# Material Requirements Planning/Master Production Schedule

# Run Instructions



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# About this document How to read this document

#### Overview of Infor ERP LX

This topic contains information that pertains to all applications of the Infor ERP LX product. This information enables you to perform the following tasks:

- Navigate through menus and screens
- Specify information in the fields on the screens
- Use the screen actions
- Access the online help text
- Become familiar with terms used throughout Infor ERP LX

# Navigation

The features described in the following paragraphs help you navigate within and between Infor ERP LX screens and programs quickly and easily.

Menus

Use Infor ERP LX menus to choose individual programs to process or view information. You can call individual applications directly from any menu.

**Dates** 

Infor ERP LX includes full support for dates up to and beyond the year 2000. Although most date fields display six characters, Infor ERP LX stores the date as eight characters to include century information. Use Company Name and Date Format, SYS820, in the System Parameters Generation program, SYS800, to configure century dates and specify dates beyond 1999.

#### Attention key and quick access icon

The character-based user interface uses the attention key to directly access other programs, menus, and applications. On an Infor ERP LX screen, press the Esc key.

The Webtop user interface uses the Quick Access icon to directly access programs. On an Infor ERP LX screen, click the Quick Access icon.

You must have security authorization to use these features.

#### Look-up features

On the character-based user interface, a plus sign (+) indicates a prompt-capable field. Use F4 to display a look-up screen.

On the Webtop user interface, an arrow indicates a prompt-capable field. Click the arrow to display a look-up screen.

Most screens called from inquiry programs allow you to search for alphanumeric strings.

#### Remembered keys

Infor ERP LX remembers certain key values, such as item number, salesperson, or container, in your workstation memory as you process information in certain programs. You can assign one of the following values to each field:

- 0. Infor ERP LX automatically retrieves this value from remember key memory. Infor ERP LX updates this value on a continual basis.
- 1. Infor ERP LX automatically retrieves the value you specify in Display Remembered Keys, SYS080. It does not update the value from any other program.
- 2. Infor ERP LX does not retrieve or update remembered key fields.

Use the Display Remembered Keys program, SYS080, to set up remembered keys.

# Standard online help features

Many Infor ERP LX programs display generic help text. Use F1 from within a field on the character-based user interface. Click the Show/Hide Help icon on the Webtop user interface. This generic help text includes help for standard line actions, standard screen actions, which are also called function keys or F keys, the run time parameter, and some screens types.

The information in the generic help text for line actions and screen actions in this document is not included in the help text for individual Infor ERP LX programs and screens. If a line action or screen action other than those defined in the generic help text occurs in a program, the help text for that program describes the specific action.

Additional generic help text is stored in the SSARUNHT document for users of the character-based UI. You can print this document and the individual application run instructions, SSARUN01, SSARUN02, and so on, from the DOC menu on the IBM(R) iSeries(TM) in the character-based user interface.

# Generic help text for line actions

#### Line actions

The following line actions are valid in numerous screens. They have the functions described in the following sections.

#### 1=Create

Specify Create on the prompt line and a value in at least one key field to add new information to the file. The system displays maintenance screens on which you can specify the new data. The system prints the new data on the audit report.

Note: You cannot specify Create next to existing data.

#### 1=Select

On a prompt screen, specify 1 to return the selected data to the original screen.

#### 2=Revise

Specify Revise to change the information for a line. Specify 2 and a value in at least one key field or specify 2 next to a line. The audit report lists the change. If you specify Revise next to a line with inactive information, the system reactivates the information.

#### 3=Copy

Specify Copy to copy existing information. You can specify 3 and a value for at least one key field or you can specify 3 next to a line. The system displays a maintenance screen on which you can specify new data and change existing data.

#### 4=Delete

Specify Delete to deactivate the information on a line. You can specify 4 and a value in the key fields or you can specify 4 next to the line to delete. Use Revise to reactivate deleted information.

#### 5=Display

Specify Display to view information. You can specify 5 and a value in the key fields or you can specify 5 next to a line.

#### 6=Print

Specify Print to print information on the audit trail. You can specify 6 and a value in the key fields or you can specify 6 next to a line.

#### 8=Position To

Specify Position To to move a line to the top of the list. You can specify 8 and a value in the key fields or you can specify 8 next to a line. The system repositions the list to begin with the requested line or, if the line does not exist, to the line that is next in sequence.

After you use the Position To feature, you can page down or you can use the Position To action with a different value, but you cannot page up. You can return to the top of the list if you specify Position To but do not specify a value in the key fields on the prompt line. On a prompt screen, display details matching the information you specified.

#### 10=Search

On the top line of a prompt screen, use 10 and known field data to locate specific information.

#### Additional line actions

If a program contains additional line actions, see the line actions help text in that specific program for descriptions of those line actions.

# Generic help text for screen actions

Many screen actions, also called F keys, perform the same function for every program or screen in Infor ERP LX. Definitions for these screen actions follow.

Enter

Proceed to the next screen of a maintenance program. On the final screen, press Enter to update the file and return to the first screen of the program for additional maintenance activity.

Enter

Validate data in a screen. This function of Enter generally occurs in transaction programs that have an F6=Accept screen action, which saves the data on the screen.

Enter

Send the output from a report or listing program to an output queue for processing.

F1=Help

Display help text. This screen action applies to the character-based user interface only.

F3=Exit

Exit a program and do not record, update, or print the information you specified on the program screens.

F4=Prompt

Display a pop-up screen that lists existing values for the field. A plus (+) character denotes a prompt-capable field in the character-based user interface. In the Webtop user interface, the prompt -capable field has a small arrow that points to the right .

F5=Refresh

On a list screen, redisplay the screen to check the status of an executed function. On a maintenance screen, redisplay the original values on the screen.

F6=Accept

Accept your changes and exit the program.

F7=Backward

Display previous lines, that is, those alphanumerically closer to A or those with earlier dates.

F8=Forward

Display additional lines, that is, those alphanumerically closer to Z or 9, or those with later dates.

F11=Fold

Display a folded view of the screen that contains additional information. Use F11 again to return the screen to its previous format.

F12=Cancel

Return to the previous screen and do not save values you specified on this screen. If you use F12 to return to a selection screen in a maintenance program, you cancel changes you made to any screens in the program.

F23=More Actions

Display additional line actions. If a screen has many screen actions, you may need to press F24 to see that there is an F23 action, which indicates that additional line actions are available.

#### F24=More Keys

Display additional function keys.

# Generic help text for standard screens

Several categories of screens have identical functionality, though the content differs. These types of screens are explained in the following sections.

#### Generic help text for list screens

Many Infor ERP LX programs contain screens with lists of information to specify for maintenance or inquiry. You have two options to specify the information to process on a list screen:

- Use the Act field and the key fields that appear at the top of the list.
- Specify a line action in the Act field of the line with the information you want to process.

After you make your entries, press Enter to perform the line action.

#### Generic help text for filter screens

Some Infor ERP LX programs feature a filter screen, which you can access with F13. The filter screen enables you to filter the data to display. For example, if you use F13 in Customer Master Maintenance, ACR100, you can display all records by customer number or only active records, either by customer number or by customer name. You can also specify a sort or sequence.

#### Generic help text for the run time parameter

Run Time Parameter (1,0):

Specify interactive to process the data in real time or batch to process the data in the job queue. If you specify interactive processing, your session is unavailable for other tasks until the job finishes.

#### Infor ERP LX menus

This section describes the menus in Infor ERP LX.

#### ERP LX main menu

The ERP LX Main Menu is the first of five master menus. You can access the four major Infor ERP LX application groups from this menu:

- Configurable Enterprise Financials, CEF
- Multi-Mode Manufacturing, MMM

- Supply Chain Management, SCM
- Cross-Product Applications, XPA

Specify the abbreviated application group fast path code to access the master menu for the desired application group.

#### Configurable enterprise financials menu

Use the Configurable Enterprise Financials menu, CEF, to access Infor ERP LX financial applications. Specify the application fast path code to access the desired application menu.

#### Multi-mode manufacturing master menu

Use the Multi-Mode Manufacturing master menu, MMM, to access Infor ERP LX manufacturing applications. Specify the application fast path code to access the desired Infor ERP LX application menu.

#### Supply chain management master menu

Use the Supply Chain Management master menu, SCM, to access Infor ERP LX supply chain management applications. Specify the application fast path code to access the desired Infor ERP LX application menu.

#### Cross-product application menu

Use the Cross Product Application menu, XPA, to access, analyze, and transmit information within Infor ERP LX. Specify the application fast path code to access the desired Infor ERP LX application menu.

# Commonly used terms in Infor ERP LX

#### (Y/blank)

If the screen displays (Y/blank) for a field, specify Y or Yes for a particular action to take place. Otherwise, leave the field blank. The screen displays (Y/N) if the field requires a Y or an N.

#### A/R, A/P

The documentation uses the abbreviations A/R and A/P to denote the terms accounts receivable and accounts payable, respectively. The abbreviations distinguish the terms from the corresponding program indicators of ACR, and ACP, which precede program numbers, for example, ACR500 and ACP100.

#### Alphanumeric

Alphanumeric refers to text that contains letters, letters and numbers together, and numbers arranged uniformly with special characters, such as dates in MM/DD/YY format. Infor ERP LX sorts reports and inquiries in ascending alphanumeric order, unless indicated otherwise. Ascending order arranges items from the lowest value to the highest value. Alphanumeric text is sorted in ascending order according to the following rules:

- Special characters, such as \$, %, (hyphen), comma, and period, come before all others
- Lowercase letters come before uppercase letters
- Uppercase letters come before numbers
- Numbers, that is, 0 through 9, come last

#### Extreme values by default

Some fields display extreme values by default. The system uses an alphanumeric or numeric extreme in these fields if you do not override the value. Use these default values, which are usually specified as ranges, to include all information in the range. The defaults values or any other values specified to designate a range do not have to be valid values in a database file.

#### Ranges

Ranges refer to fields you can use to limit an inquiry or report or to display specific data. If there are multiple range fields in a program, you can tailor your inquiry or report to produce only the data you need.

Infor ERP LX sorts the information alphanumerically. Therefore, the value in the From field must be a lower alphanumeric value than the value in the To field.

Infor ERP LX usually inserts extreme values as defaults in the lower and upper fields. See the description for Extreme values by default. The entries you make in range fields do not have to be valid values in a database file.

Review the following suggestions to limit the information:

Specify the first value to include on the inquiry or report in the From field. Leave the To field blank to include all information to the end of the file. For example, you can print a report that starts with the customer number you specify in the From field and stops at the end of the Customer Master file.

Specify the last value to include on the inquiry or report in the To field. Leave the From field blank to start at the beginning of the file. For example, you can perform an inquiry that starts with the beginning of the Customer Master file and ends with the customer number you specify in the *To* field.

Specify the same value in both the *From* and *To* fields. For example, you can limit a display to one customer.

To include a group of items, specify a value in the *From* field and another value in the *To* field. For example, you can perform an inquiry that starts with the first of the month and ends with the last day of the month.

## Reference only

Reference only indicates that the system uses the information for the given field only for reference and does not use it for processing.

### General Information about the MRP/MPS document

This document is divided into the following sections:

#### Introduction to Infor ERP LX

These sections contain general information about the application, including navigation hints, definition of standard line actions and function keys, and a description of some screens that are standard throughout Infor ERP LX.

#### Application overview

This section provides a general description of the functions and highlights of the application and specifies related applications with which MRP and MPS interact.

#### Key functions and concepts in MRP/MPS

This section describes some key functions and concepts used in MRP/MPS.

#### Application flow

This section describes the basic flow of processing within the MRP/MPS applications.

#### Suggested implementation plan

This section presents the considerations and advanced planning you must perform to successfully implement and use MRP/MPS.

#### How-to Index

This section contains a list of application functions. Next to each function is the number of the program to use.

#### System parameters relevant to MRP/MPS

This section lists the programs that contain system parameters that affect the MRP/MPS applications.

#### MRP/MPS application menus

This section briefly describes the three menus that provide access to the MRP and MPS functions.

# Application overview

The MPS/MRP system gives production control, purchasing, and management the information they need to plan and control business operations. It identifies detail production and purchasing actions to take in response to day-to-day events. It ties overall business planning to detail operations through the master scheduling function.

#### **Product Highlights**

#### MRP/MPS offers the following key features:

- Bucketless, net change MPS/MRP (with optional regeneration)
- Automatic first-cut Master Production Schedule
- Variable planning horizon
- Flexible time bucket summarization of MRP data
- Firm-planned orders supported
- Pegged requirements online and in reports
- Suggested rescheduling of shop orders and purchase orders
- English language action messages with dates
- Available-to-promise inquiry
- Flexible lot sizing and order policies
- Summary revenue and expense projections
- Summary production plans
- Real time planning and pegging inquiry
- Forecasts and consumption of forecasts by customer orders
- Master Production Schedule simulation
- Rough-cut capacity simulation
- MRP simulation
- Multiple warehouse MPS/MRP
- Item planning data by warehouse and lot
- Mass release of shop orders from planned orders
- Multi-level master scheduling
- Final assembly orders and scheduling
- Finite forward scheduling

#### Related applications

You must have the Inventory Management application installed to use MRP/MPS. The following Infor ERP LX applications are also closely integrated with MRP/MPS:

- Configurable Order Management
- Billing
- Purchasing
- Manufacturing Data Management
- Shop Floor Control
- Capacity Planning

The MRP/MPS applications gather all information that is held in the system about real and anticipated movements of inventory to meet customer requirements through timely purchase and production of goods.

Implement the key Infor ERP LX applications in the following sequence:

- 1. Inventory Management (INV)
- **2.** Manufacturing Data Management (BOM)
- 3. Shop Floor Control (SFC)
- 4. Purchasing (PUR)
- **5.** Order Management (ORD)
- **6.** Material Requirements Planning (MRP)/Master Production Schedule (MPS)

# Key functions and concepts in MRP/MPS

The following paragraphs describe the key functions and concepts that comprise the MRP/MPS applications.

#### Final assembly order release

The system provides for an online review and release of final assembly orders based upon the scheduled shop date and item. This review also displays specific customer order information. The system prints a shop packet for all released final assembly orders. It pulls the correct material and routing configuration from the customer order.

#### Firm-planned orders

The system supports firm-planned orders. It suggests releases and rescheduling of firm-planned orders but does not automatically reschedule the orders as part of the netting logic.

#### Forecasting

You can enter and maintain forecasts manually for any item. This includes independent demand for an MRP item.

The system has several method options to include forecasts in the gross requirements. The following options are available:

Use the greater of forecasts or customer orders (consumption of the forecast)

Add forecasts to customer orders

Use forecasts only

Use customer orders only

There are two different types of consumption logic; one for lumpy customer demand and one for smooth customer demand. The type of logic that the system uses depends upon the Prorate Forecasts system parameter. The following two cases apply to different business situations:

Lumpy Customer Demand - In this case, customer demand during a forecast period typically consists of a small number of orders for large quantities of goods. Set the Prorate Forecasts parameter to 0=No. The system does not prorate forecasts that straddle the MRP start date, but it does use open and shipped customer orders to consume forecasts.

Smooth Customer Demand - In this case, you typically receive many customer orders during the forecast period. Set the Prorate Forecasts parameter to 1=Yes. The system prorates forecast quantities for forecasts that straddle the MRP start date based upon the number of days left in the forecast period. This method only uses open customer orders to consume forecasts.

#### Master scheduling

The master schedule is logically equivalent to a series of firm-planned orders. The system creates a first-cut master schedule if you request it. The master schedule can be summarized by item class into a production plan. The system automatically performs an available-to-promise calculation on the Master Production Schedule reports.

#### Material requirement dates and lead time offsets in MRP

The system automatically performs offsets for requirements dates for components in the MPS/MRP calculations. It also performs offsets for calculation of material need dates at the time that shop orders are released.

To calculate the offset, the system takes the parent lead time from the Item Master and adjusts it by the bill of materials offset (plus or minus) for the component. This gives the lead time days for that specific component. The system starts with the due date of the parent and backs up and skips all non-work days in the shop calendar.

Note that the offset calculation uses only calendar records that have a blank work center (the calendar record applies to all work centers). See the information

for the Shop Calendar Maintenance program, SFC140, in your Shop Floor Control documentation for shop calendar details.

Example of material requirement offset calculation:

Parent lead time is ten days.

Component offset is minus two days. (The calculation subtracts two days from the parent lead time, leaving eight work days.)

Parent due date is March 25.

Shop calendar non-work days are March 15, 16, 22, 23. (The calculation backs up 8 work days through the calendar, skipping these non-work days.)

The requirement need date is then March 13.

For planned orders and firm-planned orders the release date is calculated automatically. This date is calculated from the due date of the planned order, the item lead time, and the shop calendar, as just described.

#### MRP/MPS simulation

The system allows you to manipulate and maintain a simulated MPS and MRP. You can copy the simulation from the existing first cut or you can create a totally new schedule. You can also perform a simulation of the rough-cut capacity plan. This allows a quick visual inspection by inquiry or menu of needed work center loads for the proposed MPS. After you choose a suitable MPS and rough-cut capacity, the system allows you to transfer the simulated MPS to the live Master Production Schedule.

#### Multi-level MPS

The system handles multi-level MPS scheduling for companies that need to schedule at more than one level. The planning bill of materials offers the option of exploding the forecast or the available-to-promise information.

#### Netting calculation

The system is bucketless, net change MRP. It holds both the gross requirements detail and the planned order detail. It does not duplicate detail from scheduled orders (shop orders, purchase orders, and customer orders).

The difference between the net change option and a full regeneration is that the net change update only explodes items that have their activity flag set to Yes. The system tags items for a net change update based upon any transactions that could affect the netting logic. Examples of these types of transaction are the creation of a new shop order, a miscellaneous adjustment to inventory, a change to the bill of materials, or a change in gross requirements that cascades from a higher level in the bill of materials.

Many different lot sizing rules are available on an item basis. Examples include period order quantity, discrete above a minimum balance, lot for lot, multiple of the standard lot size, and least cost. The item minimum balance (or item per

warehouse minimum balance if you run this by warehouse) is subtracted as part of the netting calculation to provide for safety stock.

The system keeps track of low level codes automatically. It explodes the orders into lower level gross requirements via low level codes. The netting calculation is the same for phantoms and for regular items.

#### Order policy codes

The order policy code tells Infor ERP LX how to place orders for an item. They are set for each item in the Item Master Maintenance function. You can vary both production and purchase quantities to suit the nature of the item through the order policy codes. See the documentation for the Item Master Maintenance program, INV100, in the Inventory Management application for detailed information about order policy codes.

#### Pegging

The system supports single-level pegging on either a report or inquiry basis. The peg is to the specific order that generated the gross requirement and contains item and planning information.

#### **Phantoms**

The system explodes items tagged as phantoms during the MRP or MPS generation after available inventory for the phantom is consumed. It suppresses release messages for phantoms, and phantoms do not display on the MRP/MPS detail reports unless there is a rescheduling message or a past due scheduled receipt. You can review phantoms through MPS and MRP inquiry programs.

Phantoms have item type 0. They are defined as neither manufactured nor purchased items. To disable the phantom item type, change this flag from 0 in Item Type Maintenance, INV171.

#### Planned shop order release

The system provides an online review and release of planned shop orders. You can change planned quantities and dates for the release. You can delete planned orders whether or not a shop order is released. The system prints a normal shop packet for all released orders.

#### Planning horizon

The system has an infinite horizon for planning. It stores all data by date, not by summarized buckets.

#### Reports and inquiries

Planning detail and pegging is available online. MRP planning reports are available in either vertical or summarized horizontal format. Rescheduling dates

and messages are available by item for shop orders, purchase orders, or firm-planned orders.

A report of which planned orders are releasable to the shop is available. This report indicates shortages and orders that you can release.

Master schedule and production plan summaries are available. An item planning report lists all constant data for each item and affects netting logic.

#### Rescheduling and messages

The system makes the rescheduling assumption that you can expedite a released order before the system generates a new planned order. The system generates rescheduling messages by automatically setting a reschedule date for firm-planned orders, shop orders, or purchase orders during the netting logic. The reschedule date, the due date, the start date, and the current date then combine to produce messages. Possible messages include cancel, expedite, de-expedite, and release. A suggested date accompanies each message.

#### Time frames

You can consolidate MRP detail into 40 time periods for report and inquiry purposes. Both the length of the 40 time periods and the start date are completely variable. The time periods are used for an optional MRP report in horizontal format.

#### Yield logic

The system supports yield percentages at the item and item/facitlity level. MRP and MPS use the net quantities. On planning reports, inquiries, and in calculations, every scheduled receipt and planned receipt quantity is factored by the yield percentage. The open quantity multiplied by the yield percentage displays on the MRP planning reports and inquiries. The MRP Maintenance program, MRP510, displays net quantities although gross quantities must be input for planned order changes.

Inquiries and reports in other applications (CAP, INV, PUR, and SFC) show the nominal quantity ordered and remaining. The special Print Scheduled Receipts option on the MPS/MRP reports also shows these quantities. The only exception in which the net quantity is displayed is the Material Status Inquiry screen (INV), which shows open orders with a running forward balance.

When the system calculates net requirements in the MPS and MRP generation, the system increases those requirements by dividing the net requirement by the yield percentage. The resulting net requirements are then lot sized by the normal MPS and MRP lot sizing logic.

#### Planner codes

Each item is tied to a planner code. You can print the detail MPS and MRP report in sequence by planner then item, or just by item. You can also specify planner code limits and item number limits.

#### Scrap factors

Each bill of materials record on the regular and the planning bill of materials has an optional scrap factor. The system includes scrap factors during the MPS and MRP explosions when it calculates gross requirements for child items.

# Application flow

The MRP/MPS application allows you to collect all the information held in other Infor ERP LX applications about the movement of inventory items. The system compares stock on hand and stock on order with stock that is required for customer orders or shop orders. You can set the time frames to require for customer orders or shop orders and you can enter a forecast of expected demand. If any item is in danger of becoming overstocked at any time within the specified time frames, the system recommends delay or cancellation of certain purchase orders or shop orders. If a shortage of an item appears likely, the system recommends that you expedite purchase orders or shop orders, and it creates planned orders (suggested orders) if necessary. You can add, change, or delete these planned orders, then use them as the basis for purchase orders or shop orders. You can view requirements and expected supplies pegged to the individual transaction that created them. Each requirement is linked to the actual customer order, shop order, purchase order, planned order, or forecast.

The system creates the Master Production Schedule for the items most important to you, the items you marked on the Item Master as master scheduled items. The master schedule is a list of planned orders (in date-needed sequence) for the Master Schedule items. After you have the master schedule, you may want to try out alternative schedules without committing to them. The system allows you to create a simulated master schedule. One way to do this is to copy from the current master schedule and alter the copy to produce the simulated schedule. If you like the altered simulated schedule, you can copy it back to serve as the real master schedule. If you do not like the simulated schedule, you can ignore it.

In a manufacturing business, Master Scheduled items are finished items to manufacture. The Master Schedule Generation program, MRP500, looks at these items and generates planned orders for them. This creates requirements for component items according to the bill of materials. Use the Explode Requirements program, MRP600, which produces planned orders to satisfy component requirements. The result is a set of detailed orders that are ready for release to the shop floor and planned orders for raw materials and purchased parts. You can print summary and detail reports showing exactly which components will be needed for each requirement.

In a distribution business, Master Schedule items are the most important items to you, and these are the ones the Master Schedule Generation program, MRP500, looks at. After you have firm plans for these items, you can create a

supplementary planning schedule for less important items using Explode Requirements, MRP600.

As processing continues, applications create events that affect inventory. Shop orders are completed, purchase orders are filled, inventory is received or issued, and planned orders are definitely scheduled or canceled. Whenever the inventory status or planning status of an item changes, the system sets an MRP net change flag for that item. Thus, it is important to periodically regenerate and reprint the Master Production Schedule. You can do this in one of two ways. You can request a full regeneration or you can request a net change regeneration. If you request a full regeneration, the system looks at all Master Schedule items and all movements for each item. If you request a net change regeneration, the system looks at only those items that have a net change flag. The same option applies to the Explode Requirements program for items that are not master scheduled. In either case, the program recalculates the previous plans and you can reschedule or delete previous planned orders (not firm-planned orders).

The planning start date can be any date you specify. The horizon date is a fixed number of days (set as a system parameter) forward from the current planning start date. Note that repetitive manufacturing uses horizon periods rather than a number of days. This horizon date is the limit on what you can definitely plan into the future. The system does not create planned orders to release with a due date that falls within the horizon. However, you can use a maintenance program to create planned orders regardless of the horizon date. You can also create firm-planned orders. The system does not reschedule firm-planned orders, even if you do a full MPS regeneration.

The system also provides up to 40 time frames for reporting purposes. You can define each time frame as a number of days, starting from any date. Gross and detail material requirements are shown summarized into these time frames.

There is no daily running or specific period-end processing, since the planning process is performed as required. Review plans and release planned orders on a regular basis. A suggested list of activities follows:

- Use MRP Time Frame Maintenance MRP120D1, to define the reporting periods to use.
- Use Forecast Maintenance, MRP100D1, to update forecast item requirements.
- Update the Master Production Schedule as needed. Regenerate it, print it, make changes as required, and reprint. This involves the programs Master Schedule Generation, MRP500, MRP Maintenance, MRP510, Print MPS Orders, MRP520D, and Print MPS Detail, MRP240D. Caution: Do not run Master Schedule Generation, MRP500C, while anyone is using the Inventory or Bill of Materials files.
- Use Explode Requirements, MRP600, and MRP Maintenance, MRP510, to create and maintain planned orders for items that are not master scheduled. Explode the requirements and use the maintenance program to adjust them. This produces planned orders for components and creates requirements for MPS items.

- Optionally, use the MPS Simulation programs (MPS700-level programs) to copy MPS/MRP, make changes, and print a simulated MPS in summary or detail. You can also simulate an MRP explosion and capacity plan. You can copy the simulated MPS to replace the original schedule.
- Use MRP Maintenance, MRP510, to firm up planned orders. Select the planned orders that you want to enter as firm-planned orders. You can then release these firm-planned orders as shop orders or use them as the basis for purchase orders.
- Use the MRP200-level and MRP300-level programs to run reports and inquiries, including the Releasable Orders Report, MRP250, and the rescheduling reports MRP209D, MRP211D, and MRP212D.
- Use Release Planned Orders MRP540, to select planned orders to mass release to the Shop Floor Control product within a specified date range.
- Use Shop Packet Print, SFC520, to print released orders. You must do this to complete the release of planned orders to the shop floor. This program prints shop documents and places the released orders in the permanent Shop Order file.

Most files that MRP/MPS uses are maintained in other applications, such as Inventory Management, Manufacturing Data Management, Shop Floor Control, Configurable Order Management, and Purchasing. The Planned Orders file is updated by Master Schedule Generation, MRP500, or Explode Requirements, MRP600, and the file is accessed by all MRP/MPS programs.

# Suggested implementation plan

Read the documentation for the INV and MRP/MPS applications.

Review your current material plans to consider at least the following factors:

- Are the plans complete and accurate?
- Do the plans have sufficient detail about requirements?
- What are your order policies for material?
- Which items are causing supply/production problems?
- How many changes do you expect?
- How are actual production/purchasing decisions made, and is this satisfactory?

Review requirements. You must establish regular planning procedures so that you are always up to date with actual and expected events.

Consider system parameters. Plan your entries in the system parameter fields.

Decide on your master schedule items and what to use as order policy, order cost, lead time, minimum balance, standard lot size and batch size for each of these items. These fields are stored in the Item Master file, IIM, or the Facility Planning Data file, CIC.

Review resources. Review the staff and the time that is available to perform the implementation. Your time as planner is critically important for implementation. You must familiarize yourself with the reports and inquiries that are available.

Establish the implementation timetable. Schedule the implementation activities in your calendar. Determine a realistic go-live date.

Define the system. You must install MRP/MPS as an active application in your system. If it is not active, activate it now.

Verify that Inventory Management and other applications are active. These are normally installed first and should be running live.

Define planning procedures. Define regular planning procedures to take advantage of the up-to-date information which MRP/MPS provides to you. You must review and regenerate the plans regularly to use them optimally.

Train the operator. This should be easy if the operator is already familiar with other applications.

Load master file data. If all the other applications are running live, the only data loading you have to perform is to set up your time frames and forecasts of likely demand.

Perform an initial run. Run Master Schedule Generation, MRP500, to generate your first Master Production Schedule.. Run MRP Maintenance, MRP510, to enter any firm-planned orders you already require, and regenerate the MPS. Next, run Explode Requirements, MRP600, to plan your other items. Next, print your planning reports.

Monitor planning reports very carefully for the first month. Verify that everything is set up properly and that the system is providing useful results. If you do this, you can rely increasingly on the system to provide timely information about purchases and production, prospective shortages or overstocking, and your business operations in general.

#### How-to Index

The following list shows major functions in the MRP/MPS applications and the programs the system uses to perform these functions.

- Create an item in a facility MRP140
- Create firm-planned orders MRP510
- Create forecasts MRP100
- Create master schedule plan MRP510
- Create master schedule simulations MRP710
- Revise item planning data INV100
- Revise item/facility planning data MRP140
- Revise firm-planned orders MRP510
- Revise forecast quantities or dates MRP100
- Revise master schedule quantity MRP510

- Revise master schedule simulation quantity MRP710
- Revise MRP time frames MRP120
- Revise planning start date MRP120
- Copy MPS/MRP to simulation MRP700
- Copy simulated MPS/MRP to live MPS/MRP MRP770
- Delete firm-planned orders MRP510
- Delete master schedule plans MRP510
- Delete master schedule simulation plans MRP710
- Delete purchase orders PUR500
- Delete shop orders SFC540
- Display orders and requirements MRP300
- Display pegged requirements MRP300
- Display available to promise MRP310
- Display simulated MPS MRP710
- Display simulated rough-cut capacity MRP750
- Explode MRP MRP600
- Generate master schedule MRP500
- Print available to promise MRP240
- Print exception messages MRP210
- Print final assembly order FAS510
- Print final assembly orders not yet released MRP260
- Print master schedule detail MRP240
- Print master schedule detail simulation MRP730
- Print master schedule orders MRP510
- Print master schedule simulation orders MRP720
- Print MRP exception report MRP200
- Print MRP summary report by class MRP230
- Print releasable orders report MRP250
- Print released shop orders SFC550
- Print rough-cut capacity simulation MRP760
- Reactivate deleted master schedule plans MRP510
- Reactivate deleted master schedule sim. plans MRP710
- Release final assembly orders FAS500
- Release planned shop orders MRP540
- Release purchase orders PUR500
- Release shop orders SFC500
- Reschedule firm-planned orders MRP510
- Reschedule purchase orders PUR500
- Reschedule shop orders SFC540

# System parameters relevant to MRP/MPS

System parameters must be set in several programs before you go live with MRP/MPS. To change or specify system parameters, use the Parameter Generation program, SYS800, from the SYS Menu. Parameters in the following programs affect MRP/MPS:

MRP System Parameters, MRP820D

MRP and Shop Floor System Parameters, MRP821D

Time Frame Maintenance, MRP120D1

See the System Parameters documentation for additional details about how to set the parameters.

# Final assembly consolidation and release, FAS500C

Use the Final Assembly Consolidation and Release program, FAS500C, to release final assembly shop orders. This program releases shop orders for items that have a planning bill structure (reserved item type 5). You cannot release shop orders for other item types with this program.

## Final Assembly Scheduling Order Processing

The following steps outline how to process an FAS order:

- Set up the item as item type 5, a Features and Options item, in Item Master Maintenance, INV100. This is the features and options parent item. Note that this item represents a set of components, some of which are standard and some of which are optional. The Features and Options item can include components which are phantom items, that is, they are components that represent another collection of components. If you create an order for the Features and Options item in Order Entry, ORD700, you will see another screen which lists all component items in the set. This includes standard items, options which you can select to include or not include, and all the components of any phantom item that is included within the set of components that make up the parent Features and Options item.
- Set up a planning bill for the parent item in Planning Bill Processing, BOM600D. If you release a shop order via Final Assembly Shop Order Release, the system creates Shop Order Material Allocation records, FMA, for the components of any phantom children.
- Create an order for the planning bill parent item in Order Entry, ORD700.
  After you use F6 to accept, the system displays an FAS Component Selection screen.
- Select the desired features and options for this order.
- Run Final Assembly Consolidation and Release, FAS500C. Enter an Item Number and From and To Customer Order Due Dates. Next, press Enter. Use line action 11 to exclude orders as needed. Finally, press F14 to release orders to the shop floor.
- Run FAS Shop Packet Print, FAS510B1.

- In Inventory Transactions, INV500, perform a multi-issue transaction, J, to issue the components to the shop order. Note that, if these are lot-controlled components, you must single issue them.
- Manually allocate inventory to the features and options parent via Pick Confirm, ORD570, and ship the order. If you ship the sales order, the system automatically receives the shop order (transaction B ships the sales order; transaction = receives the shop order).
- Invoice the order in Invoice Release, BIL500.

Access: MPS menu

## Select final assembly shop orders to release

Use the Final Assembly Shop Order Release screen, FAS500D-01, to select final assembly shop orders for release by item number within a range of due dates. You can specify the order reference number to selectively omit release of an order.

### Field descriptions - FAS500D-01

## From Customer Order Due Date (6.0):

Specify a range of values to limit the customer order due dates to include in the selection. Specify the date in the time zone for the warehouse.

For information on range fields, see the Ranges topic in the overview section of this document.

## To Customer Order Due Date (8,0):

Specify a range of values to limit the customer order due dates to include in the selection. Specify the date in the time zone for the warehouse.

For information on range fields, see the Ranges topic in the overview section of this document.

### Item Number (35,A):

The item number must be a valid number defined in the Item Master Maintenance program, INV100. To change the item number for order consolidation, specify a different item number press Enter.

### **Item Number Description:**

This field displays the description of the item.

### Act (2,A):

Specify the number for the line action to perform and press Enter. To use the first line, specify the line action and at least one key field value.

The following line actions are available:

### 11=Exclude

Exclude an order from the release.

All other line actions on this screen perform standard Infor ERP LX functions. See *Generic help text for line actions* in the overview information in this document.

### Order (8,0):

Specify a customer order to position to or to exclude from selection.

## Order (8,0):

This field lists customer order numbers for the item that fall within the Customer Order Due dates you specified.

## Line (3,0):

This field lists line numbers in customer orders for an item that fall due between the Customer Order Due dates entered. On the top line, use this field with the Order field to position to a specific order line or to exclude a specific line from selection.

### **Customer Number:**

This field lists the numbers of customers for orders that fall due within the Customer Order Due date range you specified.

## Quantity:

This field lists the quantities of the item on each line displayed.

#### Due Date:

This field lists customer order due dates. Dates are in the time zone for the warehouse.

## **Due Date/Final Assembly Shop Orders (8,0):**

This field appears if you use F14 in the Final Assembly Shop Order Release screen, FAS500D-01.

Specify the Final Assembly Shop Order Due Date in this field. Specify the date in the time zone for the warehouse. If you enter a date, the system releases the final assembly shop orders.

### Screen actions - FAS500-01

#### F14=Release

Release the selected customer orders to the shop floor.

## F17=Item/Facility Quality

Access the Item/Facility Quality Selection program, SFC121D1. You must have group authority to use this screen action.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# FAS shop packet print, FAS510B1

Use the FAS Shop Packet Print program, FAS510B1, to print shop packets for all final assembly orders released from Final Assembly Shop Order Release, FAS500.

The shop packet consists of an order picking list and an order operations sheet for each order. The picking list prints the quantities, locations, and lots for all components that you allocate from inventory for the selected orders. The order operations sheet prints the operations detail information for the shop order.

You can print two other types of documents with this program, depending on how you set up your system parameters through the Parameter Generation option, SYS800D. These documents are the Labor Tickets and a Summarized Pick List. The two system parameters, which you set in JIT Shop Floor Parameters, JIT820D-01, are described in the following paragraphs.

## Print Labor Tickets During Shop Order Release

Specify 1=Yes for this parameter to print labor tickets separately for the entire batch. The program sequences tickets by shop order and operation number. To calculate the number of labor tickets to print for each operation, the program divides the number of labor run hours by four and adds two labor tickets if setup is required.

## Print a Summarized Pick List During Shop Order Release

Specify 1=Yes to print a summarized pick list of all shop orders in the batch. The program summarizes the list by component item number. It contains each order and its respective quantity in the batch for every component in the batch.

Access: MPS menu

## Print shop packets

The FAS Shop Packet Print program uses the Shop Floor Control screen, SFC550D-01. See your Shop Floor Control documentation for specify screen and field information.

# Forecast maintenance, MRP100D1

Use the Forecast Maintenance program, MRP100D1, to maintain forecasts of your production demand. You can enter and maintain forecasts manually for any item. This includes independent demand for an MRP item.

The system has several method options that are set in the system parameters to use forecasts in the gross requirements. These methods are listed below.

1=Greater of forecasts or customer orders (demand consumes forecast)

2=Sum of customer orders and forecasts (forecasts augment demand)

3=Forecasts only (anticipates demand)

4=Customer orders only

If the demand consumes the forecast, you can set an MRP system parameters, MRP820D-01, to prorate the forecast (if demand is smooth) or not prorate it (if demand is uneven or lumpy).

If your environment has the Prorate Forecasts field set to 1=Yes and you change the MPS run date, this can change the forecast quantity. The change does not affect the MRP activity flag for that item. If you run a Net Change MRP, if no other activity has occurred for this item, the system does not process the change.

If you enter forecasts for assortments and kits (item types 3 and 4), the program recognizes the quantities but the MPS/MRP explosion programs, Master Schedule Generation, MRP500, and Explode Requirements, MRP600, do not reset the requirements for any components of the forecasted assortments and kits.

Access: MRP and MPS menus

## Create or select a forecast

Use the Forecast Selection screen, MRP100D1-01, to create a new forecast or to select a forecast to view or maintain.

If you return to this screen from the CNS Forecast Entry screen, use F5 to make the CNS forecast you just maintained available.

Field descriptions - MRP100D1-01

### Line actions

The following line actions are available:

## 10=Display Forecast Summary

View Daily Forecast summary information for the line.

### 11=Display Forecast Detail

View Daily Forecast detail information for the line by multiple sources.

All other line actions on this screen perform standard Infor ERP LX functions. See *Generic help text for line actions* in the overview information in this document.

## Act (2,A):

Specify the number for the line action to perform and press Enter. To use the first line, specify the line action and at least one key field value.

## Item Number (35,A):

Enter a valid item number to create a forecast.

## Warehouse (3,A):

Specify a valid warehouse number to create a forecast.

Screen actions - MRP100D1-01

## F14=MPS/MRP Inq

Access the Planning/Pegging Inquiry program, MRP300, to review current orders and requirements.

### F16=Master Sched Dtl Ing

Access the Master Schedule Detail Inquiry program, MRP320, to review the current MPS schedule for an item.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

## Copy a forecast to a new item/warehouse combination

Use the Copy Forecast screen to copy Infor ERP LX forecasts from one item number/warehouse combination to another item number/warehouse combination.

The screen displays information from the line you selected to copy. Specify the item and warehouse to which to copy the forecast. You can optionally specify a specific date from which to copy the forecast. Use Enter to proceed to the Forecast Detail Entry Maintenance screen, MRP100D2-03.

In the Forecast Detail Entry Maintenance screen, MRP100D2-03, you can delete or change forecast lines before you press Enter to accept the copied lines.

Field descriptions - MRP100D1-02

## Copy from Item Number (35,A):

Infor ERP LX displays the item number of the forecast you copied.

## Copy from Warehouse (3,A):

Infor ERP LX displays warehouse of the forecast you copied.

## Copy to Item Number (35,A):

Specify the item number to which to copy the forecast.

## Copy to Warehouse (3,A):

Specify the warehouse to which to copy the forecast.

## Copy from Date (8,0):

Specify a date from which to copy forecasts. Leave the field blank to include all forecasts, even those that are past due.

Screen actions - MRP100D1-02

### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

## Maintain daily forecasts in a single forecast per day environment

The Forecast Entry/Maintenance screen, MRP100D2-01, appears only if you have the Maintain Multiple Forecast Source per Day parameter in MRP System Parameters, MRP820D-01, set to 0=No. If you have that parameter set to 1=Yes, the system displays Daily Forecast Detail Entry/Maintenance, MRP100D2-03.

Use this screen to delete, modify, or add forecast information for an item/warehouse combination for specific days.

### Field descriptions - MRP100D2-01

## Del (1,A):

To delete the forecast associated with a line number, specify D to the right of the line number. Press Enter to delete the forecast and re-sequence the lines.

## Start (8,0):

Specify the warehouse start date for this forecast period. MPS and MRP use this entry as the date on which to consider a forecast quantity as a gross requirement. The start date for a forecast period must be unique to that period. You cannot change it after you press Enter.

## End (8,0):

Specify the warehouse end date for this forecast period quantity. Master Production Schedule (MPS) does not use or display this forecast if you run the MPS after the end date.

You can reset the end date to extend the forecast.

## **Quantity (11,3):**

Specify the forecast quantity in stocking unit of measure for this period.

## Screen actions - MRP100D2-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

View the daily forecast summary for an item/warehouse combination

Use the Daily Forecast Summary screen, MRP100D2-02, to view the summary forecast for an item/warehouse combination in order of period start dates.

## Field descriptions - MRP100D2-02

### Line actions

All line actions on this screen perform standard Infor ERP LX functions. See *Generic help text for line actions* in the overview information in this document.

## Act (2,A):

Specify the number for the line action to perform and press Enter. To use the first line, specify the line action and at least one key field value.

## Start (Start Date) (8,0):

The field displays the warehouse start date for this forecast period. MPS and MRP use this value as the date on which to consider a forecast quantity as a gross requirement.

## **End (End Date) (8,0):**

The field displays the warehouse end date for this forecast period. Master Production Schedule (MPS) does not use or display this forecast if you run the MPS after the end date.

## ERP LX Forecast (11,3):

The value in the ERP LX Forecast field consists of data from three possible sources: a number that Load Forecasts to MRP/MPS, FOR540, generates, a number generated in FOR540 that was manually changed in the Daily Forecast Detail Entry/Maintenance screen, MRP100D2-03, and a forecast manually entered in that Daily Forecast Detail Entry/Maintenance screen.

## External Forecast (11,3):

The value in this field comes from one or more external sources, EDI schedules, or software that you have integrated with Infor ERP LX. You can view the details in the Daily Forecast Detail Entry/Maintenance program.

## Total Forecast (11,3):

The Total Forecast is the total of the internal and external forecast values: This total is the Material Requirements file (KMR) record type F that the system uses for planning purposes.

## Screen actions - MRP100D2-02

#### F14=Forecast Detail

Access the Daily Forecast Detail Entry/Maintenance screen, MRP100D2-03.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

## Maintain daily forecasts in a multiple forecast per day environment - view 1

Use the Daily Forecast Detail Entry/Maintenance screen, MRP100D2-03, to maintain forecast detail information for an item/warehouse combination. You can choose any of four views with the F16=View screen action. Each view presents the same fields in a different sequence. These screens are only available if the Maintain Multiple Forecast Sources per Day field in the MRP System Parameter screen is set to 1=Yes in your environment.

This is view 1. It displays information by Start Date and Time, End Date, Customer, Ship To, Contract, Source Code, and Quantity.

## Field descriptions - MRP100D2-03

## Line actions

All line actions on this screen perform standard Infor ERP LX functions. See *Generic help text for line actions* in the overview information in this document.

## Act (2,A):

Specify the number for the line action to perform and press Enter. To use the first line, specify the line action and at least one key field value.

### Start (Start Date) (8,0):

Specify the warehouse start date for this forecast period. MPS and MRP use this entry as the date on which to consider a forecast quantity as a gross requirement. This date is used as a global value if you do not enter specific customer.

You cannot change this value in Revise mode.

## Time (Start Time) (6,0):

Specify the start time for this period's start date.

## **End (End Date) (8,0):**

Specify the warehouse end date for this forecast period quantity. Master Production Schedule (MPS) does not use or display this forecast if you run the MPS after the end date.

You can reset the end date to extend the forecast.

## **Quantity (11,3):**

Specify the forecast quantity in stocking unit of measure for this period. This value can be global or customer specific.

### Customer (8,0):

Specify a valid customer number to make the forecast customer specific.

## Ship To (4,0):

Specify a valid ship-to number to make the forecast ship-to specific.

### Name:

Infor ERP LX displays the customer name for a forecast line that references a customer.

### Contract (15,A):

Specify the contract number for the forecast line. This field is optional and used for reference only.

## **Source Code:**

This field displays the forecast source for the line.

### Screen actions - MRP100D2-03

## F14=Forecast Summary

Access the Daily Forecast Summary screen, MRP100D2-02.

#### F16=View

Access the Daily Forecast Detail View screen to select a different sequence of the fields.

## F17=Bottom

Position the display to the bottom of the list.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

## Maintain daily forecasts in a multiple forecast per day environment - view 2

Use the Daily Forecast Detail Entry/Maintenance screen, MRP100D2-04, to maintain forecast detail information for an item/warehouse combination. You can choose any of four views with the F16=View screen action. Each view presents the same fields in a different sequence. These screens are only available if the Maintain Multiple Forecast Sources per Day in the MRP System Parameter screen is set to 1=Yes in your environment.

This is view 2. It displays information by Customer, Ship To, Contract, Start Date and Time, End Date, Source Code, and Quantity.

## Field descriptions - MRP100D2-04

#### Line actions

All line actions on this screen perform standard Infor ERP LX functions. See *Generic help text for line actions* in the overview information in this document.

## Act (2,A):

Specify the number for the line action to perform and press Enter. To use the first line, specify the line action and at least one key field value.

## Customer (8,0):

Specify a valid customer number to make the forecast customer specific.

## Ship To (4,0):

Specify a valid ship-to number to make the forecast ship-to specific.

### Name:

Infor ERP LX displays the customer name for a forecast line that references a customer.

## Contract (15,A):

Specify the contract number for the forecast line. This field is optional and used for reference only.

## Start (Start Date) (8,0):

Specify the warehouse start date for this forecast period. MPS and MRP use this entry as the date on which to consider a forecast quantity as a gross requirement. This date is used as a global value if you do not enter specific customer.

You cannot change this value in Revise mode.

## Time (Start Time) (6,0):

Specify the start time for this period's start date.

## **End (End Date) (8,0):**

Specify the warehouse end date for this forecast period quantity. Master Production Schedule (MPS) does not use or display this forecast if you run the MPS after the end date.

You can reset the end date to extend the forecast.

## **Source Code:**

This field displays the forecast source for the line.

## **Quantity (11,3):**

Specify the forecast quantity in stocking unit of measure for this period. This value can be global or customer specific.

## Screen actions - MRP100D2-04

### F14=Forecast Summary

Access the Daily Forecast Summary screen, MRP100D2-02.

### F16=View

Access the Daily Forecast Detail View screen to select a different sequence of the fields.

#### F17=Bottom

Position the display to the bottom of the list.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

Maintain daily forecasts in a multiple forecast per day environment - view 3

Use the Daily Forecast Detail Entry/Maintenance screen, MRP100D2-05, to maintain forecast detail information for an item/warehouse combination. You can choose any of four views with the F16=View screen action. Each view presents the same fields in a different sequence. These screens are only available if the Maintain Multiple Forecast Sources per Day in the MRP System Parameter screen is set to 1=Yes in your environment.

This is view 3. It displays information by Source Code, Start Date and Time, End Date, Customer, Ship To, Contract, and Quantity.

## Field descriptions - MRP100D2-05

## Line actions

All line actions on this screen perform standard Infor ERP LX functions. See *Generic help text for line actions* in the overview information in this document.

## Act (2,A):

Specify the number for the line action to perform and press Enter. To use the first line, specify the line action and at least one key field value.

#### Source Code:

This field displays the forecast source for the line.

### Start (Start Date) (8,0):

Specify the warehouse start date for this forecast period. MPS and MRP use this entry as the date on which to consider a forecast quantity as a gross requirement. This date is used as a global value if you do not enter specific customer.

You cannot change this value in Revise mode.

## Time (Start Time) (6,0):

Specify the start time for this period's start date.

## End (End Date) (8,0):

Specify the warehouse end date for this forecast period quantity. Master Production Schedule (MPS) does not use or display this forecast if you run the MPS after the end date.

You can reset the end date to extend the forecast.

## Customer (8,0):

Specify a valid customer number to make the forecast customer specific.

## Ship To (4,0):

Specify a valid ship-to number to make the forecast ship-to specific.

#### Name:

Infor ERP LX displays the customer name for a forecast line that references a customer.

## Contract (15,A):

Specify the contract number for the forecast line. This field is optional and used for reference only.

## **Quantity (11,3):**

Specify the forecast quantity in stocking unit of measure for this period. This value can be global or customer specific.

## Screen actions - MRP100D2-05

## F14=Forecast Summary

Access the Daily Forecast Summary screen, MRP100D2-02.

#### F16=View

Access the Daily Forecast Detail View screen to select a different sequence of the fields.

### F17=Bottom

Position the display to the bottom of the list.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

## Maintain daily forecasts in a multiple forecast per day environment - view 4

Use the Daily Forecast Detail Entry/Maintenance screen, MRP100D2-06, to maintain forecast detail information for an item/warehouse combination. You can choose any of four views with the F16=View screen action. Each view presents the same fields in a different sequence. These screens are only available if the Maintain Multiple Forecast Sources per Day in the MRP System Parameter screen is set to 1=Yes in your environment.

This is view 4. It displays information by Source Code, Customer, Ship To, Contract, Start Date and Time, End Date, and Quantity.

### Field descriptions - MRP100D2-06

### Line actions

All line actions on this screen perform standard Infor ERP LX functions. See *Generic help text for line actions* in the overview information in this document.

## Act (2,A):

Specify the number for the line action to perform and press Enter. To use the first line, specify the line action and at least one key field value.

#### Source Code:

This field displays the forecast source for the line.

## Customer (8,0):

Specify a valid customer number to make the forecast customer specific.

## Ship To (4,0):

Specify a valid ship-to number to make the forecast ship-to specific.

#### Name:

Infor ERP LX displays the customer name for a forecast line that references a customer.

### Contract (15,A):

Specify the contract number for the forecast line. This field is optional and used for reference only.

### Start (Start Date) (8,0):

Specify the warehouse start date for this forecast period. MPS and MRP use this entry as the date on which to consider a forecast quantity as a gross

requirement. This date is used as a global value if you do not enter specific customer.

You cannot change this value in Revise mode.

## Time (Start Time) (6,0):

Specify the start time for this period's start date.

## **End (End Date) (8,0):**

Specify the warehouse end date for this forecast period quantity. Master Production Schedule (MPS) does not use or display this forecast if you run the MPS after the end date.

You can reset the end date to extend the forecast.

## **Quantity (11,3):**

Specify the forecast quantity in stocking unit of measure for this period. This value can be global or customer specific.

Screen actions - MRP100D2-06

### F14=Forecast Summary

Access the Daily Forecast Summary screen, MRP100D2-02.

### F16=View

Access the Daily Forecast Detail View screen to select a different sequence of the fields.

### F17=Bottom

Position the display to the bottom of the list.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

Change the view of the daily forecast detail screen - MRP100D2-07

Use the Daily Forecast Detail View screen, MRP100D2-07, to change the display sequence of the daily forecast detail information in the Daily Forecast Detail Entry/Maintenance screen, MRP100D2-03.

Field descriptions - MRP100D2-07

### Sequence (1,0):

Specify one of the following sequences and press Enter.

1=Start Date, Start Time, Customer Number, Ship to, Contract, Source

2=Customer, Ship to, Contract, Start Date, Start Time, Source

3=Source, Start Date, Start Time, Customer Number, Ship to, Contract

4=Source, Customer, Ship to, Contract, Start Date, Start time

## Screen actions - MRP100D2-07

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

## Work with an item/facility forecast that is CNS controlled

Use the CNS Forecast Entry/Maintenance screen, MRP100D2-08, to work with an item/facility forecast that is CNS (Control Number Schedule) controlled.

Specify a forecast quantity for a specific date range with a valid control number and material and routing codes.

Each combination of item/warehouse/date can have multiple control numbers and quantities. The program assigns a separate sequence number to each occurrence of a forecast for the same combination.

To add a new CNS forecast for the item and warehouse combination, complete the Start, End, Quantity, and Control No fields and press Enter. If the Control Number master file, KCN, has default material and routing codes, the program displays these values and validates them.

After you make changes to the forecasts, use F12 to return to the Forecast Selection screen.

### Field descriptions - MRP100D2-08

## Del (1,A):

To delete a CNS forecast entry, type D next to a record and press Enter. The screen refreshes without the deleted record.

If you type D next to all records and press Enter, the forecast selection screen no longer displays this item/warehouse combination.

## Start (8,0):

Specify the warehouse start date for this CNS forecast. You cannot change this date after you accept the record.

### End (8,0):

Specify the warehouse end date for this CNS forecast and control number.

## **Quantity (13,0):**

Specify the quantity of the item for this forecast and control number.

### Control No (10,A):

Specify the control number to use for this forecast. The same control number cannot appear twice with the same start date. If you specify a duplicate, it replaces the original forecast.

## BOM Method (2,A):

If required, specify the material method code for this forecast. The method code cannot be a costing-only code as defined in Method Code Maintenance, SYS115. A bill of materials must exist for the method code and the combination of material and routing method must exist in Manufacturing Method Table Maintenance, SYS135D.

### RTG Method (2,A):

If required, specify the routing method code for this forecast. A routing (FRT) must exist for the method code and the combination of material and routing method must exist in Manufacturing Method Table Maintenance, SYS135D.

### Screen actions - MRP100D2-08

### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Forecast list, MRP105D

Use the Forecast List program, MRP105D, to produce a printed copy of all forecast orders. The system creates the forecast orders with the Forecast Entry/Maintenance program, MRP100. The Forecast List program sequences the list by item number.

Access: MPS menu

MRP menu

## Print a list of forecast orders by item

Use the Forecast Listing by Item screen, MRP105D-01, to limit the listing of forecast orders by warehouse start dates, item numbers, and warehouse.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

## Field descriptions - MRP105D-01

## From Start Date (8,0):

Specify a range of values to limit the warehouse start dates of forecasts to include in the list.

## To Start Date (8,0):

Specify a range of values to limit the warehouse start dates of forecasts to include in the list.

## From Item Number (35,A):

Specify a range of values to limit the item numbers of forecasts to include in the list.

## To Item Number (35,A):

Specify a range of values to limit the item numbers of forecasts to include in the list.

## Warehouse (3,A):

Specify a valid warehouse number for which to print forecasts.

## **Run Time Parameter (1,0):**

Specify Interactive to process the data in real time or Batch to process the data in the job queue. If you select interactive processing, your session is unavailable for other tasks until the job finishes.

### Screen actions - MRP105D-01

## Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Daily forecast detail list, MRP106D

Use the Daily Forecast Detail List program, MRP106D, to produce a printed copy of all active daily forecast details, including all forecast source codes except source code 3. RMS Planned Orders.

## Print a list of daily forecast details

Use the Daily Forecast Detail Listing screen, MRP106D-01, to indicate how to sequence the list and to limit the information to include in the listing by forecast start date, item number, and customer number.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

## Field descriptions - MRP106D-01

## By Item or By Customer? (1,0):

Specify 1=Item to sequence the list by item before customer. Specify 2=Customer to sequence by customer before item.

## From Start Date (8,0):

Specify a range of values to limit the warehouse start dates of forecasts to include in the list.

### To Start Date (8,0):

Specify a range of values to limit the warehouse start dates of forecasts to include in the list.

## From Item Number (35,A):

Specify a range of values to limit the item numbers of forecasts to include in the list.

## To Item Number (35,A):

Specify a range of values to limit the item numbers of forecasts to include in the list.

## From Customer Number (8,0):

Specify a range of values to limit the customers of forecasts to include in the list.

### To Customer Number (8,0):

Specify a range of values to limit the customers of forecasts to include in the list.

## Warehouse (3,A):

Specify a valid warehouse number for which to print daily forecast details.

## Run Time Parameter (1,0):

Specify Interactive to process the data in real time or Batch to process the data in the job queue. If you select interactive processing, your session is unavailable for other tasks until the job finishes.

### Screen actions - MRP106D-01

### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# RMS planned order list, MRP107D

Use the RMS Planned Order List program, MRP107D, to produce a printed copy of all active RMS Planned Orders, forecast source code 3.

## Print a list of RMS planned orders

Use the RMS Planned Order Listing screen, MRP107D-01, to limit the listing of RMS planned orders by start dates, item numbers and customers, and to specify a warehouse.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

## Field descriptions - MRP107D-01

## By Item or By Customer? (1,0):

Specify 1=Item to sequence the list by item before customer. Specify 2=Customer to sequence by customer before item.

## From Start Date (8,0):

Specify a range of values to limit the start dates of RMS planned orders to include in the list.

## To Start Date (8,0):

Specify a range of values to limit the start dates of RMS planned orders to include in the list.

## From Item Number (35,A):

Specify a range of values to limit the item numbers of RMS planned orders to include in the list.

## To Item Number (35,A):

Specify a range of values to limit the item numbers of RMS planned orders to include in the list.

## From Customer Number (8,0):

Specify a range of values to limit the customers of RMS planned orders to include in the list.

## To Customer Number (8,0):

Specify a range of values to limit the customers of RMS planned orders to include in the list.

## Warehouse (3,A):

Specify a valid warehouse number for which to print RMS planned orders.

### **Run Time Parameter (1,0):**

Specify Interactive to process the data in real time or Batch to process the data in the job queue. If you select interactive processing, your session is unavailable for other tasks until the job finishes.

### Screen actions - MRP107D-01

### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Firm planned order list, MRP110D

Use the Firm Planned Order List program, MRP110D, to print a list of selected firm-planned and planned orders.

Dates in the resulting report are dates in the planning warehouse.

Access: MRP menu

## Print a list of firm-planned and planned orders

Use the Planned and Firm Planned Order Listing screen, MRP110D-01, to limit the orders to include in the list by item class and facility.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

## Field descriptions - MRP110D-01

## From Class (2,A):

Specify a range of values to limit the item class numbers of planned and firm-planned orders to include in the list.

## To Class (2,A):

Specify a range of values to limit the item class numbers of planned and firm-planned orders to include in the list.

### From Facility (3,A):

Specify a range of values to limit the facilities of planned and firm-planned orders to include in the list.

## To Facility (3,A):

Specify a range of values to limit the facilities of planned and firm-planned orders to include in the list.

#### Screen actions - MRP110D-01

### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# MRP time frame maintenance, MRP120D1

Use the MRP Time Frame Maintenance program, MRP120D1, to adjust the length of time periods to use for the Print MPS Detail program, MRP240D, and the MRP Exception Report, MRP200D. The Capacity Requirements Planning application also uses these time frames to compute work center loads. MRP Time Frame Maintenance lets you subdivide your planning horizon into distinct periods that the system uses for load reports.

Access: MPS menu

### MRP menu

### Add or select time frame information

Use the Time Frame Selection screen, MRP120D1-01 to create a new time frame or to select a time frame from the list to view or maintain.

## Field descriptions - MRP120D1-01

#### **Line Actions:**

All line actions on this screen perform standard Infor ERP LX functions. See the overview information in this document.

## Act (2,A):

Specify the number for the line action to perform and press Enter. To use the first line, specify the line action and at least one key field value.

## Time Frame (1,A):

Specify the time frame code to add or maintain. You can define any time frame codes that meet your business needs. However, Infor ERP LX offers some defaults:

- M=the MRP default time frame code
- D= the DRP default time frame code
- S=MPS/MRP simulation default time frame code

Note: If you maintain an M, D, or S time frame code, the system displays the following message: CAUTION: Default time frame selected - F14 to update.

Press F14 only if you are sure that you want to change the system's default time frame.

### Description (25,A):

Specify a description to identify the time frame. Infor recommends that you use a name that indicates the best use of the time frame.

## Screen actions - MRP120D1-01

#### F13=Filter

Access the Filter Options screen to select and sequence information to display in the selection screen. The following options are available:

1=All records by time frame

2=Active records by time frame

3=Active records by description

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

## Define number of days in time frame periods

Use the Time Frame Maintenance screen, MRP120D2-01, to define the length of periods for this time frame record.

## Field descriptions - MRP120D2-01

## Time Frame (1,A):

Display only field, you cannot modify the descriptions of the default time frames of M, D or S.

## Description (25,A):

This field is for reference only. Write a description that clearly identifies the purpose of this time frame.

You cannot modify descriptions for the default time frames of M, D, or S.

## Start Date (8,0):

Specify the planning start date. The period days you specify start with this date. It is the first day of the first period. Infor ERP LX uses the forecasts and customer orders as demand to plan orders from the planning date. It plans the orders according to the demand codes and time fences from this planning date, not from the system date. The start date serves as the reporting start date for the master schedule and the MRP exception report.

You must update this field at least once per year even if your calendar goes beyond the current year.

## Days (3,0):

Specify the number of days in each period. Infor ERP LX subdivides the planning horizon into the number of periods that you define. The system uses each of the periods as a reporting period for planning reports in MPS and MRP. It sums all capacity requirements within a period to compute a load level for each period. The system uses the first date of the period as the planning date for these orders. The days you specify here serve as calendar days, not shop floor days.

### Screen actions - MRP120D2-01

### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Facility planning data, MRP140D1

Use the Facility Planning Data program, MRP140D1, to set up item/facility relationships for planning operations. Each transaction that affects an item and a facility updates a record for that item and facility. The item/facility record also contains information that can override the Item Master order policy codes and the setting that determines whether MRP schedules the item at the specific facility.

If you are receiving into a warehouse type 4, Warehouse BOSS controlledwarehouse, or type 5, WMS-4000-controlled warehouse, you cannot order items of the following types for receipt:

- Item Type 0, Phantom
- Item Type 3, Assortment
- Item Type 4, Kit
- Item Type 5, Planning Bill
- Item Type 6, non-Balancing
- Container-Controlled Item

If you do not create the record in this program or Facility Planning Data Maintenance, DRP140B, Infor ERP LX automatically creates the record when it processes the first transaction that involves the item/facility combination. It retrieves the order policy parameters from the Item Master file, IIM, by default.

The Group Tech field, which exists in the Facility Planning Data file, CIC, is reserved for future use. The Group Tech Field is currently not an active field within this program.

Access: DRP menu

MRP menu

F14 from MRP Inquiry, MRP300

Add or select item/facility information for planning operations

Use the Facility Planning Selection screen, MRP140D1-01, to create a new item/facility combination or to select existing information to maintain.

Field descriptions - MRP140D1-01/ DRP140D1-01

## Line actions

The action codes described in the following section are available:

#### 49=User Defined Fields

Added: MR75183 Action 49=User Defined Fields

Access SYS109D1-01 to display or maintain user-defined data for this application. All other line actions on this screen perform standard Infor ERP LX functions. See *Generic help text for line actions* in the overview information in this document.

## Act (2,A):

Specify the number for the line action to perform and press Enter. To use the first line, specify the line action and at least one key field value.

### 49=User Defined Fields

Added: MR75183 Action 49=User Defined Fields

Access SYS109D1-01 to display or maintain user-defined data for this application. All other line actions on this screen perform standard Infor ERP LX functions. See *Generic help text for line actions* in the overview information in this document.

### Item Number (35,A):

Specify a valid item number for this item/facility combination.

## Facility (3,A):

Specify a valid facility number for this item/facility combination.

#### Screen actions - MRP140D1-01/DRP140D1-01

### F13=Filter

Access the Filter Options screen to select and sequence information to display in the selection screen. The following options are available:

1=All records by item/facility

2=All records by facility/item

You can specify a facility to limit the information to that facility.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

### Filter

Use the filter screen to sort the items on the selection screen and to limit the information to items for one facility.

## Field descriptions - Filter

## Options (1,A):

Specify one of the following options to select and sort the information on the selection screen.

1=All records by item/facility

2=All records by facility/item

## Facility (3,A):

Specify a facility to limit the display to items in that facility.

#### Screen actions - Filter

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

## Specify planning information for fences, rates and order policies

Use the Facility Planning Maintenance screen, MRP140D2-01/DRP140D2-01, to add or change planning information about the item for the item/facility combination. You can accept default values from the Item Master, or you can specify values specific to the facility.

## Field descriptions - MRP140D2-01/DRP140D2-01

### Item Number (35,A):

This field is only input-capable in Copy mode. Specify a valid item number for this item/facility combination.

## Item Description (50,A):

After you press Enter, the field displays a description of the item you specified.

## Facility (3,A):

This field is only input-capable in Copy mode. Specify a valid facility number for this item/facility combination.

## Facility Description (29,A):

This field displays the description of the facility code you specified.

## Yield Type (1, 0):

Specify one of the following values to define the yield type for this item and facility. The system uses the yield type to determine the method of calculating the yield factor for a parent item. If the default value is blank, the system uses the yield type you defined in Facility Code Maintenance, SYS190D. If you did not define a yield type in SYS190D, the system uses the yield type in MRP and Shop Floor System Parameters, MRP821.

### Valid choices

### Blank

Use the facility yield type that you defined in Facility Code Maintenance, SYS190D, or, if you did not define a yield type in SYS190D, use the yield type in MRP and Shop Floor System Parameters, MRP821.

### ■ 0=Manual

Specify the percentage yield manually.

#### 1=Product

Specify the percentage yield for each step in a routing in Routing Maintenance, SFC100D. Use this method if you know the total yield but do not know the yield at each step of the routing. You can evenly distribute the yield at each step.

### 2=Operational

Specify the percentage yield for each step in a routing in Routing Maintenance, SFC100D. Specify the yield as a percentage of the parent product. Use this method if you know the yield at each step.

## Lead Time Type (1, 0):

Specify one of the following values to define the lead time type for this item and facility. The system uses the lead time type to determine the method for assigning lead times for an item.

### Valid choices

### 0=Manual

Specify the lead time manually.

## ■ 1=Calculated from the Routing

The system uses the start and end times for the steps in a routing to calculate the lead time.

### Standard Yield Factor (5,2):

If the Yield Type is Manual, specify the percentage yield. For example, enter a value of 95.5 to represent 95.5%.

## Planner Code (3,A):

Specify the planner code for this item at this facility. The system can use this code to selectively restrict and to sequence MRP and DRP reports.

## Buyer Code (3,A):

Specify the purchasing buyer code for this item. The system can use this code to selectively restrict and to sequence MRP and DRP reports.

## Schedule Horizon (3,0):

Specify the number of days of planned and firm-planned orders to convert to purchase orders. In Create mode, this field displays the default value from the Item Master file, IIM.

## Master Scheduled (1,A):

Because each item/facility combination defines a unique relationship, you can specify whether this is a master scheduled item for each item/facility combination. Specify M for Master Scheduled or N if it is not master scheduled. If you create an item/facility record, the system displays the value from the Item Master file, IIM.

You might change this value, for example, because an item could be defined as a finished product at one facility but a component at another.

Note that no MPS planning takes place for the item unless you set the field to M.

If the Run MRP/MPS by Facility parameter in MRP System Parameters, MRP821D-02, is set to 1=Yes, you define planning parameters in Facility Planning Data Maintenance, MRP140/DRP140. If the parameter is set to 0=No, the system performs planning globally. You then define the planning parameters by item in Item Master Maintenance, INV100.

If you run MRP/MPS by facility, the following conditions apply:

- Planning does not use Item Master planning values.
- If you set the Master Scheduled or DRP Code field to N for the item/facility combination in Facility Planning Data Maintenance, MRP140/DRP140, planning is performed by the Explode Requirements program, MRP600.
- If you set the Master Scheduled or DRP Code field to M for the item/facility combination in Facility Planning Data Maintenance, MRP140/DRP140, planning is performed by the Master Schedule Generation program, MRP500/DRP Generation, DRP500.

If you run MRP/MPS globally, the following conditions apply:

- Planning does not use facility planning values.
- If you set the Master Scheduled or DRP Code field to N in Item Master Maintenance, INV100, planning is performed by the Explode Requirements program, MRP600.
- If you set the Master Scheduled or DRP Code field to M in Item Master Maintenance, INV100, planning is performed by the Master Schedule Generation program, MRP500/ DRP Generation, DRP500.

### Minimum Bal (13,0):

Infor ERP LX displays the dynamic minimum balance, or you can enter the static minimum balance.

If you specify a value in this field, you cannot specify values in Minimum Balance Horizon Days and Minimum Balance Days fields. The system uses those fields to calculate the dynamic minimum balance. MRP uses either the static minimum balance or the dynamic minimum balance in its calculations.

The minimum balance is the minimum stock level or reorder point that Master Schedule Generation, MRP500, or Explode Requirements, MRP600, use. The balance should include all safety and contingency stock. If the projected on-hand balance falls below this minimum balance, MRP generates plans to raise stock back to the minimum balance level.

If the running balance continues to appear negative after the system processes all requirements, it creates an additional planned order to return the running balance to a positive value.

### Min Bal Hrz Days/Periods (3,0):

The system requires values in this field and in the Minimum Balance Days field to calculate the dynamic minimum balance. If you use these two fields, you cannot specify a value in the Minimum Balance field, which establishes a static minimum balance.

Specify a number of days from the current date to define a horizon. If you run Master Schedule Generation, MRP500, or Explode Requirements, MRP600, the system calculates the total requirements. The system uses shop calendar data that you set up in Shop Calendar Maintenance, SFC140, to calculate the number of work days for this horizon. Next, it divides the total requirements by the number of work days plus 1. The result is the average daily requirement. Next, the program multiplies the average daily requirement by the value in the Minimum Balance Days field. The result is the dynamic minimum balance.

For order policy K items, this field represents the number of periods from the current date to use to define a horizon, rather than a number of days. Infor ERP LX allows you to define up to 152 periods for order policy K items in Planning Period Maintenance for Order Policy K, JIT100.

The system calculates the dynamic minimum balance as described in the following paragraphs. The values in the calculation are only examples.

- Minimum Balance Horizon Days = 30 (You supply this value.)
- Number of work days in this horizon = 22 (Infor ERP LX determines this value from Shop Calendar Maintenance, SFC140, then adds 1.)
- Requirements for the horizon = 1000 (Infor ERP LX calculates this value from the demand.)
- Minimum Balance Days = 5 (You supply this value.)

#### Calculation:

Avg. Daily Requirement = 1000 / (22 + 1) = 43.48

Dynamic minimum balance = 43.48 \* 5 = 217.39

Master Schedule Generation, MRP500, or Explode Requirements, MRP600, uses the value in this field only if you run MRP by facility. If you run MRP globally, it uses the values from the Item Master file, IIM.

## Min Bal Days/Periods (3,0):

This field and the Minimum Balance Horizon Days field are required for Infor ERP LX to calculate the dynamic minimum balance. If you use these two fields, you cannot use the Minimum Balance field. The Minimum Balance field establishes the static minimum balance. Master Schedule Generation, MRP500, or Explode Requirements, MRP600, uses either the static minimum balance or the dynamic minimum balance in its calculations.

Infor ERP LX multiplies this value by the average daily requirement (calculated using the Minimum Balance Horizon Days field) to calculate the dynamic minimum balance.

For order policy K items, this field represents the number of periods from the present time to define a time period, rather than a number of days. Infor ERP LX allows you to define up to 152 periods for order policy K items in Planning Period Maintenance for Order Policy K, JIT100.

The system calculates the dynamic minimum balance is as described in the following paragraphs. The values in the calculation are only examples.

- Minimum Balance Horizon Days = 30 (You supply this value.)
- Number of work days in this horizon = 22 (Infor ERP LX determines this value from Shop Calendar Maintenance, SFC140, then adds 1.)
- Requirements for the horizon = 1000 (Infor ERP LX calculates this value from the demand.)
- Minimum Balance Days = 5 (You supply this value.)

### Calculation:

Avg. Daily Requirement = 1000 / (22 +1) = 43.48

Dynamic minimum balance = 43.48 \* 5 = 217.39

Master Schedule Generation, MRP500, or Explode Requirements, MRP600, uses the value in this field only if you run MRP by facility. If you run MRP globally, it uses the values from the Item Master, IIM.

### Lead Time Days (3,0):

If the Lead Time Type is manual, specify the lead time days. Specify the lead time requirement for this item at this facility. Include all time requirements between the time you release the order and the time you receive the material. Infor ERP LX uses shop calendar or working days to calculate lead time. It uses the same method as MRP/DRP, but with one exception: It does not skip shutdown days on the shop calendar. The system considers shutdown days to be valid shipping days.

If you define Lead Time Days for a parent item in Item Master Maintenance, INV100, or Facility Planning Data, MRP140, MPS and MRP set the date required for its components in the Material Requirements file, KMR, to one day earlier. You can achieve the same result by adding an offset day of 1 in all components of the BOM to back off of the required date when you use the Daily Lead Time rate.

## JIT/Flow Code (1,A):

Specify the JIT/Flow code for this item/facility combination. The following options are available: 0=Not JIT or Flow item, 1=JIT item, and 2=Flow item.

If you designate this as a JIT item, the system performs the following actions:

- Prints the Shop Packet order operation information on the JIT522 report
- Does not allocate non-lot controlled items
- Schedules the item through the JIT application

If you designate this as not a JIT or Flow item, the system performs the following actions:

- Prints the Shop Packet order operation information on the SFC560 report
- Allows you to schedule this item using the MPS products
- Schedules all items, but only backflushes J items

If you designate this as a Flow item, the system performs the following actions:

- Allows you to schedule items with quantity per hour rates
- Allows you to specify rates at the production line or item level. You can override them at order release time.
- Uses Flow Order Shift/Rate Maintenance, JIT541, to release orders for Flow items.

If you designate this as a Flow item, you must specify a value in the Production Line field.

#### **Exclusions**

CNS and Lean items cannot be defined as flow items.

Item types 0=Phantom, 3=Assortment, 4=Kit, 5=Planning Bill, and 6=Non-Inventory are not allowed if the JIT/Flow Code is set to 2.

The Shop Order Generate Code cannot be set to 1 if the JIT/Flow Code is set to 2, and conversely.

The Manufacturing Mode cannot be set to 6 if the JIT/Flow Code is set to 2, and conversely.

## **Daily L/T Rate (13,3):**

This field applies to repetitive manufacturing because it associates a lead time with an order quantity rather than with a discrete unit. If the Lead Time Type is manual, specify the daily L/T rate. If the value in this field is anything other than zero, Infor ERP LX divides the order quantity by this value and adds the result to the fixed lead time you specify on this screen. This determines the lead time that Infor ERP LX actually uses to plan production of an order for this item. This process allows the system to adjust lead times according the quantity of an order.

If you leave this field blank, Infor ERP LX uses the value in the Lead Time Days field. The MRP/DRP Generation and MRP Explosion programs use lead times to plan component orders. The value in this field serves as an item/facility override to the entry you make for the item in Item Master Maintenance, INV100.

If you define a Daily Lead Time rate for the parent but do not provide a Lead Time Days value, then the system does not set the date by which all components are needed to one day earlier than the date for the parent.

### Units per Kanban (9,0):

Specify the number of units a container holds. The system uses this number for JIT items, if the specified item is usually transferred from operation to operation in containers. This number determines how many Kanban cards are needed for a given quantity of the item in this facility.

## JIT Min Run Rate (9,0):

Various MRP and DRP report and inquiry programs and the MRP Maintenance program, MRP510, use the JIT run rate field values. They use these values to indicate whether the resupply orders either exceed or underutilize the capacity of your shop floor to produce this item for any single day. The system issues appropriate exception messages for either case. The values you enter in these fields serve as facility overrides of the maximum and minimum run rates you entered for this item through Item Master Maintenance, INV100.

## JIT Max Run Rate (9,0):

Various MRP and DRP report and inquiry programs and the MRP Maintenance program, MRP510, use the JIT run rate field values. They use these values to indicate whether the resupply orders either exceed or underutilize the capacity of your shop floor to produce this item for any single day. The system issues appropriate exception messages for either case. The values you enter in these fields serve as facility overrides of the maximum and minimum run rates you entered for this item through Item Master Maintenance, INV100.

## Actual Run Rate (11,3):

Reference only. You can use this field to display the actual production rate for this item. Schedule Maintenance, JIT510, displays this field.

### Requirements Code (1,A)

Specify a code to determine the demand source for planned orders. The following codes are available:

1=Dependent demand, only material allocations to shop orders (FMA file), and all other requirements from higher level formulations or bills of materials

2=Independent demand, only customer orders and forecasts

3= Sum of independent and dependent demand

## **Demand Time Fence Days/Periods (3,0):**

Use this field to divide your planning horizon into two sections, each with its own demand code, to set how customer orders and forecasts are used to determine

requirements (planned orders). Demand time fence days are not related to planning horizon days. You can set them before, after, or at the horizon. Specify the number of days from the current date to define the time fence. Master Schedule Generation, MRP500, Explode Requirements, MRP600, and Explode PO/FPO Adjustments, MRP550D, all use the demand codes and the demand time fence. The value in this field is an item/facility override to the similar entry you make at the item level through Item Master Maintenance, INV100.

# Demand Code 1 (1,A):

This code specifies how the system uses customer orders and forecasts to determine planned order quantities. Demand Code 1 applies within the time fence that is determined by the entry in the Demand Time Fence Days/Periods field. The demand codes specified in the system parameters display here by default. You can override the default values here. The values in the Demand Code 1 and 2 fields are item/facility overrides to the similar entries made at the item level through Item Master Maintenance, INV100.

The following codes are available:

1=Greater of Forecasts and Customer Orders

2=Sum of Customer Orders and Forecasts

3=Forecasts Only

4=Customer Orders Only

If you do not specify a demand code, Infor ERP LX uses the default demand code to use before the time fence as defined on the MRP System Parameters screen, MRP820D-01.

## Demand Code 2 (1,A):

These codes determine how customer orders and forecasts are used to determine planned order quantities. Demand Code 2 applies beyond the time fence that is determined by the entry in the Demand Time Fence Days/Periods field.. The demand codes specified in the system parameters display here by default. You can override the default values here. The values in the Demand Code 1 and 2 fields are item/facility overrides to the similar entries made at the item level through Item Master Maintenance, INV100.

The following codes are available:

1=Greater of Forecasts and Customer Orders

2=Sum of Customer Orders and Forecasts

3=Forecasts Only

4=Customer Orders Only

If you do not specify a demand code, Infor ERP LX uses the default demand code to use after the time fence as defined on the MRP System Parameters screen, MRP820D-01.

# Order Policy (1,A):

The order policy code tells Infor ERP LX how to place orders for the item. You can use the order policy codes described in the following paragraphs to vary both production and purchase quantities to suit the nature of the item.

#### Blank

Not a planned item (skipped by MPS, MRP and DRP).

Use this code for order point items.

Α

Discrete (lot for lot)

Use this code to generates planned orders in quantities that equal the net requirements on each day. Set up phantom items with this order policy code.

F

#### **Least Cost**

This code uses the Boe-Yilmaz algorithm to closely approximate the Wagner Whitin algorithm (see Production & Inventory Management, Journal of APICS, Second Quarter, 1983), but it eliminates the complex calculations of that algorithm. This code is especially useful for uneven demand. You must specify an order/setup cost in Item Master Maintenance, INV100, for an item with this order policy code. During system parameter setup, you must specify a value for the Holding Cost Percentage field in MRP System Parameters, MRP820D-01. This parameter indicates the average percentage of the standard item cost to hold that item in inventory for a year (usually about 35%). The algorithm calculates the holding cost for a specified time (until the date of the next order), as follows:

- Divide the Holding Cost % value by 100 (Holding Cost % is expressed as a whole number. Dividing by 100 converts the result to a percentage.)
- Multiple the result by the Standard Cost.
- Multiply the result by the Number of Days Until the Next Order, minus 1
- Multiply the results by the Quantity Required for the Next Order
- Divide the results by 365 (days in a year)

The system then compares the calculated holding cost to the order/setup cost to see if it is better to combine future demand with current demand in one order, or to wait to order future demand when it is needed.

Depending on the system parameters, the holding cost and the standard item cost can come from different files. If the Run MPS/MRP flag is set to 1=Yes', the Order/Setup Cost must be present in the Facility Planning Data file. If the Run MPS/MRP flag is set to 0=No, the Order/Setup Cost must be present in the Item Master file.

If the Cost by Facility flag is set to Yes, the standard cost must be present in the Facility Planning Data file. If it is set to No, the standard cost must be present in the Item Master file.

If the system does not find a standard cost in the respective file, it reverts to Order Policy Code A (Discrete).

Example: You are ready to order an item and look to future demand to see if you should include the next demand with the current order. The following are the relevant field values:

- Holding Cost = 50%
- Standard Cost = 2.00
- Number of Days to Hold (until next demand) = 8
- Total Required for Next Demand = 100
- Order/Setup Cost for Item (from INV100) = 1.50

The Holding Cost Calculation proceeds as follows:

- Divide the Holding Cost % (50) by 100: Result is 0.5.
- Multiple the result by the standard cost (2.00): Result is 1.00
- Multiply the result by Number of Days Until the Next Order (8) minus 1: Result is 7.00.
- Multiply the result by the Quantity Required for the Next Order (100): Result is 700.
- Divide the result by 365: Result is 1.9178.

The calculation shows that the cost to hold the item in inventory (1.9178) is greater than the cost to reorder the item when the demand is actually there (1.50). Therefore, the system produces a planned order for the current demand only. The order for the 100 items that is required 8 days out is considered only at that point in the MRP run.

G

#### **Fixed Period Requirements**

During system installation, the person who sets the system parameters specifies the number of days of coverage that each planned order provides. You can also specify the number of days of coverage for a specific item in the Item Master Maintenance program, INV100, which overrides the system default. The system groups all net requirements for that period and produces one planned order at the start of the period. It begins only on a day that has requirements. A period length of 1 produces the same order results as a lot for lot order policy type(A, Discrete).

Н

#### Discrete Above Standard Lot Size

This order policy code produces a planned order of one lot as specified for that item in the Item Master, IIM, if the net requirements are less than or equal to the lot size. If the requirements exceed the lot size, it increases the size of the planned order by the excess.

I

#### Incremental Above Standard Lot Size

This order policy code produces a planned order of one lot as specified for that item in the Item Master, IIM, if the net requirements are less than or equal to the

lot size. If the requirements exceed the lot size, it increases the size of the planned order by increments that you specify in the Item Master record for the item.

J

## Multiple of the Standard Lot Size

This order policy code produces planned orders for net requirements in multiples of the lot size as set up in the Item Master, IIM.

If you plan by facility, the you can use the Facility Planning Data Maintenance program, MRP140, to override the Item Master values for these policy codes for specific facilities.

Κ

#### Repetitive Order

Use this order policy code for repetitive, high-volume manufacturing and for variable periods. This order policy produces a single planned order that consists of the total requirements of a repetitive order for a given period.

You can define up to 152 periods in Planning Period Maintenance For Order Policy K, JIT100D1-01. Access this program through the Parameters Generation program, SYS800. The period length is variable. Specify a start date for the first period. The system then calculates the start/end dates for all periods.

ı

#### Fixed Period + Increment

Use this order policy code to combine the features of G, Fixed Period, and I, Increment. The system first plans the order according to facility planning, item, or system parameter values to produce the initial order quantity. Next, it adjusts the initial order quantity up to the lot size, or, if the quantity already exceeds the lot size, the program increases the it by increments as specified in the facility planning file or item master file.

#### Lot Size (11,3):

Specify a standard quantity to order for MRP scheduled items. You can specify a value of zero for all order policy codes except the codes that use lot sizes (H, I, J, or L). The value you specify overrides the Item Master standard lot size for this item in this facility only.

#### Incremental Order Qty (11,3):

If you use order policy code I or L on MRP/DRP scheduled items, specify the quantity to order or increment above the standard lot size.

#### Order/Setup Cst (15,3):

Specify the total monetary cost of placing an order. This cost is determined by least-cost lot sizing, order policy code F.

# Minimum Planned Order Percent (5,2):

The program uses this field when you run the MRP or DRP generation program only for items with order policy codes H, I, J, or K. The value in this field determines when to create an order. The entry you make serves as an item/facility override to the similar entry you made at the item level in Item Master Maintenance, INV100.

The percentage that you enter here is the percentage of the item's lot size. The system does not create a planned order until the requirements for the item exceed the quantity that results from the following calculation. Q represents the quantity.

Q = item's lot size x minimum planned order percent

Example:

Lot size is 1000

Minimum planned order percent is 120.00

Requirements are 1150

 $Q = 1000 \times 1.20$  (that is, 120%) = 1200

Because the requirements are less than the amount calculated, the system does not calculate a planned order.

The system uses the preceding calculation for planned orders; however, Infor ERP LX does not allow a negative final projected balance for the last forecast month. It plans one lot, plus multiples of the increment, if necessary, to produce a positive projected on-hand inventory balance.

# Period Order Days (3,0):

If the order policy code is G, specify the number of days in each period.

## **Bounded Parent/Material Method (2,0):**

Display only. If this item has a bounded parent at the global level, Infor ERP LX displays the material method code for the Bill of Materials that establishes the bounded relationship.

## Item Horizon Days (3,0):

Use this field to freeze a specific period during which MPS Generation, MRP500, considers only released and firm planned orders for planning purposes. The number of horizon days is normally a minimum of the cumulative lead time, which can be found in the Bill of Materials. The system checks this field during MPS generation and schedules any required planned order due dates for the first date after the horizon; the system does not create planned orders within the horizon. The system also issues firm up messages for all planned orders within the horizon. The system calculates horizon days using calendar days, not shop calendar days.

Specify the number of horizon days for this item in this facility. If you leave this field blank, the system uses the default horizon value from the Item Master, or, if that value is blank, from the MRP System Parameters, MRP820D-01.

## **Bounded Child/Material Method (2,0):**

Display only. If this item has a bounded parent at the global level, Infor ERP LX displays the material method code for the Bill of Materials that establishes the bounded relationship.

# **Dispatch Lead Time Hours (4,0):**

This field only appears if you have LMP installed. If you enter a value, it must be a valid HH:MM (Hours:Minutes) combination (MM <= 59). The value defaults from the matching field in the Item Master.

#### Screen actions - MRP140D2-01/DRP140D2-01

# F15=Copy Defaults

Infor ERP LX populates the screen with information from the Item Master, IIM.

# F16=Item/Vendor Quality

Access the Item/Vendor Quality program, PUR120D1.

## F17=Item/Facility Quality

Access the Item/Facility Quality Maintenance program, SFC121D1.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Specify planning information for warehouse, lots, batches, vendors and allocations

Use the second Facility Planning Maintenance screen, MRP140D2-02/DRP140D2-02, to continue to enter planning information for this item/facility combination.

#### Field descriptions - MRP140D2-02/DRP140D2-02

## Item Number (35,A):

This field displays the item number for this item/facility combination.

## **Item Description:**

This field displays a description of the item.

#### Facility (3,A):

This field displays the facility number for this item/facility combination.

# **Facility Description:**

This field displays a description of the facility.

#### Item/Fac Planning Warehouse (3,A):

Specify the default planning warehouse for this item.

If you specify a managed warehouse, you must set the Shop Order Generate flag to 0. This indicates that shop orders must be generated manually. Shop orders must never be generated automatically for managed warehouses.

Note: If you receive into a warehouse type 4 (Warehouse BOSS controlled-warehouse) or type 5 (WMS-4000-controlled warehouse), you cannot order items of the following types for receipt:

- Item Type 0 = Phantom
- Item Type 3 = Assortment
- Item Type 4 = Kit
- Item Type 5 = Planning Bill
- Item Type 6 = non-Balancing
- Container-Controlled Item

# Item/Fac Stocking Warehouse (3,A):

Specify the default warehouse for stocked items.

Note: If you receive into a warehouse type 4 (Warehouse BOSS controlled-warehouse) or type 5 (WMS-4000-controlled warehouse), you cannot order items of the following types for receipt:

- Item Type 0 = Phantom
- Item Type 3 = Assortment
- Item Type 4 = Kit
- Item Type 5 = Planning Bill
- Item Type 6 = non-Balancing
- Container-Controlled Item

## Facility Wide Alloc/Backflush (1,0):

Specify 1=Yes to permit allocation/backflush for all warehouses with this facility, otherwise, specify 0=No.

## **Bypass WIP Tracking:**

Specify 1=Yes to bypass WIP tracking for this item in this facility as an override to the value in the Item Master, INV100. If you bypass WIP tracking, the system omits WT and WF inventory transactions from JIT backflush processing.

Specify 0=No to track WIP inventory and to automatically issue the following type transactions:

- WT This reserved transaction effect reports movement of WIP Inventory into the Work Center To location. It increases end item inventory in the WIP warehouse.
- WF This reserved transaction effect reports movement of WIP inventory from the Work Center of the previous collectible operation. It decreases end item inventory in the WIP warehouse.

# Number of Lots allowed (1,0):

Specify the maximum number of lots to use for allocation to a single shop order for this item/facility combination. This value supersedes the value in the Item Master. Valid values are 0 - 9. Zero indicates that you do not want to restrict the number of lots for this item. You must enter zero for non-lot controlled items.

Note: If you revise an existing item/facility, Infor ERP LX checks whether this item in this facility already appears on a bill of materials. If the number of lots allowed is different in any previously created BOMs, the system notifies you. You can revise those previous BOMs to match the number of lots allowed that you specify here, but this is optional. Existing BOMs are not affected by the setting her. The value you enter here serves as the default for this item/facility combination in future bills of materials.

# Issue in Box Qty only (1,A):

Specify Yes to issue this item only in the box quantity you set in the Standard Box Size field. Otherwise, specify No. If you set the field to Yes, you must have a positive value in the Standard Box Size field. This field does not apply to container-controlled items or to items that have a standard potency percent other than zero.

## Standard Box Size (11,3):

To issue this item in standard box sizes, specify the quantity of the item that constitutes a standard box. The value you enter here supersedes the corresponding value in the Item Master record. You must specify a positive value greater than zero to turn on the Issue in Box Qty only flag.

## Formulator Code (3,A):

Specify the formulator code for this item. The formulator code is facility specific. The Infor ERP LX Formulation Assistant uses this code to select data to upload from or download to the Infor ERP LX host iSeries.

#### Process/Formula Revision (2,A):

Infor ERP LX displays the formula/drawing revision code for this item. This code uniquely identifies variations of the same process/formula. You can maintain it on the Formulation Assistant workstation. This code marks the revision level of the global process/formula currently maintained on the host iSeries.

# Standard Batch Size (11,3):

(Optional.) Specify the standard batch size for batched items. This value usually equals the lot size. Use the batch size for bills of material that represent a batch of the item. The batch size can be viewed as a BOM unit of measure. The value in this field controls quantities of components for the item's BOM.

## Example:

If the batch size is 100, the BOM for the item states the quantity of components needed to make 100 units of the item, not one unit.

# U/M Batch Balance (2,A):

This field displays only for batch-controlled items. Specify the common unit of measure to use for batch formulations. This serves as the common U/M for all components of this item for batch balancing purposes. If you do not stock all the components in the same unit of measure, you must define a conversion factor in Unit of Measure, API120D1. The system does not validate this field.

## Standard Batch Weight (11,3):

(Optional) Specify a standard batch weight for batch items.

#### Item Type (1,A):

Specify the item type code for the item in this facility. Item types distinguish categories of stocked material, such as purchased, assembled, or fabricated. The system uses information on the item type to resolve segment values for models in Advanced Transaction Processing.

Note that you cannot change item types to or from types 3=Assortment, 4=Kit, and 5=Planning Bill in this screen.

#### **Container Control (1,0)**

Specify whether the item is container controlled in this facility. You can set the value for the item in this facility independently of the item's container control setting in the Item Master only if you have set the system parameter Allow Container Inventory at Facility Level to 1=Yes in the Advanced Process Industries Parameters screen, API820D-03.

# Item Class (2,A)

Specify an item class for the item in this facility. You use item class codes to group items into broad categories to process various reports and inquiries. The item class code must exist in the Item Class Maintenance program, INV160, before you can use it here.

## Item Group Code (4,A):

Specify the group technology code 1 associated with this item in this facility. This code appears as the Group Tech Code 1 in Material Status Inquiry, INV300D,

and is used by the Finite Forward Scheduling system, MRP640, to sequence production orders. These codes are also used to group items in the Capacity Planning application's Group Technology report, CAP240.

# Commodity Code (15,A)

Specify the commodity code for this item.

## Country of Origin (4,A):

Specify the country of origin code for this item

## Primary Vendor (8,0):

Specify the number of the primary vendor.

# Secondary Vendor (8,0):

Specify the number of the secondary vendor.

## Target Annual Qty (13,3):

This field is for reference only. You can use it to store the optimum annual production quantity for this item and facility.

# Maximum Inventory Qty (13,3):

This field is for reference only. You can use it to store the maximum desirable inventory quantity for this item and facility.

#### **Shop Order Generate (1,0):**

Infor ERP LX uses this field to generate shop orders in the Order Entry application, ORD700, and to generate multi-level shop orders in the Multi-Level Shop Order Release program, SFC530D1. Specify 1=Yes to automatically generate shop orders for this item. Otherwise, specify 0=No. You must leave the default value of No for item types 3, 4, or 6.

Note: If you set this field to Yes, do not enter a value into the Standard Yield Factor field in the Item Master, INV100D1, for this item.

# Allocation Required (1,A):

Set this field to Yes to require allocations for this item/facility.

The field At what level do you define allocation requirements and exceptions? in the Order Entry System Parameters screen, ORD820D-04, determines whether the system checks this field.

Note: This field applies only to customer order allocations when you create an order in Order Entry,ORD700.

# Manufacturing Mode (2,A):

Specify how the item is manufactured. The following options are valid:

1=Make-to-stock

6=Assemble-to-order family item

7=Configured item

You must use manufacturing mode 1 for items with item type codes 3, 4, 5, or 6.

# Cycle Count Frequency (3,A):

Specify the number of times per year to cycle count the item. This affects printing of the daily cycle work sheet. If you set this value to blank or zero, the item does not print unless it has a negative balance.

#### ABC Code (1,A):

Enter the ABC code for this item/facility. The value defaults from the Item Master file, IIM. ABC code values are set in the Inventory Parameters program, INV820D. Typically, cycle counting is set up to count higher usage items (in value or in volume) more frequently than lower usage items. You assign A to the highest usage items.

#### Screen actions - MRP140D2-02/DRP140D2-02

## F15=Copy Defaults

Infor ERP LX populates the screen with information from the Item Master, IIM. All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this

# Specify planning information for customer orders

document.

Use the third Facility Planning Maintenance screen,

MRP140D2-03/DRP140D2-03, to continue to enter planning information for this item/facility combination. This screen focuses on information that the customer order entry program uses.

## Field descriptions - MRP140D2-03/DRP140D2-03

#### **Customer Order Minimum Quantity (11,3):**

Specify the quantity in stocking unit of measure. The Order Entry program, ORD700D, uses this field to validate whether a line order quantity is at least equal to or greater than the value you set here. Order Entry can only use this value if you activate the Perform Quantity Edits field in the User Preferences - Validation Options screen, ORD700D4-02.

If you leave this field blank, Order Entry uses the value from the Item Master.

# **Customer Standard Order Quantity (11,3):**

Specify the quantity in stocking unit of measure. The Order Entry program, ORD700D, uses this field to validate whether a line order quantity equals the value you set here. Order Entry can only use this value if you activate the Perform Quantity Edits field in the User Preferences - Validation Options screen, ORD700D4-02.

If you leave this field blank, Order Entry uses the value from the Item Master.

## **Customer Incremental Order Quantity (11,3):**

Specify the quantity in stocking unit of measure. The Order Entry program, ORD700D, uses this field to validate whether a line order quantity is an increment of the value you set here. Order Entry can only use this value if you activate the Perform Quantity Edits field in Order Entry User Preferences.

If you leave this field blank, Order Entry uses the value from the Item Master.

# Selling Unit of Measure (2,A):

This field is not implemented.

# Packaging Type (1,0):

This field appears only if you have OLM installed. Specify a packaging type.

#### Shelf Life Days (5,0):

Use this field only for lot-controlled items. Specify the number of days that this item remains usable. The system calculates a default lot expiration date from this number if you create a lot through a transaction program or Lot Master Maintenance, INV130. The system adds the lot receipt (creation) date to the number of Shelf Life Days in this screen to arrive at the default lot expiration date. You can update the calculated expiration date for a specific lot in Lot Master Maintenance, INV130.

If you have the Advanced Process Industries application installed, Infor ERP LX allocates lot-controlled material to shop orders by earliest expiration date, then by lot number, in ascending alphanumeric order.

If you do not use the API application, Infor ERP LX allocates lot-controlled material to shop orders by lot number, in ascending alphanumeric order.

Note: You cannot maintain this field if you have Quality Management System, QMS installed.

# Retest Days (5,0):

Use this field only for lot-controlled items. Specify the number of days that a lot of this item can sit in inventory before it must be retested for usability. The system

calculates a default lot retest date from this number when you create lots through purchase order receipts or inventory transactions. You can update the default lot retest date in Lot Master Maintenance, INV130.

Note: You cannot maintain this field if you have Quality Management System, QMS installed.

#### **Expiry/Retest Date Calculation Method (1,0):**

Specify the type of Expiry/Retest date recalculation method to use. The following choices are valid:

#### 0=Receipt Date of Lot

This method bases the retest and expiration date recalculation on the receipt date plus shelf life days and retest days.

#### 1=Manufactured Date of Lot

This method bases the expiration and retest date recalculation on the date of manufacture you specify during receipt or update on the Lot Master file, plus any shelf life and retest days. The item must be lot controlled.

## 2=Component Mfg/Expiry Date-Allocate

This method looks at a component flag that you set in the BOM and in the Material Allocations to Shop Orders file, FMA, which determines whether to use the component for the date calculation. The item must be lot controlled.

#### 3=Component Mfg/Expiry Date-Issue

This method resembles method 2 except that the system calculates expiration/retest dates when you issue or report the shop order. The item must be lot controlled.

# Round Expiry Date to Last Day of Prev Month (1,0):

Specify Yes to require rounding. Otherwise, specify No. The field determines whether the expiration date calculated, if it does not fall on the last day of the month, must be set back to the last day of the previous month.

## **Create Outside PO When SO Created (1,0):**

Specify 1 to create a PO for an outside operation when you add an operation detail record, FOD, to a shop order through the Shop Order Maintenance screen, SFC500D3-02. You must identify the vendor on the Work Center Maintenance screen, CAP100D2-01. A value of 0 does not create a PO.

## Packaging Required (1,0):

Specify Yes to require packaging for this item when you ship it. Otherwise, specify No.

# Copy Operation Note to Outside PO (1,0):

The system uses this value with the value in the Create Outside PO When SO Created field.

Specify 1 to copy the routing operation note (type R), which you maintain in the Shop Floor Notes program, SFC190, to the PO line note (type P), which you maintain in the Notes Maintenance program, ORD140.

Specify 0 to not copy the note.

# **Shop Order Horizon Days for RMS (3,0):**

Specify a value in this field to limit the creation of shop orders for an RMS order line. The system uses this value in conjunction with lean items (if the Shop Order Generate field is set to Yes) to prevent generation of shop orders over the whole RMS schedule. Choose a value such that the next RMS schedule occurs before the end of this horizon.

## **Exclude from BOM Costing (1,0):**

Specify 1=Exclude to exclude the item from the cost of the parent when you run the Cost Set Rollup program, CST500 or the Shop Order Close and Actual Cost Update program, CST900. Specify 0=Do not exclude to include the item in the parent cost.

The value you set here defaults to the BOM when you use this item as a component in a BOM. You can change it at the BOM level on the BOM Component Detail screen, BOM500D3-01.

#### **Exclude from BOM Planning (1,0):**

Specify 1=Exclude to not pass planned orders for the parent to the component as requirements during MPS/MRP generation. The system does not create material allocations when you create shop orders.

Specify 0=Do not exclude to pass the parent planned orders to the component as requirements.

The value you set here defaults to the BOM when you use this item as a component in a BOM. You can change it at the BOM level on the BOM Component Detail screen, BOM500D3-01.

#### Screen actions - MRP/DRP140D2-03

## F15=Copy Defaults

Infor ERP LX populates the screen with information from the Item Master, IIM.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Specify planning information for lean manufacturing

Use the fourth Facility Planning Maintenance screen,

MRP140D2-04/DRP140D2-04, to continue to enter planning information for this item/facility combination. This screen focuses on information that the Lean Manufacturing application uses.

All orders that you enter for lean items, except those that you generate from RMS, use the parameter for OLM Dock Scheduling in this screen. RMS orders use both the parameters for OLM Dock Scheduling and for CTP usage from the RMS Contract Header. DRP orders for lean items that you release through Release Planned Orders, DRP540, use both the OLM Dock Scheduling field and the CTP Date Usage field from the supplying facility (From Facility) in the Facility Planning Data file, CIC.

# Field descriptions - MRP/DRP140D2-04

# Lean Item (1,0):

This field only appears if LMP is installed. Specify Yes to designate the item as lean for this item/facility combination. Otherwise, specify No.

You cannot designate Item Types 0 (Phantom), 3 (Assortment), 4 (Kit), 5 (Planning Bill), or 6 (Non-Inventory) as lean items.

# **Production Cell (6,0):**

This field only appears if LMP is installed. Specify a valid cell-type work center in the same facility as the Item Planning/Costing record you are maintaining.

# Purchased Kanban Item (1,0):

This field only appears if LMP is installed. Specify Yes to consider this item for automatic kanban. Otherwise, specify No.

# Purchased Kanban Quantity (11,3):

This field only appears if LMP is installed. Specify the default quantity per kanban. The value cannot be negative.

# **Auto Allocate Customer Order (1,0):**

This field only appears if LMP is installed. You must set this value to No if Allocation Required is set to No. If you set this field to Yes, Infor ERP LX automatically allocates inventory to the customer order if the system backflushes a linked shop order with the LMP Backflush programs or if you receive a linked purchase order via Purchase Order Receipts, PUR550, or Inventory Transactions, INV500.

## **Auto Invoice Customer Order (1,0):**

This field only appears if LMP is installed. You must set the value in this field to No if the item is not a Lean item. At the time of Pick Confirm, for order classes that are flagged as auto-invoice, the system assigns consolidation numbers to all selected items. Infor ERP LX automatically prompts you for invoicing of each consolidation number it assigned.

## **Shop Order Horizon Days for RMS (3,0):**

Specify a number of days to limit the creation of shop orders for RMS order lines.

## **Customer Order Horizon Days (3,0):**

This field only appears if LMP is installed. Specify a number of days to use as a fixed horizon inside of which you cannot promise any customer orders.

# Lean Hourly Run Rate (11,3):

If this is a lean item, specify the expected hourly run rate for production of the item.

## Use CTP Date as Request Date (1,A):

Set this flag to specify when to use the CTP Date as Request Date. Options are 0=Never, 1=Always, or 2=If after Request Date.

This value determines whether the system performs lean capacity checking within the lean scheduling process. It also determines whether Lean CTP dates and times can replace an order line's request and schedule dates and times.

If you do not make an entry to this field when you create the Facility Planning record, CIC, the value defaults from the Facility Master, ZMF.

#### Use OLM Dock Scheduling Date (1,A):

Specify Yes to use the OLM Dock Scheduling Dates, which you enter in Dock Scheduling, OLM150, in Capable to Promise date calculations. Otherwise, specify No.

If you do not make an entry to this field when you create the Facility Planning record, CIC, the value defaults from the Facility Master, ZMF.

#### Screen actions - MRP/DRP140D2-04

## F15=Copy Defaults

Infor ERP LX populates the screen with information from the Item Master, IIM.

Exception: When you use this function, the system retrieves the values for the Use CTP Date as Request Date and Use OLM Dock Scheduling Date from the Facility Master, ZMF.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Specify planning information for control number scheduling

Use the Facility Planning Maintenance screen, MRP140D2-05/DRP140D2-05, to enter five control number scheduling lead times. The system uses the control dates to adjust KMR component-required dates based on planned orders for a parent, and FMA required dates based on shop order release dates for a parent.

## Field descriptions - MRP140D2-05/DRP140D2-05

## **Control Number Schedule Level (1,0):**

Specify the control number schedule level for this item/facility combination. This value determines what factors the system uses for CNS control. This field only appears if the CNS Support field is set to Yes in the MRP and Shop Floor System Parameters screen.

The following values are valid:

0=Not CNS controlled

1=CNS controlled only with the control number

2=CNS controlled with the control number and optionally with the parent material and routing method codes

3=CNS controlled with the control number and optionally with the parent material and routing method codes. MRP planning uses lot inventory netting logic in which the lot number is the control number.

# Control Date 1 Lead Time (3,0)

Specify the number of additional days required between the date a component is due and the date on which you can use it for production. You can specify a negative value.

# Control Date 2 Lead Time (3,0)

Specify the number of additional days required between the date a component is due and the date on which you can use it for production. You can specify a negative value.

## Control Date 3 Lead Time (3,0)

Specify the number of additional days required between the date a component is due and the date on which you can use it for production. You can specify a negative value.

# Control Date 4 Lead Time (3,0)

Specify the number of additional days required between the date a component is due and the date on which you can use it for production. You can specify a negative value.

# Control Date 5 Lead Time (3,0)

Specify the number of additional days required between the date a component is due and the date on which you can use it for production. You can specify a negative value.

#### **Production Line (4,A):**

This field is required for a flow/rate based item (JIT/Flow code = 2). For manually created Facility Planning records (CIC file), the production line you specify must exist in the Production Line file, LSP, for the facility you maintain. For Facility Planning records that the system creates via SYS954Bv, the JIT/Flow code and production line values default from the Item Master file, IIM, if the production line also exists in the Production Line file for the facility. Otherwise, the production line field is loaded with a blank and the JIT/Flow Code = 0.

## **PLC Code (10,A):**

Specify the product lifecycle control code to associate with this item in this facility. The code must exist in the PLC Code Master file, ILC. Each defined code is associated with restrictions that control how and where an item can be used.

# Screen actions - MRP140D2-05

# F15=Copy Defaults

Infor ERP LX populates the screen with information from the Item Master, IIM. All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Facility planning data list, MRP145D

Use the Facility Planning Data List program, MRP145D, to print a listing of the facility-specific MPS/MRP planning data that you maintain in the Facility Planning Data file, CIC.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

Access: MPS menu

MRP menu

# Print a list of facility planning data

Use the Facility Planning Listing screen, MRP145D-01, to limit items to include in the data selected for the list and to print the list.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

# Field descriptions - MRP145D-01

# From Item (35,A):

Specify a range of values to limit the items to include in the list.

#### To Item (35,A):

Specify a range of values to limit the items to include in the list.

### Facility (3,A):

Added: MR73322 Facility field

Specify a facility to limit the items to include in the list.

## **Run Time Parameter (1,0):**

Specify Interactive to process the data in real time or Batch to process the data in the job queue. If you select interactive processing, your session is unavailable for other tasks until the job finishes.

# Screen actions - MRP145D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# MRP exception report, MRP200D

Use the MRP Exception Report program, MRP200D, to create a detailed, facility-specific report of items that required planning action. You can set ranges of values to limit the information to include in the report. Use the MRP Simulation Report, MRP670D, to run the report for simulation data.

Access: MRP Menu

# Print a report of items that require planning action

Use the MRP Exception Report screen, MRP200D-01, to specify a sort sequence for the report and to specify values to limit the information the report includes.

If you sort the report by planner, buyer, or vendor, the secondary sort is by item number.

The MRP Simulation Report program, MRP670B, uses this screen to make selections for the simulation data to include in its report.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

Access: MRP menu, MPS02 menu for simulation data

Field descriptions - MRP200D-01/MRP670D-01

## Sort By (1,A):

Specify a sort sequence for the report. Select from the following options:

| 1Planner |
|----------|
| 2Buyer   |
| 3Item    |
| 4 Vendor |

If you select Planner, Buyer, or Vendor, the secondary sort is by item.

## Planner (from) (3,A):

Specify a range of values to limit the planners to include in the report.

# **Planner (to) (3,A):**

Specify a range of values to limit the planners to include in the report.

## Buyer (from) (3,A):

Specify a range of values to limit the buyers to include in the report.

# Buyer (to) (3,A):

Specify a range of values to limit the buyers to include in the report.

# Vendor (from) (8,0):

Specify a range of values to limit the vendors to include in the report.

## Vendor (to) (8,0):

Specify a range of values to limit the vendors to include in the report.

## Item (from) (35,A):

Specify a range of values to limit the items to include in the report.

## Item (to) (35,A):

Specify a range of values to limit the items to include in the report.

#### Facility (3,A):

Specify the facility to use for the report.

#### Include MPS Items (1,A):

Specify 1=Yes to include MPS items in the report or 0=No to exclude them.

#### **Include Phantom Items**

Specify 1=Yes to include phantom items in the report or 0=No to exclude them.

## Time Frame (1,A):

Specify any valid time frame code that is defined in Time Frame Maintenance, MRP120D, or leave the field blank. If you leave the field blank, the system uses the default time frame defined in MRP Time Frame Maintenance to generate the requirements report.

#### Time buckets? (6, 13, 20, 27, 34, 40) (2,0):

Specify the number of time periods to display on the report. You must use one of the options the screen displays. Specify 6 to prints the first six time periods only, 13 to print the first 13 time periods only, and so on.

#### Pegged requirements (1,A):

Specify 1=Yes to print detailed pegged requirements, otherwise, specify 0=No.

#### Scheduled receipts (1,A):

Specify 1=Yes to print details of all scheduled receipts, otherwise, specify 0=No. Note that scheduled receipts detail prints the gross quantity for the order. The report does not consider the item yield percentage.

For purchased item types, the system initially retrieves the date for this report line from the purchase order due date in the Purchase Order Header file, HPO. It adds to the due date the number of quarantine days for the purchased item from the Manufacturer/Item Details file, QMI,. If the QMI file does not contain a valid value, the system uses the default value in the Days in Quarantine field in the Item Master, IIM. If this field has a zero value, the system uses the default value from the Inspection Days field in the General Parameters file, ZPA.

# Through Release Date (8,0):

Specify the most recent facility release date to include in the selection.

For planned and firm-planned orders, the report includes orders that have the release date or reschedule date earlier than the date in this field. It ignores zero reschedule dates.

For shop orders, the report includes orders that have the release date or reschedule date on or earlier than the date in this field. It ignores blank reschedule dates.

For purchase orders, the report includes open purchase order lines that have a due date or reschedule date on or earlier than the date in this field. It ignores blank reschedule dates.

For customer orders (resupply inbound), the report includes open resupply order lines that have a request date or reschedule date on or earlier than the date in this field.

If you specify All Messages with a date range other than the default of 99/99/99, the report excludes orders with Cancel messages. This occurs because Cancel messages have 99/99/99 as the MRP reschedule date.

# **Print Parent Quantity Data (1,A):**

Specify whether to include parent quantity data on the report. 1=Yes, 0=No. If you specify Yes, the reports displays the parent item, parent quantity, and parent UOM on the report.

The report includes all parent items that have a child item within the range that you specify for the report. If the child item is used multiple times on a parent BOM, the report prints the child only once and it shows the summed value for that child item.

#### Print On Hand for Inv Status (2,A):

Specify up to three valid inventory statuses. If you leave all Print On Hand for Inv Status fields blank, the report does not break down inventory by status.

If the report item is lot controlled or is a QMS non-lot-controlled item that is currently tracked by a QMS sequence number, the report prints the sum of all the nettable and non-nettable warehouse inventories of the item in all the warehouses that belong to the specified facility. The report prints the sums of inventory separately for each of the specified inventory statuses.

If the item inventory is non-lot controlled and is not a non-lot-controlled QMS item currently tracked by a QMS sequence number, the report does not print the three status headings and quantity fields.

QMS sequence numbers are only relevant if you enable non-lot-controlled QMS items in your environment.

## Action Messages (1,A):

Specify the action message information to print in the report. The report offers the following options:

## Valid choices

#### ■ 0=No

Print all items, do not print action messages.

#### ■ 1=Yes

Print all items and all action messages.

## 2=Items w/msg

Print only items that have the action messages you specify, and print action message detail.

## Message Filter (1,A):

If you set the Action Messages field to 2, select at least one message in the Message Filter field to include in the report. Specify 1=Select in front of the messages to include. Select from the following options:

- Cancel
- Expedite
- De-Expedite
- Past Due
- LT Violation
- Release
- Firm Up
- Under Minimum
- Over Maximum
- All Messages

If you set the Action Messages field to 0 or 1, leave these fields blank..

# Run Time Parameter (1,0):

Specify Interactive to process the data in real time or Batch to process the data in the job queue. If you select interactive processing, your session is unavailable for other tasks until the job finishes.

## Screen actions - MRP200-01/MRP670D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Shop order rescheduling, MRP209D

Use the Shop Order Rescheduling program, MRP209D, to print a detailed facility-specific report that lists shop orders that require rescheduling.

Access: MRP menu

# Print a report of shop orders to reschedule

Use the Reschedule Shop Order Print screen, MRP209D-01, to limit the shop orders to include in the report by warehouse and reschedule date and to generate the report.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

## Field descriptions - MRP209D-01

#### From Warehouse (3,A):

Specify a range of values to limit the shop orders to include in the report by warehouse.

# To Warehouse (3,A):

Specify a range of values to limit the shop orders to include in the report by warehouse.

#### From Reschedule Date (8,0):

Specify a range of values to limit the shop orders to include in the report by warehouse reschedule date.

The report includes rescheduled orders with dates that fall within this range and past-due rescheduled orders (00/00/00) or rescheduled orders that require cancellation (99/99/99).

## To Reschedule Date (8,0):

Specify a range of values to limit the shop orders to include in the report by warehouse reschedule date.

The report includes rescheduled orders with dates that fall within this range and past-due rescheduled orders (00/00/00) or rescheduled orders that require cancellation (99/99/99).

#### Screen actions - MRP209D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Purchase rescheduling, MRP211D

Use the Purchase Rescheduling program, MRP211D, to print a detailed facility-specific report that lists purchase orders that require rescheduling. The rescheduling report contains the order reference numbers and both the scheduled and reschedule dates.

Access: MRP menu

# Print a report of purchase orders to reschedule

Use the Reschedule Purchase Order Report screen, MRP211D-01, to limit the purchase orders to include in the report by warehouse and reschedule date, to include or exclude cancelled and overdue purchase orders, and to generate the report. The reschedule dates and due dates printed in the report are for the purchase order warehouse.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

# Field descriptions - MRP211D-01

# From Purchase Warehouse (3,A):

Specify a range of values to limit the purchase orders to include in the report by purchase warehouse.

# To Purchase Warehouse (3,A):

Specify a range of values to limit the purchase orders to include in the report by purchase warehouse.

#### From Reschedule Date (8,0):

Specify a range of values to limit the purchase orders to include in the report by warehouse reschedule date.

The report includes rescheduled orders with dates that fall within this range and past-due rescheduled orders (00/00/00) or rescheduled orders that require cancellation (99/99/99).

#### To Reschedule Date (8,0):

Specify a range of values to limit the purchase orders to include in the report by warehouse reschedule date.

The report includes rescheduled orders with dates that fall within this range and past-due rescheduled orders (00/00/00) or rescheduled orders that require cancellation (99/99/99).

## Include Cancelled P.O.:

Specify Yes to include cancelled POs in the report. Otherwise, specify No.

## **Include Overdue P.O.:**

Specify Yes to include overdue POs in the report. Otherwise, specify No.

#### Screen actions - MRP211D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# FPO rescheduling, MRP212D

Use the FPO Rescheduling program, MRP212D, to produce the Firm-Planned Order Rescheduling Report. This report prints a warehouse-specific listing of the firm-planned orders that require rescheduling. The report contains the order reference numbers and both the scheduled and reschedule dates. The due dates and reschedule dates printed in the report are for the planning warehouse.

Access: MRP menu

## Print a report of firm-planned orders to reschedule

Use the Rescheduling F.P.O. Listing screen, MRP212D-01,

to limit the firm-planned orders to include in the report by planned order warehouse.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

# Field descriptions - MRP212D-01

#### From Planned Order Warehouse (3,A):

Specify a range of values to limit the firm-planned orders to include in the report by planning warehouse.

# To Planned Order Warehouse (3,A):

Specify a range of values to limit the firm-planned orders to include in the report by planning warehouse.

#### Screen actions - MRP212D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# MRP workbench report, MRP220D

Use the MRP Workbench Report program, MRP220D, to specify filter values for a report to facilitate the planning process. It contains the same selection criteria and data sort options as the Material Planning Workbench, MRP570D1, plus additional selection filters to use for orders that have minimum expedite and de-expedite days.

# Access: MRP menu

# Print a material planning report

Use the Material Planning Report screen, MRP220D-01, to specify selection criteria to limit the data to include in the report. The selection criteria for this screen are facility code to plan by facility in MRP and always in DRP, where facility is required for planning, planner code, and at least one message or any combination of multiple messages. You can accept default values for the other fields.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

## Field descriptions - MRP220D-01

#### Facility (3,A):

Specify the Facility from which to select items to include in the report.

# Planner (3,A):

Specify a valid planner to which to restrict the selection, or leave the field blank to include all planners.

## Messages: CANCEL

Specify 1 in front of each message to include in the selection. You must select at least one message. The report includes only orders with the specified messages.

## Messages: OVER MAX

Specify 1 in front of each message to include in the selection. You must select at least one message. The report includes only orders with the specified messages.

# Messages: DX (de-expedite)

Specify 1 in front of each message to include in the selection. You must select at least one message. The report includes only orders with the specified messages.

## Messages: PAST DUE

Specify 1 in front of each message to include in the selection. You must select at least one message. The report includes only orders with the specified messages.

## Messages: EX (expedite)

Specify 1 in front of each message to include in the selection. You must select at least one message. The report includes only orders with the specified messages.

# Messages: RELEASE

Specify 1 in front of each message to include in the selection. You must select at least one message. The report includes only orders with the specified messages.

## Messages: FIRM UP

Specify 1 in front of each message to include in the selection. You must select at least one message. The report includes only orders with the specified messages.

## Messages: UNDER MIN

Specify 1 in front of each message to include in the selection. You must select at least one message. The report includes only orders with the specified messages.

# Messages: LT VIOL (lead-time violation)

Specify 1 in front of each message to include in the selection. You must select at least one message. The report includes only orders with the specified messages.

#### Messages: All Messages

Specify 1 to include all messages in the selection. The report includes orders with any of the messages.

# Minimum Expedite Days (2,A):

Specify the number of days to use to suppress expedite messages EX. If the reschedule date is earlier than the due date, the difference must be greater than the value you enter here to include a record in the report.

## Minimum De-Expedite Days (2,A)

Specify the number of days to use to suppress de-expedite messages DX. If the reschedule date is later than the due date, the difference must be greater than the value you enter here to include a record in the report.

## From Item (35,A):

Specify a range of values to limit the orders to include in the report by item.

#### To Item (35,A):

Specify a range of values to limit the orders to include in the report by item.

#### Through Release Date (8,0):

Required. This date defaults to 99/99/99. Specify the most recent facility release date to include in the selection. This field applies only if you specify a range of items to include in the selection.

The report includes planned and firm-planned orders if the release date or reschedule date is on or before the Through Release Date value. The program ignores blank reschedule dates.

The report includes shop orders if the release date or reschedule date is on or before the Through Release Date value. The program ignores blank reschedule dates.

The report includes open purchase orders lines if they have a due date or reschedule date on or before the Through Release Date value. The program ignores blank reschedule dates.

For customer order records (resupply inbound), the report includes open resupply order lines if they have a request date or reschedule date on or before the Through Release Date value.

If you specify All Messages with a date range other than the default of 99/99/99, the report excludes orders with Cancel messages because Cancel messages have 99/99/99 as the MRP reschedule date.

# Include Phantom Items (1,A):

Specify Yes to include phantom items in the report. Otherwise, specify No.

## Include MPS Items (1,A):

Specify Yes to include MPS items in the report. Otherwise, specify No.

#### Pegged Requirements (1,A):

Specify No to exclude pegged requirements from the report. Otherwise, specify Yes. This data is the same as that included in the MRP Exception report, MRP200, except the data here is printed in item/release date sort sequence.

# Scheduled Receipts (1,A):

Specify No to exclude scheduled receipts from the report. Otherwise, specify Yes.

Scheduled receipts detail prints the gross quantity for the order. It does not consider the item yield percentage.

## Data Sort (1,A):

Use this field to specify the sequence in which to print the items in the report. Specify 1 to sort by item, then release date. Specify 2 to sort first by release date, then by item.

# Run Time Parameter (1,0):

Specify Interactive to process the data in real time or Batch to process the data in the job queue. If you select interactive processing, your session is unavailable for other tasks until the job finishes.

#### Screen actions - MRP220D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# MRP summary projection, MRP230D

Use the MRP Summary Projection program, MRP230D, to print a summary by item class within planner of all facility-specific planning information in a format similar to the MRP detail planning reports. To obtain amount projections, the program extends unit receipts and usage by the facility-specific standard cost.

Note that scheduled receipt quantities represent net quantity of each item's yield percentage.

Access: MRP menu

# Print MRP summary projections

Use the MRP Summary Projection program, MRP230D -01, to limit the information to include in the report.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

# Field descriptions - MRP230D-01

#### From Planner Code (3,A):

Specify a range of values to limit the planners to include in the report.

## To Planner Code (3,A):

Specify a range of values to limit the planners to include in the report.

# Master Schedule Items only (1,0):

Specify Yes to include only master production scheduled items on the report. Otherwise, specify No. An item is a master production scheduled item if it has an M in the MRP field of the Item Master file, IIM.

## Amount Projections (3,A):

Specify Yes to print the amount extensions for each quantity line that contains an extension. Otherwise, specify No. Example: Include amount projections to review projected inventory amounts.

## Time Buckets (2,0):

Specify 10, 20, or 30 to print the first 10, 20, or 30 time periods only. Specify 40 to print all 40 time periods.

# Facility (3,A):

Specify a valid facility to which to limit the report.

## Time Frame (1,A):

Specify a valid MRP Time Frame code for the summary report. The field initially displays the system-defined default value for MRP, time frame M.

#### Screen actions - MRP230D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Print MPS detail, MRP240D

Use the Print MPS Detail program, MRP240D, to print complete master production schedule information for MPS items. You can sequence the report by item number or by planner code. If you specify a sort by planner code, the program performs a second sort by item number. The item's planner code is a user-defined code that you maintain in the Item Master Maintenance program, INV100.

You can create a report of simulation data if you run the Simulated MPS print program, MRP730D, from the MPS02 menu. The two programs share the selection screen.

The report format prints general item and manufacturing data in the header date buckets across the page, and calculations (projected on-hand, planned order receipts, available to promise, and so on.) down the page. You can choose whether to print action messages for orders, pegging of requirements, and all scheduled receipts on the report.

The program runs this detailed report by facility.

Access: MPS menu

# Print detailed master production schedule information for MPS items

Use the Master Schedule Detail Report screen, MRP240D-01, to specify selection and sort criteria for master production schedule information to include in the report.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

# Field descriptions - MRP240D-01/MRP730D-01

# By Item(I) or By Planner(P)? (1,A):

Specify I to sequence the report by item number or P to sequence the report by planner.

## From Planner (3,A):

Specify a range of values to limit the planners to include in the report.

# To Planner (3,A):

Specify a range of values to limit the planners to include in the report.

# From Item (35,A):

Specify a range of values to limit the item numbers to include in the report.

#### To Item (35,A):

Specify a range of values to limit the item numbers to include in the report.

# Time Buckets (2,0):

Specify one of the displayed time bucket numbers to limit the time bucket information to print. Number 6 prints the first 6 time periods only, 13 prints the first 13 time buckets only, and so on. 40 prints all time periods.

## Action Messages (1,A):

Choose action message information to print from the following options:

Y = Print action messages

N = Do not print action messages.

O = Limit the report to only items that have action messages, and print the action message detail.

Note: All dates for action messages are based on the MRP start date.

# Pegged Requirements (1,A):

Specify Y (yes) to print pegged requirements in the report. Otherwise, specify N (no).

# Scheduled Receipts Detail (1,A):

Specify Y (yes) to print scheduled receipts detail in the report. Otherwise, specify N (no).

Scheduled receipts include shop orders, purchase orders, firm-planned orders, and requisitions. Infor ERP LX also includes planned orders in scheduled receipts if you set the Include Planned Orders as Scheduled Receipts field in MRP System Parameters, MRP821D, to Yes.

Note that scheduled receipts detail prints the gross quantity for the order. The report does not consider the item yield percentage.

## Facility (3,A):

Specify a valid facility to which to limit the report.

## Time Frame (1,A):

Specify a valid MRP Time Frame code for the summary report. The field initially displays the system-defined default value for MRP, time frame M.

Screen actions - MRP240D-01/MRP730D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Releasable orders report, MRP250D

Use the Releasable Orders Report program, MRP250D, to lists all facility-specific shop orders that have sufficient component materials on-hand to release the orders. The system performs the availability check only for quantities within the producing facility. For orders that have shortages, the report lists the following warehouse-specific quantity information for each component:

- On-hand available
- On-hand unavailable
- Allocated
- On-order quantities

Note that the on-hand available value is a total of inventory on hand in a status that is available for shop order release. The on-hand unavailable quantity is the total of inventory that is on-hand but is in a status that is not available for Shop Order Release.

Shortages are calculated in the sequence that the orders are listed.

The program prints a report of all planned orders for items flagged as manufactured items within the specified date range. Each order is classified as releasable or not releasable. For the planned orders that are not releasable, the report includes a listing of all components on the order that are in short supply. The program calculates component shortages starting with the existing on-hand balance. The program first subtracts allocations to existing shop orders, then subtracts allocations to planned orders for that component in date sequence.

A planned order is releasable only if all components have a sufficient quantity available.

Note that the report does not print manufactured items that have no effective components on the bill of materials. Planned orders for these items are always releasable.

Access: MRP menu

# Print a report of releasable shop orders

Use the Releasable Orders Report screen, MRP250D-01, to specify selection criteria to limit the releasable shop orders to include in the report.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

# Field descriptions - MRP250D-01

## From Release Date (8,0):

Specify a range of values to limit the orders to include in the report by facility release date. The report shows the release dates for each selected warehouse.

# To Release Date (8,0):

Specify a range of values to limit the orders to include in the report by facility release date. The report shows the release dates for each selected warehouse.

#### Facility (3,A):

Specify a facility to limit the orders to include to this facility. Leave the field blank to include orders from all facilities.

## Planner Code (3,A):

Specify a planner code to limit the orders to include to this planner. Leave the field blank to include orders associated with all planners.

#### **Print Shortages (1,0):**

Specify Yes to print shortage detail in the report. Otherwise, specify No.

If you use any user-defined lot statuses to classify inventory, Infor recommends that you print detail of shortages in the report. If you specify Yes, the report includes a section at the end of the Releasable Orders Report that lists, for any component that appears as a shortage on the report, any inventory in a lot that is not available for shop order release but is considered nettable for MRP.

See the section for Lot Status Code Maintenance, API150, in your Advanced Process Industries documentation for more detail on user-defined lot statuses.

#### Screen actions - MRP250D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Planning/pegging inquiry, MRP300D

Use the Planning/Pegging Inquiry program, MRP300D, to view planning information in several views for a selected item/facility combination. You can access views of all of the following information.

- Manufacturing requirements
- Planned orders
- Pegged requirements
- All MRP messages
- Scheduled receipts (individual items)

This program provides an online inquiry of planned orders and requirements for the Item/Facility combination that you request. The inquiry sequences orders and requirements by due date. The inquiry also provides a running balance for each requirement or order due date. This running balance represents the difference between the quantity required and the quantity of goods ordered, current to the due date.

The program updates the order quantity when you run Master Schedule Generation, MRP500, or Explode Requirements, MRP600. Therefore, the order quantity is only realistic if your business has not made any changes that affect product formulation or demand since the last time you ran the MRP500 and MRP600 programs.

Note that the MRP Simulation Inquiry program, MRP650B, shares the MRP300 screens but displays simulation inquiry information rather than live information. See the documentation for MRP Inquiry, MRP300, for a description of the screens this program uses. However, if you use function keys to access Purchase Order and Shop Order Maintenance programs from the simulation inquiry, any changes you make update live files.

Access: MPS menu

#### MRP menu

# Select an item/facility combination for planning/pegging inquiry

Use the Planning/Pegging Inquiry screen, ORD300D-01, to specify the item/facility combination on which to inquire. Screen actions on the screen allow you to view information that concerns the item/facility from various perspectives within the INV, MDM, MRP, PUR and SFC applications..

# Field descriptions - MRP300-01

# Item Number (35,A):

Specify a valid item to use for the inquiry. The combination of item and facility must represent a valid Facility Planning record in the CIC file.

## Facility (3,A):

Specify a valid facility for the inquiry. The combination of item and facility must represent a valid Facility Planning record in the CIC file.

## Screen actions - MRP300-01

## **Enter**

Access Planning/Pegging Inquiry, MRP300D-02.

#### F9=PO RIse

Access PO Consolidation/Release, PUR640-01.

## F10=Purchase Orders

Access Purchase Order Maintenance, PUR500.

## F13=Pegging

Access Pegged Requirements Inquiry, MRP300D-03.

## F14=Fac Planning

Access Facility Planning Selection, MRP140D1-01.

## F15=MPS Maint

Access MRP Maintenance, MRP510D-02.

## F16=Mtl Status

Access Material Status Inquiry, INV300D-02.

# F17=Shop Order RIse

Access Planned Shop Order Release, MRP540D-01.

## F18=BOM

Access BOM-FORMULA-RECIPE, BOM300D1-01.

#### F19=Forecasts

Access Forecast Selection, MRP100D1-01.

# F20=Regstns

Access Requisition Maintenance, PUR600.

## F21=Shop Orders

Access Shop Order Maintenance by Shop Order, SFC500.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# View planning information for an item/facility

Use the Planning/Pegging Inquiry screen, MRP300D-02, to view material requirements and supply. All displayed inventory information is facility specific, although the system generates production orders at the warehouse level.

The display identifies campaign firm-planned orders with an F, followed by the Campaign ID. The display identifies campaign shop orders with a K and the shop order number.

Customer order lines are sorted either by customer order date or by schedule date. The sorting sequence depends on the parameter Customer Order Date for MPS and DRP in the MRP and Shop Floor System Parameters screen, MRP821D-04.

For all cases, the planning date equals the MRP start date for reports, such as MRP200 and MRP240 and the planning date equals the current date for online inquiries, such as MRP300 and MRP510. Release, firm up, and lead time violation messages are suppressed for phantoms items (item type zero). The system does not print phantom items unless it finds a reschedule message (Expedite, De-expedite, or Cancel) or a past due scheduled receipt.

Sources of requirements are listed below.

- Customer Orders. Program: Order Entry, ORD700
- Manufacturing Orders. Program: Shop Order Entry/Maintenance, SFC500
- Forecasts. Program: Forecast Maintenance, MRP100
- Dependent Demand. Program: Explode Requirements, MRP600

The screen displays the source of a particular requirement with an alpha character prefixed to the value in the reference number field (Ref. #).

| С | Customer Orders  |
|---|------------------|
| M | Manufacturing.   |
| F | Forecasts        |
| D | Dependent Demand |

The screen displays past-due planned orders. The screen does not display the forecast that caused the planned orders. The system only uses the forecast if the end date is the same as the current date or later.

The screen displays phantoms on this inquiry if you select them. The phantoms show requirements and planned orders.

The screen displays the control number, the control date lead times, and the total lead times.

## Field descriptions - MRP300-02

## Item (35, A):

Specify the item for which to view planning requirements and supply.

#### On Hand:

This field displays the results from inventory adjustments that you make through an inventory adjustment program, such as the Inventory Transactions program, INV500.

Note that the item line detail totals that you see in the Planning/Pegging Inquiry program, MRP300, may not match the totals you see in the Material Status Inquiry program, INV300, because INV300 includes nettable and non-nettable warehouses. MRP300 includes only nettable warehouses.

# Facility (3,A):

Specify the facility that contains the item for which to view planning requirements and supply.

#### Class:

Infor ERP LX displays the class of the item.

## **Lead Time:**

Infor ERP LX displays the time required to produce this item.

#### Lot Lead Time:

This field displays the time required to produce one lot of this item. Infor ERP LX calculates this value as follows:

Lot Lead Time = Lot Size/Daily Lead Time Rate

Lot size and daily lead time rate default from the Item Master, INV100, or Facility Planning Data Maintenance, MRP140.

## **Unit of Measure:**

Infor ERP LX displays the item's stocking unit of measure.

## **Order Policy:**

Infor ERP LX displays the order policy from Item Master, INV100, or Facility Planning Data Maintenance, MRP140. See the help text for those programs for a description of the available Order Policy Codes.

#### Lot Size:

Infor ERP LX displays the lot size of this item if it is lot controlled.

#### MRP Code:

The MRP code can be one of two values:

- M, Master scheduled item
- N, Not a master scheduled item

## **Increment Above Lot:**

Infor ERP LX displays the amount above the standard lot size in which you manufacture the item.

For example, if the standard lot size is 144 and the increment above lot size is 12, you can manufacture the item in quantities of 144, or 156, or 168. If you receive an order for 150, you must manufacture a quantity of 156.

## JIT Code:

Infor ERP LX displays a code that shows whether or not this item is a JIT item.

- J, JIT item
- N, Not a JIT item

#### Minimum Balance:

Infor ERP LX displays either the static minimum balance or the dynamic minimum balance. The static minimum balance defaults from the Item Master, INV100, or Facility Planning Maintenance, MRP140.

The system calculates the dynamic minimum balance based on the Minimum Balance Days Horizon and the Minimum Balance Days fields in Item Master, INV100, or Facility Planning Data Maintenance, MRP140.

The following is a sample calculation of Dynamic Minimum Balance:

## Sample Data:

- Minimum Balance Horizon Days = 30 (you supply this value)
- Work days in this horizon = 22 (Infor ERP LX determines this from Shop Calendar Maintenance, SFC140, and adds 1 to that value)
- Requirements for the horizon = 1000 (Infor ERP LX determines this)
- Minimum Balance Days = 5 (you supply this value)

Avg. Daily Requirement = 1000/(22 + 1) = 43.48

Dynamic minimum balance = 43.48 x 5 = 217.39

## Batch:

Infor ERP LX displays the size of the batch if this item is batch controlled.

#### **Demand Fence Date:**

This date sets the demand time fence. The system uses the following formula to determining the demand time fence date:

Demand Fence Date = Planning Start Date + Demand Time Fence Days (from Item Master, INV100, or Facility Planning Data Maintenance, MRP140)

You can look at demand before and after the demand fence date. The Method 1 field displays the demand code for the period before the demand fence date, and Method 2 displays the demand code for the period after it.

#### **Yield Percentage:**

Yield percentage affects the entire planning system for each item that has a yield. Set this value in the Item Master, INV100. You can override the value at the item/facility level in Facility Planning Data, MRP140D. If you use routing-based yield, the yield percentage is calculated whenever you create or maintain facility-specific routings.

As part of the MRP and MPS generation, the system increases gross demand requirements by dividing them by the yield percentage. The result is the net demand requirements. Next, the system lot-sizes these requirements by the normal MRP and MPS lot sizing logic. Specifically, yield calculations are performed as shown below:

Net Demand Requirement = Gross Demand Requirement / Yield. The net demand requirement quantity is then lot sized by the normal MRP and MPS lot sizing logic.

MRP Net Planned Order Quantity = Net Demand Requirement x Yield

MRP Gross Planned Order Quantity = Net Demand Requirement. The gross planned order quantity reflects lot sizing logic.

Demand quantities are considered requirements data. Order quantities are considered planning data.

Planning/Pegging Inquiry, MRP300, and MRP Scheduled Detail Inquiry, MRP320, display the net planned order quantity.

For shop orders and purchase orders, the gross planned quantity is the amount actually ordered.

Master Schedule Generation, MRP500, and Explode Requirements, MRP600, perform planning based on the net planned order quantity.

MRP Maintenance, MRP510D-04 displays both gross planned order quantity and net planned order quantity. You can change the net planned order amount on this screen.

Planned Shop Order Release, MRP540D2, displays only the gross planned order quantity and allows you to change it.

The following examples illustrate how yield affects MRP and MPS calculations.

Order Policy A (discrete), no lot size:

Gross Requirement = 100

Yield percent = 90

Net Demand Requirement = 100 (Gross Demand Requirement) / 0.90 (Yield) = 111 11

MRP Gross Planned Order (FPO/PO) quantity = 111.11 (Net Demand Requirement)

MRP Net Planned Order (FPO/PO) quantity = 100 = 111.11 (net demand requirement) x 0.90 (yield).

Order Policy J (multiple of standard lot size):

Gross Requirement = 100

Yield percent = 90

Lot size = 100

Net Demand Requirement = 100 (Gross Demand Requirement) / 0.90 (Yield) = 111.11.

Based on the order policy and lot size of 100, the net requirements of 111.11 must be lot sized to 200 (2 lots). So, 200 is the net requirement that MRP plans for.

MRP Gross Planned Order Quantity = 200 (Net Requirement).

MRP Net Planned Order Quantity = 180 = 200 (Net Requirement) x 0.90 (Yield).

Order Policy I (incremental above standard lot size):

Gross Requirement = 100

Yield percent = 90

Lot size = 100

Incremental quantity = 15

Net Demand Requirement = 100 (Gross Demand Requirement)/.90 (Yield) = 111.11.

Based on the order policy, lot size of 100, and increments of 15, the net requirement of 111.11 are lot sized to 115 (100 + 15). So, 115 is the net requirement that MRP plans for.

MRP Gross Planned Order Quantity = 115 (Net Requirement).

MRP Net Planned Order Quantity = 103.5 = 115 (Net Requirement) x 0.90 (Yield).

# **Item Type:**

Infor ERP LX displays the item type from the Item Master, INV100.

## **Action Message:**

Infor ERP LX displays applicable action messages for the displayed orders. The following messages may appear, depending on the data entered for a specific order.

#### Cancel

If the demand is covered by projected inventory, cancel the order.

De-Expedite

If the order is due before the requirement date, move the order to a later date.

Expedite

If the order is due after the requirement date, move the order to an earlier date.

Firm Up

(for MPS planned orders )The order due date falls inside the horizon.

LT Violation

(for planned and firm-planned orders)This message indicates one of two conditions.

- The release date falls before the planning date.
- The difference between the release date and the due date is less than the item lead time (with consideration of the shop calendar).

#### Over Max

(above maximum run rate) This message displays for order policy K items only. The system generates this message if the planned order quantity for the period divided by the number of working days in the period is greater than the maximum rate that you specify in the Item/Warehouse or Item Master file.

## Past Due

(for scheduled receipts)The due date falls before the planning date.

#### Release

(planned and firm-planned orders) The due date minus the lead time is equal to or less than the MPS/MRP planning date.

#### **Undr Min**

(below minimum run rate) This message displays for order policy K items only. The system generates this message if the planned order quantity for the period divided by the number of working days in the period is less than the minimum rate you specify in the Item/Warehouse or Item Master file.

#### **Order Reference Number:**

Infor ERP LX displays a reference number associated with the source of the order. For example, the order may result from a customer order.

This field contains the purchase or shop order number or identifies planned (PLANND) and firm planned (F.P.O) orders. An alpha character precedes the reference number to characterize the line as described below.

| Q | Requisition                |
|---|----------------------------|
| R | Resupply Order             |
| S | Shop Order                 |
| Р | Purchase Order             |
| L | Preliminary Purchase Order |

## **Order Quantity:**

Infor ERP LX displays the quantity of the order.

#### **Order Release Date:**

Infor ERP LX displays the warehouse date on which to release the order for production. If time zone conversion is supported, the release date is in the From warehouse time zone for a resupply order.

#### **Order Due Date:**

Infor ERP LX displays the warehouse date on which the order is due for completion.

## Warehouse:

Infor ERP LX displays the warehouse where the order is manufactured.

# **Requirements Reference:**

Infor ERP LX displays the reason for this required quantity. For example, a requirement could arise from a forecast or from a shop order. The values are M, manufacturing order and C, customer order.

# **Requirements Quantity:**

Infor ERP LX displays the quantity of the requirement.

## **Requirements Need Date:**

Infor ERP LX displays the date on which the item is needed.

#### Balance:

Infor ERP LX displays the quantity of the item that remains in inventory after the order or requirement has been met.

#### Line:

Infor ERP LX displays the line number.

## Quantity (Orders):

Infor ERP LX displays the quantity for orders.

## **Quantity (Requirements):**

Infor ERP LX displays the quantity for requirements.

## Alloc Mfg:

This field contains the manufacturing allocations that result from shop order releases.

#### Alloc Cust:

This field contains the customer allocations that result from the Order Entry program, ORD700.

#### **Horizon Date:**

The system adds the number of horizon days, as specified in the System Parameters, to the MRP planning start date to calculate the horizon date. You maintain the start date in Facility Master Maintenance, SYS190, Master Schedule Generation, MRP500, or Explode Requirements, MRP600.

Horizon Date = Planning Start Date + Horizon Days

If you establish horizons for the item in the Item Master, the system uses that value as an override value for the default system parameter horizon.

## On Order:

This field contains the total amount of the item that result from both purchase orders and shop orders.

# **Activity:**

This field contains either a Y (Yes) or blank to indicate whether any transaction activity or planning data activity that affects MPS has taken place since the last generation of the Master Production Schedule.

#### Non Net:

You specify warehouses as either Net or Non-net in the Warehouse Master file. The system does not use non-net inventory for MPS or MRP planning.

#### Method 1:

This code describes how Infor ERP LX processes demand before the demand fence date. This value defaults from the Item Master, INV100, or Facility Planning Data Maintenance, MRP140. If those programs do not contain values, the value in this field comes from the MRP System Parameters screen, MRP820D-01.

Valid codes are listed below with their descriptions.

| 1 | Greater of Forecasts and Customer Orders |
|---|--|
| 2 | Sum of Customer Orders and Forecasts     |
| 3 | Forecasts Only                           |
| 4 | Customer Orders Only                     |

#### Method 2:

This code describes how Infor ERP LX processes demand after the demand fence date. This value defaults from the Item Master, INV100, or Facility Planning Data Maintenance, MRP140. If those programs do not contain values, the value in this field comes from the MRP System Parameters screen, MRP820D-01.

Valid codes are listed below with their descriptions.

1 Greater of Forecasts and Customer Orders2 Sum of Customer Orders and Forecasts

- 3 Forecasts Only
- 4 Customer Orders Only

#### Screen actions - MRP300D-02

#### F9=PO RIse

Access PO Consolidation/Release, PUR640-01.

#### F10=Purchase Orders

Access Purchase Order Maintenance, PUR500.

# F13=Pegging

Access Pegged Requirements Inquiry, MRP300D-03.

# F14=Fac Planning

Access Facility Planning Selection, MRP140D1-01.

#### F15=MPS Maint

Access MRP Maintenance, MRP510D-02.

# F17=Shop Order RIse

Access Planned Shop Order Release, MRP540D-01.

## F19=Forecasts

Access Forecast Selection, MRP100D1-01.

#### F20=Regstns

Access Requisition Maintenance, PUR600.

## F21=Shop Orders

Access Shop Order Maintenance by Shop Order, SFC500.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# View pegging information for an item/facility

Use the Planning/Pegging Inquiry screen, MRP300D-03, to view facility-specific requirements that are placed on the production facility. These requirements a

take the form of warehouse-level forecasts, customer orders, and MRP resupply orders.

The pegging screen shows the following requirements detail:

- Quantity Required
- Date Needed
- Requirement Order Type (customer order, shop order, planned order, or firm-planned order)
- Due Date
- Item Number or Customer Number

The Date Needed includes the Bill of Materials offset lead time if the requirement comes from a planned or firm-planned order for a parent item.

The pegging screen displays planned co-product supply orders. The screen identifies co-products with the notation PLN-CD under the For column. Co-products do not represent demand for this item. The screen displays them to show the parent item.

The screen displays control date lead times and the total lead time.

# Field descriptions - MRP300-03

# Item (35,A):

Specify the item for which to view pegging of planning requirements and supply.

## **Item Description:**

Infor ERP LX displays a description of the item.

## Whse (2,A):

The warehouse the screen displays for each requirement is the warehouse in which the forecast or order originated. This warehouse must reside in the production facility you specified.

#### On Hand:

This field displays the results from inventory adjustments that you make through an inventory adjustment program, such as the Inventory Transactions program, INV500.

Note that the item line detail totals that you see in the Planning/Pegging Inquiry program, MRP300, may not match the totals you see in the Material Status Inquiry program, INV300, because INV300 includes nettable and non-nettable warehouses. MRP300 includes only nettable warehouses.

## Facility (3,A):

Specify the facility that contains the item for which to view pegging requirements.

#### Class:

Infor ERP LX displays the class of the item.

### **Lead Time:**

Infor ERP LX displays the time required to produce this item.

#### Lot Lead Time:

This field displays the time required to produce one lot of this item. Infor ERP LX calculates this value as follows:

Lot Lead Time = Lot Size/Daily Lead Time Rate

Lot size and daily lead time rate default from the Item Master, INV100, or Facility Planning Data Maintenance, MRP140.

#### **Unit of Measure:**

Infor ERP LX displays the item's stocking unit of measure.

# Alloc Mfg:

This field contains the manufacturing allocations that result from shop order releases.

## **Order Policy:**

Infor ERP LX displays the order policy from Item Master, INV100, or Facility Planning Data Maintenance, MRP140. See the help text for those programs for a description of the available Order Policy Codes.

#### Lot Size:

Infor ERP LX displays the lot size of this item if it is lot controlled.

## Alloc Cust:

This field contains the customer allocations that result from the Order Entry program, ORD700.

## MRP Code:

The MRP code can be one of two values:

- M, Master scheduled item
- N, Not a master scheduled item

#### **Activity:**

This field contains either a Y (Yes) or blank to indicate whether any transaction activity or planning data activity that affects MPS has taken place since the last Master Production Schedule generation.

#### Increment Above Lot:

Infor ERP LX displays the amount above the standard lot size in which you manufacture the item.

For example, if the standard lot size is 144 and the increment above lot size is 12, you can manufacture the item in quantities of 144, or 156, or 168. If you receive an order for 150, you manufacture 156.

#### On Order:

This field contains the total amount of all ordered goods that result from both purchase orders and shop orders.

#### JIT Code:

Infor ERP LX displays a code that shows whether this item is a JIT item or not.

- J, JIT item
- N, Not a JIT item

#### **Horizon Date:**

The system adds the number of horizon days, as specified in the System Parameters, to the MRP planning start date to calculate the horizon date. You maintain the start date in Facility Master Maintenance, SYS190, Master Schedule Generation, MRP500, or Explode Requirements, MRP600.

Horizon Date = Planning Start Date + Horizon Days

If you establish horizons for the item in the Item Master, the system uses that value as an override value for the default system parameter horizon.

## Minimum Balance:

Infor ERP LX displays either the static minimum balance or the dynamic minimum balance. The static minimum balance defaults from the Item Master, INV100, or Facility Planning Maintenance, MRP140.

The system calculates the dynamic minimum balance based on the Minimum Balance Days Horizon and the Minimum Balance Days fields in Item Master, INV100, or Facility Planning Data Maintenance, MRP140.

The following is a sample calculation of Dynamic Minimum Balance:

#### Sample Data:

- Minimum Balance Horizon Days = 30 (you supply this value)
- Work days in this horizon = 22 (Infor ERP LX determines this from Shop Calendar Maintenance, SFC140, and adds 1 to that value)
- Requirements for the horizon = 1000 (Infor ERP LX determines this)
- Minimum Balance Days = 5 (you supply this value)

## Calculations:

Avg. Daily Requirement = 1000/(22 +1) = 43.48

Dynamic minimum balance = 43.48 x 5 = 217.39

#### Non Net:

You specify warehouses as either Net or Non-net in the Warehouse Master file. The system does not use non-net inventory for MPS or MRP planning.

#### Method 1:

This code describes how Infor ERP LX processes demand before the demand fence date. This value defaults from the Item Master, INV100, or Facility Planning Data Maintenance, MRP140. If those programs do not contain values, the value in this field comes from the MRP System Parameters screen, MRP820D-01. Valid codes are listed below with their descriptions.

| 1 | Greater of Forecasts and Customer Orders |
|---|--|
| 2 | Sum of Customer Orders and Forecasts     |
| 3 | Forecasts Only                           |
| 4 | Customer Orders Only                     |

# Method 2:

This code describes how Infor ERP LX processes demand after the demand fence date. This value defaults from the Item Master, INV100, or Facility Planning Data Maintenance, MRP140. If those programs do not contain values, the value in this field comes from the MRP System Parameters screen, MRP820D-01. Valid codes are listed below with their descriptions.

| 1 | Greater of Forecasts and Customer Orders |
|---|--|
| 2 | Sum of Customer Orders and Forecasts     |
| 3 | Forecasts Only                           |
| 4 | Customer Orders Only                     |

#### Batch:

Infor ERP LX displays the size of the batch if this item is batch controlled.

#### **Demand Fence Date:**

This date sets the demand time fence. The system uses the following formula to determining the demand time fence date:

Demand Fence Date = Planning Start Date + Demand Time Fence Days (from Item Master, INV100, or Facility Planning Data Maintenance, MRP140)

You can look at demand before and after the demand fence date. The Method 1 field displays the demand code for the period before the demand fence date, and Method 2 displays the demand code for the period after it.

# Yield Percentage:

Yield percentage affects the entire planning system for each item that has a yield. Set this value in the Item Master, INV100. As part of the MRP and MPS generation, the system increases gross demand requirements by dividing them by the yield percentage. The result is the net demand requirements. Next, the system lot-sizes these requirements by the normal MRP and MPS lot sizing logic. Specifically, yield calculations are performed as shown below:

Net Demand Requirement = Gross Demand Requirement / Yield. The net demand requirement quantity is then lot sized by the normal MRP and MPS lot sizing logic.

MRP Net Planned Order Quantity = Net Demand Requirement) x Yield

MRP Gross Planned Order Quantity = Net Demand Requirement. The gross planned order quantity reflects lot sizing logic.

Demand quantities are considered requirements data. Order quantities are considered planning data.

Planning/Pegging Inquiry, MRP300, and MRP Scheduled Detail Inquiry, MRP320, display the net planned order quantity.

For shop orders and purchase orders, the gross planned quantity is the amount actually ordered.

Master Schedule Generation, MRP500, and Explode Requirements, MRP600, plan based on the net planned order quantity.

MRP Maintenance, MRP510D-04 displays both gross planned order quantity and net planned order quantity. You can change the net planned order amount on this screen.

Planned Shop Order Release, MRP540D2, displays only the gross planned order quantity and allows you to change it.

The following examples illustrate how yield affects MRP and MPS calculations.

Order Policy A (discrete), no lot size:

Gross Requirement = 100

Yield percent = 90

Net Demand Requirement = 100 (Gross Demand Requirement) /0.90 (Yield) = 111.11.

MRP Gross Planned Order (FPO/PO) quantity = 111.11 (Net Demand Requirement)

MRP Net Planned Order (FPO/PO) quantity = 100 = 111.11 (net demand requirement) x0.90 (yield).

Order Policy J (multiple of standard lot size):

Gross Requirement = 100

Yield percent = 90

Lot size = 100

Net Demand Requirement = 100 (Gross Demand Requirement) /0.90 (Yield) = 111.11.

Based on the order policy and lot size of 100, the net requirements of 111.11 must be lot sized to 200 (2 lots). So, 200 is the net requirement that MRP plans for

MRP Gross Planned Order Quantity = 200 (Net Requirement).

MRP Net Planned Order Quantity = 180 = 200 (Net Requirement) x0.90 (Yield).

Order Policy I (incremental above standard lot size):

Gross Requirement = 100

Yield percent = 90

Lot size = 100

Incremental quantity = 15

Net Demand Requirement = 100 (Gross Demand Requirement)/.90 (Yield) = 111.11.

Based on the order policy, lot size of 100, and increments of 15, the net requirement of 111.11 are lot sized to 115 (100 + 15). So, 115 is the net requirement that MRP plans for.

MRP Gross Planned Order Quantity = 115 (Net Requirement).

MRP Net Planned Order Quantity = 103.5 = 115 (Net Requirement) x0.90 (Yield).

## **Item Type:**

Infor ERP LX displays the item type from the Item Master, INV100.

## **Qty Req (Quantity Required):**

Infor ERP LX displays the quantity needed for this requirement.

## Need (Needed Date):

Infor ERP LX displays the warehouse date on which the supply must be available for the requirement. The date varies, depending on the requirement that generated the need. For shop orders and resupply orders, it is the release date. For forecasts, it is the start date. For customer orders, it is the request date.

#### For:

Infor ERP LX displays the source of the requirement, such as a forecast or a customer order.

#### **Reference Number:**

Infor ERP LX displays a reference number associated with the source of the requirement.

## **Due Date:**

Infor ERP LX displays the warehouse date on which this requirement is due. For shop orders and resupply orders, this is the due date. For customer orders, it is the request date. For forecasts, it is the end date.

#### Item/Customer:

Infor ERP LX displays the item number or customer number that drives this requirement. For example, if this item is a component item, the parent item number appears here. If a particular customer requires this item, that customer number appears here.

## Screen actions - MRP300D-03

#### F9=PO RIse

Access PO Consolidation/Release, PUR640-01.

## F10=Purchase Orders

Access Purchase Order Maintenance, PUR500.

## F13=Planning

Access Planning/Pegging Inquiry, MRP300D-02.

#### F14=Fac Planning

Access Facility Planning Selection, MRP140D1-01.

#### F15=MPS Maint

Access MRP Maintenance, MRP510D-02.

# F17=Shop Order RIse

Access Planned Shop Order Release, MRP540D-01.

# F19=Forecasts

Access Forecast Selection, MRP100D1-01.

# F20=Reqstns

Access Requisition Maintenance, PUR600.

## F21=Shop Orders

Access Shop Order Maintenance by Shop Order, SFC500.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Available to promise inquiry, MRP310D

The Available to Promise Inquiry program, MRP310D, allows online inquiry into the facility-specific Available to Promise inventory by date, starting from the MRP/DRP start date. You define in MRP/DRP Time Frame Maintenance, MRP/DRP120. The available to promise quantities appear in period increments that you define on the first screen. The default increment is seven days.

You can also access this program from within the Order Entry process. When you call the inquiry from Order Entry, the system passes the item and request dates to this program, so you do not see the selection screen. You can also specify a promise date to transfer back to the Order Entry program when you exit the ATP Inquiry program and return to order entry.

Use this inquiry to review and select dates on which you can promise stock to new customer orders.

Access: MPS menu

# Specify criteria for the available to promise inquiry

Use the Available to Promise Inquiry criteria screen, MRP310D-01, to specify the item, facility, and number of days in a period on which to base the inquiry.

#### Field descriptions - MRP/DRP310-01

#### Item Number (35,A):

Specify the item number to use for this inquiry.

# Facility (3,A):

Specify the facility to use for this inquiry.

# Offset Days (3,0):

Specify the length of a period in days to use for the inquiry. The default value is 7 days.

## Screen actions - MRP/DRP310-01

## F14=Material Status Inquiry

Use F14 to access Material Status Inquiry, INV300C.

## F15= Open Order Inq

Use F15 to access Open Orders Inquiry. Infor ERP LX displays open orders for the specified item in program ORD300C.

# F16=MRP/MPS Inq or DRP Inq

If you call this screen from MRP, you access the MRP Planning/Pegging Inquiry screen, MRP300D-02. If you call the screen from DRP, you access the DRP Planning/Pegging Inquiry screen, DRP300D-02.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# View available-to-promise detail for specified item

Use the Available to Promise Inquiry screen, MRP/DRP310-02, to view available-to-promise data for the specified item in date sequence. The screen initially displays the first 11 periods, but you can roll forward to display additional periods.

The control date lead times and total lead time are displayed.

Use this inquiry to review and select the date(s) on which you can promise stock to new customer orders.

ATP values are calculated for display on the Available to Promise Inquiry screen, MRP/DRP310D, as described below.

Available to Promise = Scheduled Receipts - Customer Orders

ATP is zero or positive in periods that occur after the start date but before the planning horizon. ATP is zero if the inventory balance from scheduled receipts minus customer orders plus on-hand balance in the first period after the planning horizon date results in a deficit. ATP is positive if there is remaining on-hand inventory after the system makes up deficits from later periods. The ATP value for the first period that occurs after the planning horizon that has scheduled receipts or customer orders is the only one that can show a negative ATP value. This can occur because there is no earlier period in which the system can pay back a calculated ATP deficit if the projected on-hand balance was insufficient to cover it.

Note: The Scheduled Receipts field in the equation above can reflect Planned and Firm-Planned Orders or only Firm-Planned Orders. This depends on how you set the Include Planned Orders as Scheduled Receipts flag in MRP and Shop Floor System Parameters, MRP821D.

ATP within the considered time periods is calculated backward - latest calendar period first. If scheduled receipts exceed customer orders in the latest period, ATP shows a positive value. If customer orders exceed receipts, the balance is zero, because there is no surplus available to promised to other orders. The deficit does not appear in the ATP field, but it is remembered. If earlier time periods show a surplus, first the deficit from later periods must be paid back from that surplus. The balance of the surplus appears as the ATP value for that period. Surplus values are not carried backward, however, because the ATP value is intended to tell the planner or order taker what is available in a future period in which an order must be filled. See the example below.

# **Example**

A planner wants to check available-to-promise inventory for item ATP. Current stock on hand is 5 items. Planning Start Date is August 7, 2005. The planner requires two weeks to respond to new demand for item ATP, so the Horizon Date for this item is August 21. The system parameter flag in MRP and Shop Floor System Parameters specifies that Scheduled Receipts include both planned and firm-planned orders. The planner gets the values shown in the table below in Available to Promise Inquiry, MRP/DRP310.

The table headings are shortened as follows:

Prom. = Promise by Date (end date of the time bucket)

Cust. = Customer Order Quantity

Sched. = Scheduled Receipts Quantity

Cume ATP = quantity of inventory available for that time bucket

| Prom.   | Cust.  | Sched.     | Cume<br>ATP |
|---------|--------|------------|-------------|
| 8/06/05 | .000   | .000       | .000        |
| 8/13/05 | .000   | .000       | .000        |
| 8/20/05 | .000   | .000       | .000        |
| 8/27/05 | 15.000 | .000       | 10.000-     |
| 9/03/05 | .000   | .000       | .000        |
| 9/10/05 | 20.000 | 60.<br>000 | 25.000      |
| 9/17/05 | .000   | .000       | .000        |

| 9/24/05  | 10.000 | .000 | .000 |
|----------|--------|------|------|
| 10/01/05 | .000   | .000 | .000 |
| 10/08/05 | 5.000  | .000 | .000 |
| 10/15/05 | .000   | .000 | .000 |
| 10/22/05 | .000   | .000 | .000 |

The latest period with activity is the one ending 10/8/05. There is a quantity of 5 demand from customer orders, but no scheduled receipts. This leaves a negative inventory balance of -5, so ATP is 0: there is no inventory available to promise to incoming orders in this time period.

Working backward, the next period, which ends10/01, has no new activity, thus there is still no inventory available to promise (ATP = 0), and the deficit remains -5.

The next earlier period, ending 9/24, has customer order quantities totalling 10. There are no scheduled receipts. Thus the ATP value remains 0, but the deficit has increased to -15.

The next earlier period, ending 9/17, has no activity, so again ATP=0 and the deficit remains -15.

The next earlier period, 9/10, includes some customer orders and scheduled receipts. Scheduled receipts exceed customer orders by a quantity of 40. Paying off the deficit of -15 from later periods, we subtract this from our surplus of forty to get the ATP value for this line: 25.

The next earlier period, 9/3, has no activity, thus ATP is 0. Surplus cannot be carried backward in time, since it won't have been received in an earlier time period.) Finally, the earliest active period, 8/27, has a customer order quantity of 15 and no scheduled receipts. It does have the on-hand inventory balance of 5 available, however. This leaves a deficit for the period of -10. Since there is no applicable earlier period in which this deficit can be paid back (other periods in the chart are earlier than the horizon date), ATP for this period registers a negative value of -10. This signals the planner to do something: purchase or produce more of the item, move some orders out later if possible, etc.

The ATP calculation includes the following types of scheduled receipts:

- Firm-planned orders
- Planned orders when the Include Planned Orders as Scheduled Receipts parameter is set to "1"
- Purchase orders (open balance)
- Shop orders for a parent item (open balance)
- Resupply order receipts for the "To" facility (open balance)

Co/by-product receipts (open balance

Customer Orders in the ATP calculation include the following:

- Customer orders (open balance)
- Resupply orders to ship (From facility) (open balance)
- Components of shop orders (open balance)

## Field descriptions - MRP/DRP310-02

## Promise By:

This field displays the period start date for the given balances.

#### **Customer:**

This field displays customer orders and allocations to shop orders.

## Sch Rcts (Scheduled Receipts):

This field displays the actual quantity due from production or purchase orders. This may optionally include planned and firm-planned orders.

When the system computes scheduled receipts with planned orders, it uses the following equation:

Scheduled Receipts = shop orders + purchase orders+ firm-planned orders + requisitions + planned orders

When the system computes scheduled receipts without planned orders, it uses the following equation:

Scheduled Receipts = shop orders + purchase orders+ firm-planned orders + requisitions

## Plan Rct (Planned Receipts):

This field displays the quantities from planned orders (firm and planned) that are due in. These quantities are the net result of the yield percentage.

## ATP:

This field displays the available-to-promise inventory for each period. The available to promise inventory represents the inventory left over (available) in a specific period after all demand from the current period is satisfied, and all receipts up to and including the current period are added in, including any on hand balance available on the start date period.

## **Cume ATP**

This field shows the Total ATP stock as of the given date. This is shown to give you a running balance of the ATP for orders larger than the ATP in a given period.

The available to promise inventory represents the inventory left over (available) in a specific period after all demand from the current period is satisfied, all debt from later periods is subtracted, and all receipts up to and including the current period are added in, including any on hand balance available on the start date period. For a discussion of the ATP calculation with an example, see the overview help text for this screen.

#### Screen actions - MRP/DRP310-02

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# MRP scheduled detail inquiry, MRP320D

The MRP Scheduled Detail Inquiry program, MRP320D, provides an online view of the facility-specific Master Production Schedule data for up to 14 master production schedule periods for the item that you specify. The inquiry groups the time-phased records based on the number of offset days you specify.

Use F14 to view the Additional Information screen, which displays Planner, Lead Time, Lot Size, Increment, Minimum Balance, On Hand, Alloc Mfg, and Alloc Cust fields.

Access: MRP menu

MPS menu

View facility-specific master production schedule data for an item

Use the Master Schedule Detail screen, MRP320D-01, to specify the item, facility, and number of offset days for which to view master production schedule detail. Press Enter to update the screen. Use F14 to display the Additional Information screen.

## Field descriptions - MRP320D-01

#### Item Number (35,A):

Specify the item for which to display information.

## Offset Days (3,0):

Specify the number of offset days to apply to each MPS inquiry period. The program calculates and displays separate totals for each of the periods.

# Facility (3,A):

Specify a facility to use for the item planned by MRP on which to inquire. Leave this field blank to view a consolidation of all nettable warehouse data, even if your environment runs MRP/MPS by facility.

## Screen actions - MRP320D-01

#### **F14=Additional Information**

Access the Additional Information window to view additional master production schedule detail for the specified item.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Master schedule generation, MRP500C

Use the Master Schedule Generation program, MRP500C, to update the master production schedule and create planned orders and requirements. The program creates no planned orders or requirements with dates prior to the planning start date. It prorates forecasts if the forecast period crosses the planning start date and the Prorate Forecasts? flag is set to Yes in the MRP System Parameters screen, MRP820D-01.

The Master Scheduled field in the Item Master file, IIM, and Facility Planning Data file, CIC, affect the generation of planned orders during MPS and MRP generation.

You can set the Master Scheduled field to M (master scheduled) or N (not master scheduled). The following table shows which programs plan the item, based on the values in this field in the IIM and CIC files:

| IIM value | CIC value | Program |
|-----------|-----------|---------|
| M         | N         | MRP600  |
| N         | М         | MRP500  |
| N         | N         | MRP600  |
| M         | М         | MRP500  |

You can execute the Master Schedule Generation program to create a master schedule. Next, run the Print MPS Detail report, MRP240D, to check whether

you require adjustments to the schedule. After you make necessary adjustments to the master schedule, run the Explode Requirements program, MRP600C, to generate requirements and create planned orders for required non-MPS items.

This program generates the facility-specific master production schedule in either a net change N or regenerative R process. The program can only process one facility at a time. Do not run it concurrently with Explode Requirements, MRP600.

If you run the Master Schedule Generation program in By Facility mode, the program only processes facilities with 86 or fewer warehouses. For information about the Run MPS/MRP by Facility parameter, see the System Parameters documentation for MRP System Parameters, MRP821D-02.

If in your environment the system parameters is set to prorate forecasts, you can change the forecast quantity if you change the MPS run date. However, this change does not affect the MRP activity flag for the item. If you run a net change MRP, if no other activity has occurred for this item, the net change process does not include the item.

Unlike SFC, MRP does not consider lot active and expiration dates.

The system uses calendars to plan manufactured and purchased parts as described below.

- Purchased and manufactured parts are treated the same.
- The system never uses work center calendars for this planning.
- The system uses the facility calendar for facility planning.
- If the global calendar has days blocked out that are not blocked out in the facility calendar, MRP/MPS plans around both the facility and the global days off.

In all cases, the system uses the IIM/CIC lead time parameter to determine the release date for the planned order to meet the due date from the forecast or parent demand.

Assortments and Kits (Item types 3 and 4) are not exploded.

The planning process explodes available to promise quantities through the planning bills of materials to create production forecasts.

The planning process explodes planned and firm-planned orders through the regular bills of materials. It creates planned orders at the planning horizon, up to a limit of 200 planned orders per item. Finally, it generates exception messages for all master production schedule items.

Net Change processing only affects items that require re-planning. Regenerative processing re-plans all items.

If you set horizon days for all items in the system parameters or for a specific item in the Item Master file, the system does not generate planned orders within that horizon. It creates planned orders outside the horizon and it generates an exception message to Expedite the planned order. If you use planning bills of materials with multiple-level MPS, the generation explodes the available to promise quantities of parent items to lower-level MPS items.

For explosion purposes, the available to promise calculation does not include any on-hand balance. This differs from the available to promise calculation in Master Schedule Detail Report, MRP240, and Available to Promise Inquiry, MRP310.

The explosion calculation is based on the parent yield percentage and any scrap factor at the component level on the bill of materials. When the system calculates net requirements, the net requirements are divided by the parent yield percentage. For example, a parent yield of 90% increases a net requirement of 100 to 111. When the process explodes the available to promise quantities and planned orders, the quantity required value for each child is multiplied by the child's scrap factor (if one exists). When the system explodes the quantity required value through the planning bill of materials in MPS generation, the quantity required value is multiplied by the scrap factor and the forecast percentage.

The lead time of a planned order for an MPS item includes the release date and the due date. The lead time for a non-MPS item is the difference between these dates. An offset at the interface between the two gives the overall lead time.

Do not define a single facility as both a manufacturing and a distributing facility if your business meets both of the following conditions:

- Your environment has the Distribution Requirements Planning application installed
- You run MRP by facility.

If the two conditions apply, define the facility as two logical facilities and maintain distribution and manufacturing requirements separately. Provide the connection between to two logical facilities in a From/To relationship that you can define in DRP. See the documentation for the Distribution Resources Planning application for further information.

#### Note to Time Zone Conversion Users

Time zone conversion functionality allows you to view dates correctly for a region, regardless of the time zone in which you operate. The MRP programs convert regional dates entered on the screen for a specific region, such as that of the facility or the planning warehouse, to the corresponding dates for the time zone that is your system date and time. The MRP programs process date calculations in the system date and time, then reconvert the resulting dates and times to values appropriate to the region of the warehouse or facility before these dates are displayed on the screen or printed in reports.

## Example:

A record to process is associated with a warehouse in Sydney, Australia. The time zone you use for the system date and time is Chicago, USA. The MRP application reads the generation start date and time 0:00:00 for the Sydney facility's planning warehouse, converts it to the equivalent date and time for the Chicago time zone, and uses this converted date and time to perform planning calculations in 24 hour buckets. When it displays the resulting dates and times on screens or prints them in reports, it converts the results of the calculations back to the equivalent dates and times for Sydney.

Access: MPS menu

# Create the master schedule

Use the Create the Master Schedule screen, MRP500D-01, to specify parameters within which to generate the master schedule. You can specify planning start and end dates, limit the schedule to a single facility or include all facilities, and determine whether you want just a net change generation or a full regeneration of the schedule.

# Field descriptions - MRP500D-01

## Planning Start Date (8.0):

Specify the earliest date to use for the planning cycle. Infor ERP LX uses the planning date to plan both orders with forecasts and customer orders as demand. Demand codes and time fences are effective from the planning date, not from the current date. If you blank out this field, the process uses the facility-specific planning date.

If you specify a planning date that is earlier than the current date, Infor ERP LX shows planned orders that are different from the requirements. For months prior to the current month, the forecasts are dropped. For the current month, the forecasts are prorated.

The system creates planned orders for the entire forecast amounts of both the prior months and the current month. This is per Infor ERP LX design. Inquiries, such as the Planning/Pegging Inquiry, MRP300, are designed to reflect the current date, or today's position. All planning processes and reports reflect the planning date. To ensure that planned orders match the requirements, generate MRP with a planning date equal to the current date.

## Planning End Date (8,0):

Specify the final date on which to consider demand to create planned orders.

## Net Change (N) or Regenerative (R) (1,A):

Specify the type of master schedule update to perform. N=Net Change and R=Regenerative.

- Specify N, Net Change, to plan only active items. Active items are items that have activity against them that may affect planning. Infor ERP LX shows activity by changing the Activity flag in MRP300 or MRP510 to Y.
- Specify R, Regenerative, to plan all items, regardless of activity.

If you run the generation as net change, next run Explode Requirements, MRP600, in net change or regenerative mode.

If you run a regeneration, you should also run Explode Requirements, MRP600, in the regenerative mode. If you do not run MRP600, material requirements will not reflect changes that were made to the MPS.

You do not have to regenerate the MPS after you make adjustments to orders, but you do have to run Explode Requirements, MRP600, after you make changes to adjust MRP.

## Facility (3,A):

Specify a valid facility code to restrict the master schedule generation to a single facility, or specify \*\*\* to include all facilities.

## Clear Planned Order File (Y/N)? (1,A):

Specify Y=Yes to clear the lower level requirements out of the Planned and Firm-Planned Order file, KFP, specifically, for items with a master schedule value of N in the Item Master or in Facility Planning Data Maintenance. Do this to create a fresh MPS.

#### Screen actions - MRP500D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# MRP maintenance, MRP510D

The MRP Maintenance program, MRP510D, provides online, facility-specific maintenance of planned and firm planned production orders. You can run this program in simulation mode, Simulation Maintenance, MRP710B, from the MPS02 menu.

Use this program to view manufacturing requirements and Master Production Schedule orders.

You can also use the Master Schedule Maintenance program to maintain planned and firm-planned orders.

If an item is not a JIT item, you schedule it only through MRP Maintenance, MRP510. JIT items can be scheduled through either MRP Maintenance, MRP510, or Schedule Maintenance, JIT510.

The system automatically regenerates the rough cut capacity requirements that result from the planned orders if you use the MRP Maintenance program, and any of the following applies:

A planned order for a master scheduled item is added, changed, firmed up, the order quantity is changed, the order date is changed or deleted.

To view rough cut requirements, generate the Detail Requirements Report, CAP200, with the Rough Cut Capacity option selected. To regenerate these requirements, the system deletes all rough cut capacity requirements for the

affected item, warehouse, or order type (planned or firm planned). Next, the system re-plans the requirements based on both the changed order and the ordered item's bill of resources.

The Work Center Load Inquiry program, MRP642D, can access Master Schedule Maintenance. After you maintain schedules, the impact on capacity (rough cut resources) is immediately reflected against the work center. For JIT items, a screen allows you to modify firm-planned order quantities if you modify the total quantity or the daily run rate.

After you use MRP Maintenance, MRP510D, to adjust the master production schedule, you need to execute Explode Requirements, MRP600, to generate material requirements and create planned orders for all non-MPS items. This program lists all current orders and requirements. It displays these entries by their due dates. The program also provides a running balance for each requirement or order due date. The running balance value represents the numerical difference between the quantity of goods required and the quantity ordered, current to that date.

Note: If you are receiving into a warehouse type 4=Warehouse BOSS controlled-warehouse or type 5=WMS-4000-controlled warehouse, you cannot order items of the following types for receipt:

- Item Type 0 = Phantom
- Item Type 3 = Assortment
- Item Type 4 = Kit
- Item Type 5 = Planning Bill
- Item Type 6 = non-Balancing
- Container-Controlled Item

Access: MRP menu

MPS menu

## Note to Time Zone Conversion Users

Time zone conversion functionality allows you to view dates correctly for a region, regardless of the time zone in which you operate. The MRP programs convert regional dates entered on the screen for a specific region, such as that of the facility or the planning warehouse, to the corresponding dates for the time zone that is your system date and time. The MRP programs process date calculations in the system date and time, then reconvert the resulting dates and times to values appropriate to the region of the warehouse or facility before these dates are displayed on the screen or printed in reports.

Access: MPS menu

# Specify an item and facility for MRP maintenance

Use the MRP Maintenance screen, MRP510D-01, to specify an item and facility for which to run the MRP maintenance process. Specify the mode in which to run the program: Create, Revise, or Delete.

# Field descriptions - MRP510D-01

## Item Number (35,A):

Specify an item for which to perform MRP Maintenance.

# Facility (3,A):

Specify a facility for MRP planning on the item in the Item Number field.

## Screen actions - MRP510D-01

#### F9=Create

Run the program in Create mode.

## F13=Pegging

Access MRP Maintenance, MRP510D-03, to view Pegging information for the item.

## F14=Revise

Run the program in Revise mode.

#### F19=Forecast

Access Forecast Selection, MRP100D1-01, to select an item for which to maintain forecast information.

## F21=Delete

Run the program in Delete mode.

#### F22=Mass Create

Access the Mass Create screen, MRP510D-05, to enter all required data for multiple planned orders in a single screen.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Add, revise, or delete planned or firm-planned orders

Use the MRP Maintenance screen, MRP510D-02, to update orders for the item and facility you specified in the first screen.

If you use control number scheduling, this screen displays the control number, control date lead times, and total lead time.

Planning order maintenance in this screen involves the following steps:

- **1.** Select the desired maintenance mode: F9=Create, F14=Revise, F21=Delete. The mode you selected displays in the title row of this screen.
- 2. Specify both the plan due date and the plan type, planned or firm-planned.
- **3.** Press Enter to perform the order create, revise, or delete operation.

Requirements result from the following four sources:

- Reference C: Source is Customer Orders from Order Entry, ORD700
- Reference M: Source is Manufacturing Order from Shop Order Release, SFC500
- Reference F: Source is Forecasts from Forecast Maintenance, MRP100
- Reference D: Source is Dependent Demand from MPS and MRP Explosion, MRP500 and MRP600

The source of a particular requirement is designated by a prefixed letter to the entry in the reference number field: C for Customer, M for Manufacturing, F for Forecast, D for Dependent.

Use F13 to switch between this screen and the MRP Maintenance pegging screen, MRP510D-03 for pegging information. This is useful to determine which orders to firm up, expedite, and de-expedite. The screen displays all inventory information specific to the facility, but production orders are generated on the warehouse level.

To maintain or add an order, first specify the order's due date and the type, either firm, F, or planned, P. The program displays a maintenance screen in which you can specify the quantity and the release date for the order. The system displays the applicable action messages for all orders.

This program displays orders and requirements information online. Under the Orders heading, the screen displays all purchase orders and shop orders, and both planned and firm-planned orders that are currently in the system. The reference number field contains the purchase or shop order number or identifies planned and firm-planned orders.

Quantities for lots that are available as of the MRP start date display under the Orders heading.

Quantities for lots that have expired as of the MRP start date display under the Requirements heading.

The system displays scheduling messages for all released orders. The Action field contains applicable action messages for the displayed orders. Perform the action indicated by the messages.

For all cases, the planning date equals the MRP start date for reports, such as MRP200 and MRP240 and the planning date equals the current date for online inquiries, such as MRP300 and MRP510. Release, firm up, and lead time violation messages are suppressed for phantoms items (item type zero). The system does not print phantom items unless it finds a reschedule message (Expedite, De-expedite, or Cancel) or a past due scheduled receipt.

# Field descriptions - MRP510D-02

## Facility (3,A):

Specify the facility that contains the item for which to display planning requirements and supply.

#### On Hand:

This field displays the results from inventory adjustments that you make through an inventory adjustment program, such as the Inventory Transactions program, INV500.

Note that the item line detail totals that you see in MRP program may not match the totals you see in the Material Status Inquiry program, INV300, because INV300 includes nettable and non-nettable warehouses. MRP includes only nettable warehouses.

## Alloc Mfg:

This field displays manufacturing allocations that result from shop order releases.

#### Alloc Cust:

This field displays the customer allocations that result from Customer Order Entry.

#### **Horizon Date:**

The system adds the number of horizon days, as specified in the System Parameters, to the MRP planning start date to calculate the horizon date. You maintain the start date in Facility Master Maintenance, SYS190, Master Schedule Generation, MRP500, or Explode Requirements, MRP600.

Horizon Date = Planning Start Date + Horizon Days

If you establish horizons for the item in the Item Master, the system uses that value as an override value for the default system parameter horizon.

## On Order:

This field contains the total amount of the item that result from both purchase orders and shop orders.

## **Activity:**

This field contains either a Y (Yes) or blank to indicate whether any transaction activity or planning data activity that affects MPS has taken place since the last Master Production Schedule generation.

## Non Net:

You specify warehouses as either Net or Non-net in the Warehouse Master file. The system does not use non-net inventory for MPS or MRP planning.

## Method 1:

This code describes how Infor ERP LX processes demand before the demand fence date. This value defaults from the Item Master, INV100, or Facility Planning Data Maintenance, MRP140. If those programs do not contain values, the value in this field comes from the MRP System Parameters screen, MRP820D-01. Valid codes are listed below with their descriptions.

| 1 | Greater of Forecasts and Customer Orders |
|---|--|
| 2 | Sum of Customer Orders and Forecasts     |
| 3 | Forecasts Only                           |
| 4 | Customer Orders Only                     |

# Plan Due (8,0):

Specify the due date for the order. This date represents the date on which the order is due for completion in the facility's planning warehouse. The system backward schedules the master production schedule release date from this value.

## Type (1,A):

Specify F for a firm-planned order or P for a planned order. Planned orders are rescheduled outside of the planning horizon when the master production schedule is generated. Firm-planned orders are not changed.

## Release Date (8,0):

Specify the release date for this order. This field only appears in Create mode.

#### Item (35, A):

Specify the item for which you want to see the planning and pegging.

#### Class:

Infor ERP LX displays the class of the item.

## **Lead Time:**

Infor ERP LX displays the time required to produce this item.

#### Lot Lead Time:

This field displays the time required to produce one lot of this item. Infor ERP LX calculates this value as follows:

Lot Lead Time = Lot Size/Daily Lead Time Rate

Lot size and daily lead time rate default from the Item Master, INV100, or Facility Planning Data Maintenance, MRP140.

#### **Unit of Measure:**

Infor ERP LX displays the item's stocking unit of measure.

## **Order Policy:**

Infor ERP LX displays the order policy from Item Master, INV100, or Facility Planning Data Maintenance, MRP140. See the help text for those programs for a description of the available Order Policy Codes.

## Lot Size:

Infor ERP LX displays the lot size of this item if it is lot controlled.

#### MRP Code:

The MRP code can be one of two values:

- M. Master scheduled item
- N, Not a master scheduled item

#### **Increment Above Lot:**

Infor ERP LX displays the amount above the standard lot size in which you manufacture the item.

For example, if the standard lot size is 144 and the increment above lot size is 12, you can manufacture the item in quantities of 144, or 156, or 168. If you receive an order for 150, you manufacture 156.

#### JIT Code:

Infor ERP LX displays a code that shows whether this item is a JIT item or not.

- J, JIT item
- N. Not a JIT item

# Minimum Balance:

Infor ERP LX displays either the static minimum balance or the dynamic minimum balance. The static minimum balance defaults from the Item Master, INV100, or Facility Planning Maintenance, MRP140.

The system calculates the dynamic minimum balance based on the Minimum Balance Days Horizon and the Minimum Balance Days fields in Item Master, INV100, or Facility Planning Data Maintenance, MRP140.

The following is a sample calculation of Dynamic Minimum Balance:

## Sample Data:

- Minimum Balance Horizon Days = 30 (you supply this value)
- Work days in this horizon = 22 (Infor ERP LX determines this from Shop Calendar Maintenance, SFC140, and adds 1 to that value)
- Requirements for the horizon = 1000 (Infor ERP LX determines this)
- Minimum Balance Days = 5 (you supply this value)

Avg. Daily Requirement = 1000/(22 + 1) = 43.48

Dynamic minimum balance =  $43.48 \times 5 = 217.39$ 

#### Batch:

Infor ERP LX displays the size of the batch if this item is batch controlled.

#### **Demand Fence Date:**

This date sets the demand time fence. The system uses the following formula to determining the demand time fence date:

Demand Fence Date = Planning Start Date + Demand Time Fence Days (from Item Master, INV100, or Facility Planning Data Maintenance, MRP140)

You can look at demand before and after the demand fence date. The Method 1 field displays the demand code for the period before the demand fence date, and Method 2 displays the demand code for the period after it.

## **Yield Percentage:**

Yield percentage affects the entire planning system for each item that has a yield. Set this value in the Item Master, INV100. As part of the MRP and MPS generation, the system increases gross demand requirements by dividing them by the yield percentage. The result is the net demand requirements. Next, the system lot-sizes these requirements by the normal MRP and MPS lot sizing logic. Specifically, yield calculations are performed as shown below:

Net Demand Requirement = Gross Demand Requirement / Yield. The net demand requirement quantity is then lot sized by the normal MRP and MPS lot sizing logic.

MRP Net Planned Order Quantity = Net Demand Requirement) x Yield MRP Gross Planned Order Quantity = Net Demand Requirement. The gross planned order quantity reflects lot sizing logic.

Demand quantities are considered requirements data. Order quantities are considered planning data.

Planning/Pegging Inquiry, MRP300, and MRP Scheduled Detail Inquiry, MRP320, display the net planned order quantity.

For shop orders and purchase orders, the gross planned quantity is the amount actually ordered.

Master Schedule Generation, MRP500, and Explode Requirements, MRP600, plan based on the net planned order quantity.

MRP Maintenance, MRP510D-04 displays both gross planned order quantity and net planned order quantity. You can change the net planned order amount on this screen.

Planned Shop Order Release, MRP540D2, displays only the gross planned order quantity and allows you to change it.

The following examples illustrate how yield affects MRP and MPS calculations.

Order Policy A (discrete), no lot size:

Gross Requirement = 100

Yield percent = 90

Net Demand Requirement = 100 (Gross Demand Requirement) /0.90 (Yield) = 111.11.

MRP Gross Planned Order (FPO/PO) quantity = 111.11 (Net Demand Requirement)

Order Policy J (multiple of standard lot size):

Gross Requirement = 100

Yield percent = 90

Lot size = 100

Net Demand Requirement = 100 (Gross Demand Requirement) /0.90 (Yield) = 111.11.

Based on the order policy and lot size of 100, the net requirements of 111.11 must be lot sized to 200 (2 lots). So, 200 is the net requirement that MRP plans for.

MRP Gross Planned Order Quantity = 200 (Net Requirement).

MRP Net Planned Order Quantity = 180 = 200 (Net Requirement) x 0.90 (Yield).

Order Policy I (incremental above standard lot size):

Gross Requirement = 100

Yield percent = 90

Lot size = 100

Incremental quantity = 15

Net Demand Requirement = 100 (Gross Demand Requirement)/0.90 (Yield) = 111.11.

Based on the order policy, lot size of 100, and increments of 15, the net requirement of 111.11 are lot sized to 115 (100 + 15). So, 115 is the net requirement that MRP plans for.

MRP Gross Planned Order Quantity = 115 (Net Requirement).

MRP Net Planned Order Quantity = 103.5 = 115 (Net Requirement) x 0.90 (Yield).

# **Item Type:**

Infor ERP LX displays the item type from the Item Master, INV100.

### **Action Message:**

Infor ERP LX displays applicable action messages for the displayed orders. The following messages may appear, depending on the data entered for a specific order.

Note that all dates are based on the current date.

Cancel

If the demand is covered by projected inventory, cancel the order.

De-Expedite

If the order is due before the requirement date, move the order to a later date.

Expedite

If the order is due after the requirement date, move the order to an earlier date.

Firm Up

(for MPS planned orders )The order due date falls inside the horizon.

LT Violation

(for planned and firm-planned orders)This message indicates one of two conditions.

- The release date falls before the planning date.
- The difference between the release date and the due date is less than the item lead time (with consideration of the shop calendar).

#### Over Max

(above maximum run rate) This message displays for order policy K items, only. The system generates this message if the planned order quantity for the period divided by the number of working days in the period is greater than the maximum rate that you specify in the Item/Warehouse or Item Master file.

Past Due

(for scheduled receipts)The due date falls before the planning date.

Release

(planned and firm-planned orders) The due date less the lead time is equal to or less than the MPS/MRP planning date.

**Undr Min** 

(below minimum run rate) This message displays for order policy K items, only. The system generates this message if the planned order quantity for the period divided by the number of working days in the period is less than the maximum rate you specify in the Item/Warehouse or Item Master file.

### **Order Reference Number:**

Infor ERP LX displays a reference number associated with the source of the order. For example, the order may result from a customer order.

This field contains the purchase or shop order number or identifies planned (PLANND) and firm planned (F.P.O) orders. An alpha character precedes the reference number to characterize the line as described below.

| Q | Requisition                |
|---|----------------------------|
| R | Resupply Order             |
| S | Shop Order                 |
| Р | Purchase Order             |
| L | Preliminary Purchase Order |

### **Order Quantity:**

Infor ERP LX displays the quantity of the order.

#### **Order Release Date:**

Infor ERP LX displays the warehouse date on which to release the order for production. If time zone conversion is supported, the release date is in the From warehouse time zone for a resupply order.

### **Order Due Date:**

Infor ERP LX displays the warehouse date on which the order is due for completion.

#### Warehouse:

Infor ERP LX displays the warehouse where the order is manufactured.

#### Requirements Reference:

Infor ERP LX displays the reason for this required quantity. For example, a requirement could arise from a forecast or from a shop order. The values are M, manufacturing order and C, customer order.

### **Requirements Quantity:**

Infor ERP LX displays the quantity of the requirement.

## **Requirements Need Date:**

Infor ERP LX displays the date on which the item is needed.

#### Balance:

Infor ERP LX displays the quantity of the item that remains in inventory after the order or requirement has been met.

#### Line:

Infor ERP LX displays the line number.

### Quantity (Orders):

Infor ERP LX displays the quantity for orders.

# **Quantity (Requirements):**

Infor ERP LX displays the quantity for requirements.

#### Method 2:

This code describes how Infor ERP LX processes demand after the demand fence date. This value defaults from the Item Master, INV100, or Facility Planning Data Maintenance, MRP140. If those programs do not contain values, the value in this field comes from the MRP System Parameters screen, MRP820D-01.

Valid codes are listed below with their descriptions.

Greater of Forecasts and Customer Orders
 Sum of Customer Orders and Forecasts
 Forecasts Only
 Customer Orders Only

### Screen actions - MRP510D-02

### F9=Create

Run the program in Create mode to add either a planned or firm-planned order. Next, complete the Plan Date and Type fields and press Enter. The system displays the Quantity and Release Date fields. Specify values for these fields. Press Enter to record the order and update your master files.

# F13=Pegging

Access MRP Maintenance, MRP510D-03, to view Pegging information for the item.

#### F14=Revise

Run the program in Revise mode. Specify the order date and type for current orders, then press Enter. The system transfers the order quantity and release date entries to the input fields at the bottom of the screen. Press Enter to record the changes and update your master files.

#### F19=Forecast

Access Forecast Selection, MRP100D1-01, to select an item for which to maintain forecast information.

#### F21=Delete

Run the program in Delete mode. Specify order due date and type for an order and press Enter. Infor ERP LX transfers the order quantity and release date to the input fields that display near the bottom of the screen. Press Enter. Confirm the physical delete by pressing Enter again. The system physically deletes the order from the Master Production Schedule.

#### F22=Mass Create

Access the Mass Create screen, MRP510D-05, to enter all required data for multiple planned orders in a single screen.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

### View pegging information for the item/facility

Use the MRP Maintenance pegging screen, MRP510D-03, to view pegging detail for the item/facility combination.

The screen displays the following detail:

- Quantity Required
- Date Needed
- Requirement Order Type (customer, shop, planned order, or firm-planned order)
- Due Date
- Item Number or Customer Number

The screen displays the control date lead times and the total lead time.

The screen shows the facility-specific requirements for the production facility. These requirements take the form of warehouse-level forecasts, customer orders, and DRP resupply orders.

Use F13 to toggle between this screen and the planning screen.

### Field descriptions - MRP510-03

### Item (35, A):

Specify the item for which to view pegging of planning requirements and supply.

### **Item Description:**

Infor ERP LX displays a description of the item.

### On Hand:

This field displays the results from inventory adjustments that you make through an inventory adjustment program, such as the Inventory Transactions program, INV500.

Note that the item line detail totals that you see in MRP program may not match the totals you see in the Material Status Inquiry program, INV300, because INV300 includes nettable and non-nettable warehouses. MRP includes only nettable warehouses.

# **Item Type:**

Infor ERP LX displays the item type from the Item Master, INV100.

### Facility (3,A):

Specify the facility that contains the item for which to view pegging requirements.

#### Class:

Infor ERP LX displays the class of the item.

#### **Lead Time:**

Infor ERP LX displays the time required to produce this item.

### Lot Lead Time:

This field displays the time required to produce one lot of this item. Infor ERP LX calculates this value as follows:

Lot Lead Time = Lot Size/Daily Lead Time Rate

Lot size and daily lead time rate default from the Item Master, INV100, or Facility Planning Data Maintenance, MRP140.

### **Unit of Measure:**

Infor ERP LX displays the item's stocking unit of measure.

# Alloc Mfg:

This field contains the manufacturing allocations that result from shop order releases.

# **Order Policy:**

Infor ERP LX displays the order policy from Item Master, INV100, or Facility Planning Data Maintenance, MRP140. See the help text for those programs for a description of the available Order Policy Codes.

#### Lot Size:

Infor ERP LX displays the lot size of this item if it is lot controlled.

#### Alloc Cust:

This field contains the customer allocations that result from the Order Entry program, ORD700.

### **MRP Code:**

The MRP code can be one of two values:

- M, Master scheduled item
- N, Not a master scheduled item

### **Horizon Date:**

The system adds the number of horizon days, as specified in the System Parameters, to the MRP planning start date to calculate the horizon date. You maintain the start date in Facility Master Maintenance, SYS190, Master Schedule Generation, MRP500, or Explode Requirements, MRP600.

Horizon Date = Planning Start Date + Horizon Days

If you establish horizons for the item in the Item Master, the system uses that value as an override value for the default system parameter horizon.

#### **Increment Above Lot:**

Infor ERP LX displays the amount above the standard lot size in which you manufacture the item.

For example, if the standard lot size is 144 and the increment above lot size is 12, you can manufacture the item in quantities of 144, or 156, or 168. If you receive an order for 150, you manufacture 156.

#### On Order:

This field contains the total amount of all ordered goods that result from both purchase orders and shop orders.

# **Primary Vendor:**

Infor ERP LX displays the primary vendor for this item. This value defaults from the Item Master, INV100, or Facility Planning Data Maintenance, MRP140.

# **Secondary Vendor:**

Infor ERP LX displays the secondary vendor for this item. This value defaults from the Item Master, INV100, or Facility Planning Data Maintenance, MRP140.

### **Activity:**

This field contains either a Y (Yes) or blank to indicate whether any transaction activity or planning data activity that affects MPS has taken place since the last Master Production Schedule generation.

#### Minimum Balance:

Infor ERP LX displays either the static minimum balance or the dynamic minimum balance. The static minimum balance defaults from the Item Master, INV100, or Facility Planning Maintenance, MRP140.

The system calculates the dynamic minimum balance based on the Minimum Balance Days Horizon and the Minimum Balance Days fields in Item Master, INV100, or Facility Planning Data Maintenance, MRP140.

The following is a sample calculation of Dynamic Minimum Balance:

# Sample Data:

- Minimum Balance Horizon Days = 30 (you supply this value)
- Work days in this horizon = 22 (Infor ERP LX determines this from Shop Calendar Maintenance, SFC140, and adds 1 to that value)
- Requirements for the horizon = 1000 (Infor ERP LX determines this)
- Minimum Balance Days = 5 (you supply this value)

Avg. Daily Requirement = 1000/(22 +1) = 43.48

Dynamic minimum balance = 43.48 x 5 = 217.39

#### Non Net:

You specify warehouses as either Net or Non-net in the Warehouse Master file. The system does not use non-net inventory for MPS or MRP planning.

### Method 1:

This code describes how Infor ERP LX processes demand before the demand fence date. This value defaults from the Item Master, INV100, or Facility Planning Data Maintenance, MRP140. If those programs do not contain values, the value in this field comes from the MRP System Parameters screen, MRP820D-01. Valid codes are listed below with their descriptions.

| 1 | Greater of Forecasts and Customer Orders |
|---|--|
| 2 | Sum of Customer Orders and Forecasts     |
| 3 | Forecasts Only                           |
| 4 | Customer Orders Only                     |

#### Batch:

Infor ERP LX displays the size of the batch if this item is batch controlled.

#### Method 2:

This code describes how Infor ERP LX processes demand after the demand fence date. This value defaults from the Item Master, INV100, or Facility Planning Data Maintenance, MRP140. If those programs do not contain values, the value in this field comes from the MRP System Parameters screen, MRP820D-01.

Valid codes are listed below with their descriptions.

| 1 | Greater of Forecasts and Customer Orders |
|---|--|
| 2 | Sum of Customer Orders and Forecasts     |
| 3 | Forecasts Only                           |
| 4 | Customer Orders Only                     |

#### **Demand Fence Date:**

This date sets the demand time fence. The system uses the following formula to determining the demand time fence date:

Demand Fence Date = Planning Start Date + Demand Time Fence Days (from Item Master, INV100, or Facility Planning Data Maintenance, MRP140)

You can look at demand before and after the demand fence date. The Method 1 field displays the demand code for the period before the demand fence date, and Method 2 displays the demand code for the period after it.

### **Yield Percentage:**

Yield percentage affects the entire planning system for each item that has a yield. Set this value in the Item Master, INV100. As part of the MRP and MPS generation, the system increases gross demand requirements by dividing them

by the yield percentage. The result is the net demand requirements. Next, the system lot-sizes these requirements by the normal MRP and MPS lot sizing logic. Specifically, yield calculations are performed as shown below:

Net Demand Requirement = Gross Demand Requirement / Yield. The net demand requirement quantity is then lot sized by the normal MRP and MPS lot sizing logic.

MRP Net Planned Order Quantity = Net Demand Requirement) x Yield

MRP Gross Planned Order Quantity = Net Demand Requirement. The gross planned order quantity reflects lot sizing logic.

Demand quantities are considered requirements data. Order quantities are considered planning data.

Planning/Pegging Inquiry, MRP300, and MRP Scheduled Detail Inquiry, MRP320, display the net planned order quantity.

For shop orders and purchase orders, the gross planned quantity is the amount actually ordered.

Master Schedule Generation, MRP500, and Explode Requirements, MRP600, perform planning based on the net planned order quantity.

MRP Maintenance, MRP510D-04 displays both gross planned order quantity and net planned order quantity. You can change the net planned order amount on this screen.

Planned Shop Order Release, MRP540D2, displays only the gross planned order quantity and allows you to change it.

The following examples illustrate how yield affects MRP and MPS calculations.

Order Policy A (discrete), no lot size:

Gross Requirement = 100

Yield percent = 90

Net Demand Requirement = 100 (Gross Demand Requirement) / 0.90 (Yield) = 111.11.

MRP Gross Planned Order (FPO/PO) quantity = 111.11 (Net Demand Requirement)

MRP Net Planned Order (FPO/PO) quantity = 100 = 111.11 (net demand requirement) x 0.90 (yield).

Order Policy J (multiple of standard lot size):

Gross Requirement = 100

Yield percent = 90

Lot size = 100

Net Demand Requirement = 100 (Gross Demand Requirement) / 0.90 (Yield) = 111.11.

Based on the order policy and lot size of 100, the net requirements of 111.11 must be lot sized to 200 (2 lots). So, 200 is the net requirement that MRP plans for.

MRP Gross Planned Order Quantity = 200 (Net Requirement).

MRP Net Planned Order Quantity = 180 = 200 (Net Requirement) x 0.90 (Yield).

Order Policy I (incremental above standard lot size):

Gross Requirement = 100

Yield percent = 90

Lot size = 100

Incremental quantity = 15

Net Demand Requirement = 100 (Gross Demand Requirement)/0.90 (Yield) = 111.11.

Based on the order policy, lot size of 100, and increments of 15, the net requirement of 111.11 are lot sized to 115 (100 + 15). So, 115 is the net requirement that MRP plans for.

MRP Gross Planned Order Quantity = 115 (Net Requirement).

MRP Net Planned Order Quantity = 103.5 = 115 (Net Requirement) x 0.90 (Yield).

### **Qty Required (Quantity Required):**

Infor ERP LX displays the needed quantity for this requirement.

### **Need (Needed Date):**

Infor ERP LX displays the warehouse date on which the supply must be available for the requirement. The date varies, depending on the requirement that generated the need. For shop orders and resupply orders, it is the release date. For forecasts, it is the start date. For customer orders, it is the request date.

#### For:

Infor ERP LX displays the source of the requirement, such as a forecast or a customer order.

#### **Reference Number:**

Infor ERP LX displays a reference number associated with the source of the requirement.

### **Due Date:**

Infor ERP LX displays the warehouse date on which this requirement is due. For shop orders and resupply orders, this is the due date. For customer orders, it is the request date. For forecasts, it is the end date.

### Whse (2,A):

The warehouse the screen displays for each requirement is the warehouse in which the forecast or order originated. This warehouse must reside in the production facility you specified.

#### Item/Customer:

Infor ERP LX displays the item number or customer number that drives this requirement. For example, if this item is a component item, the parent item number appears here. If a particular customer requires this item, that customer number appears here.

#### Screen actions - MRP510D-03

### F13=Planning

Access the MRP Maintenance planning screen, MRP510D-02.

#### F22=Mass Create

Access the Mass Create screen, MRP510D-05, to enter all required data for multiple planned orders in a single screen.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Specify detail information for a planned order

Use the MRP Maintenance planning detail screen, MRP510-04, to add or maintain an order for the specified item/facility combination. The system displays this screen after you specify the order's due date and the order type and press Enter from the planning screen.

Use this screen to maintain or add information for an order. You can specify the quantity and the release date.

The five control date lead times are displayed. The system uses these dates to set the five control dates in the planned order file after you create or revises a planned or firm-planned order.

Note: If you are receiving goods into a warehouse type 4, Warehouse BOSS controlled- warehouse or type 5, WMS-4000-controlled warehouse, you cannot order items of the following types for receipt:

- Item Type 0 = Phantom
- Item Type 3 = Assortment
- Item Type 4 = Kit
- Item Type 5 = Planning Bill
- Item Type 6 = non-Balancing
- Container-Controlled Item

## Field descriptions - MRP510D-04

### Plan Due (8,0):

Specify the due date for the order. This date represents the date on which the order is due for completion in the facility's planning warehouse. The system backward schedules the master production schedule release date from this value.

# Type (1,A):

Specify F for a firm-planned order or P for a planned order. Planned orders are rescheduled outside of the planning horizon when the master production schedule is generated. Firm-planned orders are not changed.

#### Net:

Specify the quantity for the planned- or firm-planned order. This value must be greater than zero.

#### Gross:

Infor ERP LX displays the gross quantity.

Gross Qty = Net Quantity/Yield Percentage

# Sequence (4, 0)

The screen displays this field if you support control number scheduling in your environment. This function is turned on in the system parameters. Type the sequence number used to differentiate this record from other records. This value can be 0 if no other record has this item, warehouse, and due date combination with a sequence of 0.

In revise mode, you must type a sequence number if the record in the Planned and Firm Planned Order file, KFP, has a non-zero sequence number.

### Parent Material Method (2, A)

The system displays this field for items that have a scheduling level of 2 or 3. You can type or select the parent material method in create, revise, or delete mode..

### Parent Routing Method (2, A)

The system displays this field for items that have a scheduling level of 2 or 3. You can type or select the parent routing method in create, revise, or delete mode.

#### **Material Method**

Specify a material method for this planned order.

### **Routing Method**

Specify a routing method for this planned order.

### Rel Date (Release Date) (8,0):

Specify the scheduled release date for the order. This value represents the date in the warehouse by which the order must be scheduled for the shop floor so that the ordered goods can be completed by the due date.

The system backward schedules from the due date, using the item lead time and the shop floor calendar, to calculate a default release date. The system uses facility planning data if Run MPS/MRP by Facility is turned on in the system parameters. Specify a date in the field to override the default. The date you specify must be earlier than or equal to the due date. Note that you cannot override the release date and due date at the same time. To override both the due date and the release date, first override the due date and process the order. Then revise the order to override the release date separately.

### Reason Code (3,A):

Specify the reason code for this order. If the system parameter or the facility file parameter Reason Code Required when Maintaining Planned or Firm-planned Orders is turned on, you must make an entry in this field.

### Reason Code Comment (30,A):

Type a comment related to the reason that you revised the order.

#### Vendor (8,0):

Specify the number of a vendor for this order.

### Screen actions - MRP510D-04

# F13=Pegging

Access MRP Maintenance, MRP510D-03, to view Pegging information for the item.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

### Mass create multiple planned orders

Use the MRP Maintenance Mass Create screen, MRP510D-05 to enter multiple planned order records. You can enter up to 16 orders, then validate and post the orders with the Enter key. After you post the orders, the system clears the fields so you can enter the next 16 order records. All fields are input capable.

If any of the order records contains an error when you attempt to post them, the system displays an error message that identifies the orders that contain problems. You cannot post any of the orders until you correct or delete the orders that have errors and use Enter again.

## Field descriptions - MRP510D-05

### Facility (3,A):

Specify a valid facility code for this planned order.

### Item (35, A):

Specify the item for which to create the planned order. The item must form a valid item/facility combination with the facility code you specify.

### Plan Due (6,0):

Specify the due date for the order. This date represents the date on which the order is due for completion in the facility's planning warehouse. The system backward schedules the master production schedule release date from this value.

### Type (1,A):

Specify F for a firm-planned order or P for a planned order. Planned orders are rescheduled outside of the planning horizon when the master production schedule is generated. Firm-planned orders are not changed.

### Net Quantity (11,0):

Specify the quantity for the planned- or firm-planned order. This value must be greater than zero.

#### **Material Method**

Specify a material method for this planned order.

#### **Routing Method**

Specify a routing method for this planned order.

#### Reason Code (3,A):

Specify the reason code for this order. If the system parameter or the facility file parameter Reason Code Required when Maintaining Planned or Firm-planned Orders is turned on, you must make an entry in this field.

## Rel Date (Release Date) (8,0):

Specify the scheduled release date for the order. This value represents the date in the warehouse by which the order must be scheduled for the shop floor so that the ordered goods can be completed by the due date.

#### Screen actions - MRP510D-05

### F13=Pegging

Access MRP Maintenance, MRP510D-03, to view Pegging information for the item.

### F15=Planning

Access MRP Maintenance, MRP510D-02, to view Planning information for the item.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Print MPS Orders, MRP520D

Use the Print MPS Orders program, MRP520D, to print all facility-specific master-scheduled orders. The program first sorts all items on the report by item class. Next, it sequences items of the same class by item number and due date.

The report shows the release dates, due dates, and reschedule dates for the planning warehouse.

Access: MPS menu

# Specify selection criteria for an MPS orders report

Use the MPS Order Print screen, MRP520D-01, to specify the item classes and facilities to which to limit the report.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

### Field descriptions - MRP520D-01

### From Item Class (2,A):

Specify a range of values to limit the orders to include in the report by item class.

### To Item Class (2,A):

Specify a range of values to limit the orders to include in the report by item class.

# From Planned Order Facility (3,A):

Specify a range of values to limit the orders to include in the report by planned order facility.

# To Planned Order Facility (3,A):

Specify a range of values to limit the orders to include in the report by planned order facility.

Screen actions - MRP520D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# FAS orders not released, MRP530D

Use the FAS Orders Not Released program, MRP530D, to create a lists of facility-specific unreleased final assembly orders for the specified range of facilities.

The report shows the requested ship date from the order line warehouse.

Access: MPS menu

# Create a list of unreleased FAS orders by facility

Use the Final Assembly Orders Not Yet Released screen, MRP530D-01, to specify a range of facilities to which to limit the report and to run the report.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

## Field descriptions - MRP530D-01

### From Facility (3,A):

Specify a range of values to limit the orders to include in the report by facility.

### To Facility (3,A):

Specify a range of values to limit the orders to include in the report by facility.

#### Screen actions - MRP530D-01

## Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Release planned orders, MRP540B

Use the Release Planned Orders program, MRP540B, to select planned and firm-planned shop orders for mass release. This program does not actually release the planned and firm-planned orders. You select the orders to release when you run one of the following print programs:

- Production Print. JIT550B
- Print Released Orders, SFC550B

After you select planned and firm-planned orders for release with this program, use JIT550B or SFC550B to produce the shop floor packets and other documents, such as Kanban cards, for the selected orders. The shop floor packet contains documents that are needed to keep accurate production records.

Note that you can only run the Release Planned Orders program from one workstation at a time. If you run the program from your workstation, no other workstation can access Production Release, JIT540B, or Release Planned Orders, MRP540B.

Access: MRP menu

# Specify criteria to select planned orders for release

The program always uses the release date range to limit the selection of planned orders. You can further limit the selection to a specific facility, item number, or planner code, or you can limit it by both facility/item or facility/planner. You cannot limit the selection by both item and planner.

You may retrieve a different group of orders, depending upon whether you limit the selection by planner code alone or by planner code with a specific facility. If you limit the selection by both planner code and facility, the program uses the planner code in the Facility Planning Data file to select matching orders. If you only specify a planner code, the program uses the planner code in the Item Master to select matching orders.

If you use control number scheduling in your environment, you can also specify the type of control number to include and limit the selection to a range of control numbers.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

# Field descriptions - MRP540-01

### Lower Release Date (8,0):

Specify a range of values to limit the warehouse release dates to include in the selection.

### **Upper Release Date (8,0):**

Specify a range of values to limit the warehouse release dates to include in the selection.

### Facility Number (3,A):

Specify a facility to which to limit selection of planned shop orders to release, or leave the field blank to include all facilities.

### Item Number (35,A):

Specify an item number to which to limit selection of planned shop orders to release, or leave the field blank to include all items. Note that you cannot limit the selection by both item and planner.

# Planner Code (3,A):

Specify a planner code to which to limit selection of planned shop orders to release, or leave the field blank to include all planner codes. Note that you cannot limit the selection by both item and planner.

### Select Planned Orders (1,0):

Added: MR73324 New Select Planned Orders field in MRP540D-01

Specify 1 to include planned orders in the selection. Specify 0 to exclude planned orders.

#### Select Firm Planned Orders (1,0):

Added: MR73324 New Select Firm Planned Orders field in MRP540D-01

Specify 1 to include firm-planned orders in the selection. Specify 0 to exclude firm-planned orders.

# **Use Control Number Selection (1,0):**

Specify 1=Control No to display the planned orders based on Control Number. Specify 2=This Level Control No to display the planned orders based on the This Level Control Number. Specify 0=No to exclude control number from the selection criteria.

### **Lower Control Number (8,A):**

Specify a range of values to limit the control numbers to include in the selection.

### **Upper Control Number (8,A):**

Specify a range of values to limit the control numbers to include in the selection.

#### Screen actions - MRP540-01

#### **Enter**

Display a new screen that shows the orders that meet the selection criteria you specified on this screen. You can select individual orders for release and adjust the release quantity and release/due date in the new screen.

#### F14=Cancel Release of All Orders

Cancel release of the newly released orders.

### F15=Plan Shop Order Print

Access the Shop Floor Control screen, SFC550D-01, to process released shop orders and print the shop packet.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Release planned shop orders

Use the Planned Shop Order Release screen, MRP540D-02, to review the planned and firm planned shop orders that met the selection criteria on the first screen. You can adjust the release date and quantity on this screen. You can also create lots and specify material and routing methods.

For CNS-controlled items, the folded screen displays the Control Number, This Level Control Number, and Print BOM/RTG fields. The values in these fields update the Shop Order Header file when the system creates the shop orders.

### Field descriptions - MRP540-02

### Act (2,A):

Specify the number for the line action to perform and press Enter.

The following line actions are available:

#### 11 = Forward Schedule

Release orders. The system uses the MRP release date and the routing to calculate the due date forward. You can override the release date on the Actual release/due date field.

#### 12 = Backward Schedule

Release orders. The system uses the MRP due date and the routing to calculate the release date backward. You can override the due date on the Actual release/due date field.

# Whse (3,A):

Specify a new warehouse to override the warehouse.

### Material Method (2,A):

Specify a material method for this planned order.

#### Plan Due:

Infor ERP LX displays the date this order is due.

# Actual (Actual release date/due date) (8,0):

Specify a date in this field to override the planned release date or due date for the planning warehouse. The date you enter overrides the Planned date on this screen and the date in Schedule Maintenance, JIT510. You cannot specify a date that is a non-work day in the Shop Floor Calendar.

### **Planned Quantity**

This is the quantity that you, MRP, or MPS created in a planned or firm-planned order to satisfy a demand.

#### Actual (Quantity) (11,3):

Specify a value to override the planned release quantity. The value you enter overrides the quantity you specified in Schedule Maintenance, JIT510. The quantity also represents the gross quantity of the finished good; it does not compensate for the item's yield percentage.

#### Create Lot (1,0):

Specify 1 to create a lot for the item, otherwise, specify 0.

If you specify 0 and the lot field is blank, the program does not pre-assign a lot to the item. If the Lot field contains a pre-existing lot, the system pre-assigns that lot to the item.

If you specify 1 and the Lot field is blank or contains a lot that does not exist, the system generate a lot for the item. If there is a valid lot number in the Lot field, the system generates an error message.

### Screen actions - MRP540-02

#### **Enter**

Validate the screen. You must validate before you can post the orders.

#### F6=Post

Post the orders and update the master files.

#### F11=Fold

Fold the screen to display additional fields. The screen displays the following additional fields:

Planned Quantity

**Actual Quantity** 

Create Lot

Material Method

Routing Method

Lot

### F17=Rel All

Release all planned orders. If the Act field is blank for an order, the system forward schedules the order.

#### F18=Item/Facility Quality

Access the Item/Facility Quality Selection screen, SFC121D1-01. You must have group authority to use this function key.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Explode PO/FPO adjustments, MRP550D

Use the Explode PO/FPO Adjustments program, MRP550D, to verify that the material method code in the Planned Order file correctly reflects requirements generated from existing planned orders. The program explodes planned and firm-planned orders that the system flagged because their requirements changed. The explosion is a single-level explosion similar to that of Master Schedule Generation, MRP500, for each order.

Access: MRP menu

# Explode planned and firm planned orders to adjust them to changed requirements

Use the Explode PO/FPO Adjustments screen, MRP550D-01, to specify a facility to use for the explosion and to run the program.

### Field descriptions - MRP550D-01

### Facility (3,A):

Specify a valid facility code for which to run the explosion.

## **Run Time Parameter (1,0):**

Specify Interactive to process the data in real time or Batch to process the data in the job queue. If you select interactive processing, your session is unavailable for other tasks until the job finishes.

#### Screen actions - MRP550D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Mass firm up planned orders, MRP560D/DRP560D

Use the Mass Firm-up Planned Orders program, MRP560D/DRP560D, to specify selection criteria for planned orders to firm up and print. If you plan by facility, the required selection criterion on this screen is Facility. You can limit orders to include by planner and item range. You can also specify whether to firm up planned orders because they have firm-up messages or, alternatively, because they fall on or before a specified release date. If you run this program from MRP, you can also specify whether to firm up only MPS items, only non-MPS items, or both.

Access: MRP menu

# Select planned orders to firm up and print

Use the Mass Firm-Up Planned Orders screen, MRP560D-01, to select planned orders to firm up and to print the orders.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

# Field descriptions - - MRP560D-01

### Facility (3,A):

Specify the facility for which to firm up planned orders, or specify \*\*\* to include all facilities.

For MRP/MPS, this field represents the production facility. For DRP, the field represents the receiving facility.

Note that the screen only displays the facility field if you have planning by facility activated in MRP System Parameters, MRP821D-02.

### Planner (3,A):

Specify the planner for which to firm up planned orders, or leave the field blank to include all planners.

### From Item (35,A):

Specify a range of values to limit the items to include in the selection.

### To Item (35,A):

Specify a range of values to limit the items to include in the selection.

## Firm All Orders with Firm Up Message (1,0):

Specify Yes to use firm up messages as a selection criteria. Otherwise, specify No. Orders with firm-up messages are planned orders that have release dates inside the horizon date for the item. If you specify Yes in this field, you cannot specify a date in the Firm All Orders with Release Date Through field

#### Firm All Orders with Release Date Through (6,0):

Specify the latest release date for which to firm-up orders. This is the release date for each included facility. The system firms up all planned orders that have a release date on or earlier than this date that meet all other selection criteria. You can only make an entry in this field if you specified 0 = No in the Firm All Orders with Firm Up Message field.

If you run this program through MRP, you can further restrict the included orders to firm up with the MPS Items and MRP Items fields below.

### MPS Items (1,A):

Specify 1=Yes to include MPS items in the selection, otherwise, specify 0=No.

#### MRP Items (1,A):

Specify 1=Yes to include MRP items in the selection, otherwise, specify 0=No.

#### Screen actions - - MRP560D-01

### F14=Planning Workbench

Access the MRP Workbench screen, MRP570D1-01.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# MRP workbench, MRP570D1

The MRP Workbench consolidates most planner functions under one menu option. You can create, modify, delete or release planned orders through this single process. You can mark the create or maintenance operations with a reason code and/or comment to further facilitate the planning process.

You can perform planned order creation and maintenance in this process if planned order reason codes are not required for the facility and if the order is not part of a campaign. If the facility requires planned order reason codes or if an order is a campaign order, the process takes you to the appropriate planned order maintenance program.

The ability to consolidate planner functions results in tremendous time saving for those involved in the planning process.

Access: MRP menu

### Select orders to process in the MRP workbench

Use the MRP Workbench selection screen, MRP570D1-01, to specify selection criteria for orders for the planning process. The selection criteria for this screen are facility if you plan by facility in MRP, and always in DRP, in which a facility is required for planning, planner, and at least one action message. You can also specify an item range, a latest release date for orders to include, and a sorting sequence for the orders selected.

## Field descriptions - MRP/DRP570D1-01

### Facility (3,A):

Specify the facility from which to select items.

### Planner (3,A):

Specify a valid planner to which to restrict the selection, or leave the field blank to include all planners.

# Messages: CANCEL

Specify 1 in front of each message to include in the selection. You must select at least one message. The selection includes only orders with the specified messages.

## Messages: OVER MAX

Specify 1 in front of each message to include in the selection. You must select at least one message. The selection includes only orders with the specified messages.

### Messages: DX (de-expedite)

Specify 1 in front of each message to include in the selection. You must select at least one message. The selection includes only orders with the specified messages.

### Messages: PAST DUE

Specify 1 in front of each message to include in the selection. You must select at least one message. The selection includes only orders with the specified messages.

# Messages: EX (expedite)

Specify 1 in front of each message to include in the selection. You must select at least one message. The selection includes only orders with the specified messages.

### Messages: RELEASE

Specify 1 in front of each message to include in the selection. You must select at least one message. The selection includes only orders with the specified messages.

### Messages: FIRM UP

Specify 1 in front of each message to include in the selection. You must select at least one message. The selection includes only orders with the specified messages.

### Messages: UNDER MIN

Specify 1 in front of each message to include in the selection. You must select at least one message. The selection includes only orders with the specified messages.

# Messages: LT VIOL (lead-time violation)

Specify 1 in front of each message to include in the selection. You must select at least one message. The selection includes only orders with the specified messages.

### Messages: All Messages

Specify 1 to include all messages in the selection. The report includes orders with any of the messages.

### From Item (35,A):

Specify a range of values to limit the items to include in the order selection. If you limit the selection to a single item (From item equals To item), the program includes orders for the item with all messages, not just those selected on this screen. It calls the single-item view of the MRP/DRP Workbench. If you specify a range of multiple items, the program selects only orders with the specified messages, and it calls the multiple item view of the workbench.

### To Item (35,A):

Specify a range of values to limit the items to include in the order selection. If you limit the selection to a single item (From item equals To item), the program includes orders for the item with all messages, not just those selected on this screen. It calls the single-item view of the MRP/DRP Workbench. If you specify a range of multiple items, the program selects only orders with the specified messages, and it calls the multiple item view of the workbench.

### Through Release Date (8,0):

Required. This date defaults to 99/99/99. Specify the most recent facility release date to include in the selection. This field applies only if you specify a range of items to include in the selection.

The selection includes planned and firm-planned orders if the release date or reschedule date is on or before the Through Release Date value. The program ignores blank reschedule dates.

The selection includes shop orders if the release date or reschedule date is on or before the Through Release Date value. The program ignores blank reschedule dates.

The selection includes open purchase orders lines if they have a due date or reschedule date on or before the Through Release Date value. The program ignores blank reschedule dates.

For customer order records (resupply inbound), the selection includes open resupply order lines if they have a request date or reschedule date on or before the Through Release Date value.

If you specify All Messages with a date range other than the default of 99/99/99, the report excludes orders with Cancel messages because Cancel messages have 99/99/99 as the MRP reschedule date.

# Data Sort (1,A):

Use this field to specify the sequence in which to display the selected records. Specify 1 to sort by item, then release date. Specify 2 to sort first by release date, then by item.

Note that only Data Sort 1 (Item/Release Date) is valid for a single-item view.

Screen actions - - MRP570D1-01

### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

View or maintain orders for multiple items in the MRP workbench

Use the MRP Workbench multiple item view, MRP570D2, to view and maintain planned and firm-planned orders for multiple items. This screen appears if you specified a range of items in the selection screen.

You can access the following order maintenance programs from this screen:

- Shop Order Entry/Maintenance, SFC500
- Purchase Order Release/Maintenance, PUR500
- Requisition Maintenance, PUR600
- Order Entry, ORD700

The screen presents supply data for multiple items.

Note that the screen displays information sorted in the way you specified on the selection screen, either by Item/Release Date or by Release Date/Item. Not all order types have a release date. The Release Date/Item sort logic is based on order type, as shown below:

| Purchase order | Due date            |
|----------------|---------------------|
| Requisition    | Due date            |
| Shop order     | Release date        |
| Customer Order | Requested ship date |
|                |                     |

| Planned Order  | Release date |
|----------------|--------------|
| Resupply Order | Release date |

# Field descriptions - - MRP570D2

### Facility (3,A):

Infor ERP LX displays the facility you specified on the selection screen.

# Planner (3,A):

If you specified a specific planner on the preceding screen, Infor ERP LX displays it.

# Item (35,A):

In the header, this field displays the lower item in the item range you specified in the selection screen.

In the list, this is the item to which the planning information pertains. You can use the top line to specify an item from the Item Master file to create a new record.

# To Item (35,A):

This header field represents the upper item in the item range you specified in the selection screen.

# Msg Sel:

Infor ERP LX displays all of the message types that you selected in the selection screen.

#### Sort by:

Infor ERP LX displays the record sorting method you specified in the selection screen.

### Through Date (8,0):

Infor ERP LX displays the release/reschedule/due date for orders to include that you specified on the selection screen.

### Line actions

The following line actions are available on this screen:

#### 1=Create

Initiate creation of orders. Use this action only on the top line. The following considerations apply to the create action.

To create planned or firm-planned orders for a facility that requires a reason code, you must specify values in the Item, Warehouse, Due date, Quantity, and Type of order fields. The program calls MRP Maintenance, MRP510.

To create planned or firm-planned orders for a facility that does not require a reason code, the program creates the planned order from this screen. You must specify values in the Item, Warehouse, Due date, Quantity, and Type of order fields. You can optionally specify the Release date, the BOM Method, and the Routing Method.

Note that, For Items that have order policy K, the Release Date (rather than the Due Date) is the required entry.

To create shop orders, you must specify Order type S. The program calls the Shop Order Maintenance by Shop Order Number screen, SFC500D1-01.

To create purchase orders, you must specify Order type H. The program calls the Purchase Order Selection screen. PUR500-01.

To create requisitions, you must specify Order type Q. The program calls the Requisition Selection screen, PUR600-01.

To create resupply orders, you must specify Order type R. The program calls the Order Directory screen, ORD700D1-01.

#### 2=Revise

Revise an existing planned order, shop order, purchase order, or resupply order. 3=Firm/Unfirm

Change orders from planned to firm planned and conversely.

Note that you cannot use this line action to change planned or firm-planned orders that are part of a campaign via the MRP Workbench: You can only change these in Campaign Processing, API500.

#### 4=Delete

Delete an existing order.

#### 5=Release Forward

This line action only applies to planned or firm-planned orders for manufactured items (the Mfg Flag in the item type record is set to Y).

You can mark multiple lines for release, however, the system processes the orders one at a time. The system uses forward scheduling logic, as described in the documentation for Release Planned Orders, MRP540B.

#### 6=Release Backward

This line action only applies to planned or firm-planned orders for manufactured items (the Mfg Flag in the item type record is set to Y).

You can mark multiple lines for release, however, the system processes the orders one at a time. The system uses backward scheduling logic, as described in the documentation for Release Planned Orders, MRP540B.

#### 7=Release P.O.

This line action only applies to planned or firm-planned orders for purchased items (the Mfg Flag in the item type record is set to N).

You can mark multiple lines for release, however, the system processes the orders one at a time.

Press Enter to Call PO Consolidation Release, PUR640-02). If contract detail exists, HCD file, the system performs scheduled consolidation. Otherwise, you can run normal consolidation.

### 9=Create KFP with Comments

This line action has the same effect as action 1=Create except that it is only valid for the creation of planned or firm-planned orders. Use line action 9 to create these orders with added comments.

### 10=Material Availability

Access Material/Capacity Availability, SFC350D2-0, to view an indented bill of materials with available quantities of the components.

### 11=Planning /Pegging Inquiry

Access Planning/Pegging Inquiry, MRP300D-02.

All other line actions on this screen perform standard Infor ERP LX functions. See *Generic help text for line actions* in the overview information in this document.

### Act (2,A):

Specify the number for the line action to perform and press Enter. To use the first line, specify the line action and at least one key field value.

# Type (1,A):

Infor ERP LX displays the type of order. If it is a planned or firm-planned order, Infor ERP LX displays P or F from the Planned Order file. For other order types, the type of order is indicated by a prefix to the order number in the Ref No field:

- S (shop order)
- P (purchase order)
- L (preliminary purchase order)
- Q (purchase requisition)
- R (resupply order)
- K (campaign shop order)

# Warehouse (3,A):

Infor ERP LX displays the warehouse for planned and firm-planned orders from the Planned and Firm-Planned Order file, KFP. This field applies to MRP only.

You can maintain the Warehouse field in the multiple item view but not in the single item view.

#### Ref No:

Infor ERP LX displays the reference type for the order:

- planned order=plannd
- firm-planned order=F.P.O.
- purchase order=Pnnnnnnnn
- requisition=Qnnnnnnnn
- shop order=Snnnnnnnn
- replenishment order=Rnnnnnnn.

# **Quantity (11,3):**

This field displays the net quantity for the order (planned quantity \* item yield/100).

### Rel (release date) (6,0):

This field displays the release date for the order.

### **Due (due date) (6,0):**

This field displays the due date for the order.

# Lot (25,A):

Infor ERP LX displays the Lot number for a shop order. You can enter a value if you are using the prompt line. If there is no entry in the Lot field, you can specify a lot number. Or, you can set the Create Lot option to 1=Yes. Infor ERP LX assigns the next lot number to populate this field.

### Create Lot (0,1):

Specify 1=Yes to create a Lot Master record. If you set this field to 1 and the Lot field is blank, Infor ERP LX assigns the next lot number to the field and creates a Lot Master record, ILN.

#### **BOM Method**

If you specify a Bill of Materials method, the program validates it against the Manufacturing Method files, ZMT/ZMD.

# **Routing Method:**

If you specify a Routing Method, the program validates it against the Manufacturing Method files, ZMT/ZMD.

# Screen actions - - MRP570D2

### F10=Purchase Orders

Access the Purchase Order Release/Maintenance program, PUR500, to create or maintain purchase orders.

#### F13=Item/Release Date

Toggle between a display of information on the screen in Item or Release Date sequence.

### F14=Cancel Release of All Orders

Cancel release of the newly released orders.

# F17=Item/Vendor Quality

Access the Item/Vendor Quality program, PUR120D1.

# F18=Item/Facility Quality

Access the Item/Facility Quality Selection screen, SFC121D1-01. You must have group authority to use this function key.

#### F19=Forecasts

Access Forecast Selection, MRP100D1-01.

### F20=Requisitions

Access Requisition Maintenance, PUR600.

### F21=Shop Orders

Access Shop Order Maintenance by Shop Order, SFC500.

#### **F22=Customer Orders**

Access the Order Entry program, ORD700.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

View or maintain orders for a single item in the MRP workbench

Use the MRP Workbench single item view, MRP570D3, to view and maintain planned and firm-planned orders for a single item. This screen appears if you specified a single item in the selection screen.

You can access the following order maintenance programs from this screen:

- Shop Order Entry/Maintenance, SFC500
- Purchase Order Release/Maintenance, PUR500
- Requisition Maintenance, PUR600
- Order Entry, ORD700

The screen presents supply data for a single item.

The screen displays information sorted by release date. However, the actual date used depends on the type of order, as shown in the following table.

| Due date            |
|---------------------|
| Due date            |
| Release date        |
| Requested ship date |
| Release date        |
| Release date        |
|                     |

Note: If you use F11=Fold, Infor ERP LX displays additional fields. These fields are described in the help text for the F11 screen action.

## Field descriptions - MRP570D3

### Facility (3,A):

Infor ERP LX displays the facility you specified on the selection screen.

### Facility/Item Descriptions:

Infor ERP LX displays descriptions of the facility and item specified on the preceding screen.

#### Planner (3,A):

If you specified a specific planner on the preceding screen, Infor ERP LX displays it.

# Planner Description (3,A):

If you used planner as a selection criterion on the preceding screen, Infor ERP LX displays the description here.

### Item (35,A):

This field displays the item specified on the preceding screen. This is the item to which this detail planning information pertains.

### **Item Type (1,0):**

Infor ERP LX displays the item type of the item specified on the initial screen.

#### Line actions:

The following line actions are available on this screen:

#### 1=Create

Initiate creation of orders. Use this action only on the top line. The following considerations apply to the create action.

To create planned or firm-planned orders for a facility that requires a reason code, you must specify values in the Item, Warehouse, Due date, Quantity, and Type of order fields. The program calls MRP Maintenance, MRP510.

To create planned or firm-planned orders for a facility that does not require a reason code, the program creates the planned order is created directly from this screen. You must specify values in the Item, Warehouse, Due date, Quantity, and Type of order fields. You can optionally specify the Release date, the BOM Method, and the Routing Method.

Note that, For Items that have order policy K, the Release Date (rather than the Due Date) is the required entry.

To create shop orders, you must specify Order type S. The program calls the Shop Order Maintenance by Shop Order Number screen, SFC500D1-01.

To create purchase orders, you must specify Order type H. The program calls the Purchase Order Selection screen, PUR500-01.

To create requisitions, you must specify Order type Q. The program calls the Requisition Selection screen, PUR600-01.

To create resupply orders, you must specify Order type R. The program calls the Order Directory screen, ORD700D1-01.

#### 2=Revise

Revise an existing planned order, shop order, purchase order, or resupply order. 3=Firm/Unfirm

Change orders from planned to firm planned and conversely.

Note that you cannot use this line action in MRP Workbench to change planned or firm-planned orders that are part of a campaign. You can only change these in Campaign Processing, API500.

#### 4=Delete

Delete an existing order.

#### 5=Release Forward

This line action only applies to planned or firm-planned orders for manufactured items (the Mfg Flag in the item type record is set to Y).

You can mark multiple lines for release, however, the system processes the orders one at a time. The system uses forward scheduling logic, as described in the documentation for Release Planned Orders, MRP540B.

### 6=Release Backward

This line action only applies to planned or firm-planned orders for manufactured items (the Mfg Flag in the item type record is set to Y).

You can mark multiple lines for release, however, the system processes the orders one at a time. The system uses backward scheduling logic, as described in the documentation for Release Planned Orders, MRP540B.

#### 7=Release P.O.

This line action only applies to planned or firm-planned orders for purchased items (the Mfg Flag in the item type record is set to N).

You can mark multiple lines for release, however, the system processes the orders one at a time.

Press Enter to Call PO Consolidation Release, PUR640-02). If contract detail exists, HCD file, the system performs scheduled consolidation. Otherwise, you can run normal consolidation.

#### 9=Create KFP with Comments

This line action has the same effect as action 1=Create except that it is only valid for the creation of planned or firm-planned orders. Use line action 9 to create these orders with added comments.

#### 10=Material Availability

Access Material/Capacity Availability, SFC350D2-0, to view an indented bill of materials with available quantities of the components.

### 11=Planning /Pegging Inquiry

Access Planning/Pegging Inquiry, MRP200D-02.

All other line actions on this screen perform standard Infor ERP LX functions. See *Generic help text for line actions* in the overview information in this document.

# Ac (2,A):

Specify the number for the line action to perform and press Enter. To use the first line, specify the line action and at least one key field value.

# Message

Infor ERP LX displays the standard Infor ERP LX action message for the order.

# Tp (1,A):

Infor ERP LX displays the type of order. If it is a planned or firm-planned order, Infor ERP LX displays P or F from the Planned Order file. For other order types, the type of order is indicated by a prefix to the order number in the Ref No field:

- S (shop order)
- P (purchase order)
- L (preliminary purchase order)
- Q (purchase requisition)
- R (resupply order)
- K (campaign shop order)

Infor ERP LX displays the warehouse for planned and firm-planned orders from the Planned and Firm-Planned Order file, KFP. This field applies to MRP only.

You can only maintain the Warehouse field in the multiple item view.

# Wh (Warehouse):

Infor ERP LX displays the warehouse for planned and firm-planned orders from the Planned and Firm-Planned Order file, KFP. This field applies to MRP only. You can only maintain the Warehouse field in the multiple item view.

#### Lot (25,A):

Infor ERP LX displays the Lot number for a shop order. You can enter a value if you are using the prompt line. If there is no entry in the Lot field, but you set the Create Lot option to 1 = Yes, Infor ERP LX will assign the next lot number to populate this field.

This field also appears, but only for the prompt line, when the screen is unfolded.

#### Create Lot (0,1):

Specify 1=Yes to create a Lot Master record. If you set this field to 1 and the Lot field is blank, Infor ERP LX assigns the next lot number to the field and creates a Lot Master record, ILN.

# Lot (25,A):

Infor ERP LX displays the Lot number for a shop order. You can enter a value if you are using the prompt line. If there is no entry in the Lot field, but you set the Create Lot option to 1 = Yes, Infor ERP LX will assign the next lot number to populate this field.

This field also appears, but only for the prompt line, when the screen is unfolded.

# Create Lot (0,1):

Specify 1=Yes to create a Lot Master record. If you set this field to 1 and the Lot field is blank, Infor ERP LX assigns the next lot number to the field and creates a Lot Master record, ILN.

# Ref No:

Infor ERP LX displays the reference type for the order:

- planned order=plannd
- firm-planned order=F.P.O.
- purchase order=Pnnnnnnnn
- requisition=Qnnnnnnnn
- shop order=Snnnnnnnn
- replenishment order=Rnnnnnnn.

# **Quantity (11,3):**

This field displays the net quantity for the order (planned quantity \* item yield/100).

# Rel (release date) (6,0):

This field displays the warehouse release date for the order.

# **Due (due date) (6,0):**

This field displays the warehouse due date for the order.

# **Quantity (11,3):**

This is the net quantity for the order (planned quantity \* item yield/100).

# Rel (release date) (6,0):

This field displays the warehouse release date for the order.

# **Due (due date) (6,0):**

This field displays the warehouse due date for the order.

#### **Ref No**

Infor ERP LX displays the reference type for the order:

- planned order=plannd
- firm-planned order=F.P.O.
- purchase order=Pnnnnnnnn
- requisition=Qnnnnnnnn
- shop order=Snnnnnnnn
- replenishment order=Rnnnnnnn.

# **Quantity:**

Requirements side. Infor ERP LX displays the Quantity Required from the Material Requirements file (KMR), customer remaining quantity, shop order remaining quantity.

#### Need

This field displays the warehouse need date for the order. This is the Date Required value in the Material Requirements file, KMR, and the Material Allocation to Shop Orders file, FMA, and the Requested Date value in the Customer Order Line Items file, ECL.

#### **BOM Method**

If you specify a Bill of Materials method, the program validates it against the Manufacturing Method files, ZMT/ZMD.

# **Routing Method:**

If you specify a Routing Method, the program validates it against the Manufacturing Method files, ZMT/ZMD.

# Screen actions - - MRP570D3

# F10=Purchase Orders

Access the Purchase Order Release/Maintenance program, PUR500, to create or maintain purchase orders.

#### F11=Fold

Use this function to display additional fields on this screen. The following additional fields are visible:

Grs (gross quantity for the order) - Order side. Infor ERP LX displays the gross quantity as the planned order quantity directly (not adjusted by yield).

Lot Order side.- Infor ERP LX displays the Lot number for a shop order.

Create Lot Order side. - If you leave this value set to the default of 0 (No), Infor ERP LX will not create a Lot Master record. If you set it to 1 and the Lot field is blank, Infor ERP LX will assign the next lot number to this field and it will create a Lot Master (ILN) record

Quantity Requirements side - Infor ERP LX displays the Quantity Required from the Material Requirements file, KMR, customer remaining quantity, shop order remaining quantity.

Balance Requirements side - Infor ERP LX displays the running inventory balance.

#### F14=Cancel Release of All Orders

Cancel release of the newly released orders.

# F17=Item/Vendor Quality

Access the Item/Vendor Quality program, PUR120D1.

# F18=Item/Facility Quality

Access the Item/Facility Quality Selection screen, SFC121D1-01. You must have group authority to use this function key.

# F20=Requisitions

Access Requisition Maintenance, PUR600.

#### F21=Shop Orders

Access Shop Order Maintenance by Shop Order, SFC500.

#### F22=Customer Orders

Access the Order Entry program, ORD700.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Control number schedule maintenance, MRP590D1

Use the Control Number Schedule Maintenance program, MRP590D1, to create, revise, copy, delete, and display control number information. You must have the Control Number Scheduling Supported field in MRP and Shop Floor System Parameters, MRP821D-04, set to 1=Yes to use this program.

With Control Number Scheduling, CNS, you can assign a control number to incoming requirements such as customer orders and forecasts. This capability allows you to have multiple forecasts on the same day for the same item/warehouse combination. The control number is passed down through the planning systems to all planned orders for manufactured, purchased, and resupply items that are CNS controlled.

Access: MRP menu

# Add or maintain a control number

Use the Control Number Selection screen, MRP590D1-01, to create a control number or select a control number to maintain.

# Field descriptions - MRP590D1-01

#### Line actions:

All line actions on this screen perform standard Infor ERP LX functions. See *Generic help text for line actions* in the overview information in this document.

# **Control Number (10,A)**

Specify an action code in the Act field and the control number to add or process in the Control Number field.

# Act (2,A):

Specify the number for the line action to perform and press Enter. To use the first line, specify the line action and at least one key field value.

#### Screen actions - MRP590D1-01

#### F11=Fold

Display additional fields for the control numbers, including the customer name and the routing method code.

#### F13=Filters

Display the Filter Options screen to limit the list of control numbers to active or all and to specify the sort sequence.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Specify sort and selection options for control number selection

Use the Filter Options screen to limit and sort the control numbers to display on the Control Number Selection screen. You can display active control numbers or all control numbers sorted by control number, or you can display all control number sorted by customer number, then control number.

# Field descriptions - MRP590D1-Filter

#### Act (2,A):

Specify the number for the line action to perform and press Enter. To use the first line, specify the line action and at least one key field value.

All line actions on this screen perform standard Infor ERP LX functions. See *Generic help text for line actions* in the overview information in this document.

#### Screen actions - MRP590D1-Filter

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Add or maintain control number information

Use the Control Number Maintenance screen, MRP590D2-01, to provide detail information about the control number. You can enter two lines of description, a customer number, a material method code, and a routing method code.

# Field descriptions - MRP590D2-01

# Control Number (10,A):

This field displays the control number to maintain. In copy mode, type the control number to which to copy information.

#### Description (30,A):

Provide a description of the control number.

# Extra Description (10,A):

Provide an additional description of the control number.

# **Customer Number (8,0):**

Specify the customer number to associate with this control number.

#### Customer name (30,A):

Displays the customer name. This defaults automatically when you type or select a customer number.

# Material (BOM) Method (2,A):

Specify a material method code to associate with the control number. The value in this field serves as the default control number during entry of customer orders, shop orders, purchase orders, forecasts, and planned orders.

# Routing (RTG) Method (2,A):

Specify a routing method code to associate with the control number. The value in this field serves as the default control number during entry of customer orders, shop orders, purchase orders, forecasts, and planned orders.

#### Screen actions - MRP590D2-01

# F6=Accept

Accept the changes on the screen and update the control number record.

#### F9=Notes

Access the Control Number Notes Maintenance screen, MRP190D, to add or revise notes for the control number.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Control number notes maintenance, MRP190D

Use the Control Number Notes Maintenance program, MRP190D, to create or revise a note for a control number and to specify the documents on which to print the note.

Access: F9 from the Control Number Maintenance screen, MRP590D2-01

## Create or revise a note for a control number

Use the Control Number Notes Maintenance screen, MRP190D, to create or revise note text for the control number. Specify whether to print the note on the shop packet if you run Shop Order Reprint, SFC560B1, and the Shop Order Cost Variance & WIP Report, CST270D.

# Field descriptions - MRP190D-01

#### Note Text (50,A):

Type the text of the line note. Each line of the note has a different sequence number.

# Print 1 (1,0):

Specify Y to print the note line on the shop packet. Otherwise, specify N.

# Print 2 (1,0):

Specify Y to print the note line on the Shop Order Cost Variance & WIP Report. Otherwise, specify N.

#### Screen actions - MRP190D-01

## Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Explode requirements, MRP600C

Use the Explode Requirements program, MRP600C, to create planned orders and requirements for non-master scheduled items. The program recalculates the requirements for MPS items, but does not produce planned orders for those items. You define an item as master scheduled in Item Master Maintenance, INV100, but you can override this definition for individual item/facility combinations in Facility Planning Data, MRP140. The Explode Requirements program also regenerates reschedule messages for all MPS items.

The Explode Requirements program generates the facility-specific material requirements plan in either a net change (N) or regenerative (R) process. The program processes only one facility at a time. Do not run Explode Requirements concurrently with Master Schedule Generation, MRP500, or DRP Generation, DRP500.

This program generates all planned orders and requirements with dates that fall after the planning start date. The system stores the planning start date by facility. To maintain the planning start date, use MRP Time Frame Maintenance, MRP120, if you do not perform processing by facility, or use Facility Maintenance, SYS190, if you perform processing by facility. If the forecasts period crosses the planning start date, the forecasts is prorated.

When the program firms a repetitive item, it creates one firm-planned order for the period with production distributed as evenly as possible across all orders. The system explodes the planned order into firm-planned orders. It distributes firm-planned order quantity evenly over the period. The program assumes that quantities are discrete (integers).

Unlike the SFC application, MRP does not consider active and expiration dates of lots.

The program explodes planned and firm-planned orders through the regular bills of materials. It creates planned orders as required, up to a limit of 200 planned orders per item.. It regenerates exception messages for all items and orders.

The explosion calculation is based on the parent yield percentage and any scrap factor at the component level on the bill of materials. When the system calculates net requirements, the net requirements are divided by the parent yield percentage. For example, a parent yield of 90% increases a net requirement of 100 to 111. When the process explodes the available to promise quantities and planned orders, the Quantity Per value for each child is multiplied by the child's scrap factor (if one exists).

The lead time of a planned order for an MPS item includes the release date and the due date. The lead time for a non-MPS item is the difference between these dates. An offset at the interface between the two gives the overall lead time.

# Note to Time Zone Conversion Users

Time zone conversion functionality allows you to view dates correctly for a region, regardless of the time zone in which you operate. The MRP programs convert regional dates entered on the screen for a specific region, such as that of the facility or the planning warehouse, to the corresponding dates for the time zone that is your system date and time. The MRP programs process date calculations in the system date and time, then reconvert the resulting dates and times to values appropriate to the region of the warehouse or facility before these dates are displayed on the screen or printed in reports.

#### Example:

A record to process is associated with a warehouse in Sydney, Australia. The time zone you use for the system date and time is Chicago, USA. The MRP application reads the generation start date and time 0:00:00 for the Sydney facility's planning warehouse, converts it to the equivalent date and time for the Chicago time zone, and uses this converted date and time to perform planning calculations in 24 hour buckets. When it displays the resulting dates and times on screens or prints them in reports, it converts the results of the calculations back to the equivalent dates and times for Sydney.

Access: MPS menu

# Specify criteria for an MRP explosion

Use the MRP Explosion screen, MRP600D-01, to specify criteria for the explosion. You can limit the explosion by planning date and facility, specify whether to run the explosion as a net change or a full regeneration, and determine whether to rebuild requirements for all MPS items or only for those that changed.

# Field descriptions - MRP600D-01

#### Planning Start Date (8,0):

Specify the first date of the planning cycle to use for the explosion. The default value is the date of the most recent MRP Explosion or Master Schedule Generation. Set the field to blank to use the facility-specific planning date.

# Planning End Date (8,0):

Specify the last date of the planning cycle to use for the explosion..

# Net Change (N) or Regenerative (R) (1,A):

Specify N (net change) to affect only items that require re-planning (active items). Specify R (regenerative) to plan all items.

If you ran a net change MPS, you should next run an MRP net change or regenerative process. Similarly, if you regenerated the MPS, you should next regenerate MRP with the Explode Requirements program, MRP600. You do not need to regenerate the MPS after you make adjustments to orders. You do need to run Explode Requirements, MRP600, after you change orders.

The MRP Code field value in the Item Master file, IIM, and Facility Planning Data file, CIC, impact the generation of planned orders during MPS and MRP generation.

The following table shows the program that performs planning. This depends on the values in the MRP Code fields in the Item Master IIM and Facility Planning CIC data files, as shown below:

| IIM Value | CIC<br>Value | Program |
|-----------|--------------|---------|
| М         | blank        | MRP600  |
| blank     | М            | MRP500  |
| blank     | blank        | MRP600  |
| M         | М            | MRP500  |

# Rebuild All Requirements (1,0):

Specify 0=No to rebuild only requirements for MPS items that changed. Specify 1=Yes to rebuild the requirements for all MRP items.

# Facility (3,A):

Specify a facility for which to run the MRP explosion. Specify \*\*\* to run the explosion for all facilities.

#### Screen actions - MRP600D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Finite forward scheduling, MRP640C

Finite Forward Scheduling, MRP640C, is usually implemented after you run the Master Production Schedule, MPS, and the Material Requirements Plan, MRP.

Finite Forward Scheduling provides the production planner with a powerful tool to schedule production under finite capacity constraints for a single production line. Finite forward scheduling applies to any type of manufacturing. It is particularly effective in environments in which capacity constraints make finite scheduling through critical work centers a major requirement.

Note: If you simulate forward scheduling on screen Finite Forward Scheduling, MRP640-03, with the F18 key, Infor ERP LX does not consider move and queue time

JIT implementation is not a requirement for Infor ERP LX Finite Forward Scheduling, although the process follows JIT principles.

# Key concepts

Production Lines. The production line or cell consists of a group of production work centers that you schedule simultaneously. Each work center is associated with only one production line. In non-repetitive environments, the production line indicates critical work centers that are finite forward planned for multiple jobs. In a JIT/Repetitive Manufacturing environment, the production cell line indicates linked work centers that have a highly integrated production sequence. The system schedules production at the line or cell level with minimal idle work-in-process time. You must assign all work centers that you schedule simultaneously to the same production cell line. You make the assignment in Work Center Maintenance, CAP100D. The routing for items that you schedule with Finite Forward Scheduling, MRP640, must have all of their work centers represented by a single production line.

Release. You can release production orders with updates to all planned shop order operation start and end dates, and you can release all planned and firm-planned orders into shop orders.

Reschedule. You can reschedule production orders, rather than release them. To reschedule means to change all shop order operation start and end dates. But planned orders are rescheduled only. They are not released into shop orders.

Work center calendar. Infor ERP LX contains a shop calendar by work center. The calendar allows for daily variations in capacity. You can update the calendar to reflect additional shifts, periods of downtime, or changes in efficiency.

Routing Manipulation. Finite Forward Scheduling supports both the complete replacement of routings on an order-by-order basis using the Master Routing capability, and an online selection of alternate routing steps. See your documentation for the Shop Floor Control application for more information about routing.

After you run MPS and MRP generations, you can review planned activity within a time frame window by production line. You can then make manual adjustments to the schedule and reload the finished schedule with the F15=Reschedule function.

You make schedule revisions and changes to order start dates in a simulation environment. After you are satisfied with the schedule revisions, use F15=Reschedule to update the database en mass. Alternatively, or you can use an Order Selections code, Manual Release, to perform update on an order-by-order basis or F14=Rel FPO.

To Finite Forward Schedule, follow the steps listed below:

- **1.** Select a production line and start date range to schedule for planned orders, firm planned orders, and/or shop orders.
- **2.** Re-sequence the orders to balance customer demand, group technology scheduling, and available capacity.
- **3.** Execute finite forward scheduling simulation with F18=Simulate. You can modify line capacity/routing parameters, re-sequence production orders, and eliminate unnecessary shop order operations.
- **4.** After the schedule is ready, reschedule all production orders F15 or directly release selected production orders (Order Selections code 6)

# Finite Forward Scheduling for Flow Orders

Flow orders exist for flow items as indicated by a JIT/Flow Code = 2 in MRP140 (CIC file). On the MRP640 extract panel, Flow Orders = 1 indicates that you are scheduling flow orders.

If you use the gateway work center, all Flow Order (FFO) records are selected for the production line shown on the extract panel. The gateway work center is used to schedule flow orders. If Planned or Firm-Planned orders are selected along with Flow Orders, flow item (JIT/Flow Code = 2 in the CIC) KFP records are also selected. Selection is based on the item facility planning (CIC) production line if the production line is within the range selected in MRP640 and the gateway work center on the production line is in the item's routing. No change has been made for non-flow order scheduling. Non-flow orders are selected by indicating 1 (yes) for shop orders on the extract panel. Shop orders and flow orders cannot

be selected and scheduled together. Shop orders are scheduled based on FOD hours and flow orders are scheduled based on actual hours, using the quantity per hour rates in the FFO. For finite forward scheduling, the FFO start shift is always 1, regardless of what appears in the FFO. When the system does an FFS extract for flow orders, the orders initially presented on the MRP640-03 panel are unscheduled. F18=simulate must be executed to finite forward schedule them. For Flow orders, scheduling and action code processing is done by flow order, not by shop order. Although changes to flow orders may impact the individual linked shop orders, this happens behind the scenes and is not visible in FFS. Any flow orders to which transactions have been processed (material issues) or production has been posted are not rescheduled by FFS, rather, they are considered as load.

Access: MRP menu

# Specify criteria to select production lines to schedule

Use the Finite Forward Scheduling selection screen, MRP640D-01, to perform the initial selection for production scheduling.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

#### Field descriptions - MRP640-01

# From Start Date (8,0):

Specify a range of values to limit the selection by start date. If you are using time zone conversion, this is the date in the time zone of the facility if you specify a facility or in your user time zone if you don't specify a facility.

#### To Start Date (8,0):

Specify a range of values to limit the selection by start date. If you are using time zone conversion, this is the date in the time zone of the facility if you specify a facility or in your user time zone if you don't specify a facility.

#### Facility (3,A):

Specify a facility code to which to limit the selection.

# From Production Line (4,A):

Specify a range of values to limit the selection by production line. The system selects only orders that have effective routing operations in work centers that are assigned to these production lines.

# To Production Line (4,A):

Specify a range of values to limit the selection by production line. The system selects only orders that have effective routing operations in work centers that are assigned to these production lines.

# Planner code (3,A):

Specify a planner for which to running the finite forward scheduling, or leave this field blank to include all planners.

# Sequence:

Specify a sort sequence code. Each sequence is based on a start date and the Group Tech Code 1 on the Item Master. When the program fills the simulation file with extracted records, it sorts them in the sequence you specified. The following sequences are available:

- 0=Sequence first by MRP start date, then by MRP due date within each start date
- 1=Sequence first by MRP start date, then by Group Tech Code within each start date
- 2=Sequence first by Group Tech Code, then by start date within each Group Tech Code

# **Allow Shop Order Reallocation:**

Specify 1 to reallocate shop orders. Specify 0 to disallow reallocation of shop orders.

# Planned Orders (1,A):

Specify 1 after each order type to extract. Specify 0 to exclude the order type from the extraction.

# Firmed Planned Orders (1,A):

Specify 1 after each order type to extract. Specify 0 to exclude the order type from the extraction.

# Shop Orders (1,A):

Specify 1 after each order type to extract. Specify 0 to exclude the order type from the extraction.

#### Screen actions - MRP640-01

# F19=Bypass Extract

Bypass the extraction and go immediately to the production summary screen. This function allows you to undo an accidental exit from the summary screen. It is only available after you perform an initial extraction.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# View a summary of extracted production line information

Use the Finite Forward Scheduling screen, MRP640-02, to view information about extracted production lines and to select lines for scheduling or to delete lines.

The screen displays the following information for each extracted production line:

- Summary statistics
- Status
- Number of orders to schedule
- Total quantity to produce
- Number of hours of production to perform

If the system has rescheduled or released a line, the Last Action field displays an appropriate message. If the system has performed an action that affects the line since its last rescheduling or release, the Changed field displays the word Yes.

Note that the scheduling that you perform in simulation updates live shop orders. Note also that schedule changes or re-sequencing that you perform in simulation is lost when you exit this program, unless you have released or rescheduled the orders.

The system makes changes to shop calendars, routing steps, and shop orders directly in the database.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

# Field descriptions - MRP640-02

#### **Facility:**

The field displays the facility you specified.

#### **Facility Description:**

The field displays a description of the facility.

# **Lower Start Date:**

The field displays the beginning of the date range you specified.

#### **Lower Production Line:**

The field displays beginning of the range of production lines you specified.

# Planner Code (3,A):

The field displays the code of the planner you specified.

# **Upper Start Date:**

The field displays the end of the date range you specified.

# **Upper Production Line:**

The field displays the end of the range of production lines you specified.

#### Sel (Select) (1,N):

Specify the number of the line action to perform and press Enter. The available actions are described below:

# 1=Select line for Scheduling

Display this production line on the Finite Forward Scheduling detail screen, MRP640-03.

#### 2=Delete

Delete the line. Do not display the production line on the Finite Forward Scheduling detail screen, MRP640-03.

#### Line:

These fields display the production lines that were extracted.

#### In Use/Rel

This field indicates whether the production line is in use by other applications.

#### Orders:

This field displays the number of planned orders, firm-planned orders, and shop orders that are associated with this production line.

#### Quantity:

This is the total quantity of items to produce from all orders associated with this production line.

#### Hours:

This is the total number of hours required to produce the items for all orders associated with this production line.

#### **Last Action:**

This field displays the last action performed against this production line. To perform actions against a production line, select it with action 1 in the Sel field, then modify the associated orders.

The actions in this field are described below with their descriptions:

INIT LOAD: This action appears when you first access the screen and have made no changes to the line.

CHANGED: This action appears if you modified orders in the production line and ran a simulation, but you did not yet accept your changes with F15=Reschedule on the Finite Forward Scheduling detail screen, MRP640-03 screen.

RESCHEDULED: This action appears if you modified the orders in the production line and accepted the changes with F15=Reschedule on the Finite Forward Scheduling detail screen, MRP640-03 screen.

# Changed:

This field indicates whether the production line has been changed.

## Sequence:

This shows the sequence number.

Screen actions - MRP640-02

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

View and modify scheduling detail of orders for a production line

Finite Forward Scheduling - Production Detail

The production detail screen displays header records for each order found in the simulation file.

Products with multiple operations must use work centers that are assigned to the same production line.

As shop order operations and routing operations are extracted from the shop order and planned order files respectively, they are stored in simulation files.

You can update these production orders simulation files using the many options on the screen. Until the reschedule or release functions are used no updating of the planned or shop order start dates takes place.

Several pop-up screens are supported that provide information such as the capacity load inquiry. Some also enable you to perform direct updates, such as the routing maintenance function for shop orders.

The display shows a system-generated sequence number which reflects the order of extraction. The display also shows the item number, the scheduled start date of the order, the hours for that order, the order number or the words "Planned" or "F.P.O.", the tech code, the MRP planned due date, and the new planned due date that is generated by forward scheduling. New dates that are later than the MRP Due Date are highlighted on the screen.

The fold key displays the quantity being made, the item description, and the master routing number for master routing replacement.

#### **Note to Time Zone Conversion Users**

Time zone conversion functionality allows you to view dates correctly for a region, regardless of the time zone in which you operate. The MRP programs convert regional dates entered on the screen for a specific region, such as that of the facility or the planning warehouse, to the corresponding dates for the region that is your system date and time. The MRP programs process date calculations in the system date and time, then reconvert the resulting dates and times to values appropriate to the region of the warehouse or facility before these dates are displayed on the screen or printed in reports.

Access: MPS menu

#### Field descriptions - MRP640-03

# Work center (6,0):

In this field, enter the desired work center for calendar maintenance or inquiry. When F16 (Calendar Maintenance) or F17 (Load Inquiry) is selected, the program screen will display with that work center's information.

## Simulation Start Date (8,0):

This field is initially set to the current date. It is the date from which the forward scheduling simulation begins. If you enter a new date, and press F18 - Simulate, the forward scheduling simulation begins from the date that you enter.

#### Sel (1,N):

This field displays to the left of each Item detail line. Specify an Order Selections action codes in the field and press Enter. The codes are described below.

#### 1=Add

Create a planned order for new items and quantities in the production line schedule:

- Fold the screen and specify 1 in the Sel field.
- Change values in any of the following fields: Seq (sequence) Item (item number) Whse (warehouse) Start (start date) Qty (quantity)
- Use Enter to create a new planned order for the modified information.

#### 2=Remove

Remove a shop order, planned order, or firm planned order from the production line schedule:

Specify 2 in the Sel field for each order to remove from the schedule and press Enter. This action logically deletes the header (KSF file) and operation (KSL file) records from the simulation database. It does not delete them from the live database. However, if you perform a firmup action or an unfirm action, or if you make date or quantity changes followed by F15=Reschedule, the system updates the live database. After you remove the order, you cannot reactivate it.

# 3=MRP Inquiry

Access MRP inquiry, MRP300, for the item on that line.

#### **4=Routing Maint**

Access the Routing Maintenance program, SFC100, for a planned order or firm-planned order for the line. If you use this action on a shop order line, the system displays a screen that permits selection of routing lines and alternates. You can create lines in that screen with code 1 or delete them with code 4. The system makes all changes in a simulation file. F15=Reschedule updates the live database.

If you specify a Master Routing number on the folded screen, the system replaces the normal routing for this shop order with the routing for the master number.

Do not make a Master Routing substitution to shop orders that already have labor tickets posted against them because the results are unpredictable. Use option 4=Routing Maint to add operations to the shop order and to leave existing operations in place.

#### 5=Matl Avail

Access the Material/Capacity Availability inquiry screen, SFC350D1-01,

#### 6=Manual Release

Add a shop order to the schedule.

Perform the steps to Add a planned order (see help text for code 1=Add).

- After the system generates the planned order, specify code 6 in the Sel field and press Enter. This action releases the planned order and creates a shop order in the live database. After the system creates the shop order, you cannot delete it within the Finite Forward Scheduling system.
- After the system creates the shop order, it enables the Master Routing field so the simulation processor can use it.

#### 7=SO Maint

Access Shop Order Entry/Maintenance, SFC500D1, for this order. Note that this function updates the shop order in the live environment. It is not a simulation. The updated records do not appear immediately in the simulation. You must perform another extract to see them.

#### 8=Firm/Unfirm

Change a planned order to a firm-planned order in the schedule.

#### 9=FFS Ord Maint

Access FFS Order Maintenance to maintain an order that is scheduled by finite forward scheduling. Planned orders and production orders are maintained similarly unless the system has reported production for a shop order.

# Sequence (3,N):

You can overtype the sequence numbers for any lines to create your own sequence. The sequence number determines the order in which the system reschedules the line item.

#### St (Status):

The Status field is system controlled. It displays a value of 1 or 2, or it is blank. A line with a status of 1 or 2 contains at least one of the following fields: pre-assigned lot, alternate method code, master item routing. A line with a status of 2 also contains an error that generates an error message. The system displays a detailed error message at the bottom of the screen.

# Item (35,A):

Specify an item number if you use action 1 to add an order.

# Whse (Warehouse) (3,A):

Specify a warehouse if you use action 1 to add an order.

#### Start:

This field contains the start date that MRP calculated originally or the start date that you specify here.

#### **Tot Hours:**

This field shows the total hours of all operations, including setup, run, and machine hours, for work centers that are assigned to the selected production line.

# Order / Quantity (fold line):

This field displays the shop order, firm-planned order, or planned order for production for the line item. For shop orders, the field shows the shop order number. Otherwise the field displays F.P.O. for firm-planned orders or PLANND for planned orders.

#### Tech:

This field displays the group technology code for the line item. The code is associated with the item in Item Master Maintenance, INV100. The purpose of the code is to group items that should be processed together in the same grouping.

#### MRP Due:

This field displays the warehouse due date that MPS or MRP originally calculated for this line item.

#### **New Due:**

This field displays the new warehouse due date that Finite Forward Scheduling calculated for this line item. This date shows up in highlighting if it is later than the originally scheduled due date.

# Reason Code (3,A):

If you maintain an order with Order Selections action 9=FFS Ord Maint in this screen, specify a valid reason code for this order. If the system parameter or the facility file parameter Reason Code Required when Maintaining Planned or Firm-planned orders is set to 1=Yes, you must make an entry in this field.

# Reason Code Comment (30,A):

Type a comment related to the reason you revised the order.

#### Screen actions - MRP640-03

#### F11=Fold

Fold the screen to display description, quantity and master routing fields.

#### F14=Rel FPO

Release all firm-planned orders as shop orders with the displayed schedule dates. This function produces complete shop paperwork, and it creates pick lists to support the released production plan. Additionally, the MRP plan is automatically updated as are any shop orders changed by the scheduler. The system then returns to the production line summary screen to allow the selection of a new production line.

Note: When orders are released for JIT items, if the component is a phantom (Item Type 0), the phantom will be immediately exploded unless it is also a lot controlled component.

#### F15=Reschedule

Reschedule orders with the revised data. This function first checks that no duplicate Item/Warehouse/Order Type/New Due Date combinations exists within the scheduling system for firm-planned and planned orders. This check forces resolution of any conflicts before the rescheduling proceeds.

## F16=Cal Maint

The system displays a maintenance screen for the work center indicated in the work center load inquiry field. You can change the efficiency and override the hours available in the calendar.

If you change the hours on a calendar date previously shown as a holiday or weekend, the system uses the hours you enter but does not change the display to show the newly added day of capacity. To use that day, exit the screen and rerun the simulation to load work into this new work center date.

#### F17=Load Inq

Display a screen that shows a graphic of the work center capacity for the indicated work center. The graphic displays the capacity horizontally. It expresses usage as a percentage. It displays the actual planned hours and the total available daily capacity in hours.

# F18=Simulate

Start the simulation process. The system schedules all selected orders in sequence, starting at the simulation start date. It considers variations in shop schedule, work center capacity, and existing released production plans. The system does not consider move and queue time if you simulate with F18. After the simulation finishes, the production detail screen returns and shows the results of the simulation.

# F19=Item/Facility Quality

Access the Item/Facility Quality Maintenance program, SFC121D1.

All other screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Shop packet print, MRP643

Use the Shop Packet Print program, MRP643, to print new shop packets and to make new allocations after you reschedule production.

If you print new shop packets, the shop order status changes to 5, shop order is printed. If you do not print them, the shop order status is 4, shop order is entered.

Access: F15 on the MRP640-03 screen

# Print shop packets and allocate shop orders

Use the Shop Packet Print screen, MRP643-01, to specify whether to print shop packets, allocate shop orders, recalculate expiration and retest dates, or perform any combination of these functions.

# Field descriptions - MPR643

# **Print Shop Packet (1,0):**

Specify 1=Yes to print shop packets. The shop order status changes to 5. Specify 0=No to not print shop packets. The shop order status remains set to 4.

# Allocate Shop Orders (1,0):

Specify 1=Yes to allocate the orders, otherwise, specify 0=No.

# Recalculate/Print Expiry/Retest Date-Print (1,0):

Specify 1=Yes to recalculate expiration and retest dates via a call to the Expiry/Retest Date Calculation program, SFC750B, then print the expiration date on the shop packet header.

This field only applies to parent items that are set to Expiry/Retest calculation method 2=Component Mfg/Expiry Date-Print. The system only prints the expiration date on the shop packet header, but it recalculates both dates and updates them in the Lot Master file, ILN.

# Screen actions - MRP643-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# MRP simulation inquiry, MRP650B

The MRP Simulation Inquiry program, MRP650B, provides an online simulation MRP Inquiry into the time-phased orders and requirements. The inquiry includes pegging for each requirement for the simulation.

The program shares screens with MRP Inquiry, MRP300.

Access: MPS02

Select an item/facility combination for planning/pegging inquiry of simulation data

The MRP Simulation Inquiry program, MRP650B, uses the MRP300 screens but displays simulation inquiry information rather than live information. See the documentation for MRP Inquiry, MRP300, for a description of the screens this program uses. However, if you use function keys to access Purchase Order and Shop Order Maintenance programs from the simulation inquiry, any changes you make update live files.

# MRP explosion simulation, MRP660C

Use the MRP Explosion Simulation program, MRP660C, to generate a simulated requirements plan by facility. The program creates all simulated planned orders and requirements with dates that fall later than the planning start date. You maintain the planning start date via Time Frame Maintenance, MRP120D1. If a forecast period crosses the simulated planning start date, the system prorates the forecast.

Planned and firm-planned orders are exploded through the regular bills of materials. The system creates planned orders as required and it regenerates exception messages for all items and orders.

# Note to Time Zone Conversion Users

Time zone conversion functionality allows you to view dates correctly for a region, regardless of the time zone in which you operate. The MRP programs convert regional dates entered on the screen for a specific region, such as that of the facility or the planning warehouse, to the corresponding dates for the time zone that is your system date and time. The MRP programs process date calculations

in the system date and time, then reconvert the resulting dates and times to values appropriate to the region of the warehouse or facility before these dates are displayed on the screen or printed in reports.

#### Example:

A record to process is associated with a warehouse in Sydney, Australia. The time zone you use for the system date and time is Chicago, USA. The MRP application reads the generation start date and time 0:00:00 for the Sydney facility's planning warehouse, converts it to the equivalent date and time for the Chicago time zone, and uses this converted date and time to perform planning calculations in 24 hour buckets. When it displays the resulting dates and times on screens or prints them in reports, it converts the results of the calculations back to the equivalent dates and times for Sydney.

Access: MPS menu

# Generate a simulated requirements plan by facility

Use the MRP Explosion screen for simulation, MRP660D-01, to specify start and end dates, the type of explosion, and other limitations to the simulation explosion.

#### Field descriptions - MRP660D-01

## Planning Start Date (8,0):

Specify the first date of the planning cycle. The value in this field defaults to the date of the most recent MRP explosion or Master Schedule generation. Leave the field blank to default to the facility-specific planning date.

#### Planning End Date (8,0):

Specify the last date of the planning cycle.

# Net Change (N) or Regenerative (R) (1,A):

Specify N (net change) to affect only items that require re-planning (active items). Specify R (regenerative) to plan all items.

# Rebuild All Requirements (1,0):

Specify 0=No to rebuild only requirements for MPS items that changed. Specify 1=Yes to rebuild the requirements for all MRP items.

# Facility (3,A):

Specify a facility for which to run the MRP explosion simulation. Specify \*\*\* to run the explosion for all facilities.

#### Screen actions - MRP660D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# MRP simulation report, MRP670B

This program produces a facility-specific detailed simulation report for the selected range of items.

You can sort the entries on this report in alphanumeric sequence by either the Item Number or the Item Planner Code. The Item Planner code is user-defined. Assign item planner codes to items in the Item Master Maintenance program, INV100.

Access: MPS02 menu

# Print an MRP simulation report for a range of items

Use the MRP Simulation Report screen, MRP670D-01, to set selection and sorting criteria for data to include in the report.

The MRP Simulation Report program shares the selection screen with the MRP Exception Report program, MRP200D. See the documentation for that program for a description of the fields on the MRP Simulation Report screen, MRP670D-01.

# Create simulation files, MRP700D

Use the Create Simulation Files program, MRP700D, to copy live MPS/MRP planned orders, requirements, purchase orders, shop orders, work center data, shift override data, and shop calendar data from live files into the simulation environment files.

Material requirements, purchase orders, and shop orders are considered static in the simulation environment and cannot be maintained. Any changes you make to them in the live files affect only the live files. However, planned orders, work center data, shift overrides, and calendar data are dynamic. You can use this program to copy them into the simulation environment or you can manually create the data using the following programs:

- Use Simulation Maintenance, MRP710B, to create MRP planned orders in the Simulation Planned Orders file. KSP.
- Use Simulation Work Center Maintenance, MRP745D, to create work center and shift override data in the Simulated Work Center file, KWK, and the Simulated Work Center Shift file, KSH.

 Use Simulation Calendar Maintenance, MRP747D1, to create shop calendar data in the Simulated Shop Calendar file, KSC.

The simulation file updates do not affect the live data until you run Copy Simulation to Live, MRP770. This program copies the simulated planned and firm planned orders, work center and shift override data, and shop calendar data into the live database. It simultaneously deletes existing planned and firm planned orders from the live database.

The table below summarizes the file processing of the various types of simulation data. The table contains the following shortened terms:

- Planned = Planned Orders
- Mat Req = Material Requirements
- POs = Purchase Orders
- SOs = Shop Orders
- WCs = Work Centers
- Shift Over = Shift Overrides
- Shop Cal = Shop Calendar
- Sim File = Simulation File
- Maint Sim? = Maintain in Simulation Environment?
- Y = Yes
- N = No

| Data Type  | Live File | Sim File | Maint<br>Sim? |
|------------|-----------|----------|---------------|
| Planned    | KFP       | KSP      | Υ             |
| Mat Req    | KMR       | KSR      | N             |
| POs        | HPO       | KPO      | N             |
| SOs        | FSO       | KSO      | N             |
| WCs        | LWK       | KWK      | Υ             |
| Shift Over | LSH       | KSH      | Υ             |
| Shop Cal   | FSC       | KSC      | Y             |

Access: MPS02 menu

# Retrieve and update simulation file data

Use the Create Simulation Files screen, MRP700D-01, to populate simulation files with data from live files or existing simulation files.

# Field descriptions - MRP700D-01

#### **Start Simulation from Scratch (3,A):**

Specify 1=Yes if you want to manually enter planned or firm-planned orders into the simulation environment. This clears the Simulation Planned Orders file, KSP. It does not clear the simulation files for material requirements, purchase orders, shop orders, or work center and shift override data. The program copies the data for these files from their respective live files into the simulation environment.

Specify 0=No if you want Infor ERP LX to copy all live files into their corresponding simulation files KSP, KWK, KSH, KSC, KSR, KPO, and KSO.

# Facility (3,A):

Specify the facility for MRP planning for this item..

#### Screen actions - MRP700D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Simulation MPS explosion, MRP705C

Use the Simulation MPS Explosion program, MRP705C, to generate a simulated master production schedule by facility. The system creates orders and requirements with dates that fall after the MPS planning start date. You update the planning start date via the Time Frame Maintenance program, MRP120D1. If a forecast period crosses the planning start date, and you have Prorate Forecasts? set to 1=Yes in the MRP System Parameters screen, MRP820D-01, the system prorates the forecast.

Available to promise quantities are exploded through the planning bills of material to create production forecasts. Planned and firm-planned orders are exploded through the regular bills of material. Planned orders are created at the planning horizon. The system generates exception messages for all master production schedule items.

The logic used by this program is identical to that for the normal Master Schedule Generation, MRP500.

Access: MPS02 menu

# Note to Time Zone Conversion Users

Time zone conversion functionality allows you to view dates correctly for a region, regardless of the time zone in which you operate. The MRP programs convert regional dates entered on the screen for a specific region, such as that of the facility or the planning warehouse, to the corresponding dates for the time zone that is your system date and time. The MRP programs process date calculations in the system date and time, then reconvert the resulting dates and times to values appropriate to the region of the warehouse or facility before these dates are displayed on the screen or printed in reports.

#### Example:

A record to process is associated with a warehouse in Sydney, Australia. The time zone you use for the system date and time is Chicago, USA. The MRP application reads the generation start date and time 0:00:00 for the Sydney facility's planning warehouse, converts it to the equivalent date and time for the Chicago time zone, and uses this converted date and time to perform planning calculations in 24 hour buckets. When it displays the resulting dates and times on screens or prints them in reports, it converts the results of the calculations back to the equivalent dates and times for Sydney.

Access: MPS02 menu

# Specify information for an MPS simulation explosion

Use the MPS Simulation Explosion screen, MRP705D-01, to specify the planning start date, planning end date, and facility for which to run the MPS simulation explosion.

# Field descriptions - MRP705D-01

# Planning Start Date (8,0):

Specify the start date to use for the planning simulation explosion. Leave the field blank to use the facility-specify planning start date.

# **Planning End Date:**

Specify the end date to use for the planning simulation explosion.

#### Regenerative (R) (1,A):

This explosion is strictly a regenerative process. Always specify R in this field.

#### Facility (3,A):

Specify the facility to use for this simulation MPS explosion.

#### Screen actions - MRP705D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Simulation maintenance, MRP710B

The Simulation Maintenance program, MRP710B, provides online, facility-specific maintenance of MRP/MPS simulation data. It updates the MPS by item. The maintenance screen displays both orders and requirements. You can view pegging requirements by pressing F13.

Access: MPS menu02

# Specify an item and facility for simulation MRP maintenance

Use the MRP Maintenance screen, MRP710D-01, to specify an item and facility for which to run the simulation maintenance.

The Simulation Maintenance program shares screens with MRP Maintenance, MRP510D. See the documentation for that program for details about the fields in the screens displayed.

# Simulated orders print, MRP720D

Use the Master Schedule Simulation Orders program to produce a facility-specific listing of all production orders contained in the simulation. The release dates, reschedule dates, and due dates of the orders display for the simulation planning warehouse.

Access: MPS menu02

# Select facilities to include in the list of simulated orders

Use the MPS Simulation Orders screen, MRP720D-01, to specify a range of facilities to include in the selection of production orders to print in the list of simulated orders.

# Field descriptions - MRP720D-01

# From Planned Order Facility (3,A):

Specify a range of values to limit the facilities to include in the selection of planned orders. The list only includes simulated planned orders for facilities within this range.

# To Planned Order Facility (3,A):

Specify a range of values to limit the facilities to include in the selection of planned orders. The list only includes simulated planned orders for facilities within this range.

# Run Time Parameter (1,0):

Specify Interactive to process the data in real time or Batch to process the data in the job queue. If you select interactive processing, your session is unavailable for other tasks until the job finishes.

#### Screen actions - MRP720D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Simulated MPS print, MRP730B

Use the Simulated MPS Print program, MRP730B, to produce a simulated specific and detailed master schedule report for the range of items you select. You can sequence the report by item number or by planner code. If you specify a sort by planner code, the program performs a second sort by item number. The item's planner code is a user-defined code that you maintain in the Item Master Maintenance program, INV100.

Access: MPS02

# Print simulated master production schedule information for MPS items

Use the Simulation Master Schedule Report screen, MRP730D-01, to specify data to include in the report.

This program shares the screen with the Print MPS Detail program, MRP240D. See the documentation for that program for a description of the fields on this screen.

# Capacity simulation, MRP740D

Use the Capacity Simulation program, MRP740D, to generate rough-cut or detail capacity simulation.

Access: MPS02 menu

# Generate a rough cut or detail capacity simulation

Use the MRP Capacity Simulation screen, MRP740D-01, to specify parameters for the simulation. You can limit the simulation to a single facility or include all facilities. You can also run a rough cut capacity simulation, or you can run a detail simulation with a horizon date.

# Field descriptions - MRP740D-01

# Facility (3,A):

Specify a valid facility code to limit the simulation to a single facility, or leave the field blank to include all facilities.

# **Select Processing Option (1,A):**

Specify the type of simulation to generate. Option 1 generates a rough cut capacity simulation. Option 2 generates a detail capacity simulation.

# **Detail Capacity Simulation Horizon Date (8,0):**

You must specify the facility's detail capacity horizon date for the simulation generation if you choose to run a detail capacity simulation.

#### Run Time Parameter (1,0):

Specify Interactive to process the data in real time or Batch to process the data in the job queue. If you select interactive processing, your session is unavailable for other tasks until the job finishes.

#### Screen actions - MRP740D-01

## Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Simulation work center maintenance, MRP745D

The Simulation Work Center Maintenance program, MRP745D, uses the Work Center Maintenance programs, CAP100, in a simulation mode. The MRP program allows you to maintain work center simulation information on the screens to simulate capacity planning and view the results before you use the data in live capacity planning. There are two restrictions: You cannot delete work centers or change the facility on a work center in the simulation screens.

Access: MPS02 menu

# Specify simulation data in work center maintenance screens

The screens that the Simulation Work Center Maintenance programs display are identical to the screens of the work center maintenance programs, except for the titles. See the information in your Capacity Planning documentation for a description of the individual workstation maintenance screens and fields that this program uses.

# Simulation calendar maintenance, MRP747B

The Simulation Calendar Maintenance program, MRP747B, uses the Shop Calendar Maintenance programs, SFC140D, in a simulation mode. The MRP program allows you to maintain shop calendar information to simulate capacity planning and view the results before you use the data in live capacity planning. When you run MPS by facility, you cannot maintain global calendars. This safeguard prevents you from overwriting the live global calendar with your simulated global calendar when you run Copy to Live, MRP770D.

Access: MPS02 menu

# Specify simulation data in shop calendar maintenance screens

The screens that the shop calendar maintenance simulation program displays are identical to the screens of the shop calendar maintenance program except for the titles. See the information in your Shop Floor Control documentation for a description of individual shop calendar maintenance screens and fields that this program uses.

# Rough-cut capacity simulation inquiry, MRP750B

The Rough-Cut Capacity Simulation Inquiry program, MRP750B, program is an inquiry by work center. You can inquire about the load by time frame, with 40 time periods. The program displays this information in a bar graph format. You can also inquire into pegged loading. The detail that makes up the load includes planned orders from the simulation only.

Access: MPS02

# Select a workstation for the rough-cut capacity simulation inquiry

Use the Rough-Cut Capacity Simulation Inquiry screen, MRP750D-01, to select a work center and an action for the inquiry. The program shares screens with the Detail Capacity Inquiry program, CAP300B. See your Capacity Planning documentation for a description of the fields on the screens.

# Capacity simulation report, MRP760D

Use the Capacity Simulation Report program, MRP760D, to create a rough cut or detail capacity requirements report with simulation data.

Note that you must run the MRP Capacity Simulation program, MRP740, for the same selections that you make here before you run this report. The MRP Capacity Simulation program creates the simulation capacity records so that they are available to print in the report.

Access: MPS02 menu

# Print a simulation capacity requirements report

Use the Simulation Requirements Report screen, MRP760D-01, to limit the information to include in the report and to specify whether you want a rough cut capacity report or a detail capacity report.

# Field descriptions - MRP760D-01

#### From Work Center Number (6,0):

Specify a range of values to limit the work centers to include in the report. For information on range fields, see the Ranges topic in the overview section of this document.

#### To Work Center Number (6,0):

Specify a range of values to limit the work centers to include in the report. For information on range fields, see the Ranges topic in the overview section of this document.

# **Vertical Increment Value (2,0):**

Specify the number of capacity levels to display on the vertical axis (far left column) of the report. Valid entries are 10 or 20.

# Pegging Requirements (1,A):

Specify Y=Yes in this field to include the description of orders that form the basis of the capacity calculations in the report. Otherwise, specify N=No.

# MRP Time Frame Code (1,A):

Specify the MRP Time Frame Code to use for this simulation requirements report. The simulation requirements report organizes production planning into the periods you set up in system parameters.

# Facility (3,A):

Specify the facility number to which to restrict the requirements report. Leave the field blank to include all facilities.

# Select Report Option (1,A):

Specify 1 to generate a simulation rough cut capacity report. Specify 2 to generate a detail capacity report.

#### Screen actions - MRP760D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Copy simulation to live files, MRP770D

The Copy Simulation To Live Files program, MRP770D, copies simulated planned orders, firm-planned orders, and calendar and capacity data into the live environment. The program deletes existing planned and firm-planned orders from the live environment. You can run the program by facility. You can specify types of data to include in the copy.

Note: If you run the simulation globally but you run the live planning environment by facility, as set in the system parameters, you cannot copy all the simulated planned and firm-planned orders into the live environment. This restriction prevents corruption of data.

You can only copy global calendars to the live environment if you run MPS globally.

If you set either of the capacity record options to 1=Yes, the program also copies simulation data for work centers and shift overrides to the live environment.

Access: MPS02 menu

# Copy simulation planning and capacity information to the live environment

Use the Copy Simulation to Live Files screen, MRP770D-01, to specify the type of simulation information to copy to the live environment.

# Field descriptions - MRP770D-01

# **Delete Simulation Files After Copy? (3,A):**

Specify 1=Yes to copy data to the live environment and to delete your simulations. The process only transfers and deletes records for the facility you specify on this screen. Specify 0=No to copy data to the live files and to retain your simulation data.

# Facility (3,A):

Enter the facility number to which to restrict the transfer of data.

# **Copy Simulation Planned and Firm Planned Orders:**

Specify 1=Yes to copy planned and firm-planned orders from the simulation to the live environment. Otherwise, specify 0=No.

# **Copy Simulation Rough Capacity Records:**

Specify 1=Yes to copy rough-cut capacity information from the simulation to the live environment. Otherwise, specify 0=No. If you activate this option, the program also copies work center and shift override data to the live environment.

#### **Copy Simulation Detail Capacity Records:**

Specify 1=Yes to copy detail capacity information from the simulation to the live environment. Otherwise, specify 0=No. If you activate this option, the program also copies work center and shift override data to the live environment.

#### **Copy Simulation Calendar Records:**

Specify 1=Yes to copy shop calendar information from the simulation to the live environment. Otherwise, specify 0=No.

# Screen actions - MRP770D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Simulation comparison report, MRP790D

Use the Simulation Comparison Report program, MRP790D, to create a simulation comparison report within the limits you specify on the selection screen.

Access: MPS menu02

# Specify selection criteria for the simulation comparison report

Use the Simulation Comparison Report screen, MRP790D-01, to limit the information to include on the report and to specify the sorting sequence.

This screen contains range fields that you use to limit the data the system selects. For information on range fields, see the Ranges topic in the overview section of this document.

# Field descriptions - MRP790D-01

# By Item or Item Class or Planner or Buyer? (1,0):

Specify the sorting sequence for the report. You can sort the information by Item 1, Item Class 2, Planner 3, or Buyer 4.

#### From Planner (3,A):

Specify a range of values to limit the information to include in the report by planner.

Note: If you specify a planner code limit, you must leave the buyer code at the default values.

#### To Planner (3,A):

Specify a range of values to limit the information to include in the report by planner.

Note: If you specify a planner code limit, you must leave the buyer code at the default values.

# From Buyer (3,A):

Specify a range of values to limit the information to include in the report by buyer code.

Note: If you specify a buyer code limit, you must leave the planner code at the default values.

# To Buyer (3,A):

Specify a range of values to limit the information to include in the report by buyer code.

Note: If you specify a buyer code limit, you must leave the planner code at the default values.

#### From Item Class (2,A):

Specify a range of values to limit the information to include in the report by item class.

# To Item Class (2,A):

Specify a range of values to limit the information to include in the report by item class.

# Through Release Date (8,0):

Specify the most recent facility release date to include in the selection.

If you are using time zone conversion and do not specify a facility, the selection process adds one day to this date to ensure that no records are missed because of date differences between time zones.

# From Item (35,A):

Specify a range of values to limit the information to include in the report by item.

#### To Item (35,A):

Specify a range of values to limit the information to include in the report by item.

#### Facility (3,A):

If you ran the simulation by facility, specify the facility number to which to limit the report. Leave the field blank to include all facilities.

# Run Time Parameter (1,0):

Specify Interactive to process the data in real time or Batch to process the data in the job queue. If you select interactive processing, your session is unavailable for other tasks until the job finishes.

#### Screen actions - MRP790D-01

# Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Reorganize MRP files, MRP990C

Use the Reorganize MRP Files program, MRP990C, to purge obsolete planned orders that take up space on the system. Infor recommends that you run this program periodically.

This program affects the following files:

- KFP, Planned Order file
- KMT, Multiple Daily Forecast Records
- KMR, Material Requirements file
- KSP, Simulation file for KFP
- KSR, Simulation file for KMR

The Reorganize MRP Files program tries to allocate KFP.

- If it can allocate, it reorganizes the file.
- If it cannot allocate, it reads the KMR file.
- If it can now allocate, it reorganizes the file.
- If it cannot allocate, it exits.

Caution: This program purges file information. The MIS department should consult the project manager or the appropriate department supervisor before pressing Enter to run this program. Do not run Reorganize MRP Files if any other program is using the MRP file. If you run MRP990 and someone else tries to run a generation or a regeneration, the program will hard halt.

Access: Menu SYS01

# Run the MRP file reorganization

Use the MRP Files Reorganization screen, MRP990D-01, to run the purge of planned orders interactively or in batch.

Screen actions - MRP990D-01

#### Standard screen actions

All screen actions on this screen perform standard Infor ERP LX functions. See *Generic help text for screen actions* in the overview information in this document.

# Appendix A Glossary



# Ranges

Ranges refer to fields you can use to limit an inquiry or report or to display specific data. If there are multiple range fields in a program, you can tailor your inquiry or report to produce only the data you need.

Infor ERP LX sorts the information alphanumerically. Therefore, the value in the From field must be a lower alphanumeric value than the value in the To field.

Infor ERP LX usually inserts extreme values as defaults in the lower and upper fields. See the description for Extreme values by default. The entries you make in range fields do not have to be valid values in a database file.

Review the following suggestions to limit the information:

Specify the first value to include on the inquiry or report in the From field. Leave the To field blank to include all information to the end of the file. For example, you can print a report that starts with the customer number you specify in the From field and stops at the end of the Customer Master file.

Specify the last value to include on the inquiry or report in the To field. Leave the From field blank to start at the beginning of the file. For example, you can perform an inquiry that starts with the beginning of the Customer Master file and ends with the customer number you specify in the *To* field.

Specify the same value in both the *From* and *To* fields. For example, you can limit a display to one customer.

To include a group of items, specify a value in the *From* field and another value in the *To* field. For example, you can perform an inquiry that starts with the first of the month and ends with the last day of the month.

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