to data contained in one or more specific fields within the records.

queue. (1) A waiting line or list formed by items in a computer system waiting for service; for example, jobs to be performed. (2) To arrange in or form a queue. (3) In manufacturing planning systems, the backlog of work waiting to be processed at a work center.

quoted lead time. The elapsed time (from point of order to receipt at the receiving dock) the vendor quotes for delivery.

raw materials inventory. Items used in the production of component parts.

receipts. (1) Merchandise or stock that is received in inventory. (2) Cash received.

record. (1) A collection of related data that is treated as a unit. For example, one line of an invoice could constitute a record. (2) To store data on a reusable input/output medium, such as a disk, diskette, or punched cards.

release. (1) To authorize an order commitment by changing a planned order into a purchase order or shop order. (2) To specify a date and quantity to be shipped under a blanket order. (3) To enter an unplanned order as a purchase or shop order.

release date. The date that determines which planned orders is suggested for release by MRP.

release horizon. The period of time from the current date to the release date.

released order. An order that is in the process of being issued or has already been issued to the shop floor or a vendor. Once issued, it is a commitment that can be canceled or rescheduled only through negotiation. It is identified by the order number.

remaining sales percent. The portion of a master level requirement from which income is anticipated 90 days or more after it is scheduled. Used for cash flow calculations.

reorder point. Synonym for minimum balance.

replenishment cycle. The average time it takes from recognizing the need, to releasing an order, to placing the receipt into the stockroom.

replenishment lead time. See planning lead time.

requirement. Your statement saying that you need a master level item for a certain quantity by a particular date on your master level item schedule.

requisition. An authorization to purchase materials or release quantities of items from stock.

rescheduling. See automatic rescheduling.

returns. Items that are sent back to the vendor and for which a credit is given.

review date. The date that determines which additional orders are shown as information to the planner as orders are reviewed for release. See release date.

review horizon. The period of time from the current date to the review date.

rework. Defective fabricated parts that are sent through extra operations to correct the defect.

routing. A list describing the sequence of operations required to make an item.

runtime. The elapsed time an item is actually being worked on in a machine center. It is calculated, at standard, by multiplying order size by time per piece.

runtime option. A specification, made when a system job is run, that tells how the job is to be run.

safety lead time. An amount of time sometimes added to the planned lead time of a purchased item to compensate for a vendor's unreliable delivery performance.

safety stock. The quantity of an item carried in excess of expected demand to meet unexpected increases in demand.

safety stock requirement. A requirement generated by the planning process, one planning lead time in the future, to insure safety stock coverage without expediting.

sales analysis. The statistical accumulation of data regarding the sale of goods made by a company in various classifications and categories.

schedule. To sequence events over time.

scheduled receipt. See released order.

scrap. (1) The unusable by-product from an operation or a ruined part or assembly that cannot be used in later production. (2) To separate ruined or unusable parts from the current production lot and report the quantity set aside.

scrap factor. See shrinkage factor.

sequential access. A method of obtaining data from storage by pending one record after the other as they are physically found on the storage. See direct access.

service level. (1) The number of items shipped compared to the number of items ordered. (2) A constant (that can vary for each independent demand item) which helps determine the planned level of safety stock and the number of planned stock outs.

service part. A part, assembly, or kit shipped to a customer for maintenance purposes.

session. The elapsed time between operator sign-on and work station sign-off.

setup. The procedure (costs) associated with getting a production facility (machine) ready to produce a new item. The procedure is not dependent on the number of items to be produced. The costs of removing the setup are usually included.

shop order. See manufacturing order.

shop order handling costs. The portion of shop order acquisition costs that includes order approval, preparing shop paperwork, materials handling, and reporting shop activity against the order.

shop packet. The necessary documents for processing a shop order.

short shipment. A shipment that, when checked by the receiving department against the vendor's invoice, proves to contain less than the quantity billed.

shrinkage factor. A percentage used to increase the quantity on a planned or released shop order to allow for scrap. An alternate method is to use it to increase gross requirements.

significance (in the part number). The use of a portion of the part number to describe its source, end use, or physical characteristics. It should be avoided.

single-level pegging. Identifying only the next higher level assembly which generated the requirement.

sixty day percent. The portion of a master level requirement from which income is anticipated 60-90 days after it is scheduled. Used for cash flow calculations.

source document. The original record of a transaction.

source of demand. This is a generic term that can refer to customer orders or forecasts. It typically backs up the creation of a requirement in MRP.

source member. A collection of records that are used as input for a program. Source members are stored in a library.

S-number. The S-number has a field length of 20 and is seen only if features and options were installed in PDM. 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 field size template established when the PDM Questionnaire was answered.

specification bill. A bill derived for a specific customer from a common bill plus options represented by variant bills. It is normally discarded after the order is complete. See also super bill.

specific override. An override for a specific item/warehouse combination.

splitting orders. The practice of dividing the original order into multiple orders and expediting a smaller quantity than was originally started. It is costly because of additional setup and material handling. It is of limited value unless run times are long.

staging. The practice of pre-pulling components from inventory and placing them in special areas well in advance of actual need. The use of planned orders in MRP eliminates the need to perform staging.

standard cost. See current standard cost, historical standard cost.

standard batch quantity. The amount of an item used to calculate required quantities for components.

standard order quantity. A pre-established number of pieces ordered when the minimum balance or reorder point for an item is reached.

start date. (1) The date work is to begin on an order. This is when materials are picked and delivered to the first work center. (2) The beginning of the MRP planning horizon.

stock on hand. The quantity of any item or commodity actually located in a stockroom and available for use or issue.

stockout. A condition resulting from the inability to meet product requirements on demand.

stockroom. The physical location where components and products are stored and movement is accounted for. There may be multiple stockroom locations, and some items may be physically stored outside the restricted area.

stock status report. A report that shows pertinent data for each item in inventory; for example, the quantity on hand, on order, or reserved.

storeroom. See stockroom.

structuring (the bill of material). The method used to describe the assembly of end products with single level bills.

super bill. A bill constructed to simplify planning the production schedule for assemble-to-order products.

supplier. See vendor.

system date. The date assigned by the system operator during initial program load. Generally, the system date is the same as the actual date.

thirty-day percent. The portion of a master level requirement from which income is anticipated 30-60 days after it is scheduled. Used in cash flow calculations.

time fence. A set of beginning and ending boundaries for a given time period. Also, a policy or guideline established to note where various restrictions or changes in operating procedures take place.

time periods of supply. A lot-sizing technique to plan an order to cover requirements for a fixed number of days.

time phasing. The technique of expressing future demand, supply, and inventories by time period.

time-phased allocation fence. A range of dates allowing allocations to be assigned 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.

time-phased allocations. The spreading of allocations through the materials planning horizon by their date of need.

time-phased requirements. The spreading of requirements by time period through the materials planning horizon. Time phasing depends upon the manufacturing lead time offsets between levels of production.

TPAF. See time-phased allocation fence.

trading partner. A vendor or customer with whom you do business. In EDI systems, someone with whom you exchange electronic transactions over a telecommunications network.

transaction. An item of business, such as receipt of an order or paying a bill.

transit time. The average time required to move material from one operation to another.

translator. In EDI systems, a product that mediates between business systems and communication networks.

transparent assembly. See phantom bills.

unauthorized withdrawal. An inventory removal not designated by, or reported to, the manufacturing system.

unit of measure. A code indicating the measurement basis for inventory, such as each, pound, tons, gallons, feet.

unit price. The price per standard unit of a product or service.

unplanned issues. Issues that are not anticipated but can still be identified with a particular shop order; for example, scrap.

validation. Verifying engineering and production data through actual use on the shop floor.

variance. The difference between historical or budgeted data and current year data. It is usually expressed as a percent.

variant. A option of an end product, normally specified by the customer, that must be present for the product to function; for example, 110V versus 220V.

vendor. A seller of goods or services.

Visual WorkPlace. A Microsoft® Windows™-based graphical user interface for XA.

warehouse stock location. The identification of the physical location of an item within inventory storage.

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.

where-used pegging. See pegging.

work center. A facility, normally a group of machines having similar characteristics, used to perform a manufacturing process; for example, an assembly area or milling machine center.

work-in-process inventory. Items released to the shop floor and not reported finished; for example, raw materials, subassemblies, and component parts (separate from stock room inventory).

work order. A document that defines maintenance operations. It is similar to a manufacturing order in control and use.

work station. A device that lets a person transmit information to or receive information from a computer, or both, as needed to perform their job; for example, a display work station operation or a printer.

work station printer. A printer that is designated during installation to print work station output data.

yield factor. See shrinkage factor.

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