Infor XA – Capacity Requirements Planning User's Guide

Publication Information

Release: Infor XA 10

Publication date: August, 2021

To the reader

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

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

Before you begin

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

What this book contains

Chapters 1 and 2 acquaint you with the application. Be sure to read the first two chapters before you use the instructions in the remaining sections. Use these chapters to understand how this application works and what you need to know to manage it.

The next group of chapters describes the options on the Main Menu. For example, Chapter 3 contains information about option 1 of the Main Menu. Each chapter includes information about how to use the displays associated with each option.

The last group of chapters describes the reports and forms for this application.

Use the appendixes to find information about using offline files or other functions specific to your application.

Summary of changes

If EPDM is installed and activated, Production Facility maintenance and inquiry is done through EPDM.

When EPDM is installed, the Capacity Requirements Planning application is now fully integrated with the EPDM functions and Item Revisions replaces Item Master. While this guide might contain references to Item Master files, the functions in this application now use Item Revisions for item information. For more information, see the Enterprise Product Data Management Concepts Guide.

The Site field now appears on some displays, forms, and reports so that you can identify the site associated with a production facility or work center. Change bars identify these additions in this book.

Contents

Chapter 1. An introduction to Capacity Requirement Planning

This chapter contains general information you need to know about what Capacity Requirements Planning does and how it works on the System i.

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

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

What Capacity Requirements Planning does

Use Capacity Requirements Planning to determine if work center capacities (workers and machines) can meet the master production schedule.

CRP compares the work load (open, planned, firm planned, and/or customer orders) by time period to the available capacity for each production facility. The results are available through inquiries and reports. This allows you to identify the work centers where over- or underloads exist and make adjustments to the work load or production capacity.

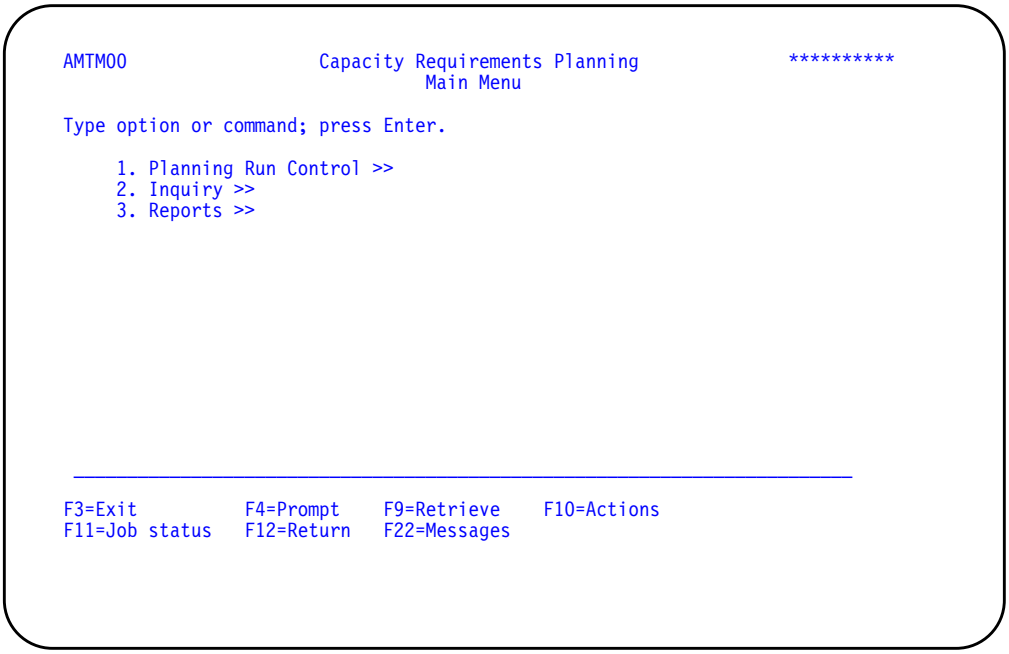
To have the most up-to-date information for CRP, do the following:

- Complete an MRP planning run to create planned orders (if MRP is installed)
- Complete an Inventory Management order release to create open orders
- Process all current shop activity transactions using Shop Activity Update (if PC&C is installed).

Main Menu

A menu lists the application tasks you can choose. The first menu in the application is called the Main Menu.

Options 1, 2, and 3 on the Capacity Requirements Planning Main Menu lead to secondary menus that offer additional options.



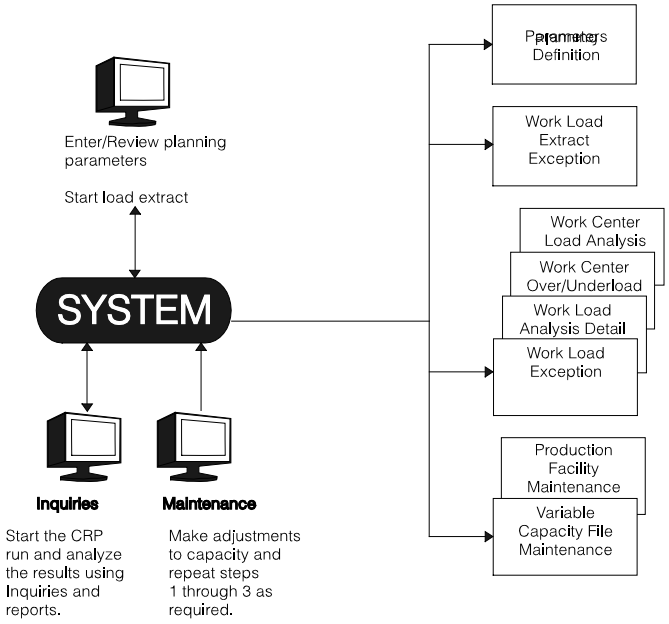
Option 1. Planning Run Control. Use this option to set up the planning parameters and the work load to be used in the CRP run, starting the planning run, review and make changes to variable and base capacity, or delete the CRP work files.

Option 2. Inquiry. Use this option to review information about your work centers (variable capacity, detail load analysis), production facilities, routings, and manufacturing orders.

Option 3. Reports. Use this option to select various reports for printing.

How the information flows within Capacity Requirements Planning

This figure summarizes the flow of information in the application.



CRP
Capacity Requirements Planning

1. Enter or review the planning parameters (CRP scheduling start date, period length, and so on) to be used during a CRP planning run. The parameters are printed on the Planning Parameters Definition report.
2. Select the type of orders (open, planned, firm planned, customer) to be used as work load during a CRP run and start the Work Load Extract.

   Those items for which no open operation records or standard routings exist are printed on the Work Load Extract Exception report. If you decide that these records are required for a CRP run, you can use file maintenance to add them and then run the Work Load Extract option again.
3. When you are satisfied with the planning parameters and work load, you can start a CRP run. You analyze the results using inquiries and reports to determine if any work centers are over- or underloaded. If needed, you can adjust the work center base capacity (workers or machines) using variable capacity maintenance and start the CRP run again.

   Any open manufacturing orders with operations that have work scheduled before the CRP scheduling start date are printed on the Work Load Exception report.
4. If needed, you can make changes and repeat the CRP run.

   Note: If you selected to print before-and-after images of master files during installation and tailoring, the Variable Capacity Master File Maintenance report prints as an audit trail. If you select to print before-and-after images of master

files during installation and tailoring of PC&C or PDM, the Production Facility Maintenance report prints. For more information, see Chapter 6 “Report descriptions”.

How the information flows from other applications to Capacity Requirements Planning

CRP is designed to analyze a company’s manufacturing plan in terms of its capacity. It does this by accumulating the work load and comparing it by time period to the available capacity in each work center.

CRP requires information from other applications. At a minimum, this information must include the ability to schedule orders and operations using dates contained in the IM Calendar file and both work center capacity and a work load in the form of orders. CRP also requires specifications, supplied as routings, if PDM is installed or EPDM is activated, or open operations, if PC&C is installed.

Note: For specifications to be supplied as routings from EPDM or PDM, you must select standard routings during installation and tailoring for EPDM or PDM.

Since work center capacity is provided from either PC&C, EPDM (if activated), or PDM, one of these applications must always be installed and interfacing with IM and CRP.

Work load, on the other hand, can be provided in the form of one or all of the following order types:

- Open
- Planned
- Firm planned
- Customer

Customer orders are provided by COM, open orders by IM and PC&C together, and planned and/or firm planned orders by MRP.

CRP interfaces

CRP does not send information to the other XA applications.

CRP receives information from …

COM Customer orders as work load during the planning run.

IM Calendar, open order, and order detail information.

MRP Planned and firm planned orders for work center loading.

PC&C Open order information.

PDM Standard routing.

How Capacity Requirements Planning is designed

The following structures support the XA applications.

- Application tailoring
- Files
- File maintenance
- Master file searches
- Reports
- Inquiries

Application tailoring

Application tailoring is the process of adapting the CRP application to fit your business. You tailor the application during installation by answering the CRP questionnaire and the questionnaires for interfacing applications. Questionnaires are found in the *Planning and Installing XA* book.

Files

Files are collections of data organized in a meaningful way. All files are made up of fields. Each field is an item of data; for example, a work center description.

The files that contain relatively permanent data are called master files. The System Control file is a master file that is used by multiple applications or operations. The files that store data until it is processed, printed, or moved to a master file are called work (temporary) files.

Master files

Following are the master files used by Capacity Requirements Planning. These files are shared with other XA applications.

Variable Capacity (CAPVRY) file. This file contains changes to work center or production line capacity. It is maintained using option 2 on the Planning Run Control menu (AMTM10). It is shared with the REP application.

Calendar (CALNDR) file. This file is used to calculate the planning horizons for the 36 time periods and to schedule workload. It contains the workdays for a five-year calendar that were defined during Calendar file maintenance in either the IM, PC&C, or MRP applications.

Release (MBADRES1) file. This file is used by CRP to pick up the line items on each customer order and is shared with the COM application.

Quote/Order Header (MBC6RES0) file. This file contains one record for each customer order and is shared with the COM, IM, and MRP applications.

Item Balance (ITEMBL) file. This file is used by CRP to calculate the manufacturing start date for a customer order and is shared with the IM, MRP, EPDM or PDM, and COM applications.

Item Master (ITEMASA) file. This file is shared with IM, EPDM or PDM, COM, PC&C, MRP, and Sales Analysis (SA) applications.

Manufacturing Open Order Master (MOMAST) file. This file is used by CRP to pick up open order summary information. This file is shared with the IM and PC&C applications.

Manufacturing Open Order Operations Detail (MOROUT) file. This file is used by CRP to pick up open operations for an item and is shared with the IM and PC&C applications.

Planned Order (PLNORD) file. This file is used by CRP to pick up planned and firm planned order data and is shared with the MRP application.

Production Facility (WRKCTR) file. This file, which is required for CRP, contains data on each work center; for example, desired capacity and shift length, average efficiency, foreman, and location.

This file is required in order for PC&C to be installed. However, it is optional for PDM and must be requested during PDM application tailoring if PC&C is not installed. You maintain this file in CRP.

This file is not used if EPDM is activated. The Facility Master (FACMST) file is used instead.

Routing (ROUTNG) file. If PDM is installed and standard routings were selected during PDM application tailoring, and a standard routing exists for the item, this file is used by CRP to pick up routing operations for an item. It is shared with the PDM and PC&C applications.

This file is not used if EPDM is activated. The Routing Header (RTGHDR) file and Routing Operations (RTGOPR) file is used instead.

System Control file

The System Control file is the major system file for XA. It contains relatively unchanging information that is used by more than one application or operation. When you install an application and enter responses to the questionnaire, the information is stored in SYSCTL. It contains the functional options you chose, the report options you chose, and any constant information (such as company name). To change information in the System Control file, answer the questionnaires again or use the Cross Application Support Maintenance/Change menu (AMZM30).

Work files

The following files are created by CRP to hold information such as order, operation, and work center data for processing:

Capacity Run (CAPRUN) file. This file contains work center capacity and load data by planning time period. It is created during the Schedule and Accumulate Work Load procedure (option 7, Planning Run Control menu, AMTM10) and provides summarized data for inquiry and reports.

Date Work (CAPWRK) file. This file contains one record for each calendar date record.

Manufacturing Open Order Extract (MOMSTX) file. This file contains unscheduled open order summary records for which there are no open operations. This file is

treated similarly to the Planned Order file and is used in the Work Load Extract procedure.

Order Extract Work (WRKORD) file. This file contains order data for open orders, planned and firm planned orders, and customer orders. It is created during the Work Load Extract procedure (option 6, Planning Run Control menu, AMTM10).

Period Load Detail (PERLOD) file. This file contains summarized load by time period by work operation by work center. It is created during the Schedule and Accumulate Work Load procedure (option 7, Planning Run Control menu, AMTM10).

Routing Extract Detail (ROUTEX) file. This file contains routing detail information by item number. It is created during the Work Load Extract procedure when the planned orders, open orders without scheduled operations, and customer orders are expanded.

Work Load (WRKLOD) file. This file contains order and operation data. It is created during the Work Load Extract procedure (option 6, Planning Run Control menu, AMTM10).

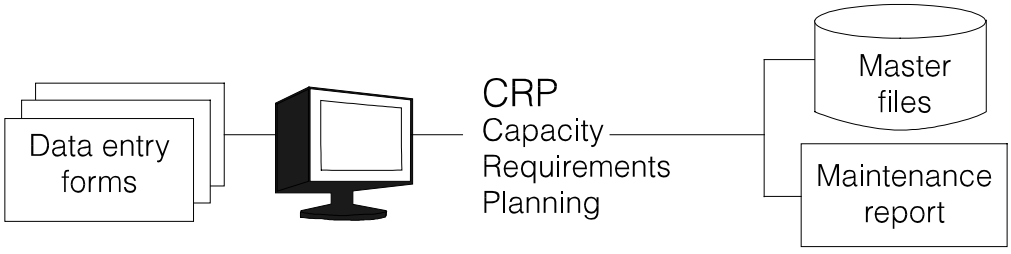
Work Load Routing (WRKRTG) file. This file contains operation data for scheduled open orders.

File maintenance

File maintenance is the process of updating the records in the application master files. For example, you can enter information about a work center into a record of the Production Facility file.

You can use the data entry forms in the XA manuals to organize the information you need for the file maintenance displays. CRP has data entry forms for the Variable Capacity Maintenance and Production Facility files in Chapter 7 “Forms”.

When you add, change, or delete data on the Variable Capacity Maintenance and Production Facility Maintenance displays, the corresponding master files are updated as soon as you press **Enter**. This is called online update. This figure illustrates the method of updating files.



Master file searches

XA allows you to search for information in various master files. You begin a search by typing a question mark (?) in a field that supports searching.

Reports

The following reports can be printed as part of a CRP run or on request:

- Work Center Load Analysis by Work Center or by Department
- Work Center Over/Underload by Work Center or by Department
- Work Center Load Analysis Detail by Work Center or by Department
- Work Center Capacity Report by Work Center or by Department
- Production Facility Report by Facility
- Production Facility Report by Facility within Department.

The following reports can be printed on request only:

- Work Center Variable Capacity Detail/Summary by Work Center
- Work Center Variable Capacity Detail/Summary by Work Center within Department.

For a description of these reports, see Chapter 6 “Report descriptions”.

Inquiries

You can review the status of your business data using the Inquiry menu (AMTM20). You can inquire about:

- Manufacturing order information
- Routing information (by item)
- Production facilities
- Work center load analysis detail
- Work center variable capacity

Security

You can limit access to application functions using security maintenance in Cross Application Support. For a list of the CRP functions that you can protect, see “Security areas” on page A-1. For information on maintaining security, see the Security Maintenance chapter of the *CAS User’s Guide*.

Using eWorkPlace with XA documentation

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

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

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

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

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

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

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

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

Chapter 2. Managing Capacity Requirements Planning

Before you begin running CRP, you should read this chapter to learn how to use CRP functions in your business.

Organize the source material

Data entry forms help organize the source material for the person maintaining the master files. Forms for the Variable Capacity and Production Facility files are in Chapter 7 “Forms”. Forms for the master files maintained in other applications are found in their respective manuals.

Establish controls

There are several ways to assure the accuracy of the data you use to run your business.

Status displays and control sheets allow you to verify master file transactions. You can request a display during file maintenance that shows the status of the maintenance session as well as keep copies of the control sheets that are printed as part of the file maintenance reports. For samples of the control information for the Variable Capacity and Production Facility files, see “Variable Capacity File Maintenance (AMVTC)” on page 6-15 and “Production Facility Report (AMV43)” on page 6-11.

The other reports in Chapter 6 and the options on the Inquiry menu (AMTM20) allow you to review CRP calculations and additional file information.

Understand the planning dependencies

CRP can determine the capacity requirements from several sources: open orders, planned orders, firm planned orders and, under some restrictions, customer orders. Other XA applications generate these order types and store them in files which must be present if you want to include a particular order type for analysis by CRP.

The order types you select depend on what applications are installed with CRP. CRP generates no orders by itself. The files and applications that are required to support the order types (work load) you select for capacity planning analysis are shown in the following table.

The XA files that can be used by CRP are listed in the following figure. Each column shows a valid combination of XA applications at the top and an 'X' on the grid to show that a given file is supported by this combination and is available to CRP.

	Applications installed								
XA Files	**PDM IM**	**PC&C IM**	**COM PDM IM**	**MRP COM PDM IM**	**PC&C MRP PDM IM**	**MRP PDM IM**	**PC&C MRP COM PDM IM**	**PDM PC&C IM**	
CALNDR	X	X	X	X	X	X	X	X	
ITEMASA	X	X	X	X	X	X	X	X	
ITEMBL	X	X	X	X	X	X	X	X	
MOMAST	X	X	X	X	X	X	X	X	
MOROUT		X				X	X	X	
MBC6RES0			X	X			X		
MBADRES1			X	X			X		
PLNORD				X	X	X	X		
ROUTNG	X		X	X	X	X	X	X	
WRKCTR	X	X	X	X	X	X	X	X	
Sources of work load									
Customer orders			X	X			X		
Open orders	X	X	X	X	X	X	X	X	
Planned orders				X	X	X	X		
Firm planned orders				X	X	X	X		
Note: Installations having only IM and PDM must have selected order tracking during IM application tailoring before installing Capacity Requirements Planning.									

Understand the interface/work load dependencies

Either IM and PC&C or IM and EPDM or PDM are prerequisite applications for CRP. Other XA applications provide various types of orders for your product which may be combined to most accurately represent the work load in your shop.

If only IM and EPDM or PDM are installed with CRP, you must select order tracking during IM application tailoring.

Capacity Requirements Planning uses information from the files generated by five other XA applications. Some of these files are optional so you need to understand their use in CRP and what function causes them to be generated. The following discussion should help you to better understand CRP dependencies on other applications. These dependencies are summarized in the following table.

Source application	File	Required or optional	
		Within source	Within CRP
IM	CALNDR	O*	R
	ITEMBL	R	R
	ITEMASA	R	R
	MOMAST1	O*	O
MRP	PLNORD1	R	O
COM	MBADRES1	R	O
	MBC6RES0	R	O
PC&C	MOROUT2	R	O
	WRKCTR	R	R
PDM	ROUTNG2	O	O
	WRKCTR	O	R

Legend:
R Required file
O Optional file
***** Supported by order tracking for manufacturing orders
1 At least one of these order files must be installed
2 At least one of these specification files must be installed

Inventory Management (IM)

The Calendar file (CALNDR) is used in CRP to do lead time scheduling. It must be initialized in IM by choosing option 8 from the File Maintenance menu (AMIM70), which shows you the Work with Calendar menu (AMIM78).

The Item Balance file (ITEMBL) contains data used by CRP to calculate the manufacturing start date of a customer order. It is a required file when IM is installed.

The Item Master file (ITEMASA) is used in CRP. It is a required file when IM is installed. The Manufacturing Order Summary file (MOMAST) contains released manufacturing orders. It can be selected in IM by choosing order tracking support for manufacturing orders in the IM questionnaire in the *Planning and Installing XA* book.

Material Requirements Planning (MRP)

The Planned Order file (PLNORD) provides CRP with both planned and firm planned orders from MRP. Its use in CRP is optional when MRP is installed.

Customer Order Management (COM)

The release file (MBADRES1) contains the line items for each customer order. It is optional when COM is installed.

The Quote/Order Header file (MBC6RES0) contains the customer order header information. Its use in CRP is optional when COM is installed.

Enterprise Product Data Management (EPDM)

When EPDM is activated, the Facility Master file (FACMST) provides facility information. The Routing Header (RTGHDR) and Routing Operations (RTGOPR) files contain standard routing operations.

Production Control and Costing (PC&C)

The Manufacturing Order Operations Detail file (MOROUT) provides CRP with the status of released orders. It is optional in CRP when PC&C is installed.

When EPDM is not activated, the Production Facility file (WRKCTR) is required in CRP as well as in PC&C and will be present if PC&C is installed.

Product Data Management (PDM)

When EPDM is not activated, the Routing file (ROUTNG) provides CRP with standard routing operations for every order that does not have operations already scheduled in MOROUT by PC&C. If you intend to use orders from Material Requirements Planning (MRP) or Customer Order Management (COM), it is a required file. However, it is an optional file in PDM.

When EPDM is not activated, the Production Facility file (WRKCTR) is a required file for CRP, but is optional for PDM. It contains capacity information about each work center and may be built either in PDM or Production Control and Costing (PC&C).

Understand the functions and calculations of CRP

CRP helps you verify your manufacturing plan. Capacity planning provides an accurate representation of what the work load will probably be within a planning horizon. Planned or in-process manufacturing orders are scheduled to identify the resources required to complete them by their due dates. Scheduling is done based on the load each order requires on individual manufacturing resources throughout the life of the order.

CRP accumulates the load imposed on each resource for all manufacturing orders in the period when it is most likely to occur and compares the load to the manufacturing capacity, period by period, through the CRP planning horizon. The planner can then compare load to capacity, period by period, to verify the manufacturing plan.

There are several functions and calculations of the CRP application you need to understand so that you can make better judgements concerning your operation. These are:

- Functions
  - Sources of work load
  - Establishing and using the planning horizon
- Variable capacity
- Scheduling calculations
- Loading calculations
- Capacity and daily scheduling hour formulas
- Planning run control options.

Functions

CRP offers flexibility in defining the planning horizon and the work centers for detail analysis, selecting scheduling options, and scheduling the work load.

Sources of work load

CRP plans work load based on orders from the following applications:

PC&C Open orders
MRP Planned and firm planned orders
COM Customer orders

These three sources of work load can be included individually or in combination with each other. In the absence of the PC&C function, they will require standard routing information from EPDM or PDM.

Where PC&C has already scheduled open manufacturing orders from the Manufacturing Order Summary file into the Manufacturing Order Operations Detail file, standard routing information from EPDM or PDM is not required by CRP.

When PC&C schedules orders, it also schedules and tracks open operations. If you elect to use open orders, CRP extracts, schedules, and analyzes open operations for capacity load. However, CRP does not update the Manufacturing Order Operations Detail file.

If you have EPDM or PDM and MRP installed, you can optionally include planned and firm planned orders in the work load. Either EPDM or PDM is required for standard routings.

Manufacturing Order Summary file. The Manufacturing Order Summary file (MOMAST) contains the order summary records for the manufacturing orders. When a manufacturing order is released, a record is created in this file for that order. The important information retained here for an order can be reviewed using option 5 on the Inquiry menu (AMTM20).

Manufacturing Open Order Operations Detail file. The Manufacturing Open Order Operations Detail file (MOROUT) contains the operation detail information for manufacturing orders; for example, hours, cost, quantity, and status. The operation sequence number identifies a specific operation record for transaction updates. If PC&C is installed, the operation detail records can be used and displayed.

Planned orders. MRP uses projections to generate replenishment orders. These orders are called planned orders before they have been released. MRP plans orders in sufficient quantity and at the proper time to meet the requirements for each item in the system. CRP can elect to use planned orders at the start of its Work Load Extract.

Firm planned orders. MRP provides a type of planned order, called the firm planned order, which it has stabilized but not yet released to Inventory Management; for example, a planned major production run for a finished product. CRP can elect to use firm planned orders at the start of its Work Load Extract.

Customer orders. Customer orders come from the Quote/Order Header file. If COM and EPDM or PDM are installed, you can select customer orders. However, be aware that “double loading” from both a customer order and its supporting open or planned order can occur during the schedule and accumulate load phase of CRP.

You should use customer orders in an assembly environment where the manufacturing plan is mainly driven by the backlog of customer orders. Non-MRP users could also use customer orders as input together with the open orders which represent normal work in process. When customer orders are used, only the routing for the unique item specified will be used. When kit items are ordered, only the kit components are used.

Establishing and using the planning horizon

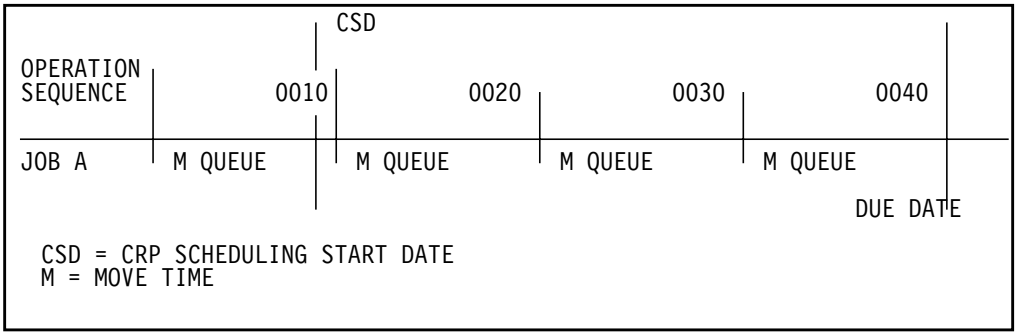
You can establish a CRP scheduling start date and up to 36 variable length periods called the planning horizon. Using the period lengths you entered, the application calculates the start date and day of the week for each period as well as the horizon end date.

The planning horizon is intended for short and medium term planning. You can define the close-in periods as weekly intervals for a finer analysis and later periods as monthly or quarterly intervals where your manufacturing plan is not nearly so firm. Long term planning is best accomplished by lengthening the time for all periods.

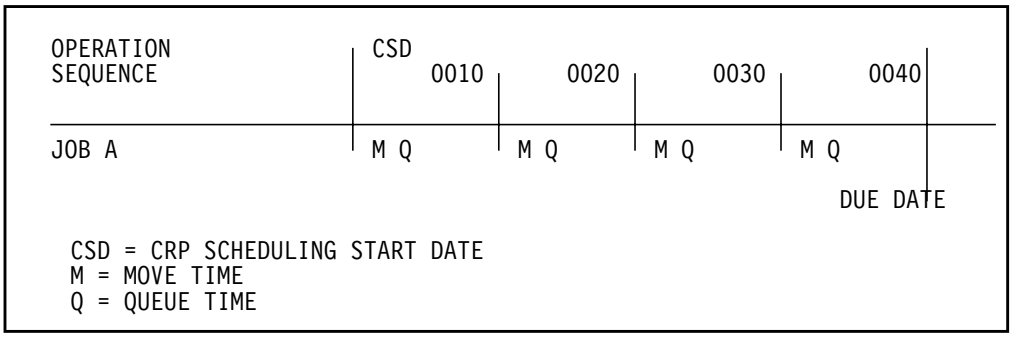
Queue adjustment

For open orders that have been scheduled by PC&C, you can choose to fit open orders between the CRP scheduling start date and the order due date. CRP adjusts the queue time of each operation for an order that is behind or ahead of schedule.

The following diagram shows that job A must start before the CRP scheduling start date in order to be completed by its due date. (Each operation has the normal move, queue, setup, and runtime.)



In the next diagram, the queue times of each open operation for job A are decreased so the entire job fits within the available time. If orders are worked on based on their priority, as established in PC&C, and if sufficient capacity exists to permit all jobs to finish on schedule, the following diagram would represent the most likely result.



Queue adjustment can also increase the queue time of each individual operation if the order is ahead of schedule. If you want to keep normal queue times for orders ahead of schedule you can choose to delay the start of the next nonstarted operation.

Production Facility/Work Center

Production facility refers to production lines, work centers, or work stations. Capacity Requirements Planning (CRP) works with variable capacity and load analysis for work centers only. However, maintenance and inquiry can be performed on production lines and work stations, if Repetitive Production Management (REP) is installed. Throughout the CRP manuals, the term work center is used when the action described applies to work centers only; the term production facility is used when the action being performed can effect production lines, work centers, or work stations.

Variable capacity

The capacity of your plant will vary during the course of your planning horizon in response to such factors as vacations, temporary help, resource shifted between work centers, overtime, scheduled downtime or new facilities coming online. You can temporarily change the capacity of a work center by using option 2 on the Planning Run Control menu (AMTM10). The work load that CRP schedules will be compared against the actual capacity available during the period, including variable capacity.

Other considerations involving the use of variable capacity records include:

- Changing shift length.

  In variable capacity maintenance, entering a blank shift length indicates no change, entering a shift length of zero will change the shift length to zero and therefore set the average daily capacity to zero (shift length x resource).

- Setting average daily capacity to zero.

  You may want a zero value of average daily capacity to reflect an unscheduled work center shut down for some period of time. To do this, either set the shift length to zero, or add a variable capacity record for that work center over the desired time period with negative resource increments exactly equal to the base resource units for each respective shift. This reduces net resource units per shift to zero and average daily capacity becomes zero over this period.

- Relating Variable Capacity file maintenance transactions to Work Center Variable Capacity Inquiry and the Work Center Variable Capacity Summary report.

  The Variable Capacity Maintenance form (TM-01) is used to show changes to the base values, both shift lengths and resource units, for a work center. New shift lengths replace base shift values whereas incremental resource units add or subtract from the base resource values. The ***net result*** of applying variable capacity transactions against the work center base values over the planning horizon can be seen on the Work Center Variable Capacity (Inquiry) display (AMTD12) or the Work Center Variable Capacity Summary report (AMTE2B).

- The impact of changing Production Facility file base values.

  Changing the base values in the Production Facility file causes the variable capacity incremental resource values to be added or subtracted from the new base values. The new shift lengths still override the new base shift length values.

- Shift length replacement versus resource adjustment.

  The only way to change a shift length is to enter a ***replacement*** value (blank means no change). Entering an incremental resource unit (+/-) adds to or subtracts from the base resource value; it does not replace the base resource value.

- Tracking variable capacity as an indefinite resource.

  You can specify 99 as the number of days effective and the resource is be treated as if it exists throughout the planning horizon.

Scheduling calculations

CRP uses scheduling to establish a picture of the work load (capacity requirements) in a manufacturing facility. (This is somewhat different from its use in PC&C which schedules to establish the priority of one order relative to another.) The work load is always portrayed with respect to due date.

If the option to adjust queues is selected, the plan is an approximation of what the work load will be if all planned and open orders are worked on so that they are completed on their scheduled due dates. (It is only an approximation since the relative priority of orders is not considered, and an infinite loading technique is used.)

If the option to adjust queues is not selected, then the orders which are behind schedule will have past due load, that is, work scheduled prior to the CRP

scheduling start date. This load appears in period 0 on load analysis reports and inquiries.

In either case, the scheduling calculation uses a start date which allows the order to be completed by its due date (see Note 1.). The start date of the first operation is determined by adding the standard queue time (see Note 2. and move time (interoperation time) of the first operation to the order start date (see Note 3.). The operation time is then calculated by multiplying the run hours for the operation by the order quantity, and adding setup time (see Note 4.). Operation yield is used to calculate the quantity completed at each operation so that only the quantity remaining is scheduled at the next operation.

Notes:

1. Orders where the total remaining queue time is less than the days off schedule are an exception. Those orders are forwarded scheduled from the CRP scheduling start date using zero queue time. Orders which are rescheduled in this manner are flagged on the Load Analysis Detail report.
2. If queue adjustment is selected, the standard queue time of each operation is adjusted to fit the entire work load in the time remaining before the due date.
3. If queue adjustment is selected, the start date is the CRP scheduling start date. You can choose to delay the start date for orders that are ahead of schedule.
4. The time basis code and work center efficiency are used in this calculation.

Loading calculations

Once the order is scheduled, it can be loaded into the appropriate period for each work center. This begins with the start date and load hours (setup and run) for the first operation. If all of the load hours do not fit into the period, the remaining hours are loaded into the subsequent period. When an operation has completed loading, the next operation is loaded in the same manner.

Capacity and daily scheduling hour formulas

You should be familiar with the following formulas used in CRP to calculate:

- Daily Capacity
- Planned Period Capacity
- Average Daily Capacity
- Daily Scheduling Hours
- Time Basis Code.

Daily Capacity (DC)

DC = DSL1 x DRU1 + DSL2 x DRU2 + DSL3 x DRU3 (from the work center and variable capacity records)

where:

DSL1, DSL2, DSL3 are the shift lengths for a given day of the period from the work center and variable capacity records.

DRU1, DRU2, DRU3 are the number of workers/machines for a given day of the period from the work center and variable capacity records.

Planned Period Capacity (PPC)

PPC = DC1 + DC2 + ...DCn

where:

DC1 + DC2 + ... DCn = The sum of Daily Capacity for each day of the period

Average Daily Capacity (ADC)

ADC = PPC divided by NPDAYS

where:

PPC is the Planned Period Capacity
NPDAYSis the number of days in the period.

Daily Scheduling Hours (DSHRS) for one day

DSHRS is the sum of (SL1 times RU1) plus (SL2 time RU2) plus (SL3 times RU3) divided by RU1, 2, or 3

where:

SL1, SL2, and SL3 are the shift lengths for any day from the work center record.

RU1, RU2, and RU3 are the workers/machines for any day from the work center record.

RU1, 2, or 3 is the largest of the resource units available in shifts 1, 2, or 3.

Time Basis Code

CRP supports operations defined in minutes (Time Basis Code = M). The operation times (setup and run) for all operations (including Time Basis Code = M) are extended and converted to hours before being accumulated as work load on displays in CRP.

Planning run control options

You can determine the effect of changing the following planning run parameters by using option 1 on the Planning Run Control menu (AMTM10) and then running the Work Center reports using the Reports menu (AMTM30).

- Overload/underload variance percentages
- If you change these parameters, you can reschedule the same work for orders that are already extracted:
  - CRP scheduling start date
  - Period lengths
  - Queue adjustment (Yes/No)
  - Delay orders ahead of schedule (Yes/No)
  - Designated work centers
  - Past due work load exception
  - Variable capacity.
- If you change these parameters, you must re-extract, schedule, and accumulate:
  - Source of work load
  - Routing from EPDM or PDM.

Chapter 3. Planning Run Control

The Planning Run Control menu allows you to review and select the information for and perform a Capacity Requirements Planning run and to delete the work files following the planning run.


```
AMTM10                  Capacity Requirements Planning            **********
                             Planning Run Control

Type option or command; press Enter.

     1. Enter/Review Planning Parameters
     2. Variable Capacity Maintenance
     3. Work Center Variable Capacity Inquiry
     4. Production Facility Maintenance
     5. Production Facility Inquiry
     6. Work Load Extract
     7. Schedule and Accumulate Work Load
     8. Delete Capacity Planning Work Files




==> ____________________________________________________________________

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

Option 1. Enter/Review Planning Parameters. Use this option to enter, change, and review the planning parameters for the Capacity Requirements Planning run.

Option 2. Variable Capacity File Maintenance. Use this option to maintain the Variable Capacity file. The maintenance report for this option is printed only if before and after image printing was selected during application tailoring.

Option 3. Work Center Variable Capacity Inquiry. Use this option to inquire into the Variable Capacity file. You can also select this option from the Inquiry menu (AMTM20).

Option 4. Production Facility Maintenance. Use this option to maintain the Production Facility file. The maintenance report for this option is printed only if before and after image printing was selected during application tailoring. This option is not available if EPDM is activated.

Option 5. Production Facility Inquiry. Use this option to review information about your work centers. You can also select this option from the Inquiry menu (AMTM20). This option is not available if EPDM is activated.

Option 6. Work Load Extract. Use this option to select the order types (open, planned, firm planned, customer) that are to be used as work load during the Capacity Requirements Planning run.

Option 7. Schedule and Accumulate Work Load. Use this option to start a Capacity Requirements Planning run. The reports printed for this option vary with the parameters you entered using option 1.

Option 8. Delete Capacity Planning Work Files. Use this option to delete all the CRP work files following a Capacity Requirements Planning run.

Option 1. Enter/Review Planning Parameters

Use this option to enter, change, or review the planning parameters used during a Capacity Requirements Planning run.

What information you need: Values for the parameters you want to maintain.

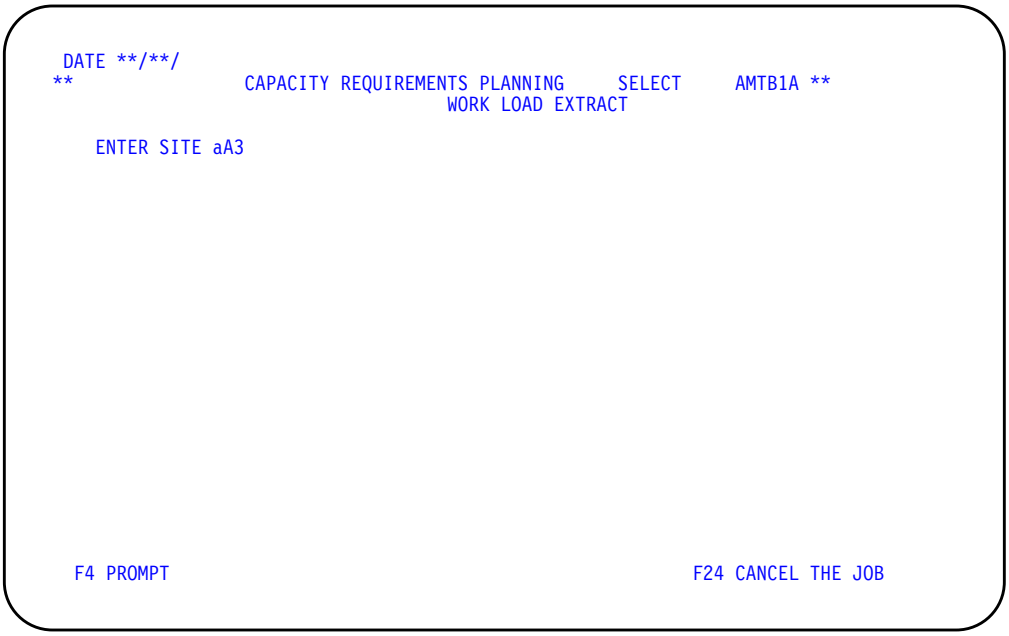
What reports are printed: Planning Parameters Definition report (AMTA1)

What forms you need: None

AMTA1A–Planning Run Control Time Periods (Select)

Use this display to enter a site for which you want to perform a planning run.

This display appears when you select option 1 on the Planning Run Control menu (AMTM10), if EPDM is activated.



What to do

Type the site you want to use and press **Enter**. Display AMTA11 appears.

Function keys

F4 PROMPT causes a Search display to appear so you can search for a valid site.

F24 CANCEL THE JOB causes the Planning Run Control (Cancel) display (AMTA13) to appear. No update occurs.

Fields

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

ENTER SITE (STID) [?]. An identifier of the site associated with this planning run.

AMTA11–Planning Run Control Time Periods (Change)

Use this display to enter your CRP scheduling start date, the length in days for each of up to 36 periods, and whether or not you want to print group capacity totals on the Work Center Load Analysis report.

This display appears when you select option 1 on the Planning Run Control menu (AMTM10). If EPDM is activated, it appears after you have entered a site on the previous select display.

Using the period lengths that you entered, the application calculates and displays the start date and day of the week on which it falls for each period and the horizon end date.

You may want to make the period lengths of the earlier periods shorter to provide a more detailed analysis of the near-term work load. Later periods may be defined with a longer length where only a gross analysis of work load is required.

The day of the week is calculated using the shop days defined in the Calendar file which is built by Inventory Management. Therefore, period lengths based on multiples of 5 days are affected by holidays occurring in the calendar and the day of the week is offset. When this occurs, you can retain weekly periods by adjusting the period length. For example, in a weekly period containing one holiday, you may want to adjust the period length from 5 days to 4 days.

```
DATE **/**/**                PLANNING RUN CONTROL         CHANGE     AMTA11  **
                                 TIME PERIODS

   SITE ***
   ENTER PLANNING HORIZON START DATE  nnnnnn     HORIZON END DATE **/**/**

   ENTER FOR EACH PERIOD BELOW: - PERIOD LENGTH (01-99 DAYS)
                                - GROUP TOTALS PRINT (S-SUBTOTAL/T-TOTAL)

   01 nn A **/**/** ***      13 nn A **/**/** ***      25 nn A **/**/** ***
   02 nn A **/**/** ***      14 nn A **/**/** ***      26 nn A **/**/** ***
   03 nn A **/**/** ***      15 nn A **/**/** ***      27 nn A **/**/** ***
   04 nn A **/**/** ***      16 nn A **/**/** ***      28 nn A **/**/** ***
   05 nn A **/**/** ***      17 nn A **/**/** ***      29 nn A **/**/** ***
   06 nn A **/**/** ***      18 nn A **/**/** ***      30 nn A **/**/** ***
   07 nn A **/**/** ***      19 nn A **/**/** ***      31 nn A **/**/** ***
   08 nn A **/**/** ***      20 nn A **/**/** ***      32 nn A **/**/** ***
   09 nn A **/**/** ***      21 nn A **/**/** ***      33 nn A **/**/** ***
   10 nn A **/**/** ***      22 nn A **/**/** ***      34 nn A **/**/** ***
   11 nn A **/**/** ***      23 nn A **/**/** ***      35 nn A **/**/** ***
   12 nn A **/**/** ***      24 nn A **/**/** ***      36 nn A **/**/** ***

                                                       F17 ACCEPT FOR UPDATE
                                                       F18 REFRESH DISPLAY
                                                       F24 CANCEL THE JOB
```

What to do

Type the information you want to change and use **F17**. Display AMTA12 appears.

Function keys

F17 ACCEPT FOR UPDATE causes the Planning Run Control Options (Change) display (AMTA12) to appear.

F18 REFRESH DISPLAY causes this display to appear again reset to the initial values.

F24 CANCEL THE JOB causes the Planning Run Control (Cancel) display (AMTA13) to appear. No update occurs.

Fields

When this display first appears following initial installation, some fields contain default values. If you use **F24 CANCEL THE JOB**, the time periods are not updated to the initial assigned values and remain at zero (the values shipped).

The initial default values are:

Field	Default value
ENTER PLANNING HORIZON START DATE	The first date in the CALNDR file
PERIOD LENGTH (DAYS) for each period	5
GROUP TOTALS "PRINT" for each period	S

SITE (STID). An identifier of the site associated with this planning run. This field appears only if EPDM is activated.

ENTER PLANNING HORIZON START DATE (HSDAT) (Required). Type a date for CRP to use as the scheduling start date for each order. In most cases, this date should be the next workday in your company. Work load that is scheduled before this date is considered as past due. The date shown when this display appears is the start date that comes from the first date in the default calendar..

HORIZON END DATE (HEDAT). The end date for the CRP planning horizon. CRP calculates the horizon end date from the CRP scheduling start date based on the period lengths you entered. Work load after this date is not included in CRP planning.

ENTER FOR EACH PERIOD BELOW: - PERIOD LENGTH (01-99 DAYS). Type a period length in days for up to 36 periods using the two-digit numeric fields for each period. A period length is required for period 1. Period lengths are optional for periods 2-36.

The first period length field containing zeroes or blanks tells CRP that the previous period was the last to be considered in the planning horizon.

Note: If all 36 period lengths are not defined, the word "END" appears after the last period defined.

GROUP TOTALS PRINT (S-SUBTOTAL/T-TOTAL). The load for a group or combination of periods shown on the Work Center Load Analysis report and the Work Center Load Analysis detail graph.

Blank Load for the period is not shown on the report or graph, but is accumulated as part of the next group subtotal (S) or total (T).

S Load for the period is accumulated with the load of all preceding periods since the last group total (T) and printed on the report.

T Load for the period is accumulated with the load of all preceding periods since the last group total (T) and printed on the report. Following a total (T), a new group total begins at the next period.

AMTA12–Planning Run Control Options (Change)

Use this display to enter, change, and/or review the planning run control options. You can also choose which work centers (if any) are to have detail load information retained in the Period Load Detail file (if load analysis detail was selected during CRP application tailoring).

This display appears you use **F17** on display AMTA11.

```
DATE **/**/**                PLANNING RUN CONTROL     CHANGE         AMTA12  **
SITE ***                            OPTIONS

----- OVER/UNDERLOAD DEFINITION -----   -------------- REPORTS --------------
NUMBER OF PERIODS FROM START       nn   PRINT OVER/UNDERLOAD REPORT (Y/N)    A
VARIANCE PERCENT OVER           nn.n   PRINT LOAD ANALYSIS REPORT (Y/N)     A
VARIANCE PERCENT UNDER          nn.n   LOAD ANALYSIS REPORT SEQUENCE (1/2)  A
                                        (1-WORK CENTER/2-DEPARTMENT)

------- LOAD ANALYSIS OPTIONS -------   --------- SCHEDULING OPTIONS ---------
INCLUDE PAST DUE LOAD (Y/N)         A   ADJUST QUEUE TIMES (Y/N)              A
LOAD ANALYSIS DETAIL DESIRED (Y/N)  A   DELAY START OF OPERATIONS (Y/N)       A
PRINT LOAD ANALYSIS DETAIL (Y/N)    A

FOR SELECTIVE DETAIL, ENTER WORK CENTER ID BELOW
     aaaA5          aaaA5           aaaA5          aaaA5          aaaA5
     aaaA5          aaaA5           aaaA5          aaaA5          aaaA5
     aaaA5          aaaA5           aaaA5          aaaA5          aaaA5
     aaaA5          aaaA5           aaaA5          aaaA5          aaaA5

                                                  F12 RESTART PROMPTS
                                                  F18 REFRESH DISPLAY
                                                  F24 CANCEL THE JOB
```

What to do

Type the information you want to change and press **Enter**. The changes are stored in the system for use during a planning run and a Planning Parameters Definition report is printed. The Planning Run Control menu (AMTM10) appears.

Function keys

F12 RESTART PROMPTS returns you to the Time Periods display (AMTA11).

F18 REFRESH DISPLAY causes the display to appear again reset to initial values.

F24 CANCEL THE JOB causes the Planning Run Control (Cancel) display (AMTA13) to appear. No update occurs.

Fields

When this display first appears after initial installation, the following fields contain default values:

Field	Default value
NUMBER OF PERIODS FROM START	5
VARIANCE PERCENT OVER	10
VARIANCE PERCENT UNDER	10
INCLUDE PAST DUE LOAD	Y
PRINT OVER/UNDERLOAD REPORT	Y
PRINT LOAD ANALYSIS REPORT	Y
LOAD ANALYSIS REPORT SEQUENCE	1

If you selected load analysis detail during CRP application tailoring, the following fields appear with default values:

Field	Default value
LOAD ANALYSIS DETAIL DESIRED	Y
ADJUST QUEUE TIMES	N
DELAY START OF OPERATIONS	N
PRINT LOAD ANALYSIS DETAIL	Y
FOR SELECTIVE DETAIL, ENTER WORK CENTER ID BELOW	Blanks for all 20 work center fields

SITE (STID). The identifier of the site associated with this planning run. This field appears only if EPDM is activated.

OVER/UNDERLOAD DEFINITION.

NUMBER OF PERIODS FROM START. Type the number of periods from the CRP scheduling start date to be included in overload and/or underload reporting. For example, if you enter the number 8, periods 1 through 8 will be analyzed for overloads or underloads. Subsequent periods will not be analyzed.

VARIANCE PERCENT OVER. Type the percent above which you want an overload printed on the Work Center Over/Underload report.

VARIANCE PERCENT UNDER. Type the percent below which you want an underload printed on the Work Center Over/Underload report.

REPORTS. The following fields allow you to specify which reports (if any) are to be printed automatically when load analysis (CRP planning run) is complete.

PRINT OVER/UNDERLOAD REPORT (Y/N). Type **Y** (yes) to print the report. Otherwise, type **N** (no).

PRINT LOAD ANALYSIS (Y/N). Type **Y** (yes) to print the report. Otherwise, type **N** (no).

LOAD ANALYSIS REPORT SEQUENCE. If you previously selected the Load Analysis report for printing, this field allows you to specify the report sequence.

Type **1** for work center sequence or **2** for work center within department sequence.

LOAD ANALYSIS OPTIONS.

INCLUDE PAST DUE LOAD (Y/N). Type **Y** (yes) to cause any past due load to be included on the Load Analysis report and inquiries. Otherwise, type **N** (no). This load will be shown in period zero.

The following two fields appear only if load analysis detail was selected during CRP application tailoring.

LOAD ANALYSIS DETAIL DESIRED (Y/N). Type **Y** (yes) if you want load analysis detail for the planning run. Otherwise, type **N** (no).

PRINT LOAD ANALYSIS DETAIL (Y/N). Type **Y** (yes) to print the report. Otherwise, type **N** (no).

SCHEDULING OPTIONS. Schedules orders based on due date. The following table explains the impact of the various scheduling options.

Adjust Queue Times	Delay Start	Open Orders Ahead of Schedule	Open Orders Behind Schedule
Y	N	Scheduling will begin on the CRP scheduling start date. All remaining queue time will be expanded by a factor causing the scheduled completion to be on the order due date.	Scheduling will begin on the CRP scheduling start date. All remaining queue time will be reduced by a factor causing the scheduled completion to be on the order due date. If remaining queue time is less than the days behind schedule, some work load will fall after the order due date.
Y	Y	Scheduling will begin on the CRP scheduling start date. The first active operation not yet started will be delayed by the number of days the order is ahead of schedule. Scheduled completion will be the order due date.	Same as above (Y/N).
N	Not considered	Scheduling of the first active operation not yet completed will be delayed by the number of days the order is ahead of schedule. Scheduled completion will be the order due date.	The start of scheduling will be prior to the CRP scheduling start date by the number of days the order is behind schedule. Scheduled completion will be the order due date. Work scheduled prior to the CRP scheduling start date is 'Past Due Load' and will fall in period zero.

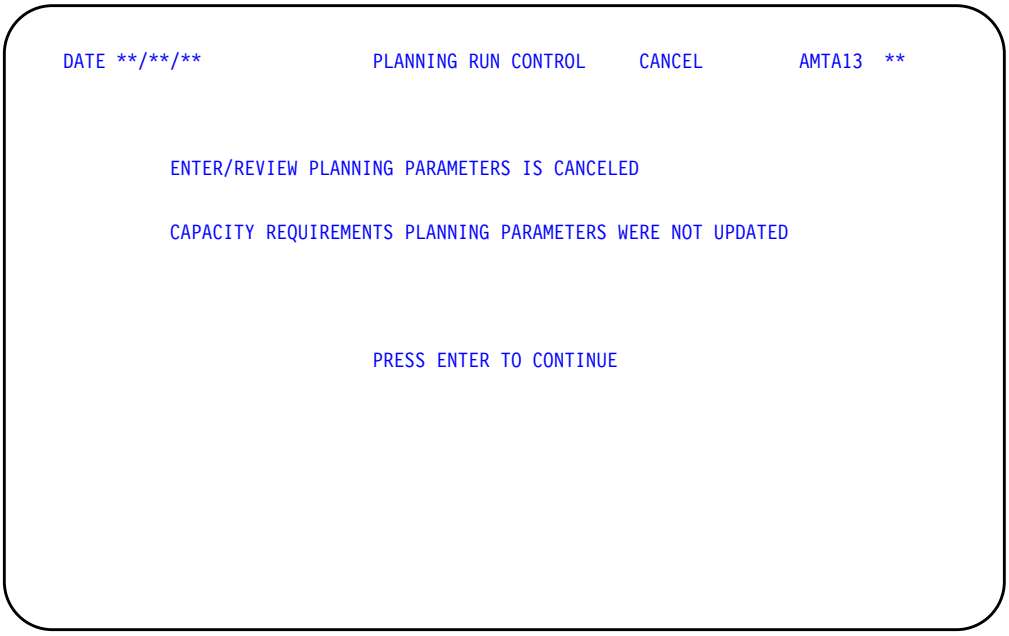
FOR SELECTIVE DETAIL, ENTER WORK CENTER ID BELOW. This field appears only if you selected load analysis detail during application tailoring. You can type the ID's for up to 20 work centers which are to have detail load information kept in the Period Load Detail file for later use. If you leave all 20 fields blank, detail is kept for all work centers.

AMTA13–Planning Run Control (Cancel)

This display is for information only.

This display appears when you use **F24** on display AMTA11 or AMTA12.

Note: If you cancel ENTER/REVIEW planning parameters with **F24** the first time after initial install, the dates for the periods are not updated and remain zeros (shipped values).



What to do

Press **Enter**. The Planning Run Control menu (AMTM10) appears.

Option 2. Variable Capacity Maintenance

Use this option to make temporary changes to the capacity of a work center/ production line. You can change shift length or the number of resource units assigned to a given work center or production line, or both.

You can make changes in resource units to account for both losses and gains in capacity due to such factors as vacations, temporary help, scheduled down-time or resource shifted to an overloaded work center. Temporary changes in shift length can be made to reflect scheduled overtime or reduced hours.

Changes in start date and number of days duration of the Variable Capacity record cause the capacity of a work center or production line to vary over time. While resource gains and losses to a given work center or production line may overlap due to overlapping variable capacity records, shift length changes for any given shift are not allowed to overlap.

Variable capacity is used to determine the future available capacity for a work center or production line. Load generated by CRP is compared to this capacity. The calculation of daily scheduling hours for use in scheduling the orders uses only the base, or standard, values from the work center.

What information you need: The ID of the work center or production line for which you want to maintain variable capacity.

What reports are printed: Variable Capacity Master File Maintenance (AMVTC)

Note: This report prints only if you select before and after images of master files in the CRP questionnaire.

What forms you need: Form TM-01

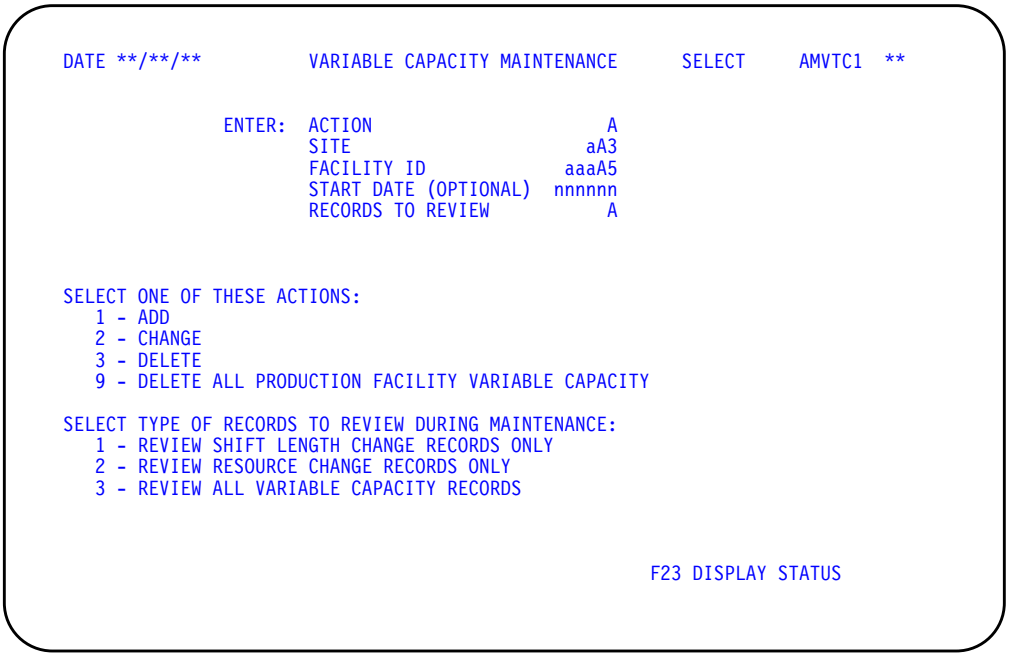
AMVTC1—Variable Capacity Maintenance (Select)

Use this display to select a facility and the type of maintenance to be performed on its variable capacity records.

This display appears when you select option 2 on CRP menu AMTM10, or when you select action 5 on the Production Facility Maintenance (Select) display (AMVT70) or when you use **F19** (Return to Select) on displays AMVTC2, AMVTC3, AMVTC4, or AMVTC5.

If EPDM is activated, this display and the following displays are disabled in PDM and CRP. If you try to access these displays, you receive an error message.

Note: This display appears only if CRP is installed and interfacing.



What to do

- To select a production facility and the type of maintenance you want to perform on the variable capacity records, type in the requested information and press **Enter**. Go to one of the following displays, depending on which type of maintenance you selected:

Action	Display
1 (Add)	AMVTC2
2 (Change)	AMVTC3
3 (Delete)	AMVTC4
9 (Delete all))	AMVTC5

Note: ***FACILITY ID***, as used in field descriptions for variable capacity maintenance, refers to both production lines and work centers if Repetitive Production Management (REP) is installed and interfacing. Otherwise, it refers to work centers only.

- To review the status of and end the session, use **F23**.

Function keys

F23 DISPLAY STATUS causes the Variable Capacity Maintenance (Status) display (AMVTC6) to appear.

Fields

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

ACTION (ACTON). Required. Select and type in one of the following actions:

1 Add
2 Change
3 Delete
9 Delete all production facility variable capacity.

SITE (STID) [?]. Type in the site identifier for the production facility to be maintained. This field appears only if EPDM is activated.

FACILITY ID (WKCTR) [?]. Required. Type in the ID of the production facility to be maintained.

START DATE (STDAT). This field allows you to type in the date that the review is to begin. If no date is entered, the earliest variable capacity start date is used.

RECORDS TO REVIEW (INCLU). Required. This field allows you to specify the type of records to be reviewed for possible maintenance.

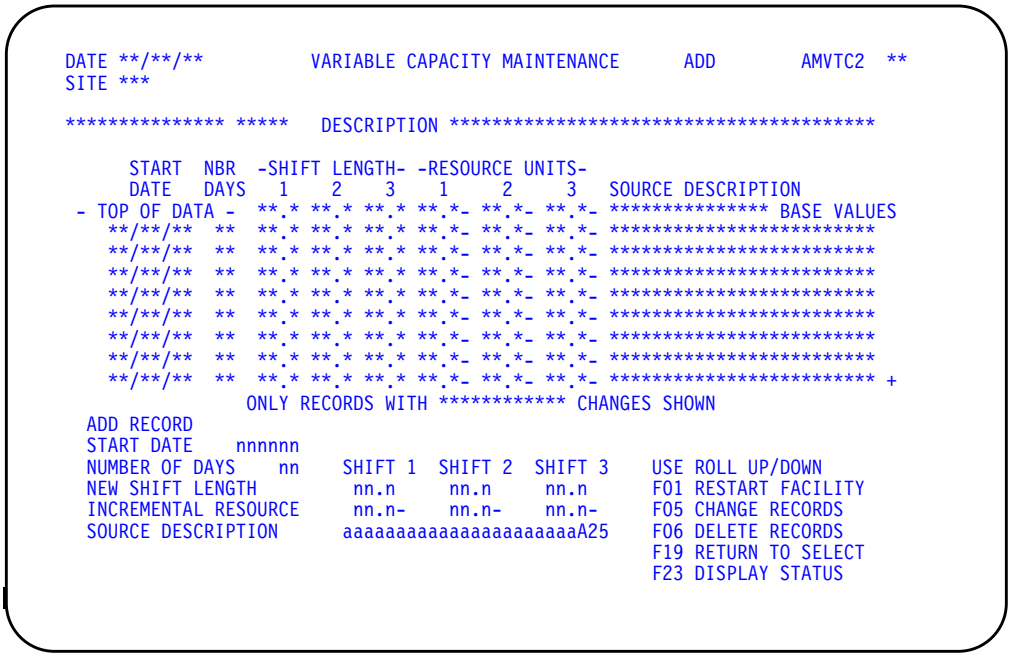
Type in one of the following numbers:

1 Review shift length change records only.
2 Review resource change records only.
3 Review all variable capacity records.

AMVTC2—Variable Capacity Maintenance (Add)

Use this display to add variable capacity records for work centers or production lines. (You can work with production lines only if Repetitive Production Management is installed and interfacing.)

This display appears when you select action A (Add) on the Variable Capacity Maintenance (Select) display (AMVTC1) or when you use **F04 (Add)** on either display AMVTC3 or AMVTC4.



What to do

- To add a variable capacity record, type in the information requested and press **Enter**. The record you just added is shown on the top half of the display.
- To see the variable capacity records for the production facility from the beginning, use **F01**.
- To change a variable capacity record for a production facility, use **F05**. Go to display AMVTC3.
- To delete a variable capacity record for a production facility, use **F06**. Go to display AMVTC4.
- To review the status of and end the session, use **F23**. Go to display AMVTC6.

Function keys

USE ROLL UP/DOWN allows you to scroll forward and backward through the variable capacity records associated with this facility if the word CONTINUED appears. If END OF DATA appears, no additional records exist and the first page of records is shown.

F01 RESTART FACILITY shows all variable capacity records for this facility starting with the first based on the Include for Review code entered on Select display AMVTC1.

F05 CHANGE RECORDS causes the Variable Capacity Maintenance (Change) display (AMVTC3) to appear.

F06 DELETE RECORDS causes the Variable Capacity Maintenance (Delete) display (AMVTC4) to appear.

F19 RETURN TO SELECT causes the Variable Capacity Maintenance (Select) display (AMVTC1) to appear.

F23 DISPLAY STATUS causes the Variable Capacity Maintenance (Status) display (AMVTC6) to appear.

Fields

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

SITE (STID). This field contains the site identifier of the facility. This field appears only if EPDM is activated.

Facility Identifier (WKCTR). This field appears below the date and site, without a heading, and contains the ID of the facility you entered on display AMVTC1. If the facility is a work center, the field heading is WORK CENTER ID; otherwise the heading is PRODUCTION LINE.

DESCRIPTION (WCDSC). This field contains the description of the facility.

START DATE (VDATE). This field contains the date the variable capacity is due to start.

NBR DAYS (Number of Days) (VDAYS). This field contains the number of days this resource (workers or machines) is available.

A total of 99 days indicates indefinite resource availability over the planning horizon.

SHIFT LENGTH (HOURS) (VLEN1, VLEN2, VLEN3). These fields contain the length in hours of up to three shifts.

RESOURCE UNITS (MEN/MACHINES) (VCAP1, VCAP2, VCAP3). These fields contain the number of resource units available for each of the three shifts.

SOURCE DESCRIPTION (VDESC). This field contains a description of the variable capacity add record; for example, scheduled overtime.

********** ***BASE VALUES.*** If this facility is a work center, the heading for this field is WORK CENTER BASE VALUES. Otherwise, the heading is PRODUCTION LINE BASE VALUES.

The base values (shift lengths and resource units) for this facility are shown on the line just above the first variable capacity record. These are the values for this facility from the Production Facility file.

START DATE (STDAT). Required. Type in the date that this variable capacity is to begin.

NUMBER OF DAYS (VDAYS). Required. Type in the number of days that this variable capacity change is to be effective.

Typing in **99** signifies indefinite resource over the planning horizon.

NEW SHIFT LENGTH (HOURS) (NLEN1, NLEN2, NLEN3). Required if you do not use the ***INCREMENTAL RESOURCE*** field. Type in the number of hours available during each shift for up to three shifts. The number of hours you enter here is used as a replacement value for the base shift length.

Note: The start date and duration of this shift length may not overlap the shift length in any other variable capacity record.

INCREMENTAL RESOURCE (MEN/MACHINES) (NCAP1, NCAP2, NCAP3). Required if you do not use the ***NEW SHIFT LENGTH*** field. Type in the number of additional resource units above or below the base capacity for this resource. The number you enter here is used to increment (add to or subtract from) the base incremental resource.

Resource units are expressed in shift length increments such that each resource unit is understood to be working the entire shift; for example, if shift length is 8 hours and you want to add one resource unit for 4 hours, you would type in 5 to indicate 0.5 resource units.

To reduce the number of resource units for a certain time period due to vacation or down time, type in a value and press the **FIELD - (minus)** key.

Note: The start date and duration of a negative incremental resource may not allow shift capacity to become negative during this period.

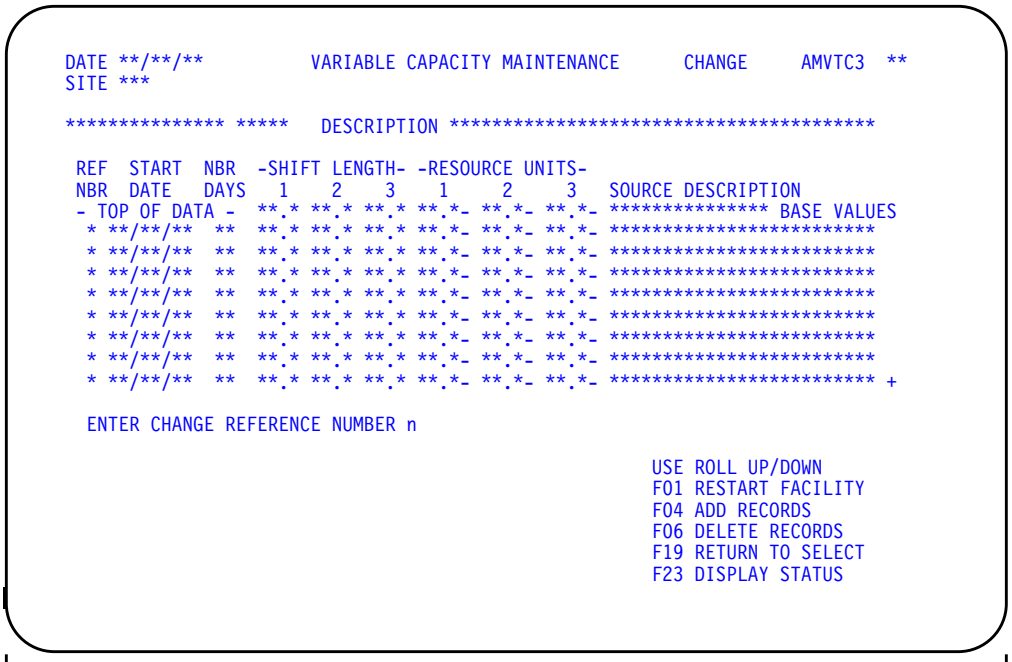
SOURCE DESCRIPTION (NDESC). Type in a description of this variable capacity change; for example, “scheduled overtime,” “add one employee,” or “operator on vacation.”

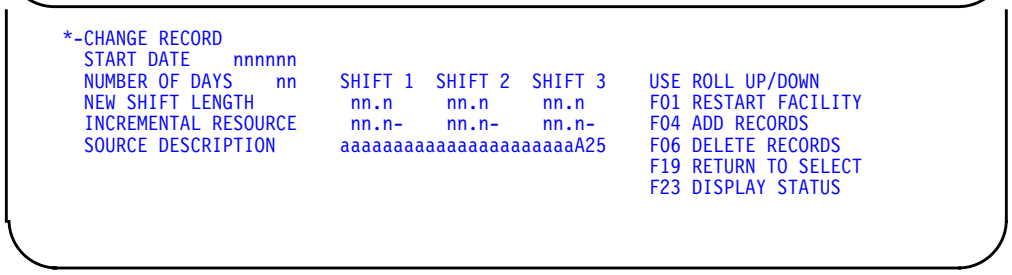
AMVTC3—Variable Capacity Maintenance (Change)

Use this display to change variable capacity records for a facility.

This display appears when you select action 2 (Change) on the Variable Capacity Maintenance (Select) display (AMVTC1) or when you use **F05 (Change)** on either display AMVTC2 or AMVTC4.

When this display first appears, the bottom half is blank except for the function keys and the ***ENTER CHANGE REFERENCE NUMBER*** field. When you type in a change reference number and press **Enter**, the record you want to change appears on the bottom half of the display.





What to do

- To change a variable capacity record, type in a reference number and press **Enter**. The record associated with the reference number appears on the bottom half of the display. Type in the necessary changes for this record and press **Enter** again. The changed record appears on the top half of the display.
- To see the variable capacity records for the production facility from the beginning, use **F01**.
- To delete a variable capacity record for a production facility, use **F06**. Go to display AMVTC4.
- To review the status of and end the session, use **F23**. Go to display AMVTC6.

Function keys

USE ROLL UP/DOWN allows you to scroll forward and backward through the variable capacity records associated with this facility.

F01 RESTART FACILITY shows all variable capacity records for this facility starting with the first based on the Include for Review code entered on Select display AMVTC1.

F04 ADD RECORDS causes the Variable Capacity Maintenance (Add) display (AMVTC2) to appear.

F06 DELETE RECORDS causes the Variable Capacity Maintenance (Delete) display (AMVTC4) to appear.

F19 RETURN TO SELECT causes the Variable Capacity Maintenance (Select) display (AMVTC1) to appear.

F23 DISPLAY STATUS causes the Variable Capacity Maintenance (Status) display (AMVTC6) to appear.

Fields

SITE (STID). This field contains the site identifier of the facility. This field appears only if EPDM is activated.

REF NBR (Reference Number) (REFNO). This field contains an application-assigned number used to select a specific record to be changed or deleted.

ENTER CHANGE REFERENCE NUMBER. Type in the reference number of the variable capacity record you want to change and press **Enter**.

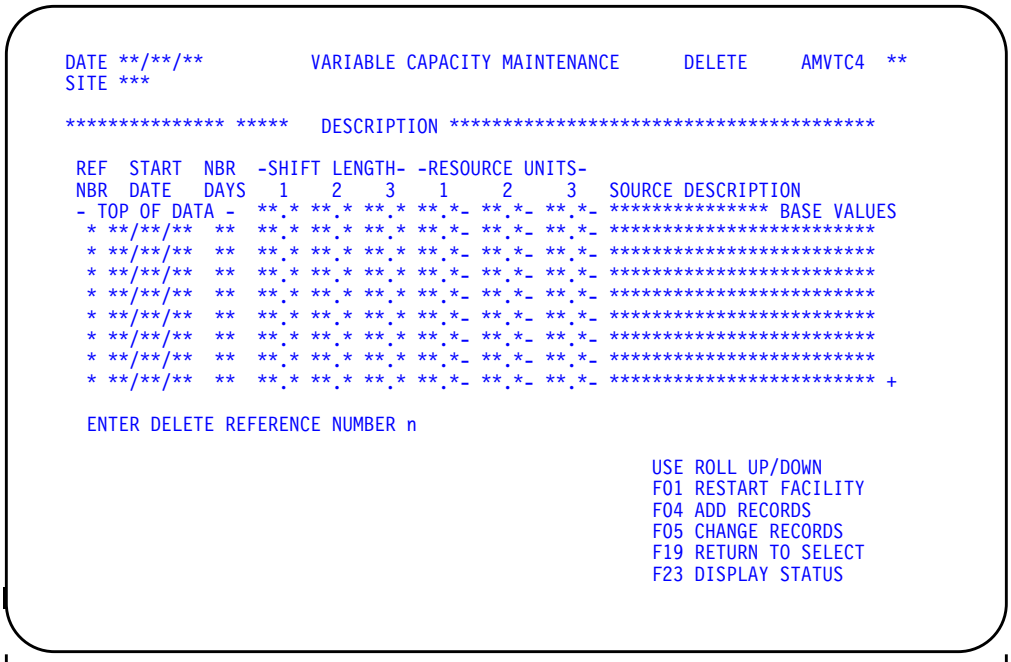
For a description of the other fields on this display, see “AMVTC2—Variable Capacity Maintenance (Add)”.

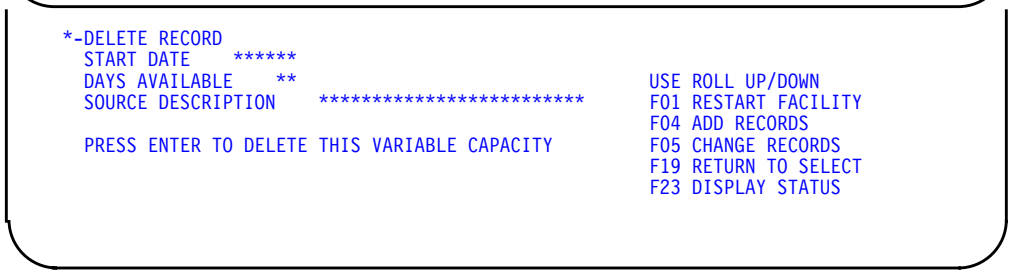
AMVTC4—Variable Capacity Maintenance (Delete)

Use this display to delete an individual variable capacity record for a facility.

This display appears when you select action D (Delete) on the Variable Capacity Maintenance (Select) display (AMVTC1) or when you use **F06 (Delete)** on either display AMVTC2 or AMVTC3.

When this display first appears, the bottom half is blank except for the function keys and the ***ENTER DELETE REFERENCE NUMBER*** field. When you type in a delete reference number and press **Enter**, the record you want to delete appears on the bottom half of the display.





What to do

- To delete a variable capacity record, type in a reference number and press **Enter**. The record associated with the reference number appears on the bottom half of the display. Press **Enter** again to flag the record for deletion. The flagged record appears on the top half of the display.
- To see the variable capacity records for the production facility from the beginning, use **F01**.
- To add a variable capacity record for a production facility, use **F04**. Go to display AMVTC2.

- To change a variable capacity record for a production facility, use **F05**. Go to display AMVTC3.
- To review the status of and end the session, use **F23**. Go to display AMVTC6.

Function keys

USE ROLL UP/DOWN allows you to scroll forward and backward through the variable capacity records associated with this facility.

F01 RESTART FACILITY shows all variable capacity records for this facility starting with the first based on the Include for Review code entered on Select Display AMVTC1.

F04 ADD RECORDS causes the Variable Capacity Maintenance (Add) display (AMVTC2) to appear.

F05 CHANGE RECORDS causes the Variable Capacity Maintenance (Change) display (AMVTC3) to appear.

F19 RETURN TO SELECT causes the Variable Capacity Maintenance (Select) display (AMVTC1) to appear.

F23 DISPLAY STATUS causes the Variable Capacity Maintenance (Status) display (AMVTC6) to appear.

Fields

SITE (STID). This field contains the site identifer of the facility. This field appears only if EPDM is activated.

REF NBR (Reference Number) (REFNO). This field contains an application-assigned number used to select a specific record to be changed or deleted.

ENTER DELETE REFERENCE NUMBER. Type in the reference number of the variable capacity record you want to delete.

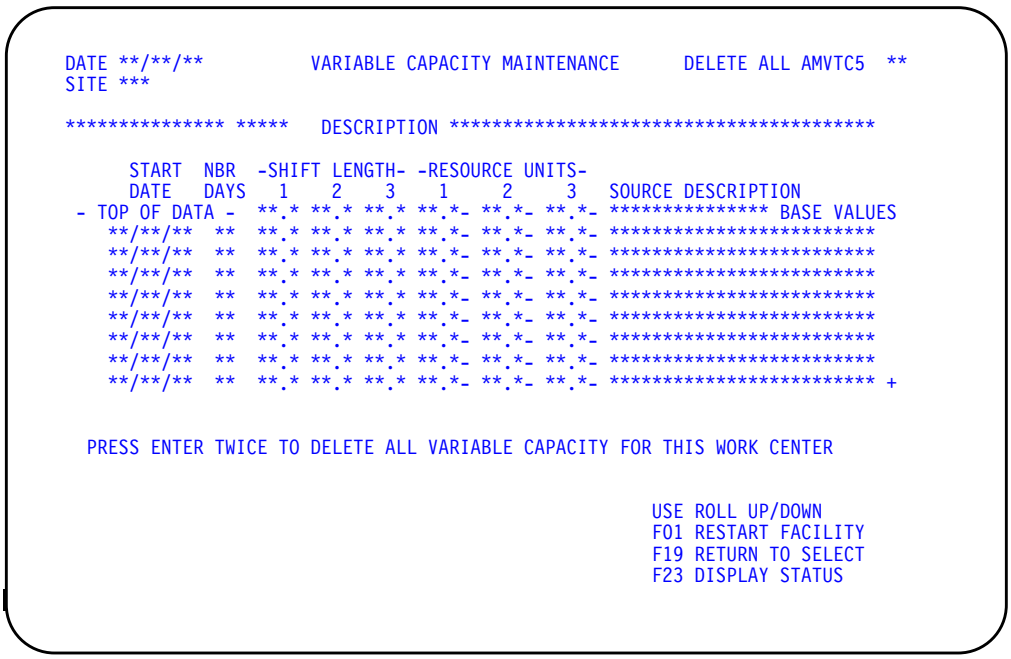
For a description of the other information fields on the top half of this display, see “AMVTC2—Variable Capacity Maintenance (Add)”.

AMVTC5—Variable Capacity Maintenance (Delete All)

Use this display to delete all of the variable capacity records for a facility.

This display appears when you select action 9 (Delete All) on the Variable Capacity Maintenance (Select) display (AMVTC1).

Note: Use **ROLL UP/DOWN** and **F01** to review the records for this facility. As a safeguard, it is necessary to press **Enter** twice before all variable capacity records for the facility are deleted. When you are satisfied that these variable capacity records are to be deleted, press **Enter**. Then, to delete all variable capacity records for this facility, press **Enter** again.



What to do

- To delete all variable capacity records for a production facility, press **Enter**. Press **Enter** again to flag all the records for deletion. Go to display AMVTC1.
- To see the variable capacity records for the production facility from the beginning, use **F01**.
- To review the status of and end the session, use **F23**. Go to display AMVTC6.

Function keys

USE ROLL UP/DOWN allows you to scroll forward and backward through the variable capacity records associated with this facility if the word CONTINUED appears.

F01 RESTART FACILITY shows all variable capacity records for this facility starting with the first based on the Include for Review code entered on Select display AMVTC1.

F19 RETURN TO SELECT causes the Variable Capacity Maintenance (Select) display (AMVTC1) to appear.

F23 DISPLAY STATUS causes the Variable Capacity Maintenance (Status) display (AMVTC6) to appear.

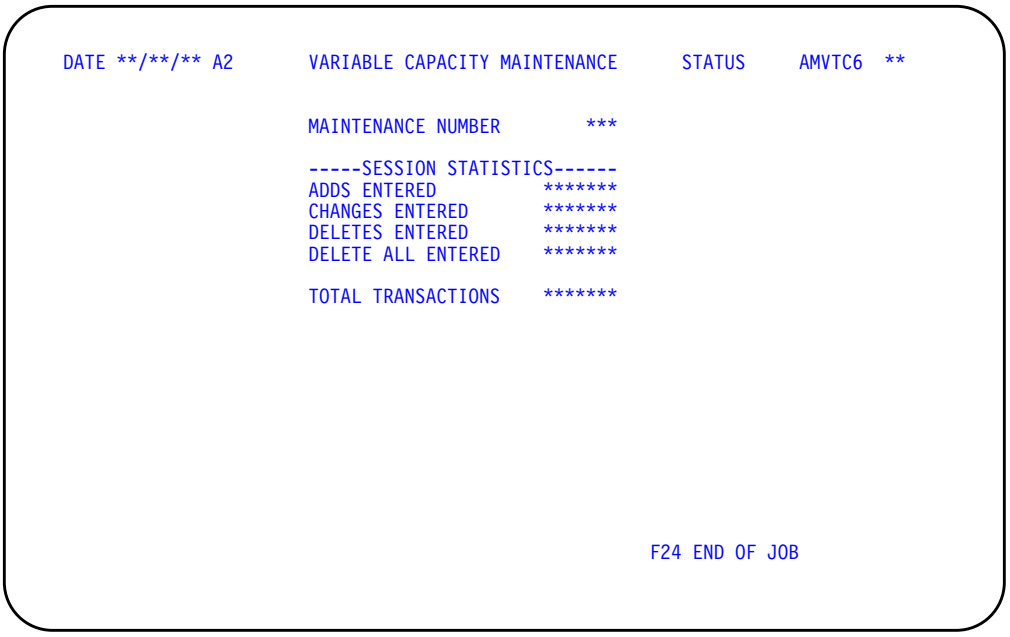
Fields

For a description of the fields on this display, see “AMVTC2—Variable Capacity Maintenance (Add)”.

AMVTC6—Variable Capacity Maintenance (Status)

Use this display to review the status of the current maintenance session.

This display appears when you use **F23 DISPLAY STATUS** on the Select (AMVTC1), Add (AMVTC2), Change (AMVTC3), Delete (AMVTC4), or Delete All (AMVTC5) display.



What to do

- To end the session and schedule the Variable Capacity Master File Maintenance report (AMVTC) for printing, use **F24**. Go to display AMVT70.
- To return to the previous display, press **Enter**.

Function keys

F24 END OF JOB causes the Production Facility Maintenance display (AMVT70) to appear.

Fields

All the fields on this display are information only.

SESSION STATISTICS.

ADDS ENTERED: This field contains the number of variable capacity add transactions.

CHANGES ENTERED: This field contains the number of variable capacity change transactions.

DELETES ENTERED: This field contains the number of variable capacity delete transactions.

DELETE ALL ENTERED: This field contains the number of Delete All transactions entered.

Option 3. Work Center Variable Capacity Inquiry

Use this option to review the variable capacity of your work centers.

What information you need: The IDs of the work centers you want to review.

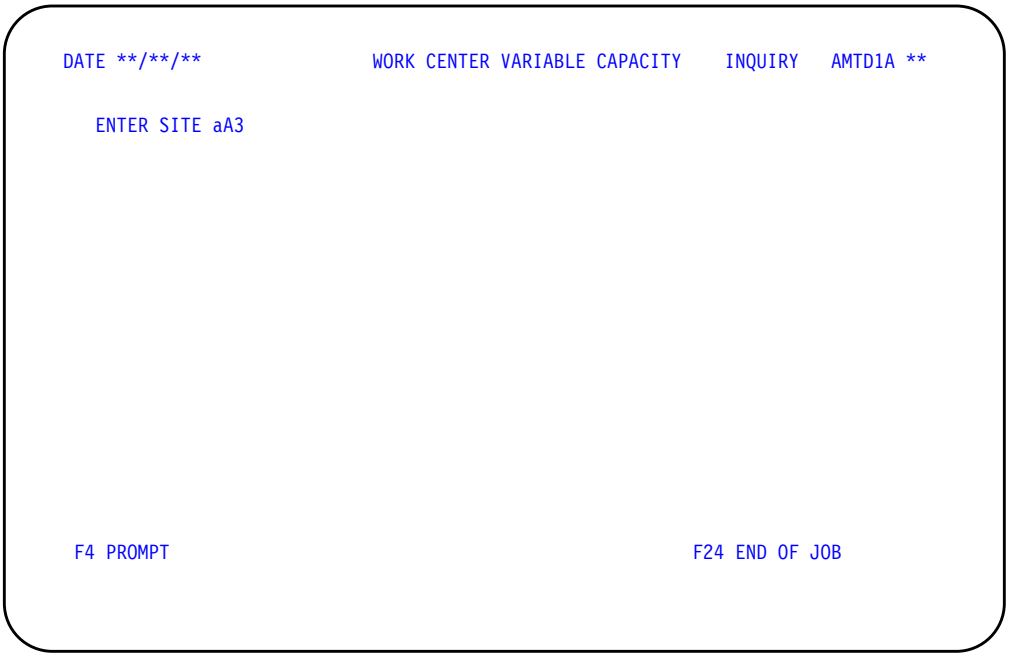
What reports are printed: None

What forms you need: None

AMTD1A–Work Center Variable Capacity - Site Select

Use this display to enter a site for which you want to review variable capacity.

This display appears when you select option 3 on the Planning Run Control menu (AMTM10), If EPDM is activated.



What to do

Type the site you want to use and press **Enter**. Display AMTD11 appears.

Function keys

F4 PROMPT causes a Search display to appear so you can search for a valid site.

F24 END OF JOB causes the Planning Run Control menu to appear. No update occurs.

Fields

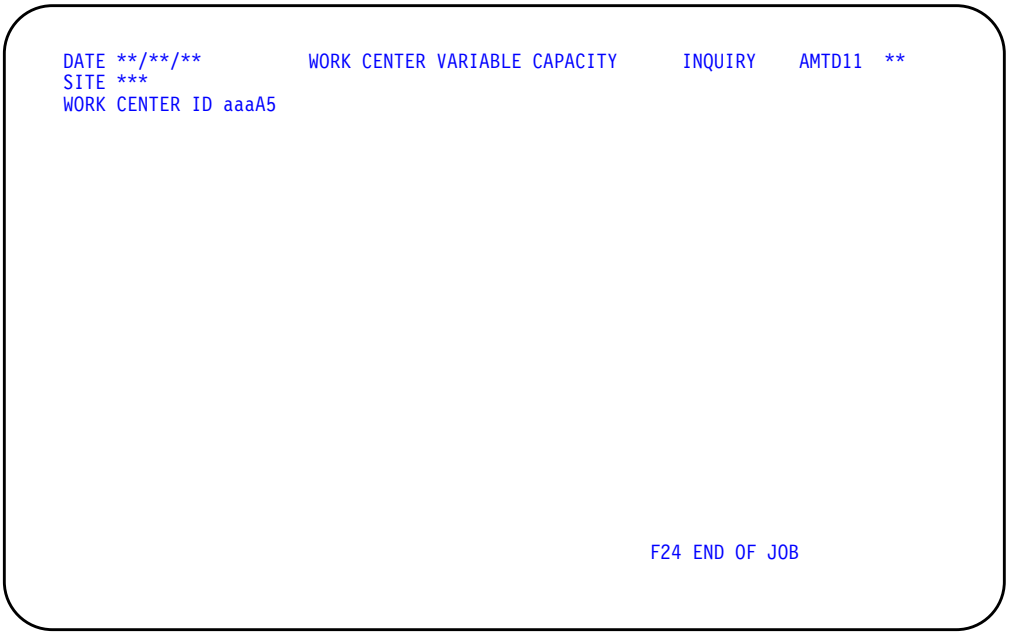
[?] appears next to a field name in the following field definitions to identify a field from which you can begin a master file search.

ENTER SITE (STID) [?]. An identifier of the site associated with this work center.

AMTD11–Work Center Variable Capacity (Inquiry)

Use this display to select a work center for which you want to review variable capacity.

This display appears when you select option 3 on the Planning Run Control menu (AMTM10) or option 2 on the Inquiry menu (AMTM20). If EPDM is activated it appears after you have entered a site.



What to do

- To review information about a work center, type a work center ID and press **Enter**. The Work Center Variable Capacity (Inquiry) display (AMTD12) appears.

Function keys

F24 END OF JOB causes the menu to appear.

Fields

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

SITE (STID). An identifier of the site you selected. Site appears only if EPDM is activated.

WORK CENTER ID (WKCTR) [?]. Type the ID of the work center you want to review.

AMTD12–Work Center Variable Capacity (Inquiry)

Use this display to review the variable capacity for a selected work center.

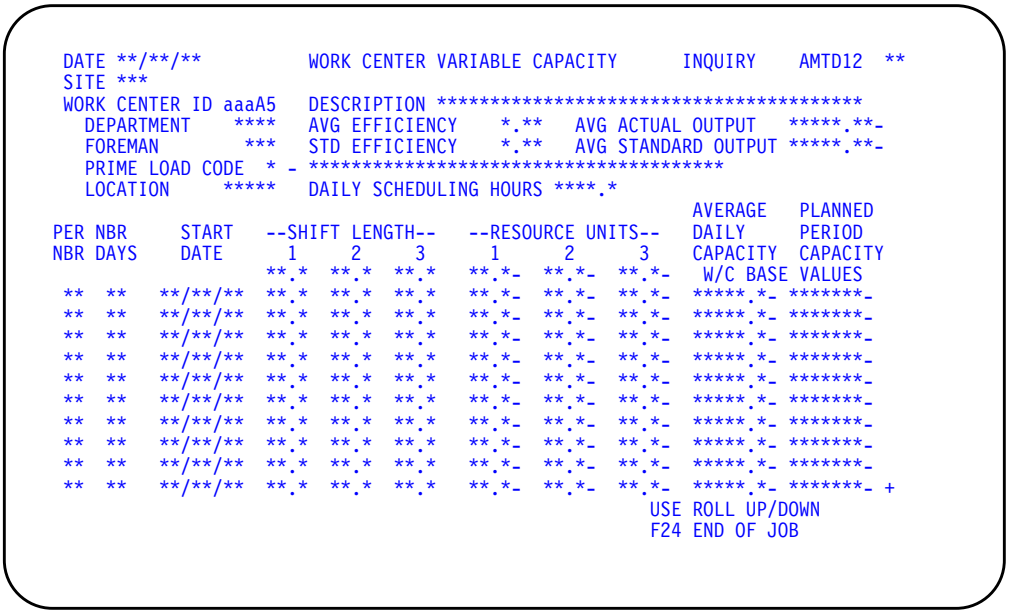
This display appears if you type a valid work center ID on display AMTD11.

The number of periods for which information appears corresponds to the number of periods created using the Planning Run Control Time Periods (Change) display (AMTA11). If the variable capacity does not span a complete period, detail lines are printed along with a highlighted total line for the period.

Planned Period Capacity is compared to the accumulated work load to calculate the load-to-capacity percent by period that appears on the Work Center Load Analysis report. These calculations determine if a work center is overloaded or underloaded. Those work centers appear on the Work Center Over/Underload report if that period was within the range selected for analysis during planning parameters definition.

Average Daily Capacity relates capacity in different time periods on a daily basis. If the Over/Underload report shows that a work center is overloaded, you can check Average Daily Capacity on this display to determine whether the overload for that period is caused by a drop in capacity.

The Daily Scheduling Hours value is used by the scheduling algorithm to allocate work center capacity to jobs coming through this work center. For example, if the Average Daily Capacity drops between period 4 and period 5, an overload in period 5 could occur because the Daily Scheduling Hours remains the same. See “Capacity and daily scheduling hour formulas” for more information on the scheduling algorithm.



What to do

- Review the variable capacity for the selected work center.
- To review variable capacity for a different work center, type another work center ID and press **Enter**. The display appears again with the variable capacity information for the work center.

Function keys

USE ROLL UP/DOWN to scroll forward and backward through the records on the display.

F24 END OF JOB causes the Inquiry menu (AMTM20) to appear.

Fields

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

The Base Values line shows work center base values. Each additional line is a composite of the base value and any variable capacity defined for that period.

If a variable capacity record begins or ends during a period, each portion of the period is represented by a separate display line followed by a highlighted total line for the entire period.

SITE (STID). An identifier of the site. This field appears only if EPDM is activated.

WORK CENTER ID (WKCTR) [?]. The work center selected on display AMTD11. You can type another ID to review a different work center.

DESCRIPTION (WCDSC). A description of the work center entered.

DEPARTMENT (DPTNO). The user-assigned number of the department where the work center is located.

AVG EFFICIENCY (Average Efficiency) (AVGEF). The average of the standard output per day divided by the actual hours worked per day.

STD EFFICIENCY (Standard Efficiency) (STDEF). The expected efficiency of the work center.

AVG ACTUAL OUTPUT (Average Actual Output) (AVGAO). The average of the actual hours worked per day at the work center.

AVG STANDARD OUTPUT (Average Standard Output) (AVGSO). The average of the standard hours produced per day at the work center.

FOREMAN (FRMAN). The code of the foreman for this work center.

PRIME LOAD CODE (PLOAD) and description. A code used in calculating the length of the operation's duration for CRP's and PC&C's scheduling routines. It identifies the critical operation time factor used to schedule each operation's duration and load. The code description appears to the right of the code.

The valid codes are:

0 No load hours accumulated
1 Run machine hours
2 Setup labor hours divided by setup crew size
3 (Setup labor hours divided by setup crew size) plus run machine hours
4 Run labor hours
5 (Setup labor hours divided by setup crew size) plus run labor hours.

LOCATION (WCLOC). A user-assigned code that shows the location of the work center.

DAILY SCHEDULING HOURS (AVGDS). The average daily scheduling hours for the period calculated using the base values for the work center and do not include variable capacity.

PER NBR (Period Number) (PERNB). The period number associated with this variable capacity record.

NBR DAYS (PDAYS). A the length in days of the period or of a variable capacity record falling within the period (see the note that follows).

START DATE (STDAT). The start date of the period or of a variable capacity record falling within the period (see the note that follows).

Note: If no variable capacity records are effective in a period, the Days and Start Date fields contain the length in days and start date of the period. If any variable capacity records are effective during any portion of the period, the last line for the period on the display represents the period length and period start date, and is highlighted. Preceding lines for that period contain the number of days and start date that the individual variable capacity record is effective during the period.

SHIFT LENGTH (VLEN1, VLEN2, VLEN3). These fields contain the lengths of the three shifts for the period.

RESOURCE UNITS (VCAP1, VCAP2, VCAP3). The number of workers or machines available per shift per period for the three shifts.

AVERAGE DAILY CAPACITY (AVGDC). The average daily capacity available for the period, including any variable capacity.

PLANNED PERIOD CAPACITY (PLCAP). The planned capacity in hours for the period, including any variable capacity.

Option 4. Production Facility Maintenance

Use this option to add, change, or delete a facility in the Production Facility file, or to change cost information for multiple facilities. You can use this option only if you selected production facilities during Product Data Management (PDM) application tailoring.

This option is not available if EPDM is activated.

You cannot run Production Facility file maintenance if Routing file maintenance batch update is already running from the PDM application.

What information you need: The ID of the production facility you want to maintain.

What reports are printed: One or both of the following reports are printed depending on the option you choose:

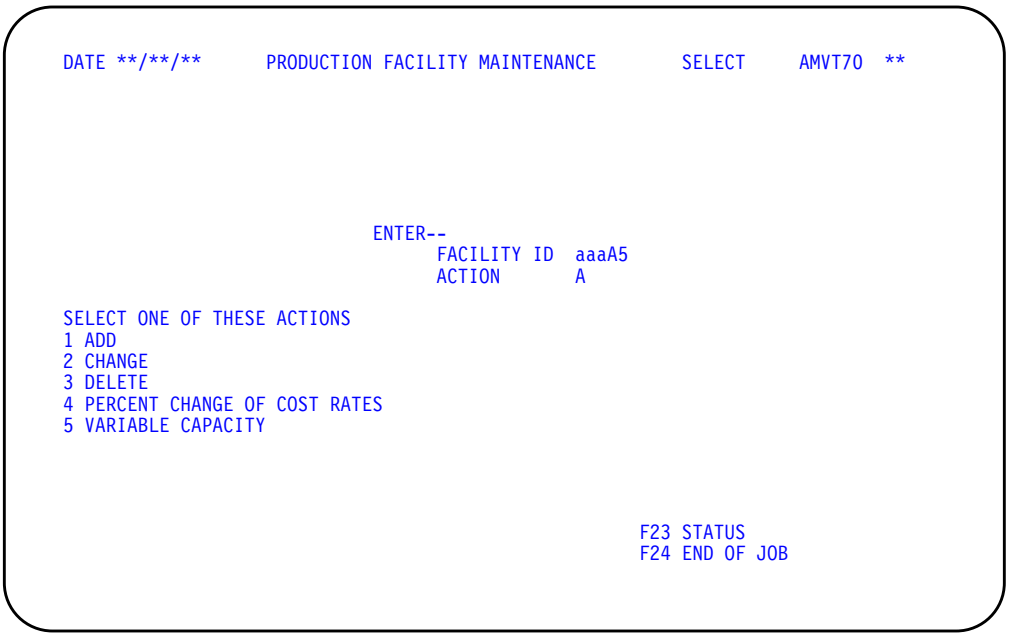
- Production Facility Maintenance Edit List (AMVT7) if you select to print before and after images of master files in the CRP questionnaire.
- Production Facility Percent Change Audit Report (AMET8) is printed if you choose action 4 (Percent Change of Cost Rates) on display AMVT70.

What forms you need: Form PM-23.

AMVT70—Production Facility Maintenance (Select)

Use this display to type the ID of the production facility you want to make changes to and select the action you want to take.

This display appears when you select option 3 on the PDM File Maintenance menu (AMEM05), option 5 on the PM&C File Maintenance menu (AMJM50), option 5 on the PCC File Maintenance menu (AMCM70), option 4 on the REP File Maintenance menu (AMQM50), or option 4 on the CRP Planning Run Control menu (AMTM10).



What to do

- To select a production facility and the type of maintenance you want to perform, type in the requested information and press **Enter**. Go to one of the following displays, depending on which type of maintenance you selected:

Action	Display
1 (Add)	AMVT71
2 (Change)	AMVT72
3 (Delete)	AMVT73
4 (Percent change)	AMVT74
5 (Variable capacity)	AMVTC1

- To review the status of or end the session, use **F23**. Go to display AMVT75.
- To end the session and schedule the Production Facility Maintenance report (AMVT7) and the Production Facility Percent Change Audit report (AMET8) for printing, use **F24**.

Function keys

F23 STATUS causes the Production Facility Maintenance (Status) display (AMVT75) to appear.

F24 END OF JOB ends the session and schedules the reports to be printed. The menu appears again.

Fields

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

FACILITY ID (WKCTR) [?]. Required except for Action 4. Type in a facility ID for all actions except 4.

ACTION. Required. Select and type in one of the following action codes:

1 Add a facility record.
2 Change a facility record.
3 Delete a facility record.
4 Change cost rate percentages.
5 Maintain Variable Capacity information.

Use option 5 only if REP or CRP is installed.

AMVT71—Production Facility Maintenance (Add)

Use this display to add production facility records to the Production Facility file.

This display appears when you type in a facility ID and select action 1 (add) on display AMVT70.

```
DATE **/**/**      PRODUCTION FACILITY MAINTENANCE        ADD        AMVT71  **

    FACILITY ID *****      FACILITY TYPE  A    ************
    DESCRIPTION aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaA40

DEPARTMENT        aaA4  PN FAC ACTG CLS       aA3  QUEUE TIME-DAYS     nn.nn
FOREMAN            aA3  PRIME LOAD CODE         A  AVG QUEUE TIME   nnnnn.nn
LOCATION         aaaA5  TRACKING SIGNAL  nnnnn.nn  QUEUE MAD        nnnnn.nn
STD EFFICIENCY    n.nn  AVG STD OUTPUT   nnnnn.nn  MACH RESOURCE NO.   aaaA5
AVG EFFICIENCY    n.nn  AVG ACTL OUTPUT  nnnnn.nn  LABOR RESOURCE NO.  aaaA5
EXTRACT MACH BRKS    A  REPORTING METHOD        n  CLOCKING WINDOW      n:nn

                MACHINE     RUN LABOR   SETUP LABOR      OVERHEAD    OVERHEAD
                  RATE         RATE         RATE       RATE/PERCENT    CODE
CURRENT       nnnnn.nnn     nnnnn.nnn     nnnnn.nnn      nnnnn.nnn       A
STANDARD      nnnnn.nnn     nnnnn.nnn     nnnnn.nnn      nnnnn.nnn       A

        -----LENGTH-----    ----CAPACITY----
        DESIRED  MAXIMUM    DESIRED  MAXIMUM       CALENDAR ID     aaaaaaaA10
SHIFT 1   nn.n    nn.n        nn.n    nn.n         POST TO OLDEST SCHED     A
SHIFT 2   nn.n    nn.n        nn.n    nn.n         POST TO FUTURE SCHED     A
SHIFT 3   nn.n    nn.n        nn.n    nn.n         FACILITY STOCK LOC aaaaaA7
                                                     F19 RETURN TO SELECT
```

What to do

To add a production facility to the Production Facility file, type in the information requested and press **Enter**. Go to display AMVT70.

Function keys

F19 RETURN TO SELECT ignores any data you typed in and causes display AMVT70 to appear again.

Fields

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

Fields that show historical statistics are updated by Production Control and Costing (PC&C), if it is installed and interfacing.

Three queue statistics (average queue time, queue MAD, and tracking signal) are updated every time PC&C prints the Production Facility Analysis report, when PC&C closes out and purges an order, or when work list generation is run.

Three output statistics (average standard output, average efficiency, and average actual output) can be updated when PC&C closes out and purges orders.

FACILITY ID (WKCTR). The ID of the facility you are adding to the Production Facility file. If the time basis code is C, this ID represents a vendor (or group of vendors).

FACILITY TYPE (WLNCD). This field appears only if REP is installed. Type a code that indicates the kind of information you are adding:

blank Work center
1 Production line
2 Work station.

Facility Type Description. This field has no heading and appears to the immediate right of ***FACILITY TYPE***. It contains a verbal description of the code in the ***FACILITY TYPE*** field, such as ***WORK CENTER***, ***WORK STATION***, or ***PRODUCTION LINE***.

DESCRIPTION (WCDSC). Required. Type in a description of the production facility.

DEPARTMENT (DEPNO). Type in the department where this facility is located. If Payroll is installed and interfacing, this number should correspond to the department in Payroll's Labor Distribution file.

Note: A single department can have multiple facilities.

PN FAC ACTG CLS (PFAC). Class, defined by your company, to group or classify orders or items by production facility for accounting purposes.

QUEUE TIME-DAYS (STDQT). Type in the expected number of days a job waits in the queue at this facility before work begins on it.

FOREMAN (FRMAN). Type in the code that identifies the foreman for this facility.

PRIME LOAD CODE (PLOAD). Type in the prime load code for this facility. The prime load code is used to calculate the duration of the operation for PC&C and CRP scheduling routines. It identifies the critical (constraining) operation time factors necessary to schedule each operation's due date from its operation start date. The valid codes are:

0 No hours accumulated
1 Run machine hours
2 Setup labor hours divided by setup crew size
3 (Setup labor hours divided by setup crew size) + run machine hours
4 Run labor hours
5 (Setup labor hours divided by setup crew size) + run labor hours

AVG QUEUE TIME (Average Queue Time) (AVGQT). Type in the average total standard hours of work in the queue at this facility.

LOCATION (WCLOC). Type in the code that indicates the location of the facility. If the time basis code is C, this is the location of the vendor.

TRACKING SIGNAL (TRSIG). Type in the tracking signal for this facility. The tracking signal, which is used by PC&C, is the sum of the differences of current queue time from old average queue time that is calculated with each running of the Production Facility Analysis report.

QUEUE MAD (QUEUE MEAN ABSOLUTE DEVIATION) (WQMAD). Type in the average difference of the queue at this facility. The queue mean absolute deviation, which is used by PC&C, is an average of the differences between the current queue within a facility and the old average queue of that facility. This shows how much the queue fluctuates in the facility.

Note: A negative amount is made positive when you press **Enter**.

STD EFFICIENCY (Standard Efficiency) (STDEF). Type in the standard efficiency of the facility. It should reflect the expected value of average actual output divided by average standard output.

Note: A negative amount is made positive when you press **Enter**.

AVG STD OUTPUT (Average Standard Output) (AVGSO). Type in the average standard output of this facility. The average standard output is an average of the standard time (hours) produced per day per period (PC&C order close out) at a facility. The standard hours are based on standard times from the detail operations performed in the facility.

Note: A negative amount is made positive when you press **Enter**.

MACH RESOURCE NO. (MACRN) [?]. Type in the resource number used by MPSP (if installed and interfacing) to identify machine hours in this facility as a critical resource; for example, a machine that affects major work flow in a facility. If MPSP is not installed, leave this field blank or type in **0** (zero).

Note: You must enter the machine resource number in the MPSP Resource Master file before you can enter it into the Production Facility file.

AVG EFFICIENCY (Average Efficiency) (AVGEF). Type in the average efficiency of this facility. The average efficiency is the average of the actual hours worked per day for this period divided by the average standard output per day for this period.

Note: A negative amount is made positive when you press **Enter**.

AVG ACTL OUTPUT (Average Actual Output) (AVGAO). Type in the average actual output of this facility. The average actual output is the average of the actual time (hours) worked per day for this period (PC&C order close out) at a facility.

Note: A negative amount is made positive when you press **Enter**.

LABOR RESOURCE NO. (LABRN) [?]. Type in the resource number used by MPSP (if installed and interfacing) to identify labor hours in this facility as a critical resource. For example, a facility with limited available labor hours because of workers with special skills. If MPSP is not installed, leave this field blank or type in **0** (zero).

Note: You must enter the Labor Resource Number in the MPSP Resource Master file before you can enter it into the Production Facility file.

EXTRACT MACH BRKS (BRKXT) <1/0>. Required. Type in the letter that indicates to the PM&C application whether you want to extract break time from machine hours. The valid entries are:

1 Extract break time.
0 Do not extract break time.

Only the standard rates of the following five fields are discussed. The other fields are the same except that current rates are used.

REPORTING METHOD. Type in the method used at the facility for reporting job transactions in PM&C. The values for the methods are:

0 ON/OF reporting. Both ON (On) and OF (Off) transactions are required for each job. Jobs completed without both transactions are flagged as errors.

1 Off-Only reporting with full ON override. OF transactions are required for each job. ON transactions are optional. If a job starts with an ON transaction, all information is used from the ON transaction. If an ON transaction does not

exist, start times for the job are calculated from previous OF and T/A transactions. All other information is used from the OF transaction.

2 Off-Only reporting with ON facility ID override. OF transactions are required for each job. ON transactions are optional. If the job starts with an ON transaction, the only information used from the ON transaction is the facility ID. All other information is used from the OF transaction. Start times are always calculated from previous OF and T/A transactions (even if an ON transaction exists).

CLOCKING WINDOW. The clocking window time defined in PM&C for facilities using off-only reporting to group jobs that run concurrently and apportion time among those jobs. If the facility uses off-only reporting and jobs are run concurrently by the same employee, type in a clocking window time. The system groups jobs that have OF transactions spaced equal to or less than the clocking window time and apportions the time among them. For example, if you set the clocking window to 5:00 (five minutes) and OF transactions occur at 10:00:00, 10:03:00, and 10:06:00 (less than five minutes apart), the system treats the group as if they were started and completed at the same time and apportions the time among them.
The time can be any value from 0:00 to 9:59 (one second less than ten minutes). Use the default time (0:00) to have the jobs treated as if they were run consecutively.

CURRENT STANDARD.

MACHINE RATE (CMACH or SMACH): This rate, in cost per hour, is used with the run machine field of the associated routing to calculate the run machine cost. If the time basis code is C, this field should be zero. PDM product costing also uses this value to calculate labor overhead content this-level in the associated Item Master B-records.

RUN LABOR RATE (CRLAB or SRLAB): This rate, in cost per hour, is used with the run labor field of the associated routing to calculate the run labor cost. PDM product costing also uses this value to calculate standard labor and labor overhead content this-level in the associated Item Master B-records. This field is not used in calculating run labor costs for routing operations with time basis code = C (outside operation).

SETUP LABOR RATE (CSLAB or SSLAB): This rate, in cost per hour, is used with the setup labor hours field of the associated routing to calculate the setup labor cost. If the time basis code is C, this field should be zero in most cases. PDM product costing also uses this value to calculate labor and labor overhead content this-level in the associated Item Master B-records.

OVERHEAD RATE/PERCENT (COVER or SOVER): The labor overhead rate or percent is used in the labor overhead calculation of PDM costing formulas based on the labor overhead code (COCOD or SOCOD) you enter. If the time basis code is C, this field should be zero.

OVERHEAD CODE (SOCOD): This code indicates which of four methods (A, B, C, or D) is used to calculate standard labor overhead this level in the associated Item Master B-records. If the time basis code is C, this field should be blank. PDM product costing must be installed and interfacing, and the cost technique code in associated Item Master B-records must be R if this code is used.

Note: A negative amount is made positive when you press **Enter**.

SHIFT LENGTH. If this is a production line, at least one shift length is required.

DESIRED (DLEN1, DLEN2, DLEN3): These fields, which are used in scheduling calculations, show the number of prime load code hours normally available for the duration of shifts 1, 2, or 3 for this facility.

MAXIMUM (MLEN1, MLEN2, MLEN3): These fields show the maximum number of prime load code hours available for the duration of shifts 1, 2, or 3 for this facility.

Note: A negative amount is made positive when you press **Enter**.

SHIFT CAPACITY.

DESIRED (DCAP1, DCAP2, DCAP3): These fields, which are used in scheduling calculations, show the number of workers or machines (whichever is the critical resource) normally scheduled at this facility during shifts 1, 2, or 3.

MAXIMUM (MCAP1, MCAP2, MCAP3): These fields show the maximum number of workers or machines that can be scheduled at this facility during shifts 1, 2, or 3.

Note: A negative amount is made positive when you press **Enter**.

CALENDAR ID (CALN) [?]. The identifier of the production calendar associated with this facility. This field is used by REP to explicitly define the days a production line is available for work.

POST TO OLDEST SCHED (APSQ). Appears if REP is interfacing. Type a code that indicates how you want to apply RM, RO, and SM transaction quantities. The valid codes are:

blank Defaults to the setting in the REPCTL record.

0 Off, posting is by individual schedules for all items on this production line.

1 On, multi-schedule posting, beginning with the oldest schedule, is used for all items on this production line.

POST TO FUTURE SCHED (APTQ). Appears if REP is interfacing. Type a code that indicates how you want to apply RM, RO, and SM transaction quantities. The valid codes are:

blank Defaults to the setting in the REPCTL record.
0 Off, post to past and current schedules on this production line.
1 On, post to past, current, and future schedules on this production line.

FACILITY STOCK LOC (FSLC). The line location where component parts are delivered and used in a production line operation. This field is used by REP as a default line location when setting up the Item-Line definition for a schedule controlled item.

AMVT72—Production Facility Maintenance (Change)

Use this display to change an existing production facility record in the Production Facility file.

This display appears when you type in a valid facility ID and select action 2 (change) on display AMVT70.

```
DATE **/**/**      PRODUCTION FACILITY MAINTENANCE        CHANGE     AMVT72  **

    FACILITY ID *****      FACILITY TYPE  A    *************
    DESCRIPTION aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaA40

DEPARTMENT        aaA4  PN FAC ACTG CLS       aA3  QUEUE TIME-DAYS     nn.nn
FOREMAN            aA3  PRIME LOAD CODE         A  AVG QUEUE TIME   nnnnn.nn
LOCATION         aaaA5  TRACKING SIGNAL  nnnnn.nn  QUEUE MAD        nnnnn.nn
STD EFFICIENCY    n.nn  AVG STD OUTPUT   nnnnn.nn  MACH RESOURCE NO.   aaaA5
AVG EFFICIENCY    n.nn  AVG ACTL OUTPUT  nnnnn.nn  LABOR RESOURCE NO.  aaaA5
EXTRACT MACH BRKS    A  REPORTING METHOD        n  CLOCKING WINDOW      n:nn

                MACHINE     RUN LABOR   SETUP LABOR      OVERHEAD    OVERHEAD
                  RATE         RATE         RATE       RATE/PERCENT    CODE
CURRENT       nnnnn.nnn     nnnnn.nnn     nnnnn.nnn      nnnnn.nnn       A
STANDARD      nnnnn.nnn     nnnnn.nnn     nnnnn.nnn      nnnnn.nnn       A

        -----LENGTH-----    ----CAPACITY----
        DESIRED  MAXIMUM    DESIRED  MAXIMUM       CALENDAR ID      aaaaaaA1O
SHIFT 1   nn.n    nn.n        nn.n    nn.n         POST TO OLDEST SCHED     A
SHIFT 2   nn.n    nn.n        nn.n    nn.n         POST TO FUTURE SCHED     A
SHIFT 3   nn.n    nn.n        nn.n    nn.n         FACILITY STOCK LOC aaaaaA7
                                                     F18 REFRESH SCREEN
                                                     F19 RETURN TO SELECT
```

What to do

To change a production facility record, type in the information you want to change and press **Enter**. Go to display AMVT70.

Function keys

F18 REFRESH SCREEN erases any data you typed in and shows AMVT72 as it first appeared.

F19 RETURN TO SELECT ignores any data you typed in and causes display AMVT70 to appear again.

Fields

Any of the fields, except ***FACILITY ID***, entered using display AMVT71 can be changed using this display. For descriptions of these fields, see “AMVT71—Production Facility Maintenance (Add)”.

AMVT73—Production Facility Maintenance (Delete)

Use this display to delete a production facility record from the Production Facility file.

This display appears when you type in a valid facility ID and select action 3 (delete) on display AMVT70.

```
DATE **/**/**      PRODUCTION FACILITY MAINTENANCE        DELETE     AMVT73  **

    FACILITY ID *****      FACILITY TYPE  *    *************
    DESCRIPTION ****************************************

DEPARTMENT        ****  PN FAC ACTG CLS       ***  QUEUE TIME-DAYS     **.**
FOREMAN            ***  PRIME LOAD CODE        *  AVG QUEUE TIME   *****.**
LOCATION         *****  TRACKING SIGNAL  *****.**  QUEUE MAD        *****.**
STD EFFICIENCY    *.**  AVG STD OUTPUT   *****.**  MACH RESOURCE NO.   *****
AVG EFFICIENCY    *.**  AVG ACTL OUTPUT  *****.**  LABOR RESOURCE NO.  *****
EXTRACT MACH BRKS    *  REPORTING METHOD        *  CLOCKING WINDOW      *:**

                MACHINE     RUN LABOR   SETUP LABOR      OVERHEAD    OVERHEAD
                  RATE        RATE        RATE       RATE/PERCENT    CODE
CURRENT      **,***.***    **,***.***    **,***.***     **,***.***       *
STANDARD     **,***.***    **,***.***    **,***.***     **,***.***       *

        -----LENGTH-----    ----CAPACITY----
        DESIRED  MAXIMUM    DESIRED  MAXIMUM      CALENDAR ID     **********
SHIFT 1   **.*    **.*        **.*    **.*        POST TO OLDEST SCHED     *
SHIFT 2   **.*    **.*        **.*    **.*        POST TO FUTURE SCHED     *
SHIFT 3   **.*    **.*        **.*    **.*        FACILITY STOCK LOC *******
P R E S S   E N T E R   T O   D E L E T E            F19 RETURN TO SELECT
```

What to do

To delete a production facility from the Production Facility file, press **Enter**. The record is flagged for deletion. Go to display AMVT70.

Function keys

F19 RETURN TO SELECT does not delete the record and causes display AMVT70 to appear again.

Fields

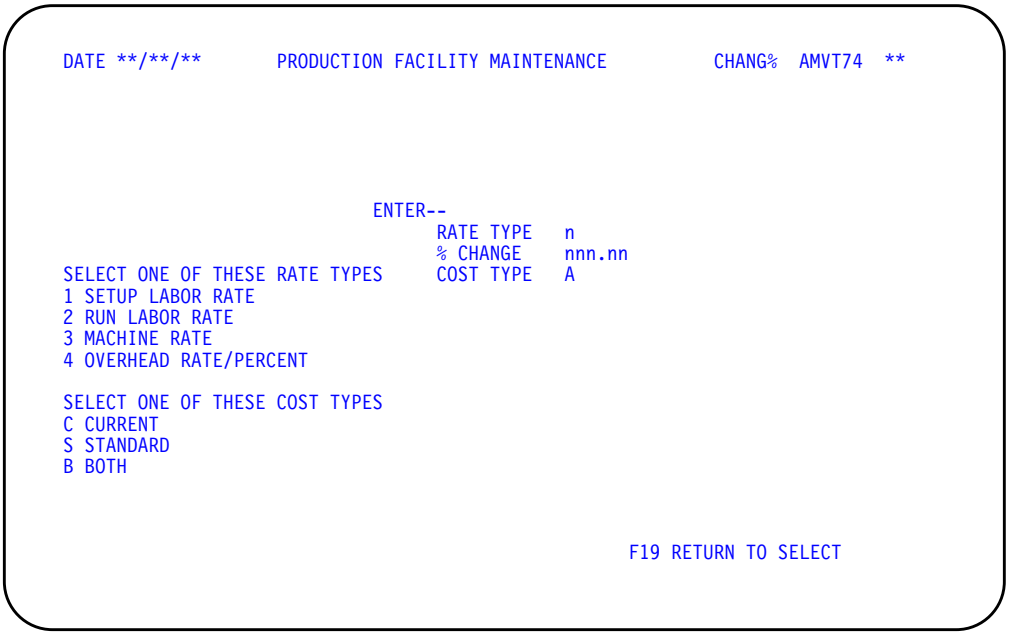
All of the fields on this display are informational only. For descriptions of the fields on this display, see “AMVT71—Production Facility Maintenance (Add)”.

AMVT74—Production Facility Maintenance (Change)

Use this display to change cost information for multiple production facility records in the Production Facility file.

This display appears when you type in a valid facility ID and select action 4 (percent change of cost rates) on display AMVT70.

You can select the rate you want to change (setup labor, run labor, machine labor, or labor overhead—current and/or standard) and the percent change you want to use. Only one percent change (the last one you entered if you entered more than one) is processed at a time.



What to do

To change cost information for multiple production facility records, type in the information requested and press **Enter**. The percent change you entered is applied to the rate you selected when the session ends. Go to display AMVT70.

Function keys

F19 RETURN TO SELECT ignores the data you just entered and causes display AMVT70 to appear again.

Fields

RATE TYPE. Required. Type in one of the following rate types:

1 Setup Labor Rate
2 Run Labor Rate
3 Machine Rate
4 Overhead Rate/Percent.

% CHANGE. Required. Type in the percent change you are applying to the selected rate. The percent change is the difference between the current rate and the target rate, divided by the current rate. Use a positive value to increase the current rate or a negative value to decrease it.
Only one percent change (the last one you entered if you entered more than one) is processed at a time.

COST TYPE. Required. Type in one of the following cost types:

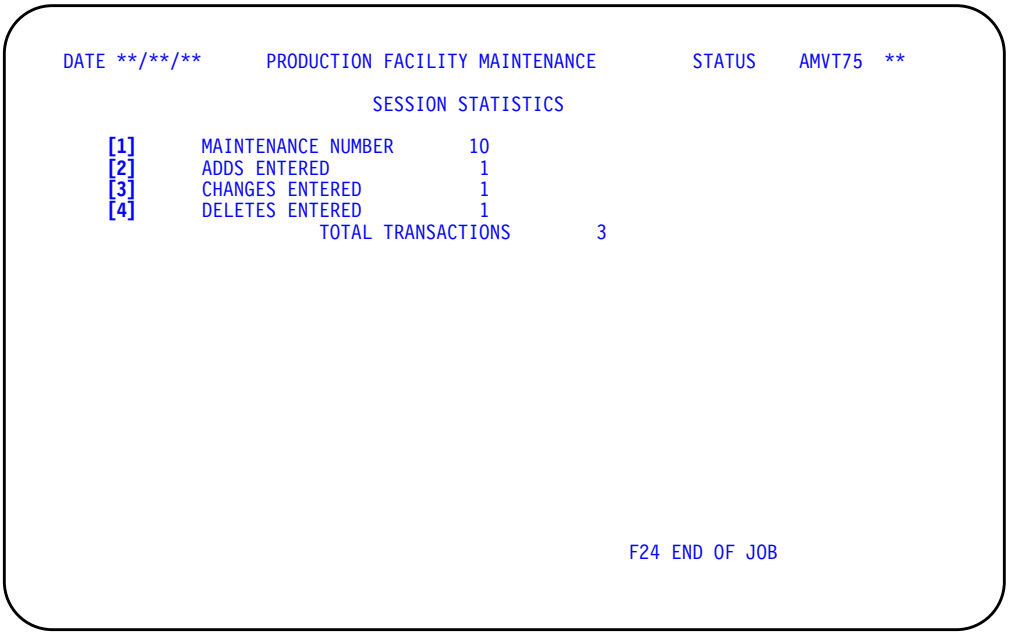
C Current
S Standard
B Both.

AMVT75—Production Facility Maintenance (Status)

This display appears when you use **F23** on the Select display (AMVT70). The Production Facility Maintenance Control Sheet prints after you update the Production Facility file using file maintenance.

The following statistics should be the same on the display and the report:

1. Maintenance number and update number
2. Adds entered and facilities added
3. Changes entered and facilities changed
4. Deletes entered and facilities deleted.



What to do

- To end the session and schedule the Production Facility Maintenance report (AMVT7) for printing, use **F24**. The menu appears again.
- To return to the previous display, press **Enter**.

Function keys

F24 END OF JOB causes the menu to appear again.

Fields

All of the fields on this display are informational.

SESSION STATISTICS. These fields show the statistics for the current file maintenance session

MAINTENANCE NUMBER: The number assigned to this session.

ADDS ENTERED: The number of records added.

CHANGES ENTERED: The number of records changed.

DELETES ENTERED: The number of records deleted.

TOTAL TRANSACTIONS: The total number of transactions (adds, changes, and deletes) for this file maintenance session.

Option 5. Production Facility Inquiry

Use this option to review information about production facilities if you selected production facilities during Product Data Management (PDM) application tailoring.

This option is not available if EPDM is activated.

What information you need: The IDs of the facilities you want to review.

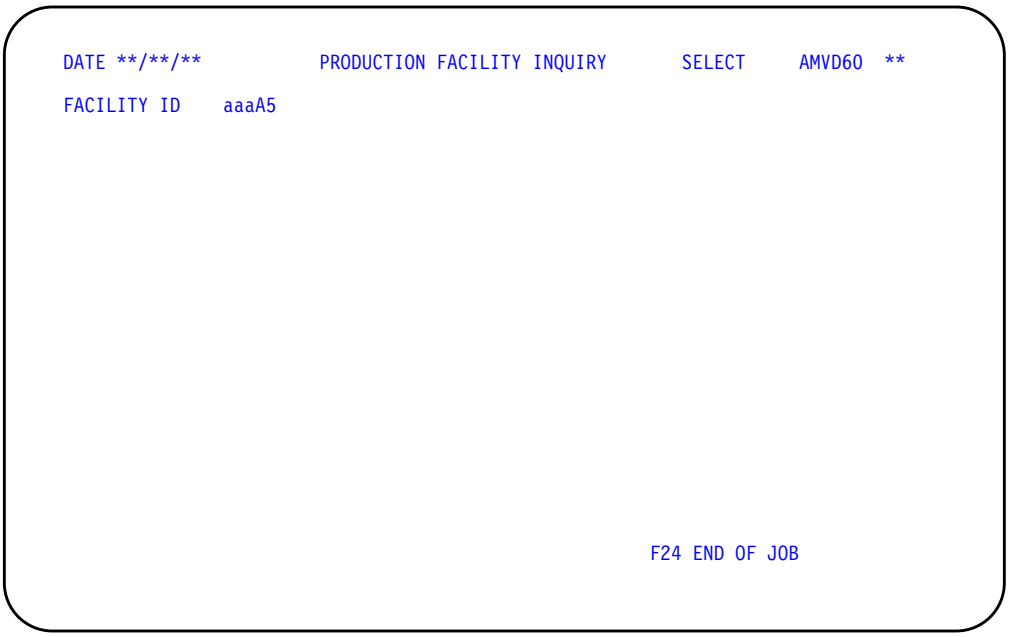
What reports are printed: None

What forms you need: None

AMVD60—Production Facility Inquiry (Select)

Use this display to select a facility record for review.

This is the first display that appears when you select option 5 from the PDM Inquiry menu (AMEM02) or option 5 from the REP Inquiry menu (AMQM10). It also appears when you select option 5 from the CRP Planning Run Control menu (AMTM10), option 4 from the PC&C Inquiry menu (AMCM10) or option 3 from the PM&C Inquiry menu (AMJM10).



What to do

To inquire about production facilities defined in the Production Facility file, type in a facility ID and press **Enter**. Go to display AMVD62.

Function keys

F24 END OF JOB ignores the data you just entered and causes the menu to appear again.

Fields

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

FACILITY ID (WKCTR) [?]. Required. Type in the unique identification representing the facility being reviewed.

AMVD61—Production Facility Inquiry

Use this display to review detailed information for the facility identified on display AMVD60.

This display appears when you type a valid ID on display AMVD60.

Examples of information shown on the display include facility type, foreman, location, standard and average efficiency, queue time, standard and actual average output, current and standard rates, lengths and capacities for three shifts, and machine and labor resource numbers.

```
DATE **/**/**           PRODUCTION FACILITY INQUIRY                AMVD61  **

FACILITY ID    aaaA5      FACILITY TYPE  *    ***************
DESCRIPTION    ****************************************

DEPARTMENT        ****  PN FAC ACTG CLS       ***  QUEUE TIME DAYS     **.**
FOREMAN            ***  PRIME LOAD CODE         *  AVG QUEUE TIME   *****.**
LOCATION         *****  TRACKING SIGNAL  *****.**  QUEUE MAD        *****.**
STD EFFICIENCY    *.**  AVG STD OUTPUT   *****.**  MACH RESOURCE NO.   *****
AVG EFFICIENCY    *.**  AVG ACTL OUTPUT  *****.**  LABOR RESOURCE NO.  *****
EXTRACT MACH BRKS    *  REPORTING METHOD        *  CLOCKING WINDOW      *:**

                MACHINE     RUN LABOR   SETUP LABOR      OVERHEAD    OVERHEAD
                  RATE        RATE        RATE       RATE/PERCENT    CODE
CURRENT      **,***.***    **,***.***    **,***.***     **,***.***       *
STANDARD     **,***.***    **,***.***    **,***.***     **,***.***       *

        -----LENGTH-----    ----CAPACITY----          DIRECT USAGES     *
        DESIRED  MAXIMUM    DESIRED  MAXIMUM          CALENDAR NAME  *********
SHIFT 1   **.*    **.*        **.*    **.*           POST TO OLDEST SCHED  *
SHIFT 2   **.*    **.*        **.*    **.*           POST TO FUTURE SCHED  *
SHIFT 3   **.*    **.*        **.*    **.*           FACILITY STOCK LOC  *******
                                                       F02 VARIABLE CAPACITY
                                                       F24 END OF JOB
```

What to do

- To look at variable capacity information for this facility, use **F02**. Go to display AMVD62.

  Note: If REP and/or CRP are not installed and interfacing, **F02** does not appear on the display.

- To look at another production facility record, type in the facility ID and press **Enter**. This display appears again with information for that production facility.

Function keys

F02 VARIABLE CAPACITY. If REP or CRP is interfacing, the Production Facility Inquiry–Variable Capacity display (AMVD62) appears with variable capacity information for this facility.

F24 END OF JOB causes the menu to appear again.

Fields

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

FACILITY ID (WKCTR) [?]. Required. When you have completed reviewing the detail for this facility, you can type in the ID of the next facility you want to see.

FACILITY TYPE. This field has no heading and appears to the immediate right of ***FACILITY ID***. It shows the type of facility this is, such as WORK CENTER, WORK STATION, or PRODUCTION LINE.

DESCRIPTION (WCDSC). The name of the facility.

DEPARTMENT (DPTNO). The department number associated with the facility.

PN FAC ACTG CLS (PFAC). Class, defined by your company, to group or classify orders or items by production facility for accounting purposes.

QUEUE TIME DAYS (STDQT). The expected number of days a job may wait at the facility before being started.

FOREMAN (FRMAN). A three-character code that identifies the facility foreman.

PRIME LOAD CODE (PLOAD). The critical operation time factor used in scheduling routines.

AVG QUEUE TIME (AVGQT). The average total standard hours of work in the queue at this facility.

LOCATION (WCLOC). The facility location.

TRACKING SIGNAL (TRSIG). The sum of the deviation of the current queue from the old average queue.

QUEUE MAD (Queue Mean Absolution Deviation) (WQMAD). The Queue Mean Absolute Deviation—an average of the differences between the current queue and the old average queue.

STD EFFICIENCY (Standard Efficiency) (STDEF). This field shows the expected efficiency of the facility. The percentage is manually maintained and reflects the expected value of standard average output divided by average actual output.

AVG STD OUTPUT (Average Standard Output) (AVGSO). The expected average of the standard time (hours) produced per day for this period (PC&C order closeout) at the facility.

MACH RESOURCE NO. (Machine Resource Number) (MACRN). The resource number used by MPSP (if installed and interfacing) to identify machine hours in a facility as a critical resource. For example, a machine that affects major work flow in a facility.

AVG EFFICIENCY (Average Efficiency) (AVGEF). The average of the standard output per day for this period divided by actual hours worked per day for this period.

AVG ACTL OUTPUT (Average Actual Output) (AVGHO). The average of the hours actually worked per day for this period (PC&C order closeout) at the facility.

LABOR RESOURCE NO. (LABRN). The resource number used by MPSP (if installed and interfacing) to identify labor hours in a facility as a critical resource. For example, it may show a facility with limited available labor hours because of workers with special skills.

EXTRACT MACH BRKS (BRKXT) <1/0>. Indicates whether PM&C is extracting break time from machine hours. This field appears only if PM&C is interfacing.

REPORTING METHOD. The method used at the facility for reporting job transactions in PM&C. The values for the methods are:

0 ON/OF reporting. Both ON (On) and OF (Off) transactions are required for each job. Jobs completed without both transactions are flagged as errors.

1 Off-only reporting with full ON override. OF transactions are required for each job. ON transactions are optional. If a job starts with an ON transaction, all information is used from the ON transaction. If an ON transaction does not exist, start times for the job are calculated from previous OF and T/A transactions and all other information is used from the OF transaction.

2 Off-only reporting with ON facility ID override. OF transactions are required for each job. ON transactions are optional. If the job starts with an ON transaction, the only information used from the ON transaction is the facility ID. All other information is used from the OF transaction. Start times are always calculated from previous OF and T/A transactions (even if an ON transaction exists).

CLOCKING WINDOW. The clocking window time defined in PM&C for facilities using off-only reporting to group jobs that are run concurrently by the same employee and apportion time among those jobs. It can be any value from 0:00 to 9:59 (one second less than ten minutes). A value of 0:00 indicates that jobs at this facility are treated as if they are done consecutively.

This field is used by the Production Monitoring and Control (PM&C) application.

CURRENT MACHINE RATE (CMACH). This rate, expressed in cost per hour, is used only by PDM product costing with the run machine field of the associated routing to calculate current run machine cost.

CURRENT RUN LABOR RATE (CRLAB). This rate, expressed in cost per hour, is used only by PDM product costing with the run labor field of the associated routing to calculate current run labor cost.

CURRENT SETUP LABOR RATE (CSLAB). This rate, expressed in cost per hour, is used only by PDM product costing with the setup labor hours field of the associated routing to calculate current setup labor costs.

CURRENT OVERHEAD RATE/PERCENT (COVER). This value, expressed in cost per hour or percent depending on the current labor overhead code, is used only by PDM product costing in labor overhead calculation.

CURRENT OVERHEAD CODE (COCOD). This code indicates which of four methods is used only by PDM product costing to calculate current labor overhead.

STANDARD MACHINE RATE (SMACH). This rate, expressed in cost per hour, is used by PC&C order costing and PDM product costing with the run machine field of the associated operation detail and routing to calculate standard run machine cost.

STANDARD RUN LABOR RATE (SRLAB). This rate, expressed in cost per hour, is used by PC&C order costing and PDM product costing with the run labor field of the associated operation detail and routing to calculate standard run labor cost.

STANDARD SETUP LABOR RATE (SSLAB). This rate, expressed in cost per hour, is used by PC&C order costing and PDM product costing with the setup labor time field and setup crew size of the associated operation detail and routing to calculate standard setup labor cost.

STANDARD OVERHEAD RATE/PERCENT (SOVER). This value, expressed in cost per hour or percent according to the standard labor overhead code, is used in labor overhead calculation by PC&C order costing and PDM product costing.

STANDARD OVERHEAD CODE (SOCOD). This code indicates which of four methods is used to calculate standard labor overhead.

DESIRED LENGTH (DLEN1, DLEN2, DLEN3). The number of prime load code hours normally available for the duration of shifts 1, 2, and 3 for this facility.

MAXIMUM LENGTH (MLEN1, MLEN2, MLEN3). The maximum number of prime load code hours available for this facility that can be scheduled for shifts 1, 2, and 3.

DESIRED CAPACITY (DCAP1, DCAP2, DCAP3). The number of employees or machines normally available in this facility for shifts 1, 2, and 3.

MAXIMUM CAPACITY (MCAP1, MCAP2, MCAP3). The maximum number of employees or machines available for shifts 1, 2, and 3.

DIRECT USAGES (NORWU). The number of routing records in which the facility appears.

CALENDAR NAME. The name of the production calendar associated with this facility. This calendar is used only by REP to explicitly define the days a production line is available for work.

POST TO OLDEST SCHED (APSQ). The method used for applying transaction quantities to REP schedules. The valid codes are:

blank Defaults to the setting from the REPCTL record.

0 Off, posting is by individual schedules for all items on this production line.

1 On, multi-schedule posting, beginning with the oldest schedule, is used for all items on this production line.

POST TO FUTURE SCHED (APTQ). The method used for applying transaction quantities to REP schedules. The valid codes are:

blank Defaults to the setting from the REPCTL record.
0 Off, post to past and current schedules on this production line.
1 On, post to past, current, and future schedules on this production line.

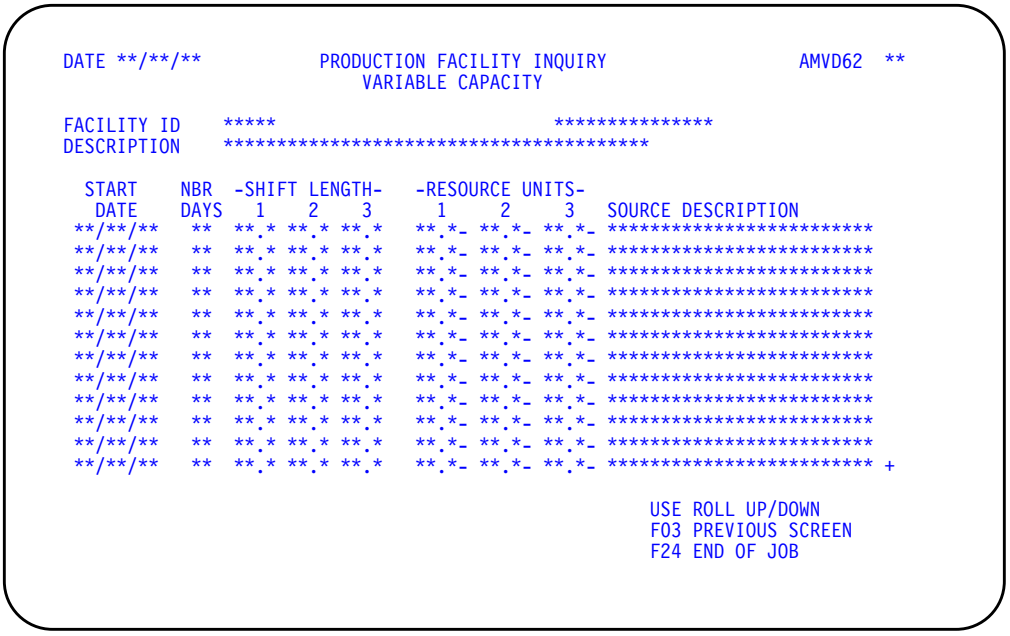
FACILITY STOCK LOC. The line location where items are delivered and used in a production line operation. This field is used by REP as a default line location when setting up the Item-Line definition for a schedule controlled item.

AMVD62—Production Facility Inquiry–Variable Capacity

Use this display to review detailed variable capacity information for the facility identified on display AMVD61. Variable capacity information can apply only to work centers or production lines (facility types 1 and 2).

This display appears only if REP or CRP is installed.

Information on the display includes resource availability date and duration, shift length and resource unit information for three shifts, and a description of the resource.



What to do

To look at another record, use **F03**. Go to display AMVD61.

Function keys

USE ROLL UP/DOWN allows you to scroll forward and backward through the list on the display.

F03 PREVIOUS SCREEN causes the Production Facility Inquiry display (AMVD61) to appear.

F24 END OF JOB causes the menu to appear again.

Fields

FACILITY ID (WKCTR). The identifier for the facility. When you have finished reviewing the detail for this facility or production line, you can type in the ID of the next facility you want to see.

FACILITY TYPE. This field shows the kind of production facility that is associated with the facility ID: work center, production line, or work station.

Note: A work station cannot have variable capacity information associated with it.

DESCRIPTION (WCDSC). A description of this facility.

START DATE (VDATE). The date this variable resource becomes available.

NBR DAYS (VDAYS). The duration for which the variable resource is available. If the value is 99, this is a permanent resource.

SHIFT LENGTH 1, 2, and 3 (VLEN1, VLEN2, VLEN3). The available time in hours of each shift for a particular work center or production line. The variable dates for each shift cannot overlap.

RESOURCE UNITS 1, 2, and 3 (VCAP1, VCAP2, VCAP3). The number of extra units above base capacity for this resource. Resource units are expressed in shift length increments such that each resource unit works the entire shift time. For example, if the shift length is 8 hours and you want to add one unit of 4 hours, you type **5** as the resource units to indicate that this resource should work half of the shift length.

SOURCE DESCRIPTION (VDESC). The reason for the change to the variable capacity. Examples are Scheduled Overtime or Lead Operator on Vacation.

Option 6. Work Load Extract

Use this option to select the order types (open, planned, firm planned, customer) to be used as work load during a Capacity Requirements Planning run.

Note: Before you use this option, check the CRP planning parameters (using option 1 on menu AMTM10). For best results, complete the Work List generation (PC&C) and a planning run.

What information you need: The types of orders you want to use as work load during a planning run.

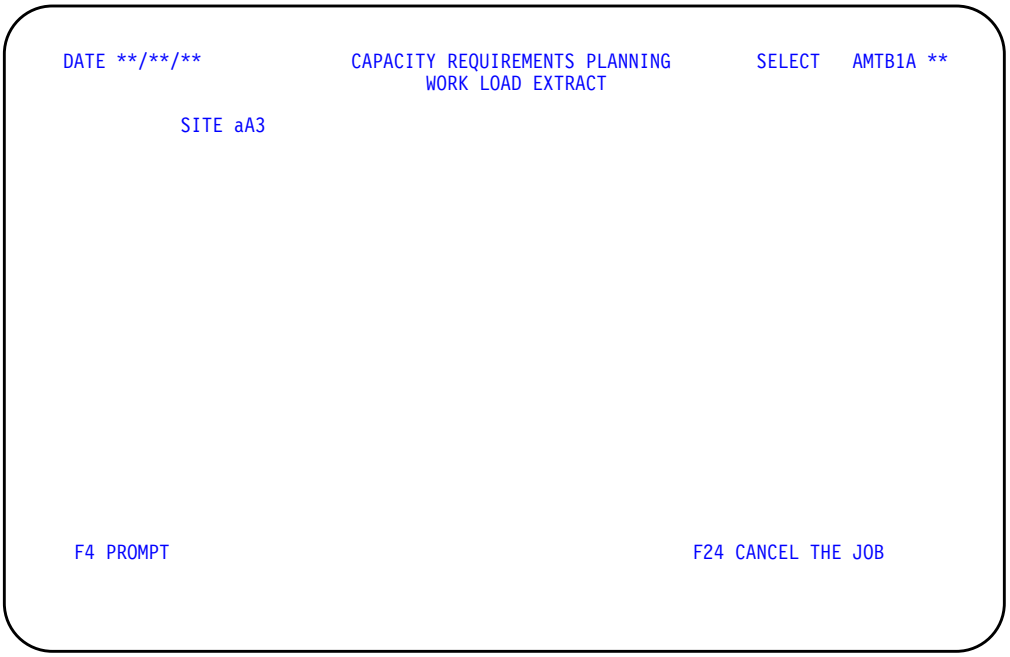
What reports are printed: Work Load Extract Exception (AMTB4)

What forms you need: None

AMTB1A-Work Load Extract Site Select

Use this display to enter a site for which you want to perform a work load extract.

This display appears when you select option 6 on the Planning Run Control menu (AMTM10), if EPDM is activated.



What to do

Type the site you want to use and press **Enter**. Display AMTB11 appears.

Function keys

F4 PROMPT causes a Search display to appear so you can search for a valid site.

F24 CANCEL THE JOB causes the Planning Run Control menu to appear. No update occurs.

Fields

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

SITE (STID) [?]. An identifier of the site associated with this planning run.

AMTB11–Work Load Extract (Select)

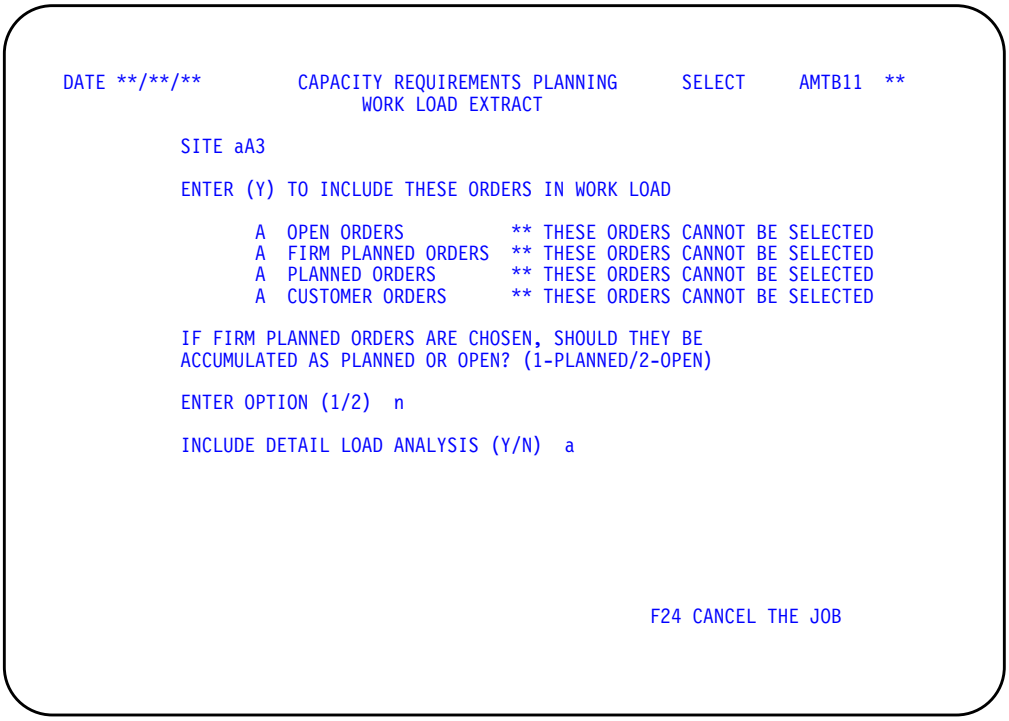
Use this display to select the types of orders (open, planned, firm planned, or customer) to be included in the work load for a Capacity Requirements Planning run. (See “Sources of work load” on page 2-5 for an explanation of the types of orders.)

This display appears when you select option 6 on the Planning Run Control menu (AMTM10). If EPDM is activated, it appears after you have entered a site on the Select Display.

Note: If Customer Order Management is installed, customer orders can be included in the work load. However, be aware that “double loading” from both a customer order and its supporting open or planned order can occur.

The Work Load Extract Exception Report identifies the items for which there are no standard routing or open operation records. If these records are required for a Capacity Requirements Planning run, you can add them using file maintenance andthen run the Work Load Extract option again. The files you maintain depend on the source of the order on the report and the interfacing applications.

- For open orders:
  - If PC&C is installed, maintain the Open Manufacturing Order Operation Detail (MOROUT) file using the PC&C File Maintenance menu (AMCM70).
  - If PC&C is not installed, maintain the Routing (ROUTNG) file using the PDM File Maintenance menu (AMEM05).
- For planned, firm planned, and customer orders, maintain the Routing file using the PDM File Maintenance menu (AMEM05).



What to do

Type the order information and press **Enter**. The information will be included in the work load for a capacity requirements planning run. The Planning Control menu (AMTM10) appears.

Function keys

F24 CANCEL THE JOB cancels the run and the Planning Run Control menu (AMTM10) appears.

Fields

Depending on the answers given during CRP application tailoring, each of the enterable fields on this display already contain a value when this display first appears.

SITE (STID). The site associated with this work load extract.

ENTER (Y) TO INCLUDE THESE ORDERS IN WORK LOAD. Type **Y** (yes) to include or **N** (no) to not include a type of order. If a field contains an N when this display first appears and the message THIS OPTION NOT VALID appears next to the N, you cannot enter Y because the required applications are not installed.

ENTER OPTION. If firm planned orders were selected, type **1** to accumulate the orders as planned or **2** to accumulate them as open.

INCLUDE DETAIL LOAD ANALYSIS (Y/N). . Type Y to include detail load analysis and N if you do not want to include detail load anaylsis.

Option 7. Schedule and Accumulate Work Load

Use this option to begin a Capacity Requirements Planning run.

Note: You must run Work Load Extract (option 6 on menu AMTM10) before you use these steps.

At the end of the run, you can use the reports generated and the Work Center Load Analysis Detail display (AMTG22) to determine if any work centers require capacity changes.

Examples of the reports are in Chapter 6 “Report descriptions”.

What information you need: None

What reports are printed: The reports vary depending upon what you entered on the Planning Run Control Options (Change) display (AMTA12). Possible reports are:

- Work Center Load Analysis (AMTH2A)
- Work Center Load Analysis Detail (AMTH3)
- Work Center Over/Underload Report (AMTH2B)
- Work Load Exception Report (AMTF3)

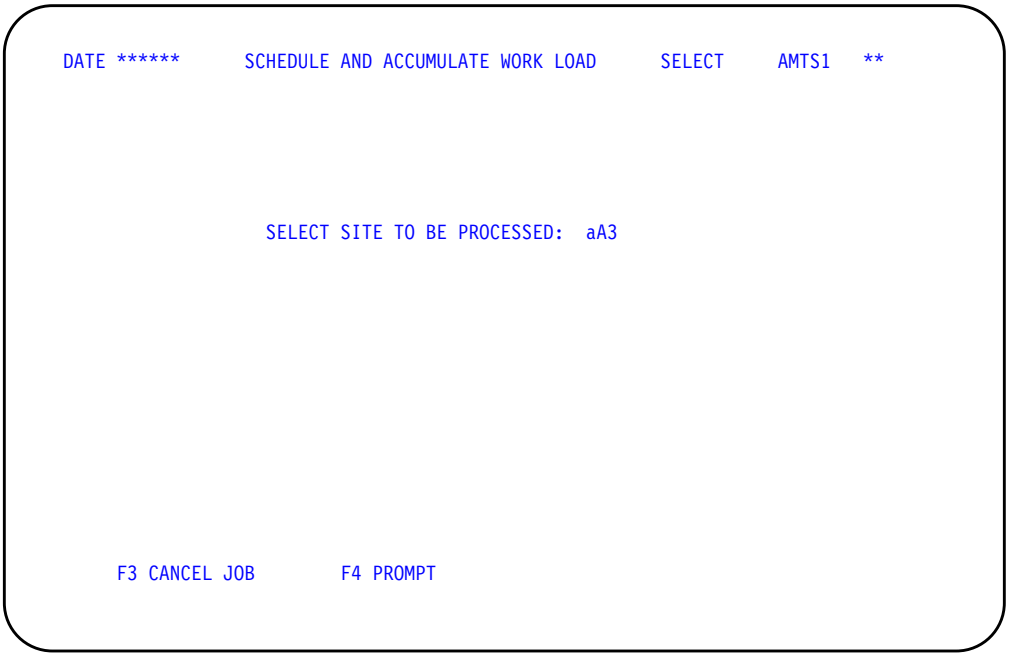
What forms you need: None.

A select display appears for you to select the site to be processed.

AMTS1–Schedule and Accumulate Work Load (Select)

Use this display to select a site for which you want to perform this task.

This display appears when you select option 7 on the Planning Run Control menu (AMTM10), if EPDM is activated. It also appears when you select option 8 on the Planning Run Control menu (AMTM10), if EPDM is activated, with the appropriate title for that option.



What to do

Type the site you want to use and press **Enter**. The task is scheduled to be done.

Function keys

F3 CANCEL JOB causes the Planning Run Control menu to appear without taking any action.

F4 PROMPT causes a Search display to appear so you can search for a valid site.

Fields

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

SELECT SITE TO BE PROCESSED (STID) [?]. An identifier of the site associated with this work load.

Option 8. Delete Capacity Planning Work Files

Use this option to free up disk space by deleting CRP work files following a Capacity Requirements Planning run.

What information you need: None

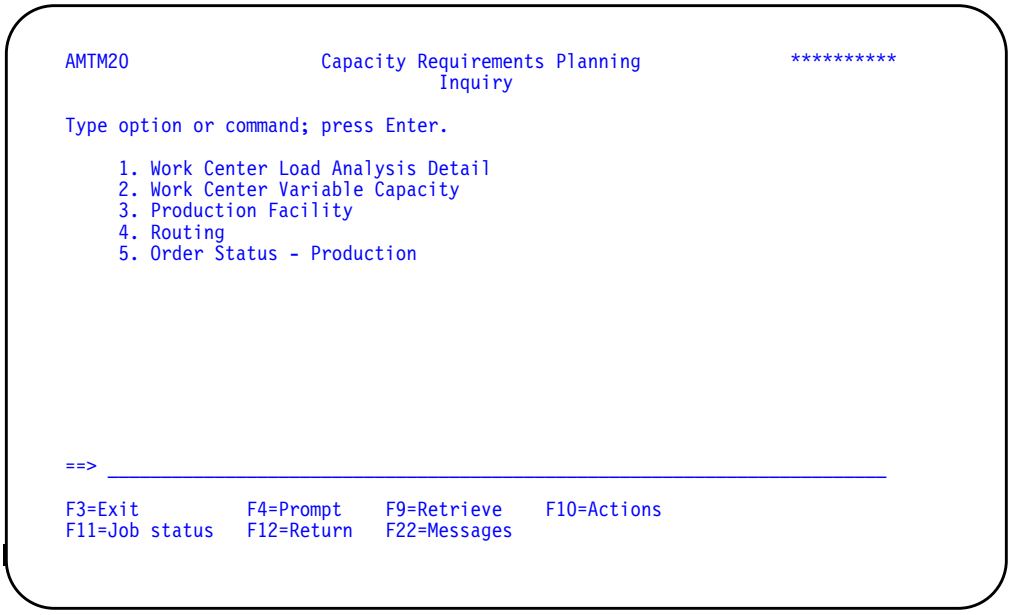
What reports are printed: None.

What forms you need: None.

A select display (AMTS1) appears for you to select a site to be processed. For an illustration and explanation of that display, see “AMTS1–Schedule and Accumulate Work Load (Select)” on page 3-58

Chapter 4. Inquiry

The Inquiry menu allows you to review Capacity Requirements Planning information.



Option 1. Work Center Load Analysis Detail. Use this option to compare the number of hours of work load to the available capacity by order across a work center for a time period.

Option 2. Work Center Variable Capacity. Use this option to review the capacity of a work center over time. You can also select this option on the Planning Run Control menu (AMTM10).

Option 3. Production Facility. Use this option to review information about your work centers. You can also select this option on the Planning Run Control menu (AMTM10). This option is not available if EPDM is activated.

Option 4. Routing. Use this option to review the routing operations for an item. This option is valid only if Product Data Management (PDM) is installed and standard routings were selected during PDM application tailoring. This option is not available if EPDM is activated.

Option 5. Order Status - Production. Use this option to review the detail production information associated with a specific manufacturing order. This option is valid only if Production Control and Costing (PC&C) is installed.

Option 1. Work Center Load Analysis Detail

Use this option to see the operations scheduled by period at a work center.

Note: You must complete a work load extract (option 6 on menu AMTM10) and scheduling (option 7 on menu AMTM10) before you begin this inquiry.

What information you need: The site, work center ID, and the period number for each work center and period you want to see.

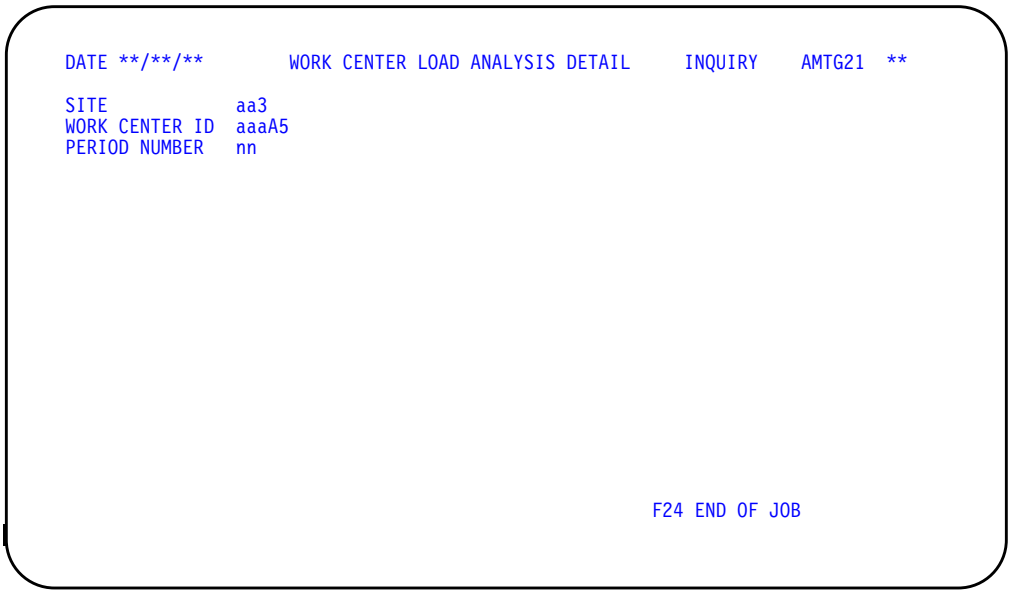
What reports are printed: None

What forms you need: None

AMTG21–Work Center Load Analysis Detail (Inquiry)

Use this display to select a specific work center and period for analysis.

This display appears when you select option 1 on the Inquiry menu (AMTM20).



What to do

- To see a load analysis in a display format, type a work center ID and period number and press **Enter**. The Work Center Load Analysis Detail (Inquiry) display (AMTG22) appears.

Function keys

F24 END OF JOB causes the Inquiry menu (AMTM20) to appear.

Fields

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

SITE (STID) [?]. Type the identifier of the site.

WORK CENTER ID (WRKCTR) [?]. Type the identifier of the work center for analysis.

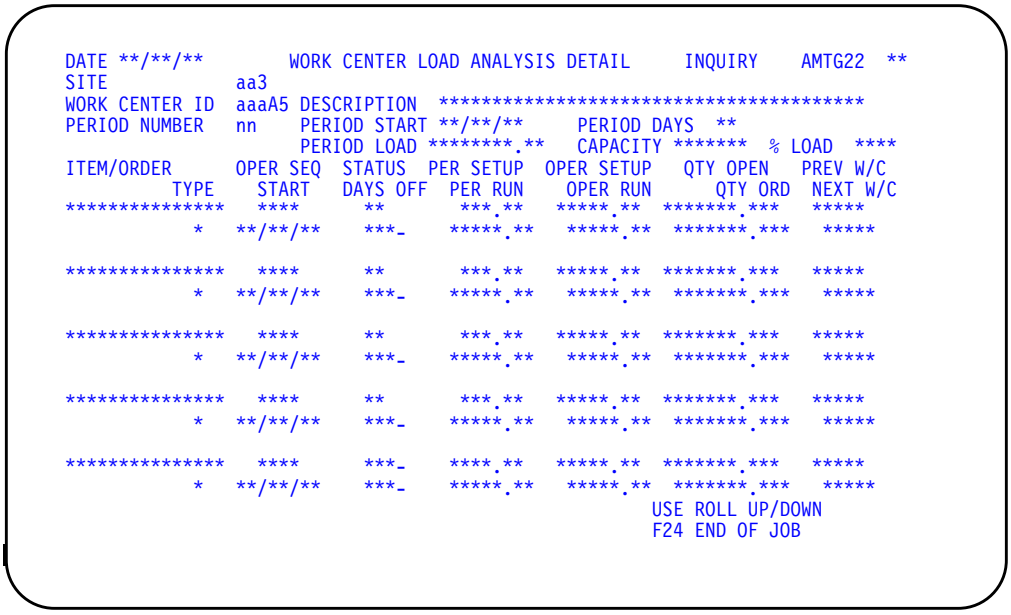
PERIOD NUMBER (PERIOD). Type the number of the period for analysis or leave the period number blank and let it default to period number 1 (or period 0, if the option to include past due load was selected on the Planning Run Control Options display (AMTA12).

AMTG22–Work Center Load Analysis Detail (Inquiry)

Use this display to compare expected work load to available capacity for a specific work center and period number.

This display appears when you type a valid site, work center ID and period number on display AMTG21 and press **Enter**.

The information on this display is similar to that found on the Work Center Load Analysis Detail report (AMTH3) described in Chapter 6 “Report descriptions”. You can identify those operations or orders that are contributing to the load at the work centers and redistribute the load across the work centers, if necessary. If an order is behind schedule, the order number is highlighted.



What to do

- Review the information on the display.
- To review the information for another site and work center, type a new site or work center and period and press **Enter**. The display appears again with the new information.

Function keys

USE ROLL UP/DOWN to scroll forward and backward through the records on the display.

F24 END OF JOB causes the Inquiry menu (AMTM20) to appear.

Fields

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

SITE (STID) [?]. Type another site identifier to see a different site or work center.

WORK CENTER ID (WKCTR) [?]. Type another ID to review a different work center.

DESCRIPTION (WCDSC). A description of the work center entered.

PERIOD NUMBER. Type the next period or any other period to review. If you leave it blank, it defaults to period 1.

PERIOD START. The start date of the period.

PERIOD DAYS. The length of the period in days.

PERIOD LOAD. The calculated load in hours for the period.

CAPACITY. The calculated capacity in hours for the period, including any variable capacity.

% LOAD. The percentage of work center capacity utilized for the period.

ITEM/ORDER. The order number if the operation is from an open order or the item number if from a planned or customer order. If the order is behind schedule this field is highlighted.

TYPE. The valid codes are:

O Open
P Planned
F Firm planned
C Customer

OPER SEQ. The number of the operation.

START. The actual or scheduled start date of the operation.

PERIOD NUMBER (PERNB). The period number associated with this variable capacity record.

STATUS. This field only applies to open orders. One of the following appears to identify the status of the operation.

00 Inactive; not used in scheduling, costing, or activity reporting.
10 Active; planned but activity not yet reported.
20 Material has been moved to this operation.
30 Labor, machine, or outside operation activity reported.
40 Operation has been reported as complete.
50 All material moved from this operation to next location or next operation.

DAYS OFF. The difference between the order due date and the calculated order completion date. The computer uses the days off schedule to arrive at backward scheduled dates for each operation. A negative number means the order is behind schedule.

PER SETUP. The setup time in hours for the period.

PER RUN. The running time in hours for the period.

OPER SETUP. The setup time in hours for the operation.

OPER RUN. The running time in hours for the operation.

QTY OPEN. The quantity of the item remaining on the order.

QTY ORD. The total quantity of the item on the order.

PREV W/C. The work center ID associated with the previous operation for the item/order.

NEXT W/C. The work center ID associated with the next operation for the item/order.

Option 2. Work Center Variable Capacity

Use this option to review the capacity information about a work center.

The displays for this option are the same as the ones for option 3 (Work Center Variable Capacity Inquiry) on the Planning Run Control menu (AMTM10) beginning with “Option 3. Work Center Variable Capacity Inquiry”.

Option 3. Production Facility

Use this option to review information about production facilities if you selected production facilities during Product Data Management (PDM) application tailoring.

The displays for this option are the same as the ones for option 5 (Production Facility Inquiry) on the Planning Run Control menu (AMTM10) beginning with “Option 5. Production Facility Inquiry”.

This option is not available if EPDM is activated.

Option 4. Routing

Use this option to review the routing information about an item. This option is valid only if Product Data Management (PDM) is installed and standard routings were selected during PDM application tailoring.

This option is not available if EPDM is activated.

The information for this option reflects what is currently in the Routing file. However, additional changes may be pending because the Routing file is updated using batch processing. With batch processing, the transactions entered during Routing file maintenance are stored in a transaction file and later applied to the Routing file.

What information you need: The number for each item whose routing information you want to review.

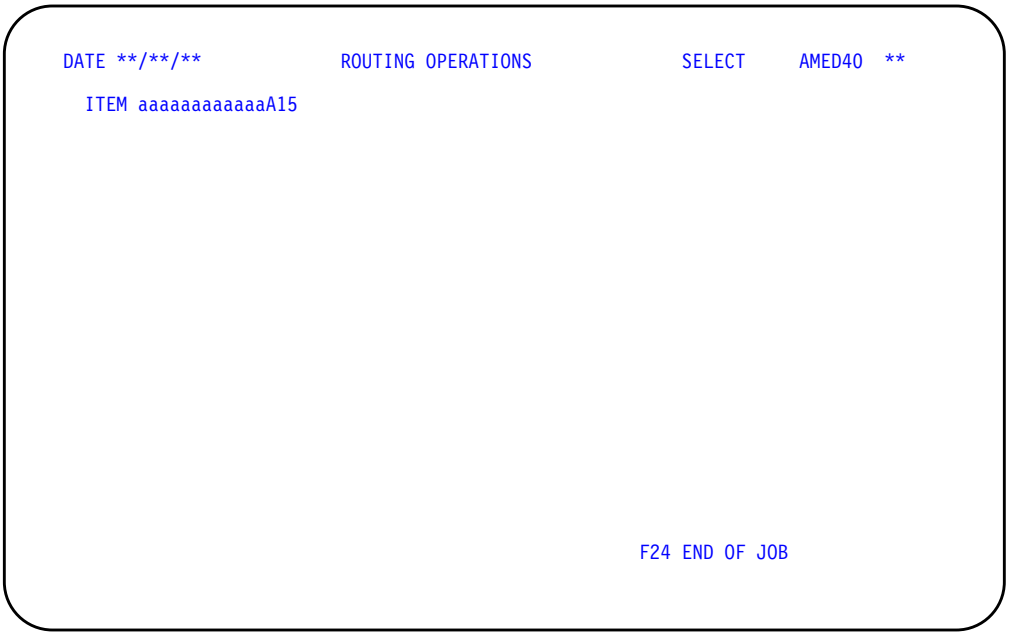
What reports are printed: None

What forms you need: None

AMED40–Routing Operations (Select)

Use this display to select an item whose routing information you want to review.

This display appears when you select option 4 on the CRP Inquiry menu (AMTM20) or option 4 on the PDM Inquiry menu (AMEM02).



What to do

To inquire about an item's routing operations, type in the item number and press **Enter**.

Function keys

F24 END OF JOB causes the Inquiry menu to appear again.

Fields

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

ITEM (ITNBR) [?]. Required. Type in the number of the item whose routing operations you want to see.

AMED41–Routing Operations (Inquiry)

Use this display to review summarized or detailed routing information for an item.

This display appears when you type a valid item number on display AMED40.

```
DATE **/**/**             ROUTING OPERATIONS              INQUIRY    AMED41  **

 ITEM aaaaaaaaaaaaA15  ******************************
      M                              ------RUN------  ---SETUP----  OP
 OPER  S  DESCRIPTION           TBC    MACH    LABOR     TIME CREW  ST  FAC
 ****  *  ******************   *   ***.**   ***.**   ***.**  **   ** *****
  CURRENT YIELD      *.***   AVG:    ***.**   ***.**   ***.**
  STANDARD YIELD     *.***       INV TRANS CODE   **       TOOL        ******
  MOVE DAYS         **.**        SELECT NUMBER    **       PROCESS     ******
  QUEUE DAYS        **.**        PRINT FLAG        *       TIMES REPT      **
  OPER RUN QTY    ****.***       REPORT POINT      *       ADDL DSC CNT   ***
  OUTSIDE COST**********.********   AVG. OUTSIDE COST**********.********




                                                                          +
FOR ADDITIONAL DESCRIPTIONS
ENTER  OPERATION NUMBER  aaA4                          USE ROLL UP/DOWN
                                                       F10 DETAIL/SUMMARY
                                                       F24 END OF JOB
```

What to do

- To look at the routing information for another item, type the item number in the ***ITEM*** field and press **Enter**. This display appears again with the routing information for the new item.
- To look at the additional descriptions for a routing operation, type the operation sequence number in the ***ENTER OPERATION NUMBER*** field and press **Enter**. Go to display AMED46.
- To see detailed routing information for this item, use **F10**.

Function keys

F10 DETAIL/SUMMARY. If you are viewing detailed information and you use F10, the summary information appears. If you are viewing summary information and you use F10, the detail information appears.

F24 END OF JOB causes the Inquiry menu to appear again.

Fields

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

The ***ITEM*** and ***ENTER OPERATION NUMBER*** fields are optional. The remaining fields are informational.

ITEM (ITNBR) [?]. When you have completed reviewing the routing operations for the parent item entered, type in the next parent whose routing operations you want to see.

Description (ITDSC). This field appears to the right of the field ***ITEM*** and has no heading. It shows the description of the item that normally appears on inquiries, reports, and routings.

OPER (Operation Sequence Number) (OPSEQ). The number defining the sequence in which the operations are listed or shown.

MS (Milestone) (MLSTN). The milestone operation type and identifies an operation that belongs to a milestone group of operations:

B The first sub-operation of a milestone group with no activity reported

S A sub-operation of a milestone group that is between the first and the last sub-operation

J The last sub-operation of a milestone group for a job shop type of milestone group

F The last sub-operation of a milestone group for a flow shop type of milestone group

DESCRIPTION (OPDSC). A full description of the operation that normally appears on inquiries, reports, and routings.

TBC (Time Basis Code) (TBCOD). This code is used to develop standard run labor hours, run machine hours, and run labor costs:

blank Hours per unit
C Cost per piece
H Hours per lot
M Minutes per piece
P Pieces per hour
1 Hours per 10 units
2 Hours per 100 units
3 Hours per 1,000 units
4 Hours per 10,000 units.

RUN MACH (Run Machine Time) (RUNMC). When Run Machine Time is extended by the Time Basis Code, this is the time in hours or minutes that the machine in the associated facility is expected to run to produce one or more units (depending on the TBC) of the associated item. If the time basis code is C, which indicates a special usage, the Run Machine Time is not adjusted. PDM product costing can optionally use this field to determine the run machine portion of standard and current labor overhead content this-level in the associated Item Master B-record.

RUN LABOR (Run Labor Time) (RUNLB). When Run Labor Time is extended by the Time Basis Code, this field shows the expected hours of run labor necessary to produce one unit of this item. If the time basis code is C, which indicates an outside operation, run labor represents the vendor's price to produce one item. If the time basis code is P, labor represents the quantity per hour. If the cost technique code is R, PDM product costing uses this field to determine the run labor portion of standard and current labor and labor overhead content this-level in the associated Item Master B-record.

SETUP TIME (Setup Labor Time) (SULHR). The labor time in hours or minutes required to set up this operation. PDM product costing can optionally use this field to determine the labor setup portion of standard and current labor and labor overhead content this-level in the associated Item Master B-record.

SETUP CREW (Setup Crew size) (SUCSZ). The number of people in the crew that does the setup of this operation. PDM's product costing can optionally use this field to determine the machine setup portion of standard and current overhead content this-level in the associated Item Master B-record.

OP ST (Operation Status Code) (OPSTC). The operation status code for an operation.

00 Inactive
10 Active.

FAC (Facility ID) (WKCTR). The area where the routing operation is performed.

The following fields appear only when you are viewing detailed information:

CURRENT YIELD (Current Operation Yield) (CYTOP). A percentage that represents today's or the near-term future expected amount of the parent item that remains in the production process at the end of an operation compared to the amount available at the start of the operation. This percentage is used for current costing, scheduling, and material requirements. The default is 1.000 (100%).

AVG RUN MACH (Average Run Machine Time) (AVGRM). The average run machine time is the average of actual run machine time for each active operation for a particular routing, adjusted by the Time Basis Code. This field is updated when order closeout and purge is performed.

AVG RUN LABOR (Average Run Labor Time) (AVGRL). The average run labor time is the average of actual run labor time worked on each active operation for a particular routing, adjusted by the Time Basis Code. This field is updated when order closeout and purge is performed.

AVG SETUP TIME (Average Setup Labor Time) (AVGSL). The average setup labor time. This is the average of actual setup labor time worked on each open operation for a particular routing record. This field is updated when order closeout and purge is performed.

STANDARD YIELD (Standard Operation Yield (SYTOP). A percentage that represents the budgeted or annual estimate of the amount of the parent item expected to remain in the production process at the end of an operation compared to the amount available at the start of the operation. This percentage is used for standard costing. The default is 1.000 (100%).

INV TRANS CODE. This code tells you the type of transaction. The valid codes are:

VA Vendor acknowledgment
RD Receipt to dock
RI Receipt to inspection
RP Stock receipt
PQ Purchase quantity control.

TOOL (Tool Number) (RTOOL). The number of the tool or tools needed to perform this operation.

MOVE DAYS (MOVTM). The planned move time, in days, for a manufacturing operation. It is used in the manufacturing order scheduling routines.

SELECT NUMBER. The number used to identify the alternate routing for this operation.

PROCESS (Process Sheet Number) (PRONO). The number used to identify a user document that explains detailed instructions related to this manufacturing operation.

QUEUE DAYS (STDQT). The expected number of days a job waits at this facility before work on it begins.

Note: The preceding field is contained in the Production Facility file.

PRINT FLAG. This code determines whether this operation appears on certain reports. Valid codes are:

Y Yes
N No

TIMES REPT (Times Reported) (NOTIM). The number of times that activity has been reported against this routing operation. This field is updated when order closeout and purge is performed.

OPER RUN QTY (PUNIT). This field tells you the standard quantity for the end item you are processing at this facility.

REPORT POINT (IRCOD). This field tells you if reporting is mandatory for this operation when the item appears on a REP schedule. If the item type is Purchased, this field does not appear. The valid codes are:

0 Reporting is not required.
1 Reporting is required; backflushing occurs.

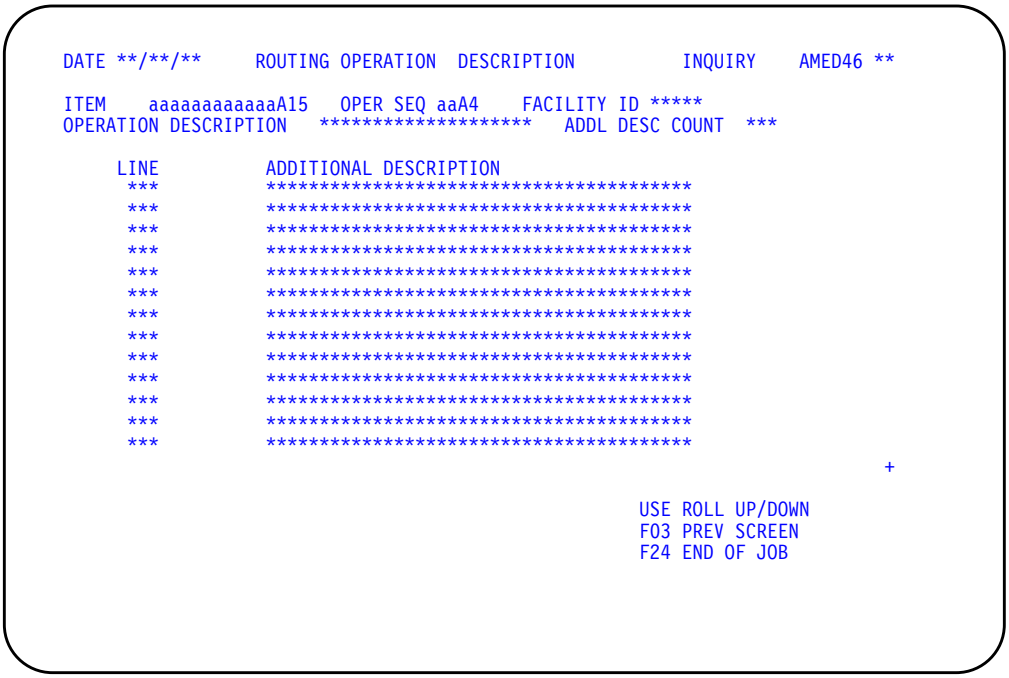
ADDL DSC CNT (Additional Description Count) (NODES). The number of additional routing description records for the operation. This field appears only if additional routing operation description was selected during application tailoring.

ENTER OPERATION NUMBER (Operation Sequence Number) (OPSEQ). When you want to display the additional descriptions for a routing operation, enter the operation sequence number. This causes display AMED46 to appear. This field appears in the lower left portion of the display only if additional routing operation description was selected during application tailoring.

AMED46–Routing Operation Description (Inquiry)

Use this display to review additional descriptions for a selected item and operation.

This display appears if you choose the additional routing description function during PDM application tailoring and type a valid operation number on display AMED41.



What to do

To look at the routing operation description for another item, type in the new item number and press **Enter**.

Function keys

USE ROLL UP/DOWN to scroll forward and backward through the records on the display.

F03 PREVIOUS SCREEN causes the Production Facility Inquiry display (AMVD61) to appear.

F24 END OF JOB causes the Inquiry menu (AMTM20) to appear.

Fields

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

Two fields on this display, ***ITEM*** and ***OPER SEQ***, are optional. The remaining fields on this display are informational only.

ITEM (Item Number) (ITNBR) [?]. When you have completed reviewing the additional descriptions for the routing operation you selected, type in the next item

whose additional operation descriptions you want to see. You can also type in a new operation sequence number.

OPER SEQ (Operation Sequence Number) (OPSEQ). Type in the operation sequence number of the next operation whose additional descriptions you want to see.

FACILITY ID (Facility ID) (WKCTR). This field identifies the area where the routing operation is performed.

OPERATION DESCRIPTION (OPDSC). A short description of the task performed during this operation.

ADDL DESC COUNT (Additional Description Count) (NODES). The number of additional routing description records for the operation.

LINE (Description Line Number) (DSQNO). The line number of the routing operation's additional description.

ADDITIONAL DESCRIPTION (ADDSC). The additional descriptive information for a routing operation.

Option 5. Order Status - Production

Use this option to see the summary and detail records for a manufacturing order in production format. The detail records show standard and actual (or transaction) information about quantities and times.

Order status allows you to locate an order for expediting or for making an engineering change, to find out when an order is scheduled for delivery, and to see what orders are overdue. Order status is also required for follow-on functions, such as:

- Estimating order completion dates
- Dispatching and job assignment
- Calculating each work center's work load
- Total work-in-process valuation.

What information you need: The number for each order you want to see.

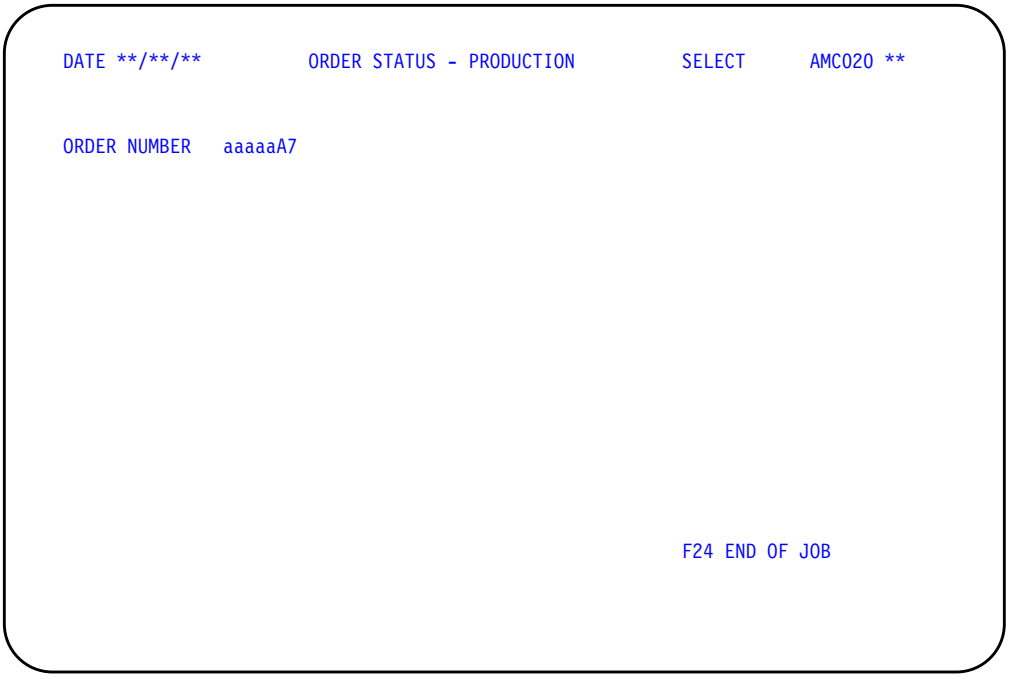
What reports are printed: None

What forms you need: None

AMC020—Order Status–Production (Select)

Use this display to select an order number so that you may review that order's summary information.

This display appears when you select option 2 on the PC&C Inquiry menu (AMCM10), option 4 on the PM&C Inquiry menu (AMJM10) or option 5 on the CRP Inquiry menu (AMTM20). It also appears when you use **F19 RETURN TO SELECT** on display AMC021, AMC022, AMC023, AMC024, AMC025, AMC026, AMC027, or AMC028.



What to do

- To look at the order status, type in the ***ORDER NUMBER*** and press **Enter**. Go to display AMC021.
- To end the session, use **F24**. Go to the Inquiry menu.

Function keys

F24 END OF JOB causes the Inquiry menu to appear.

Fields

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

The ***ORDER NUMBER*** field requires an entry.

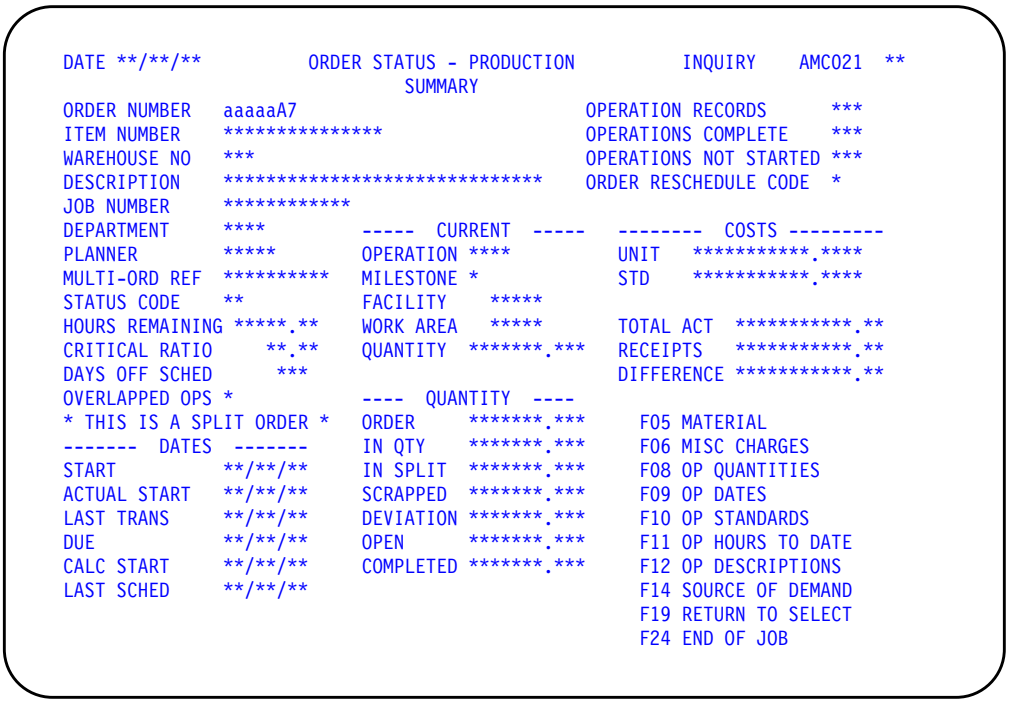
ORDER NUMBER (ORDNO) [?]. Type in the control number used in the open order data base to identify a manufacturing order.

AMC021—Order Status–Production–Summary (Inquiry)

Use this display to review summary information for a current manufacturing order.

This display appears when you enter an order number on display (AMC020).

This display contains summary information for the order number specified. Eight function keys are provided for reviewing detail information. You can also type in a different order number and then use the function keys to see information about that different order.



What to do

To look at different orders, type in a different order number over the order number showing at the top of the display and press **Enter**. You can type in a different order number over the order number showing at the top of the display and use a function key to look at the other displays for a different order. Then do one of the following:

- To look at the material information, use **F05**. Go to display AMC022.
- To look at the miscellaneous charges information, use **F06**. Go to display AMC023.
- To look at the operation quantities information, use **F08**. Go to display AMC024.
- To look at the operation dates information, use **F09**. Go to display AMC025.
- To look at the operation standards information, use **F10**. Go to display AMC026.
- To look at the operation hours to date information, use **F11**. Go to display AMC027.
- To look at the operation descriptions information, use **F12**. Go to display AMC028.
- To look at the source of demand information, use **F14**. Go to display AMM771.

- To select another order, use **F19**. Go to display AMC020.
- To end the session, use **F24**. Go to the Inquiry menu.

Function keys

F05 MATERIAL causes the Order Status - Production — Material (Inquiry) display (AMC022) to appear.

F06 MISC CHARGES causes the Order Status - Production — Miscellaneous Charges (Inquiry) display (AMC023) to appear.

F08 OP QUANTITIES causes the Order Status - Production — Operation Quantities (Inquiry) display (AMC024) to appear.

F09 OP DATES causes the Order Status - Production — Operation Dates (Inquiry) display (AMC025) to appear.

F10 OP STANDARDS causes the Order Status - Production — Operation Standards (Inquiry) display (AMC026) to appear.

F11 OP HOURS TO DATE causes the Order Status - Production — Operation Hours to Date (Inquiry) display (AMC027) to appear.

F12 OP DESCRIPTIONS causes the Order Status - Production — Operation Descriptions (Inquiry) display (AMC028) to appear.

F14 SOURCE OF DEMAND causes the Source of Demand display (AMM771) to appear, if MRP is installed and interfacing and at least one warehouse has maximum demand sources greater than zero.

F19 RETURN TO SELECT causes the Order Status - Production (Select) display (AMC020) to appear again.

F24 END OF JOB causes the Inquiry menu to appear.

Fields

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

ORDER NUMBER (ORDNO) [?]. Control number used in the open order data base to identify a manufacturing order. To review information for a different manufacturing order, type in the number of that order and press **Enter**.

ITEM NUMBER (FITEM). Control number used to identify the finished item.

OPERATION RECORDS (NOOPS). Number of operation detail records for this manufacturing order.

OPERATIONS COMPLETE (NCOPS). Number of operations for this manufacturing order with an operation status code of 40 or 50.

WAREHOUSE NO (FITWH). Warehouse number where the finished item is to be stored.

OPERATIONS NOT STARTED (OPSNS). Number of operations for this manufacturing order with an operation status code of 10.

DESCRIPTION (FDESC). Description of the S-Number if the order is for an item with an S-Number, otherwise, the finished item description appears.

Note: If the manufactured order is for an item with features and options, this field will display the word S-number, along with the S-number, instead of the item description.

ORDER RESCHEDULE CODE (ORRC). Code used to indicate whether or not an individual manufacturing order or purchase order line item can be rescheduled automatically by the system.

0 Default to item reschedule code. This is the default.
1 Cannot be rescheduled automatically
2 Can be scheduled out
3 Can be scheduled in
4 Can be scheduled both out and in

JOB NUMBER (JOBNO). Number that associates an order with a particular customer's order and with other orders. The job number for a particular manufacturing order or schedule is also used for that order's detail records.

If the manufacturing order has been released by the IM option, “Release manufacturing order per customer order,” the job number references the customer order number from Customer Order Management (COM). Otherwise, job number can be used as a user-defined reference field during general manufacturing order entry.

DEPARTMENT (DPTNO). Department number for the finished item.

PLANNER (PLANN). A code to identify the person responsible for planning the replenishment strategy for the finished item.

MULTI-ORD REF (REFNO). Number assigned by your company to relate an order to other orders.

STATUS CODE (OSTAT). Current order status code.

10 Released, but no activity reported.

40 Order started, material, outside operations, labor, machine, or miscellaneous charges transaction processed.

45 IM receipt to stock has been reported as complete; PC&C has not reported the order as complete (outside operations labor, machine, and miscellaneous charges).

50 PC&C has reported the order as complete (outside operations labor, machine, and miscellaneous charges); IM material receipt to stock has not been reported as complete.

55 Order complete; includes all material, outside operations labor, machine, and miscellaneous charges.

99 Order canceled; no activity has been reported.

HOURS REMAINING (HRREM). The total remaining elapsed standard work hours (calculation based on the prime load code) for all operations.

CURRENT OPERATION (OPCUR). If the order is not being worked on in a milestone group, this field shows the current operation sequence number. If the order is being worked on in a milestone group, this field shows the milestone operation for the group where status is reported.

CURRENT WORK AREA (WCCUR). The location or work center reported in the last move transaction.

CURRENT MILESTONE (CURMS). If the order is being worked on in a milestone group, this field shows the milestone group type; otherwise, it is blank.

J Job shop type of milestone group
F Flow shop type of milestone group

CRITICAL RATIO (RATIO). Time available divided by normal time required to complete the order. A measure of the relative priority of orders. An order that is behind schedule has a small critical ratio value (<1.00), and an order that is ahead of schedule has a large critical ratio value (>1.00).

CURRENT FACILITY (WCCUR). Actual production facility for the current operation.

DAYS OFF SCHED (DOSCH). This field shows the difference between the order due date and the calculated order completion date. If CRP is installed and interfacing, the computer uses the days off schedule to arrive at backward scheduled dates for each operation.

OVERLAPPED OPS (OVLAP). This field indicates if multiple operations have been or are being done at the same time.

CURRENT QUANTITY (QCCUR). Quantity completed on the current operation. A negative number means the order is behind schedule.

UNIT COST (CSTPC). The unit cost of the finished item used by inventory accounting at the time the order was released.

STD COST. The unit cost of the finished item used by inventory accounting at the time the order was released (CSTPC) extended by the base order quantity.

Total actual costs reported to date are the sum of these fields:

SETUP (SETCO). Setup labor cost
LABOR (LABCO). Run labor cost
OVERHEAD (OVHCO). Overhead cost (includes machine cost)
MATL & PUR (ISSCO). Material plus outside operation cost
MISCELLANEOUS (MISCO). Miscellaneous charge cost

TOTAL ACT. (SETCO + LABCO + OVHCO + ISSCO + MISCO).

RECEIPTS (RECCO). Total transaction amounts for stock received into inventory from this order.

DIFFERENCE. Difference between receipts and total actual costs.

Key dates for the order appear in these fields:

START (SSTDT). Planned start date.

ACTUAL START (ASTDT). Actual start date.

LAST TRANS (LATDT). Date of last transaction or file maintenance.

DUE (ODUDT). Order due date entered at the time of order release.

CALC CMPLT (OCODT). Expected date of order completion, as calculated by the scheduling routine. For completed orders (status 55), this is the actual date of completion.

Note: If you chose backward scheduling during application tailoring, the field ***CALC START*** (OCODTD), the date calculated to start, appears instead of the ***CALC CMPLT*** field.

LAST SCHED (DLTSC). Date last scheduled. This date is the reference point from which the ***DAYS OFF SCHEDULE*** is calculated. This field is updated every time the scheduling and work list generation routines are selected

Order quantity data is presented in these fields:

ORDER (ORQTY). The original quantity ordered.

IN QTY. The order quantity factored by standard yield loss. This is the quantity that must be started to produce the order quantity.

IN SPLIT (QTSPL). The total quantity in split orders.

SCRAPPED (QTSCP). The total quantity scrapped on this order.

DEVIATION (QTDEV). An adjustment to the original order quantity.

OPEN. The remaining quantity yet to be received into stock on the order (ORQTY + QTDEV - QTSPL - QTSCP - QTYRC). If yield is applied to the order, then actual scrap is not subtracted from the order quantity until it exceeds the planned order scrap.

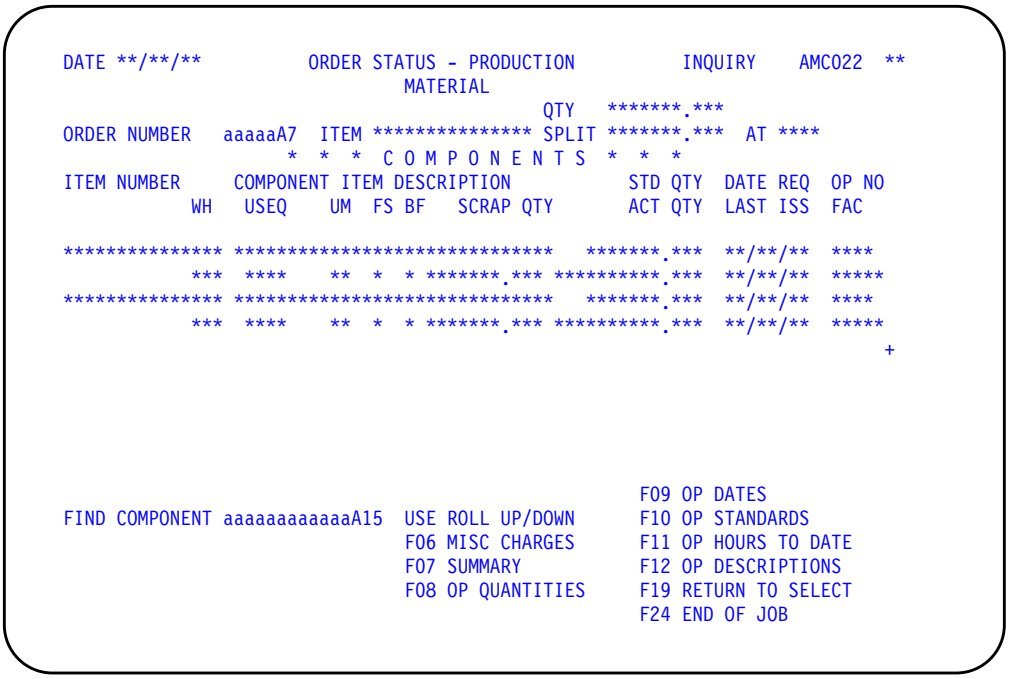
COMPLETED (QTYRC). The total quantity of receipt-to-stock transactions from this order.

AMC022—Order Status–Production–Material (Inquiry)

Use this display to review manufacturing order detail production information.

This display appears when you use **F05 MATERIAL** on display AMC021, AMC023, AMC024, AMC025, AMC026, AMC027, or AMC028.

Display AMC022 contains component material details for the order number entered on display AMC020. Five lines of component detail appear at a time. Use the function keys to see more information about your order. You can also type in a different order number and then use the function keys to see information about that different order.



What to do

To look at different orders, type in a different order number over the order number showing at the top of the display and press **Enter**. You can also type in a different order number over the order number showing at the top of the display and use a function key to look at the other displays for a different order. Then do one of the following:

- To look at the miscellaneous charges information, use **F06**. Go to display AMC023.
- To look at the summary information again, use **F07**. Go to display AMC021.
- To look at the operation quantities information, use **F08**. Go to display AMC024.
- To look at the operation dates information, use **F09**. Go to display AMC025.
- To look at the operation standards information, use **F10**. Go to display AMC026.
- To look at the operation hours to date information, use **F11**. Go to display AMC027.
- To look at the operation descriptions information, use **F12**. Go to display AMC028.

- To select another order, use **F19**. Go to display AMC020.
- To end the session, use **F24**. Go to the Inquiry menu.

Function keys

F06 MISC CHARGES causes the Order Status - Production — Miscellaneous Charges (Inquiry) display (AMC023) to appear.

F07 SUMMARY causes the Order Status - Production — (Summary) display (AMC021) to appear.

F08 OP QUANTITIES causes the Order Status - Production — Operation Quantities (Inquiry) display (AMC024) to appear.

F09 OP DATES causes the Order Status - Production — Operation Dates (Inquiry) display (AMC025) to appear.

F10 OP STANDARDS causes the Order Status - Production — Operation Standards (Inquiry) display (AMC026) to appear.

F11 OP HOURS TO DATE causes the Order Status - Production — Operation Hours to Date (Inquiry) display (AMC027) to appear.

F12 OP DESCRIPTIONS causes the Order Status - Production — Operation Descriptions (Inquiry) display (AMC028) to appear.

F19 RETURN TO SELECT causes the Order Status - Production (Select) display (AMC020) to appear again.

F24 END OF JOB causes the Inquiry menu to appear.

Fields

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

QTY. The original order quantity plus any deviation.

ORDER NUMBER (ORDNO) [?]. Control number used in the open order data base to identify a manufacturing order. To review information for a different manufacturing order, type in the number of that order.

SPLIT. The quantity that has been split from the order. This appears only if the order has been split.

AT. Number of the operation where the split occurred.

ITEM NUMBER (CITEM). Control number maintained in the Item Master file (Inventory Management application) to identify the individual component required to complete the order.

COMPONENT ITEM DESCRIPTION (CDESC). A description of the individual component.

STD QTY (QTREQ). Expected issue quantity for the component. It is the original order quantity plus any deviation, factored by yield through the operation where used.

DATE REQ (Date Required) (REQDT). Date component is required for the order. This may be the date that was manually entered during order release or allocation maintenance. If no date was entered and if the component has no lead time offset in the product structure, this is the scheduled start date. If no date was entered and if the component has a lead time offset in the product structure, this date is the order due date, less the component lead time offset from the product structure file.

OP NO (Operation Number) (OPSEQ). The sequence number of the operation where used.

WH (Warehouse) (CITWH). Warehouse number for the component.

USEQ (User Sequence) (USRSQ). The user sequence number of this component. It appears below the description.

U/M (UNMSR). Standard measure for issuing components (or parts) from stock.

FS (Floor stock). The floor stock code for the component.

Blank The component is not a floor stock item.
C The component is an controlled floor stock item.
U The component is an uncontrolled floor stock item.

BF (Backflush). A code that indicates how component backflushing is to be done:

1 Use the adjusted quantity per to backflush.
2 Use the standard quantity per to backflush.

SCRAP QTY (QTYNG). Total quantity reported in component scrap transactions.

ACT QTY (Actual Quantity) (ISQTY). Actual quantity issued for the component to date.

LAST ISS (LISDT). Date on which the component was last issued from stock.

FAC (Facility) (WKCTR). The production facility of the operation where used.

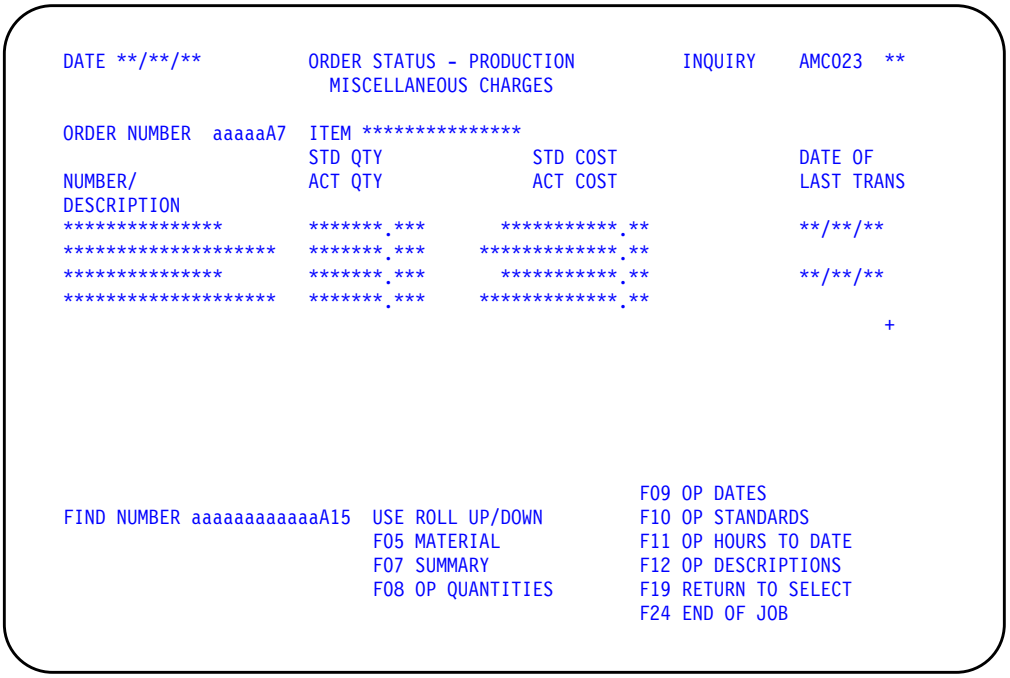
FIND COMPONENT (OPTC). If you enter a component item number here and press **Enter**, the application shows the component list, starting at the one you specify.

AMC023—Order Status — Production — Miscellaneous Charges (Inquiry)

Use this display to review manufacturing order miscellaneous detail production information.

This display appears when you use **F06 MISC CHARGES** on display AMC021, AMC022, AMC024, AMC025, AMC026, AMC027, or AMC028.

Display AMC023 contains miscellaneous charge details for the order number entered on display AMC020. Five lines of miscellaneous charge detail appear at a time. Use the function keys to see more information about your order. You can also type in a different order number and then use the function keys to see information about that different order.



What to do

To look at different orders, type in a different order number over the order number showing at the top of the display and press **Enter**. You can also type in a different order number over the order number showing at the top of the display and use a function key to look at the other displays for a different order. Then do one of the following:

- To look at the material information, use **F05**. Go to display AMC022.
- To look at the summary information again, use **F07**. Go to display AMC021.
- To look at the operation quantities information, use **F08**. Go to display AMC024.
- To look at the operation dates information, use **F09**. Go to display AMC025.
- To look at the operation standards information, use **F10**. Go to display AMC026.
- To look at the operation hours to date information, use **F11**. Go to display AMC027.

- To look at the operation descriptions information, use **F12**. Go to display AMC028.
- To select another order, use **F19**. Go to display AMC020.
- To end the session, use **F24**. Go to the Inquiry menu.

Function keys

F05 MATERIAL causes the Order Status - Production — Material (Inquiry) display (AMC022) to appear.

F07 SUMMARY causes the Order Status - Production — Summary (Inquiry) display (AMC021) to appear.

F08 OP QUANTITIES causes the Order Status - Production — Operation Quantities (Inquiry) display (AMC024) to appear.

F09 OP DATES causes the Order Status - Production — Operation Dates (Inquiry) display (AMC025) to appear.

F10 OP STANDARDS causes the Order Status - Production — Operation Standards (Inquiry) display (AMC026) to appear.

F11 OP HOURS TO DATE causes the Order Status - Production — Operation Hours to Date (Inquiry) display (AMC027) to appear.

F12 OP DESCRIPTIONS causes the Order Status - Production — Operation Descriptions (Inquiry) display (AMC028) to appear.

F19 RETURN TO SELECT causes the Order Status - Production (Select) display (AMC020) to appear again.

F24 END OF JOB causes the Inquiry menu to appear.

Fields

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

ORDER NUMBER (ORDNO) . Control number used in the open order data base to identify a manufacturing order. To review information for a different manufacturing order, type in the number of that order.

ITEM (FITEM). Number of the item being produced on this order.

STD QTY (Standard Quantity) (MSQTY). Total standard miscellaneous quantity required for the order. This is the total quantity, if given, or the percent quantity, extended by the original order quantity plus any deviation.

STD COST (Standard Cost) (MSCST). Projected cost for the miscellaneous charge. This is the total cost, if given, or the percent cost, extended by the original order quantity, plus any deviation.

DATE OF LAST TRANS (LTRDT). Date of last miscellaneous charge transaction.

NUMBER (MITNO). Number used to identify a miscellaneous charge for a manufacturing order.

DESCRIPTION (MDESC). A description of the miscellaneous charge.

ACT QTY (Actual Quantity) (AQTOD). Quantity accumulated to date for the miscellaneous charge.

ACT COST (Actual Cost) (ACTOD). Actual miscellaneous charge cost reported during shop activity update.

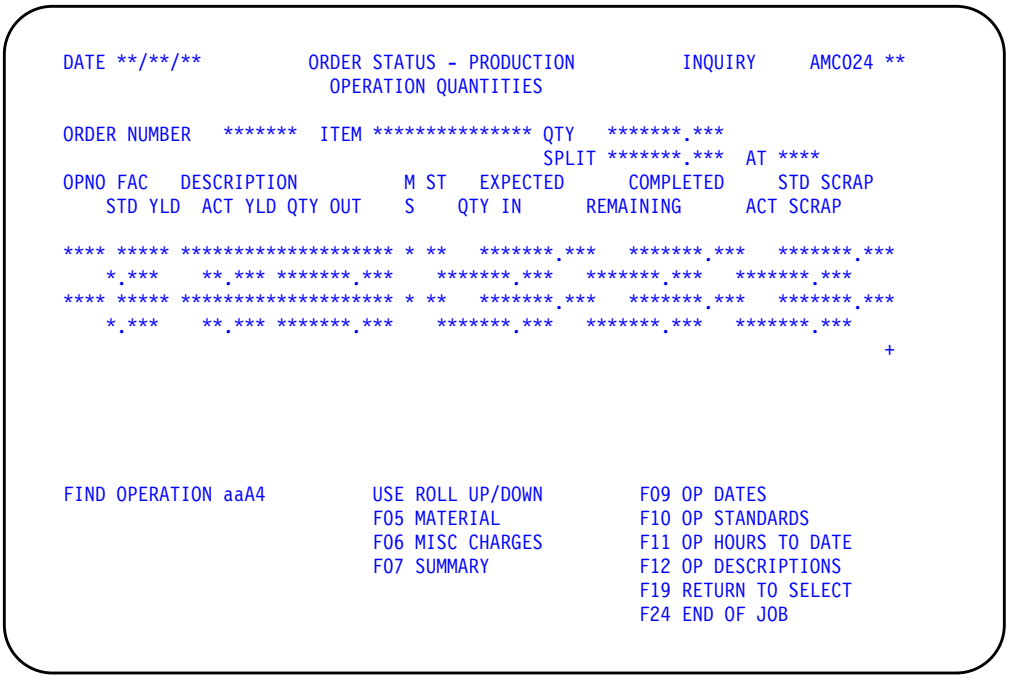
FIND NUMBER (OPTC). If you enter a miscellaneous charge number here and press **Enter**, the application shows the miscellaneous charges, starting at the one you specify.

AMC024—Order Status–Production–Operation Quantities (Inquiry)

Use this display to review information about the quantities that are expected or have been reported at each operation. Each entry on this display contains two lines of information.

This display appears when you use **F08 OP QUANTITIES** on display AMC021, AMC022, AMC023, AMC025, AMC026, AMC027, or AMC028.

Use the function keys to see more information about your order. You can also type in a different order number and then use the function keys to see information about that different order.



What to do

To look at different orders, type in a different order number over the order number showing at the top of the display and press **Enter**. You can also type in a different order number over the order number showing at the top of the display and use a function key to look at the other displays for a different order. Then do one of the following:

- To look at the material information, use **F05**. Go to display AMC022.
- To look at the miscellaneous charges information, use **F06**. Go to display AMC023.
- To look at the summary information again, use **F07**. Go to display AMC021.
- To look at the operation dates information, use **F09**. Go to display AMC025.
- To look at the operation standards information, use **F10**. Go to display AMC026.
- To look at the operation hours to date information, use **F11**. Go to display AMC027.
- To look at the operation descriptions information, use **F12**. Go to display AMC028.

- To select another order, use **F19**. Go to display AMC020.
- To end the session, use **F24**. Go to the Inquiry menu.

Function keys

F05 MATERIAL causes the Order Status - Production — Material (Inquiry) display (AMC022) to appear.

F06 MISC CHARGES causes the Order Status - Production — Miscellaneous Charges (Inquiry) display (AMC023) to appear.

F07 SUMMARY causes the Order Status - Production — Summary (Inquiry) display (AMC021) to appear.

F09 OP DATES causes the Order Status - Production — Operation Dates (Inquiry) display (AMC025) to appear.

F10 OP STANDARDS causes the Order Status - Production — Operation Standards (Inquiry) display (AMC026) to appear.

F11 OP HOURS TO DATE causes the Order Status - Production — Operation Hours to Date (Inquiry) display (AMC027) to appear.

F12 OP DESCRIPTIONS causes the Order Status - Production — Operation Descriptions (Inquiry) display (AMC028) to appear.

F19 RETURN TO SELECT causes the Order Status - Production (Select) display (AMC020) to appear.

F24 END OF JOB causes the Inquiry menu to appear.

Fields

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

QTY (QT). Original order quantity plus any deviation.

ORDER NUMBER (ORDNO) [?]. Control number used in the open order data base to identify a manufacturing order. To review information for a different manufacturing order, type in the number of that order and press **Enter**.

ITEM (FITEM). Number of the item being produced on this operation.

SPLIT. The quantity that has been split from the order. This appears only if the order has been split.

AT. Number of the operation where the split occurred.

OPNO (OPSEQ). Operation sequence number that identifies an individual operation and defines the sequence in which the operations will be listed and shown.

FAC (Facility) (AWRKC). The production facility where the operation will be performed.

DESCRIPTION (OPDSC). A description of the individual operation.

MS (Milestone) (MLSTN). This field identifies the type of a sub-operation if it belongs to a milestone group.

First sub-operation:

B A milestone group with no activity reported
P A milestone group with activity reported
C A milestone group with activity reported complete

Not first or last sub-operation:

S A sub-operation that is between the first and last sub-operations

Last sub-operation:

J The end of a job shop milestone group
F The end of a flow shop milestone group

ST (OPSTC). Current operation status.

00 Inactive
10 Active; planned but activity not yet reported
20 Material has been moved to this operation
30 Labor, machine, or outside operation activity reported
40 Operation has been reported as complete
50 All material moved from this operation to next location or next operation

EXPECTED (Quantity Expected). Quantity expected to arrive at the operation. It is the original order quantity factored by the cumulative yield, plus deviation, minus splits, and less the greater of standard or reported scrap in previous operations that are not complete. For previous operations that are complete, the reported scrap value will be used.

COMPLETE (TQCTD). Quantity that has been reported complete at this operation.

STD SCRAP (Standard Scrap) (SCRAP). Expected scrap, based on the standard yield for this operation.

STD YLD (Standard Yield) (YTOP). Standard yield for this operation.

ACT YLD (Actual Yield) (ATYTOP). Actual yield for this operation, based on the reported quantities complete and scrapped.

QTY OUT (Quantity Out) (QTMVO). Quantity that has been moved out of this operation. This appears only if you use the MOVE TO OPERATION transaction, and if you specify the “Operation Moved From” in those transactions. This field is updated by the PM&C application only.

QTY IN (Quantity In) (QTMVI). Actual quantity moved to this operation. This appears in the second line of the information, below the ***QTY EXP*** field, only if you are using the MOVE TO OPERATION transaction. This field is updated by the PM&C application only.

REMAINING (Quantity Remaining) (QTREM). Expected quantity, less the quantities complete and scrapped at this operation.

ACT SCRAP (SCRAP). Actual scrap reported at this operation.

FIND OPERATION (OPTC). If you enter an operation number here and press **Enter**, the application shows the operations starting at the one you specify.

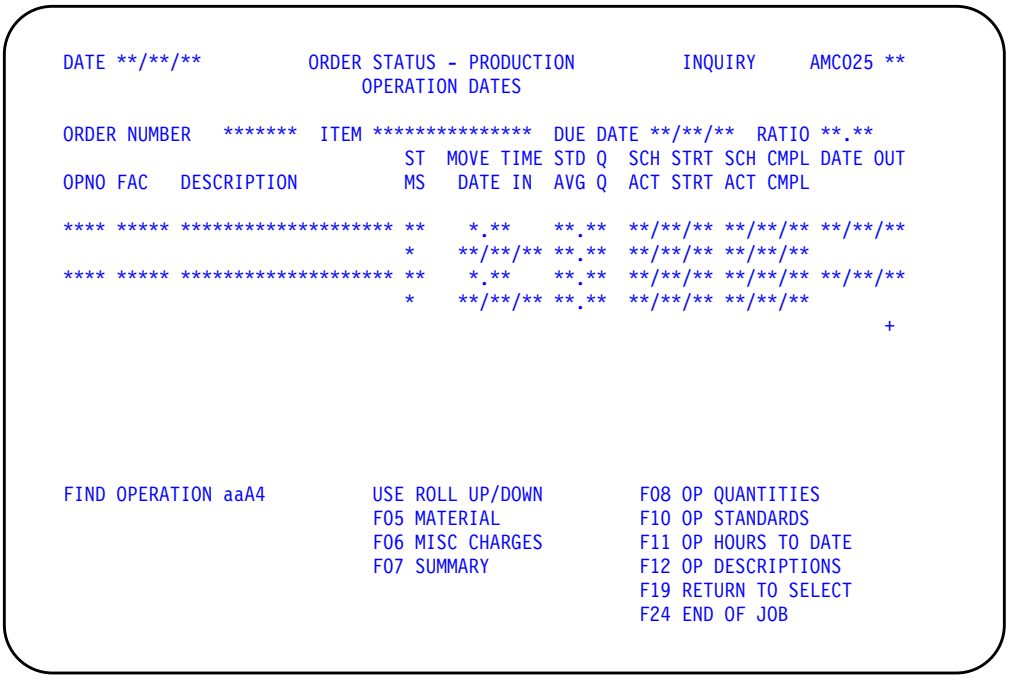
AMC025—Order Status–Production–Operation Dates (Inquiry)

Use this display to review manufacturing order operation dates production information.

This display appears when you use **F09 OP DATES** on display AMC021, AMC022, AMC023, AMC024, AMC026, AMC027, or AMC028.

Display AMC025 contains operation dates for the order number entered on display AMC020. Each entry contains two lines of information.

Use the function keys to see more information about your order. You can also type in a different order number and then use the function keys to see information about that different order.



What to do

To look at different orders, type in a different order number over the order number showing at the top of the display and press **Enter**. You can also type in a different order number over the order number showing at the top of the display and use a function key to look at the other displays for a different order. Then do one of the following:

- To look at the material information, use **F05**. Go to display AMC022.
- To look at the miscellaneous charges information, use **F06**. Go to display AMC023.
- To look at the summary information again, use **F07**. Go to display AMC021.
- To look at the operation quantities information, use **F08**. Go to display AMC024.
- To look at the operation standards information, use **F10**. Go to display AMC026.
- To look at the operation hours to date information, use **F11**. Go to display AMC027.

- To look at the operation descriptions information, use **F12**. Go to display AMC028.
- To select another order, use **F19**. Go to display AMC020.
- To end the session, use **F24**. Go to the Inquiry menu.

Function keys

F05 MATERIAL causes the Order Status - Production — Material (Inquiry) display (AMC022) to appear.

F06 MISC CHARGES causes the Order Status - Production — Miscellaneous Charges (Inquiry) display (AMC023) to appear.

F07 SUMMARY causes the Order Status - Production — Material(Inquiry) display (AMC021) to appear.

F08 OP QUANTITIES causes the Order Status - Production — Operation Quantities (Inquiry) display (AMC024) to appear.

F10 OP STANDARDS causes the Order Status - Production — Operation Standards (Inquiry) display (AMC026) to appear.

F11 OP HOURS TO DATE causes the Order Status - Production — Operation Hours to Date (Inquiry) display (AMC027) to appear.

F12 OP DESCRIPTIONS causes the Order Status - Production — Operation Descriptions (Inquiry) display (AMC028) to appear.

F19 RETURN TO SELECT causes the Order Status - Production (Select) display (AMC020) to appear again.

F24 END OF JOB causes the Inquiry menu to appear.

Fields

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

ORDER NUMBER (ORDNO) [?]. The order you are reviewing. You can enter a new order number to see information about another order.

ITEM (FITEM). The item number of the item being produced on this order.

DUE DATE (ODDUT). The order date entered at the time of order release

RATIO (RATIO). The order's critical ratio. This is the ratio of time remaining until the due date to time required to complete the order, and is an indication of whether the order is on schedule.

OPNO (OPSEQ). The operation sequence number.

FAC (Facility) (AWRKC). The production facility where the operation is performed.

DESCRIPTION (DESC). The 20-character operation description.

ST. The operation status code. Possible values are:

00 Inactive
10 Active or released
20 The order has been moved to this operation
30 Activity has been reported
40 Op complete; activity reported as complete
50 Move complete

MS (Milestone) (MLSTN). This field identifies the type of a sub-operation if it belongs to a milestone group.

First sub-operation:

B A milestone group with no activity reported
P A milestone group with activity reported
C A milestone group with activity reported complete

Not first or last sub-operation:

S A sub-operation that is between the first and last sub-operations

Last sub-operation:

J The end of a job shop milestone group
F The end of a flow shop milestone group

MOVE TIME (MOVTM). The standard time, in days, to move the order to this operation.

STD Q (STDQT). The standard queue time, in days, for this production facility.

SCH STRT (SSTDT). The scheduled start date for this operation.

SCH CMPL (SCODT). The scheduled completion date of the operation.

DATE IN (ARRDT). The date the order was moved to this operation. Only PM&C move transactions update this field. PC&C move transactions do not change this field.

AVG Q (AVGQD). The average queue time, in days, for this production facility.

ACT START (ASTDT). The actual start date for this operation.

ACT CMPL (ACODT). The actual completion date of the operation.

DATE OUT (DEPDT). The date the order was moved from this operation. Only PM&C move transactions update this field. PC&C move transactions do not change this field.

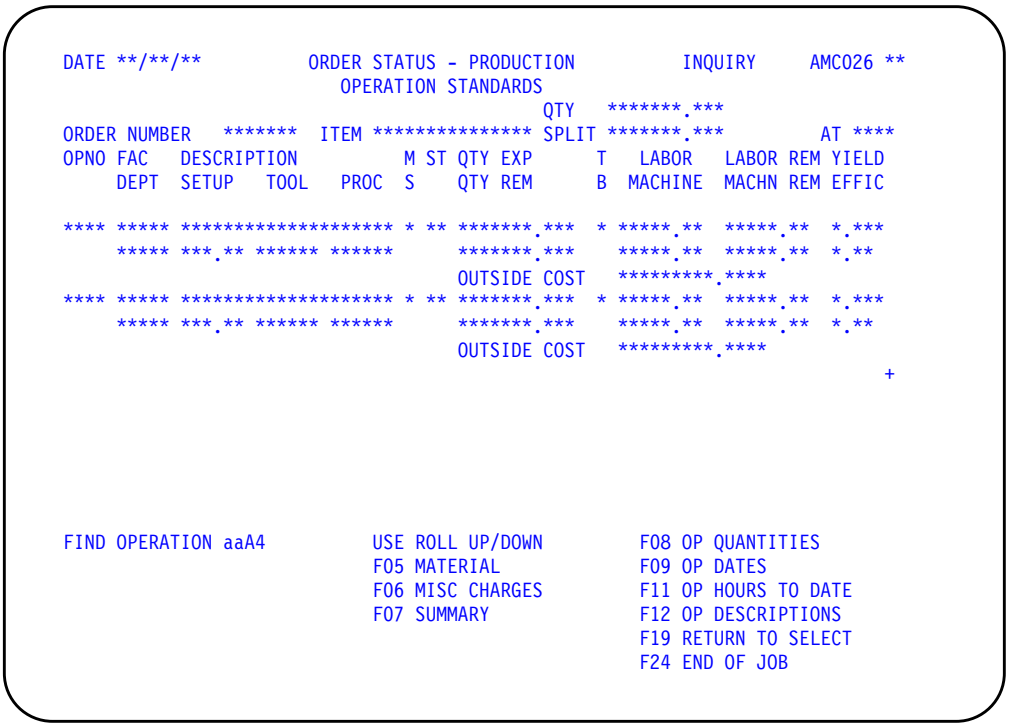
FIND OPERATION (OPTC). If you enter an operation number here and press **Enter**, the application shows the operations starting at the one you specify.

AMC026—Order Status–Production–Operation Standards (Inquiry)

Use this display to review manufacturing order operation standards.

This display appears when you use **F10 OP STANDARDS** on display AMC021, AMC022, AMC023, AMC024, AMC025, AMC027, or AMC028.

Use the function keys to see more information about your order. You can also type in a different order number and then use the function keys to see information about that different order.



What to do

To look at different orders, type in a different order number over the order number showing at the top of the display and press **Enter**. You can also type in a different order number over the order number showing at the top of the display and use a function key to look at the other displays for a different order. Then do one of the following:

- To look at the material information, use **F05**. Go to display AMC022.
- To look at the miscellaneous charges information, use **F06**. Go to display AMC023.
- To look at the summary information again, use **F07**. Go to display AMC021.
- To look at the operation quantities information, use **F08**. Go to display AMC024.
- To look at the operation dates information, use **F09**. Go to display AMC025.
- To look at the operation hours to date information, use **F11**. Go to display AMC027.
- To look at the operation descriptions information, use **F12**. Go to display AMC028.

- To select another order, use **F19**. Go to display AMC020.
- To end the session, use **F24**. Go to the Inquiry menu.

Function keys

F05 MATERIAL causes the Order Status - Production — Material (Inquiry) display (AMC022) to appear.

F06 MISC CHARGES causes the Order Status - Production — Miscellaneous Charges (Inquiry) display (AMC023) to appear.

F07 SUMMARY causes the Order Status - Production — Summary (Inquiry) display (AMC021) to appear.

F08 OP QUANTITIES causes the Order Status - Production — Operation Quantities (Inquiry) display (AMC024) to appear.

F09 OP DATES causes the Order Status - Production — Operation Dates (Inquiry) display (AMC025) to appear.

F11 OP HOURS TO DATE causes the Order Status - Production — Operation Hours to Date (Inquiry) display (AMC027) to appear.

F12 OP DESCRIPTIONS causes the Order Status - Production — Operation Descriptions (Inquiry) display (AMC028) to appear.

F19 RETURN TO SELECT causes the Order Status - Production (Select) display (AMC020) to appear again.

F24 END OF JOB causes the Inquiry menu to appear.

Fields

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

QTY (QT). The order quantity plus any deviation.

ORDER NUMBER (ORDNO) [?]. The order you are reviewing. You can enter a new order number to see information about another order.

ITEM (FITEM). The item number of the item being produced on this order.

SPLIT (QTSPL). The quantity that has been split from the order. This appears only if the order has been split.

AT (OPSPC). Number of the operation where the split occurred.

OPNO (OPSEQ). The operation sequence number.

FAC (Facility) (AWRKC). The production facility where the operation is performed.

DEPT (DPTNO). The department number associated with the facility.

DESCRIPTION (DESC). The 20-character operation description.

SETUP (SSLHU). The standard setup hours per lot.

TOOL (TOOLS). The tool or tool list required by this operation. It appears below the description.

PROC (PRONO). The process sheet number for this operation. It appears below the description.

ST (ST). The operation status code. Possible values are:

00 Inactive
10 Active or released
20 The order has been moved to this operation
30 Activity has been reported
40 Op complete; activity reported as complete
50 Move complete

MS (Milestone) (MLSTN). This field identifies the type of a sub-operation if it belongs to a milestone group.

First sub-operation:

B A milestone group with no activity reported
P A milestone group with activity reported
C A milestone group with activity reported complete

Not first or last sub-operation:

S A sub-operation that is between the first and last sub-operations

Last sub-operation:

J The end of a job shop milestone group
F The end of a flow shop milestone group

QTY EXP (QTEXP). The quantity expected to arrive at this operation. It is the sum of order quantity and deviation factored by yield, less splits and less the greater of standard or reported scrap in previous operations.

QTY REM (QTREM). The quantity remaining at this operation. This is the expected quantity, less the quantities reported complete and scrapped. It appears below the quantity complete.

TB (TBCDE). The time basis code. This determines the meaning of the run labor and machine standards. Possible values are:

Blank	Hours per unit
C	Cost per piece (outside operation)
H	Hours per lot
M	Minutes per piece
P	Pieces per hour
1	Hours per 10 units
2	Hours per 100 units
3	Hours per 1000 units
4	Hours per 10000 units

LABOR (SRLHU). The run labor standard for this operation based on order quantity plus deviation and factored by the time basis code. This is the total standard labor hours required by this operation.

MACHINE (SRMHU). The run machine standard for this operation based on order quantity plus deviation and factored by the time basis code. This is the total standard machine hours required by this operation.

LABOR REM (LBHRM). Remaining labor time. It is based on the remaining labor hours for this operation, based on the quantity remaining, the labor standard, the time basis codes, and the work center efficiency. It includes setup time if the status is 10 or 20.

MACHN REM (MCHRM). Remaining machine time. It is based on the quantity remaining, the machine standard, the time basis code, and the work center efficiency prime load code. It includes setup time if the operation status is 10 or 20.

YIELD (CYTOP). The standard yield for this operation.

EFFIC (STDEF). The standard efficiency for the work center where the operation is performed.

OUTSIDE COST (OCSC). The standard cost per piece charged by the vendor to produce the item. This field is used when the time basis code is C.

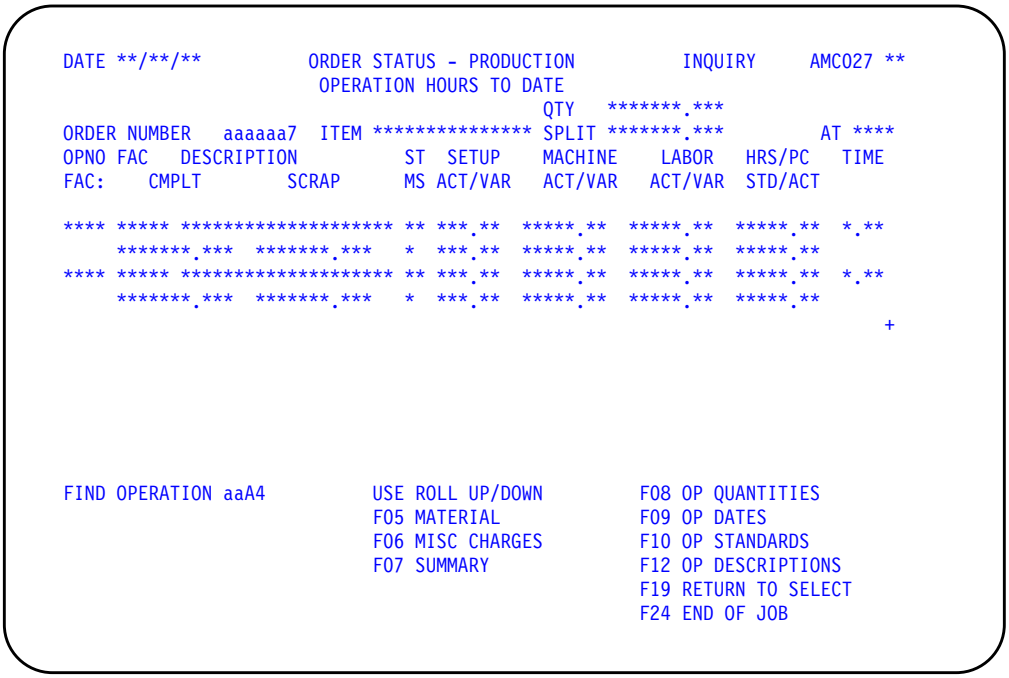
FIND OPERATION. If you enter an operation number here and press **Enter**, the system will show the operations starting at the one you specify.

AMC027—Order Status–Production–Operation Hours to Date (Inquiry)

Use this display to review manufacturing order operation hours-to-date production information.

This display appears when you use **F11 OP HOURS TO DATE** on display AMC021, AMC022, AMC023, AMC024, AMC025, AMC026, or AMC028.

Use the function keys to see more information about your order. You can also type in a different order number and then use the function keys to see information about that different order.



What to do

To look at different orders, type in a different order number over the order number showing at the top of the display and press **Enter**. You can also type in a different order number over the order number showing at the top of the display and use a function key to look at the other displays for a different order. Then do one of the following:

- To look at the material information, use **F05**. Go to display AMC022.
- To look at the miscellaneous charges information, use **F06**. Go to display AMC023.
- To look at the summary information again, use **F07**. Go to display AMC021.
- To look at the operation quantities information, use **F08**. Go to display AMC024.
- To look at the operation dates information, use **F09**. Go to display AMC025.
- To look at the operation standards information, use **F10**. Go to display AMC026.
- To look at the operation descriptions information, use **F12**. Go to display AMC028.
- To select another order, use **F19**. Go to display AMC020.

- To end the session, use **F24**. Go to the Inquiry menu.

Function keys

F05 MATERIAL causes the Order Status - Production — Material (Inquiry) display (AMC022) to appear.

F06 MISC CHARGES causes the Order Status - Production — Miscellaneous Charges (Inquiry) display (AMC023) to appear.

F07 SUMMARY causes the Order Status - Production — Summary (Inquiry) display (AMC021) to appear.

F08 OP QUANTITIES causes the Order Status - Production —Operation Quantities (Inquiry) display (AMC024) to appear.

F09 OP DATES causes the Order Status - Production — Operation Dates (Inquiry) display (AMC025) to appear.

F10 OP STANDARDS causes the Order Status - Production — Operation Standards (Inquiry) display (AMC026) to appear.

F12 OP DESCRIPTIONS causes the Order Status - Production — Operation Descriptions (Inquiry) display (AMC028) to appear.

F19 RETURN TO SELECT causes the Order Status - Production (Select) display (AMC020) to appear again.

F24 END OF JOB causes the Inquiry menu to appear.

Fields

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

QTY (QT). The order quantity plus any deviation.

ORDER NUMBER (ORDNO) [?]. The order you are reviewing. You can enter a new order number to see information about another order.

ITEM (FITEM). The item number of the item being produced on this order.

SPLIT (QTSPL). The quantity that has been split from the order. This appears only if the order has been split.

AT (OPSPC). The number of the operation where the split occurred.

OPNO (OPSEQ). The operation sequence number.

FAC (Facility) (AWRKC). The production facility where the operation is performed.

DESCRIPTION (OPDSC). The 20-character operation description.

CMPLT (TQCTD). The quantity reported complete at this operation. It is shown below the description.

SCRAP (SCRAP). The reported scrap at this operation. It is shown below the description.

ST (OPSTC). The operation status code. Possible values are:

00 Inactive
10 Active or released
20 Order moved to this operation
30 Activity has been reported
40 Op complete; activity reported as complete
50 Move complete

MS (Milestone) (MLSTN). This field identifies the type of a sub-operation if it belongs to a milestone group.

First sub-operation:

B A milestone group with no activity reported
P A milestone group with activity reported
C A milestone group with activity reported complete

Not first or last sub-operation:

S A sub-operation that is between the first and last sub-operations

Last sub-operation:

J The end of a job shop milestone group
F The end of a flow shop milestone group

Each of the following variances is the difference between standard hours for the order quantity and actual hours reported. A positive variance indicates that actual hours are less than standard.

SETUP ACT/VAR (SLHTD/SLVAR). Setup hours to date are shown on the first line, and the setup variance is shown on the second.

MACHINE ACT/VAR (TMHTD/RMVAR). Machine hours to date are shown on the first line and the machine variance is shown on the second. Machine hours variance takes into account the setup crew size.

LABOR ACT/VAR (RLHTD/RLVAR). Labor hours to date are shown on the first line and the labor variance is shown on the second.

Note: Variance is not displayed for the previous three fields unless the operation status code is greater than 10.

HRS/PC STD/ACT (PRSTD/PRACT). This heading is determined by your choice on the PC&C install/tailor questionnaire. Standard pieces per hour or hours per pieces are shown.

STD/ACT (PRACT). Actual pieces per hour or hours per pieces are shown. Hours are prime load code hours.

TIME (ACST). This is the ratio of actual to standard time. It is the inverse of efficiency.

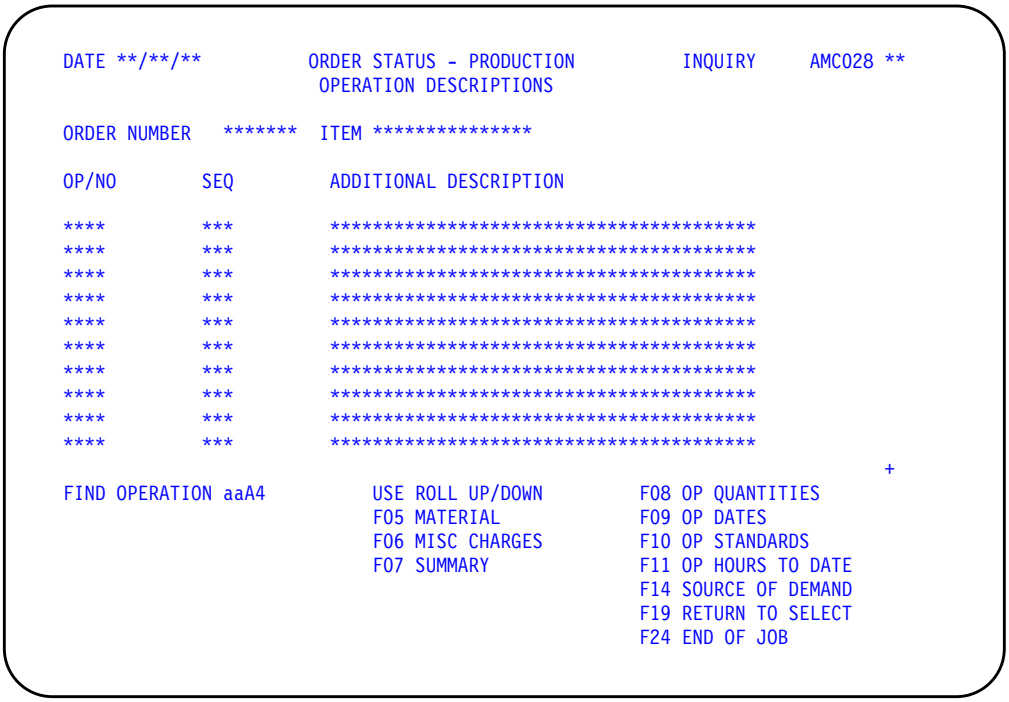
FIND OPERATION. If you enter an operation number here and press **Enter**, the system will show the operations starting at the one you specify.

AMC028—Order Status–Production–Operation Descriptions (Inquiry)

Use this display to review manufacturing order operation descriptions production information.

This display appears when you use **F12 OP DESCRIPTIONS** on display AMC021, AMC022, AMC023, AMC024, AMC025, AMC026, or AMC027.

Use the function keys to see more information about your order. You can also type in a different order number and then use the function keys to see information about that different order.



What to do

To look at different orders, type in a different order number over the order number showing at the top of the display and press **Enter**. You can also type in a different order number over the order number showing at the top of the display and use a function key to look at the other displays for a different order. Then do one of the following:

- To look at the material information, use **F05**. Go to display AMC022.
- To look at the miscellaneous charges information, use **F06**. Go to display AMC023.
- To look at the summary information again, use **F07**. Go to display AMC021.
- To look at the operation quantities information, use **F08**. Go to display AMC024.
- To look at the operation dates information, use **F09**. Go to display AMC025.
- To look at the operation standards information, use **F10**. Go to display AMC026.
- To look at the operation hours to date information, use **F11**. Go to display AMC027.

- To select another order, use **F19**. Go to display AMC020.
- To end the session, use **F24**. Go to the Inquiry menu.

Function keys

MATERIAL causes the Order Status - Production — Material (Inquiry) display (AMC022) to appear.F05

F06 MISC CHARGES causes the Order Status - Production — Miscellaneous Charges (Inquiry) display (AMC023) to appear.

F07 SUMMARY causes the Order Status - Production — Summary (Inquiry) display (AMC021) to appear.

F08 OP QUANTITIES causes the Order Status - Production — Operation Quantities (Inquiry) display (AMC024) to appear.

F09 OP DATES causes the Order Status - Production — Operation Dates (Inquiry) display (AMC025) to appear.

F10 OP STANDARDS causes the Order Status - Production — Operation Standards (Inquiry) display (AMC026) to appear.

F11 OP HOURS TO DATE causes the Order Status - Production — Operation Hours to Date (Inquiry) display (AMC027) to appear.

F14 SOURCE OF DEMAND causes the Source of Demand display (AMM771) to appear, if MRP is installed and interfacing.

F19 RETURN TO SELECT causes the Order Status - Production (Select) display (AMC020) to appear again.

F24 END OF JOB causes the Inquiry menu to appear.

Fields

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

ORDER NUMBER (ORDNO) [?]. The order you are reviewing. You can enter a new order number to see information about another order.

ITEM (FITEM). The item number of the item being produced on this order.

OP/NO (OPSEQ). The operation sequence number. This appears only on lines showing the basic operation description.

SEQ (DSQNO). The additional description sequence number. This appears only on lines showing an additional description line.

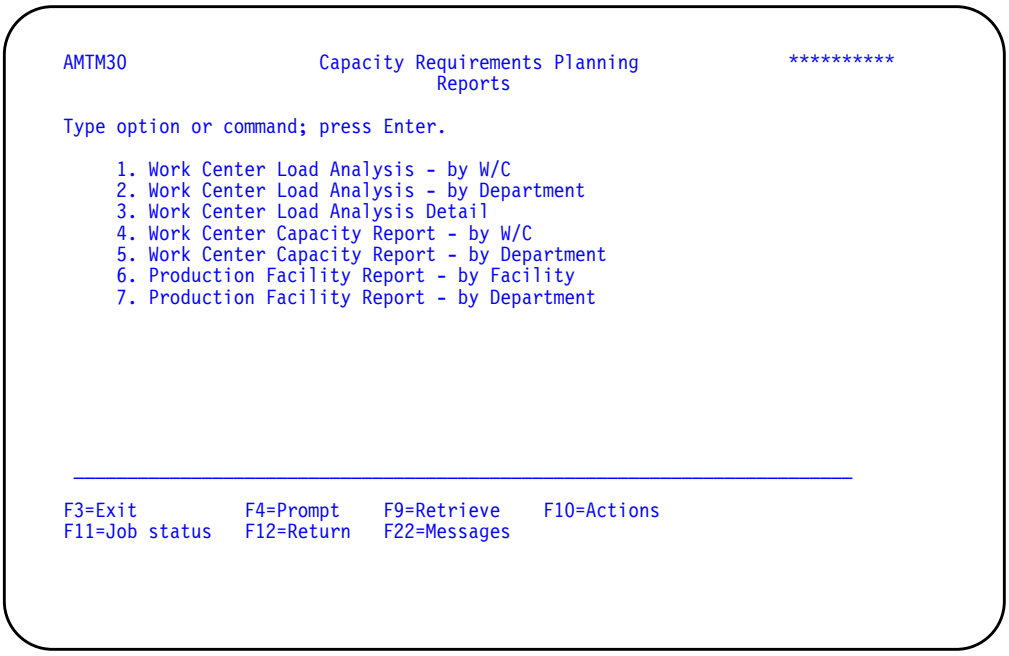
ADDITIONAL DESCRIPTION (ADDSC). The text describing this operation.

FIND OPERATION. If you type in an operation number in this field and press **Enter**, the system shows the operations starting at the one you specify.

Chapter 5. Reports

The Reports menu allows you to select specific reports for printing. No displays appear when you select these options.

For more information about these reports, see Chapter 6 “Report descriptions”.



Option 1. Work Center Load Analysis – by W/C. Use this option to schedule the Work Center Load Analysis and Work Center Over/Underload reports to be printed in work center sequence.

Option 2. Work Center Load Analysis – by Department. Use this option to schedule the Work Center Load Analysis and Work Center Over/Underload reports to be printed by work center within department sequence.

Option 3. Work Center Load Analysis Detail. Use this option to print the Work Center Load Analysis Detail report.

Option 4. Work Center Capacity Report – by W/C. Use this option to schedule the Work Center Variable Capacity Detail and Summary reports to be printed in work center sequence.

Option 5. Work Center Capacity Report – by Department. Use this option to schedule the Work Center Variable Capacity Detail and Summary reports to be printed in work center within department sequence.

Option 6. Production Facility Report – by Facility. Use this option to schedule the Production Facility file report to be printed in work center sequence. If EPDM is activated this option is disabled.

Option 7. Production Facility Report – by Department. Use this option to schedule the Production Facility File report to be printed by facility within department sequence. If EPDM is activated this option is disabled.

Chapter 6. Report descriptions

This chapter contains annotated samples of the CRP reports. Each report is listed in alphabetic order by report name.

Table 6-1. List of reports, sorted by report ID

ID	Report	See page
AMET8	Facility Percent Change Audit	6-2
AMTA1	Planning Parameters Definition	6-3
AMTB4	Work Load Extract Exception	6-31
AMTE2A	Work Center Variable Capacity Detail	6-24
AMTE2B	Work Center Variable Capacity Summary	6-26
AMTF3	Work Load Exception	6-29
AMTH2A	Work Center Load Analysis	6-16
AMTH2B	Work Center Over/Underload	6-23
AMTH3	Work Center Load Analysis Detail	6-20
AMVTC	Variable Capacity Master File Maintenance	6-15
AMVT7	Production Facility Maintenance	6-6
AMV43	Production Facility	6-11

Table 6-2. List of reports, sorted by report name

Report	ID	See page
Facility Percent Change Audit Report	AMET8	6-2
Planning Parameters Definition	AMTA1	6-3
Production Facility Maintenance report	AMVT7	6-6
Production Facility Report	AMV43	6-11
Variable Capacity Master File Maintenance	AMVTC	6-15
Work Center Load Analysis	AMTH2A	6-16
Work Center Load Analysis Detail	AMTH3	6-20
Work Center Over/Underload Report	AMTH2B	6-23
Work Center Variable Capacity Detail	AMTE2A	6-24
Work Center Variable Capacity Summary	AMTE2B	6-26
Work Load Exception Report	AMTF3	6-29
Work Load Extract Exception Report	AMTB4	6-31

Facility Percent Change Audit Report (AMET8)

```
NORTHCREEK IND.              FACILITY PERCENT CHANGE AUDIT REPORT        OPER DAW   DATE **/**/
**  TIME 13.49.47  PAGE 1    AMET8

  NO. OF FACILITIES PROCESSED, PERCENT CHANGE---00013

       PERCENT CHANGE WAS-------CURRENT AND STANDARD
       PERCENT CHANGE WAS FOR---SETUP LABOR RATE
       PERCENT CHANGE WAS FOR--- 50.00  PERCENT

  NO. OF FACILITIES PROCESSED, WCFLG ON---------00000

       NO. OF WCFLG'S WHICH WERE 'C'---00000
       NO. OF WCFLG'S WHICH WERE 'S'---00000
       NO. OF WCFLG'S WHICH WERE 'B'---00000

  NO. OF ITEM MASTERS PROCESSED, PERCENT CHANGE----------00034
```

Use this report to have an audit trail of changes to cost information for production facilities.

This report is printed if you choose action 4 (Percent Change of Cost Rates) on the Production Facility Maintenance (Select) display (AMVT70).

Planning Parameters Definition (AMTA1)

```
NORTHCREEK IND.                    CAPACITY REQUIREMENTS PLANNING              DATE 10/24/**  TIME 10.36.02  PAGE   1   AMTA1
                                   PLANNING PARAMETERS DEFINITION              OPER JAG
SITE  ATL


--------- TIME PERIOD DEFINITION ---------      ----- OVERLOAD DEFINITION ------      ------------ REPORTS ------------
 PERIOD   PERIOD   START                        NUMBER OF PERIODS FROM START   5      PRINT OVER/UNDERLOAD REPORT    Y
 NUMBER   LENGTH   DATE      DAY  GROUPING      VARIANCE PERCENT OVER       10.0%     PRINT LOAD ANALYSIS REPORT     Y
                                               VARIANCE PERCENT UNDER      10.0%     LOAD ANALYSIS REPORT SEQUENCE  1
   01       05    3/17/** *  FRI      S                                               (1-WORK CENTER/2-DEPARTMENT)
   03       05    3/31/**    FRI      S
   04       05    4/07/**    FRI      S        ----- LOAD ANALYSIS OPTIONS ----      ------- SCHEDULING OPTIONS -----
   05       05    4/14/**    FRI      S        INCLUDE PAST DUE LOAD          Y      ADJUST QUEUE TIMES             N
   06       05    4/21/**    FRI      S        LOAD ANALYSIS DETAIL DESIRED   Y      DELAY OPERATION START           N
   07       05    4/28/**    FRI      S        PRINT LOAD ANALYSIS DETAIL     Y
   08       05    5/05/**    FRI      S
   09       05    5/12/**    FRI      S        WORK CENTERS SELECTED FOR DETAIL
   10       05    5/19/**    FRI      S
   11       05    5/27/**    FRI      S         ASO05     ASO95     CSO15     MANFT     OFFIC
   12       05    6/03/**    FRI      S
   13       05    6/10/**    FRI      S
   14       05    6/17/**    FRI      S
   15       05    6/24/**    FRI      S
   16       05    7/01/**    FRI      S
   17       05    7/09/**    FRI      S
   18       05    7/16/**    FRI      S
   19       05    7/23/**    FRI      S
   20       05    7/30/**    FRI      S
   21       05    8/06/**    FRI      S
   22       05    8/13/**    FRI      S
   23       05    8/20/**    FRI      S
   24       05    8/27/**    FRI      S
   25       05    9/04/**    FRI      S
   26       05    9/11/**    FRI      S
   27       05    9/18/**    FRI      S
   28       05    9/25/**    FRI      S
   29       05   10/02/**    FRI      S
   30       05   10/09/**    FRI      S
   31       05   10/16/**    FRI      S
   32       05   10/23/**    FRI      S
   33       05   10/30/**    FRI      S
   34       05   11/06/**    FRI      S
   35       05   11/13/**    FRI      S
   36       05   11/20/**    FRI      S
                 11/26/**    HORIZON END DATE

   * NOTE - ALSO CRP SCHEDULING START DATE
```

Use this report to verify that the planning parameters in the System Control file are correct before starting a Capacity Requirements Planning run.

This report is printed following entry or review of the planning parameters using option 1 of the Planning Run Control menu (AMTM10).

You should keep the report as an audit trail of the planning parameters and the operator who established the parameters for a specific Capacity Requirements Planning run.

Fields

Site. The identifier of the site.

Time period definition.

Period number: The number of the period from 1 to 36.

Period length: The length in days of the period.

Schedule date: The start date of the period.

Grouping: The option you selected on display AMTA11 for printing the load for a group of periods on the Work Center Load Analysis report (AMTH2A).

Blank Load for the period is not printed on the Work Center Load Analysis report, but is accumulated and printed as part of the next group subtotal (S) or total (T).

S Load for the period is accumulated with the load of all preceding periods since the last group total (T) and printed on the report.

T Load for the period is accumulated with the load of all preceding periods since the last group total (T) and printed on the report. Following a total (T), a new group begins at the next period.

Overload definition.

Number of periods from start: The number of periods from the scheduling start date to be included in over/underload reporting. For example, if this field contains a 3, then periods 1 through 3 are analyzed for over or underloads.

Variance percent over: The percent above available capacity at which an overload is considered to exist.

Variance percent under: The percent below available capacity at which an underload is considered to exist.

Reports. The options you selected on display AMTA12 for printing the planning run reports.

Print Over/Underload Report

Y Report AMTH2B is printed
N Report AMTH2B is not printed

Print Load Analysis Report

Y Report AMTH2A is printed
N Report AMTH2A is not printed

Load Analysis Report Sequence: Shows the sequence in which reports AMTH2A and AMTH2B are printed.

1 Printed in work center sequence
2 Printed in work center by department sequence

Load analysis options.

Include past due load

Y Work load may contain orders with work scheduled before the CRP scheduling start date if adjust queue times is N

N Work load may not contain orders with work scheduled before the CRP scheduling start date

Load analysis detail desired

Y Load analysis detail information is stored for some (up to 20) or all work centers. Specific work center IDs appear under the Work Centers Selected for Detail field.

N Load analysis detail information is not stored. Print Load Analysis Detail and the Work Centers Selected for Detail fields do not apply.

Print load analysis detail

Y Work Center Load Analysis Detail report is printed following a planning run for the work centers identified in the Work Centers Selected for Detail field. If no work centers are selected for detail, the report shows detail for all work centers.

N Report is not printed

Scheduling option.

Adjust queue times:

Y Queues have been compressed for open orders that are behind schedule, and expanded (if “delay operation start” is N) for open orders ahead of schedule.

N Start of scheduling for open orders has been adjusted by the days off schedule and standard queue times are used.

Delay operation start: (Applicable only if Adjust Queue Times is Y.)

Y Scheduled start of operations for open orders ahead of schedule is adjusted by the days ahead of schedule

N Scheduled queue time is expanded for those orders

Work centers selected for detail. The IDs for up to 20 work centers that are to be included on the Work Center Load Analysis Detail report or shown on the Work Center Load Analysis Detail display (AMTG21).

Production Facility Maintenance (AMVT7)

```
    NORTHCREEK IND.        PRODUCTION FACILITY MAINTENANCE                    DATE **/**/**  TIME  9.15.15 PAGE    1 AMVT7
                                                                              OPER  53                         UPDATE# 137

RECORD CHANGED  FACILITY ID     AA001     FACILITY TYPE          1    WORK CENTER

                DESCRIPTION     SAWS/SHEARING

OLD VALUE       DEPARTMENT        DP20    PN FAC ACTG CLS       AB1    QUEUE TIME-DAYS      1.50
                FOREMAN            JLF    PRIME LOAD CODE         3    AVG QUEUE TIME      35.84
                LOCATION         B8E34    TRACKING SIGNAL      1.60    QUEUE MAD             .88
                STD EFFICIENCY     .88    AVG STD OUTPUT      94.52    MACH RESOURCE NO.
                AVG EFFICIENCY     .85    AVG ACTL OUTPUT    111.20    LABOR RESOURCE NO.
                EXTRACT MACH BRKS    0    REPORTING METHODS       0    CLOCKING WINDOW      1:45

                            MACHINE        RUN LABOR      SETUP LABOR        OVERHEAD    OVERHEAD
                             RATE             RATE           RATE         RATE/PERCENT    CODE
                CURRENT       2.000            5.500          7.350           300.000      B
                STANDARD      2.000            5.200          7.035           300.000      B

                       -----LENGTH-----    ----CAPACITY----
                       DESIRED  MAXIMUM    DESIRED  MAXIMUM           CALENDAR ID     **********
                SHIFT 1    7.5      9.0        3.0      4.0           POST TO OLDEST SCHED     0
                SHIFT 2     .0       .0         .0       .0           POST TO FUTURE SCHED     0
                SHIFT 3     .0       .0         .0       .0           FACILITY STOCK LOC *******


RECORD CHANGED  FACILITY ID     AA001     FACILITY TYPE          1    WORK CENTER

                DESCRIPTION     SAWS/SHEARING

NEW VALUE       DEPARTMENT        DP20    PN FAC ACTG CLS       ABB    QUEUE TIME-DAYS      1.50
                FOREMAN            A3Y    PRIME LOAD CODE         3    AVG QUEUE TIME      34.84
                LOCATION         B8E34    TRACKING SIGNAL      1.60    QUEUE MAD             .88
                STD EFFICIENCY     .88    AVG STD OUTPUT      94.52    MACH RESOURCE NO.
                AVG EFFICIENCY     .85    AVG ACTL OUTPUT    111.20    LABOR RESOURCE NO.
                EXTRACT MACH BRKS    0    REPORTING METHODS       0    CLOCKING WINDOW      1:45

                            MACHINE        RUN LABOR      SETUP LABOR        OVERHEAD    OVERHEAD
                             RATE             RATE           RATE         RATE/PERCENT    CODE
                CURRENT       2.000            5.500          7.350           300.000      B
                STANDARD      2.000            5.200          7.035           300.000      B

                       -----LENGTH-----    ----CAPACITY----
                       DESIRED  MAXIMUM    DESIRED  MAXIMUM           CALENDAR ID     **********
                SHIFT 1    7.5      9.0        3.0      4.0           POST TO OLDEST SCHED     0
                SHIFT 2     .0       .0         .0       .0           POST TO FUTURE SCHED     0
                SHIFT 3     .0       .0         .0       .0               FACILITY STOCK LOC  *******
```

```
    NORTHCREEK IND.          PRODUCTION FACILITY MAINTENANCE CONTROL SHEET       DATE  8/31/**  TIME  9.15.15  PAGE    2  AMVT7
                                                                                                 UPDATE# 10
        ------------ TRANSACTION UPDATE STATISTICS ------------
                FACILITIES     FACILITIES    FACILITIES
                  ADDED          CHANGED       DELETED
                     1              1             1
```

Fields

FACILITY ID. A user-assigned ID representing the facility.

DESCRIPTION. A description of this facility.

DEPARTMENT. The alphanumeric department ID associated with this facility.

FOREMAN. The identifier for the foreman for this facility.

LOCATION. The identifier for the location of this facility.

STD EFFICIENCY (Standard Efficiency). A standard you enter and maintain using Production Facility maintenance. It should be compared, by user, to average efficiency. It should reflect the expected value of average standard output divided by average actual output.

AVG EFFICIENCY (Average Efficiency). The average efficiency is the average of the standard output divided by the actual output of a period (in hours) for quantity worked. You enter and maintain this field using Production Facility maintenance. If PC&C is installed and interfacing, this field is also maintained or calculated automatically.

EXTRACT MACH BRKS (Extract Machine Breaks). A code that tells the PM&C application whether or not to extract break time from machine hours:

1 Extract break time.
0 Do not extract break time

REPORTING METHOD. The method used at the facility for reporting job transactions. The values for the methods are:

0 ON/OF reporting. Both ON (On) and OF (Off) transactions are required for each job. Jobs completed without both transactions are flagged as errors.

1 Off-only reporting with full ON override. OF transactions are required for each job. ON transactions are optional. If a job starts with an ON transaction, all information is used from the ON transaction. If an ON transaction does not exist, start times for the job are calculated from previous OF and T/A transactions and all other information is used from the OF transaction.

2 Off-only reporting with ON facility ID override. OF transactions are required for each job. ON transactions are optional. If the job starts with an ON transaction, the only information used from the ON transaction is the facility ID. All other information is used from the OF transaction. Start times are always calculated from previous OF and T/A transactions (even if an ON transaction exists).

CLOCKING WINDOW. The clocking window time defined for facilities using off-only reporting to group jobs that run concurrently and apportion time among those jobs. It can be any value from 0:00 to 9:59 (one second less than ten minutes). A value of 0:00 indicates that jobs at this facility are treated as if they are done consecutively.

FACILITY TYPE. A code representing the type of production facility this is:

blank Work center (job shop)
1 Production line
2 Work station.

PN FAC ACTG CLS (Production Facility Accounting Class). Class, defined by your company, to group or classify orders or items by production facility for accounting purposes.

PRIME LOAD CODE. The prime load code is used in calculating the length of operation time for the forward scheduling routine. It identifies the critical operation time factors necessary to schedule each operation's due date from its operation start date.

0 No hours accumulated
1 Run machine hours
2 Setup labor hours divided by setup crew size
3 (Setup labor hours divided by setup crew size) plus run machine hours
4 Run labor hours
5 (Setup labor hours divided by setup crew size) plus run labor hours.

TRACKING SIGNAL. The tracking signal is the sum of the deviations of the current queue from old average queue, calculated with each running of the PC&C Work Center Analysis report.

AVERAGE STD OUTPUT. The average standard output is the average of the standard time (hours) produced per period at a facility. The standard hours are based on the operation quantity worked and the time basis code.

AVERAGE ACTL OUTPUT. The average actual output is the average of the actual time (hours) worked per period at a facility.

Note: A period is defined as the time between order close-out and purges, which is not the same as month end period in the Inventory Management application.

PRODUCT LINE. A description that corresponds with the facility type code.

QUEUE TIME-DAYS. The expected number of days a job waits in the queue before work on it begins.

AVG QUEUE TIME. The average queue time is the average of total of standard hours of work remaining in a facility for a period of time.

QUEUE MAD. The mean absolute deviation (MAD) is a smoothed average of the differences (made positive if they are negative) between the current queue within a facility and the old average queue of that facility.

MACH RESOURCE NO.. This number, used by MPSP, identifies a machine in a facility as a critical resource. For example, a machine that affects major work flow in a facility.

LABOR RESOURCE NO.. This number, used by MPSP, identifies the labor in a facility as a critical resource. For example, a facility with limited available labor hours because of workers with special skills.

CURRENT MACHINE RATE. This rate, in cost per hour, is used with the run machine field of the associated routing to calculate the current run machine cost. PDM product costing can optionally use this in determining labor overhead content this-level in the associated Item Master B-records.

Standard machine rate is also shown.

CURRENT RUN LABOR RATE. This rate from the Labor/Overhead Table, in cost per hour, is used with the run labor field of the associated routing to calculate the current run labor cost. PDM product costing can optionally use this in determining

current labor and labor overhead content this-level in the associated Item Master B-records.

Standard run labor rate is also shown.

CURRENT SETUP LABOR RATE. This rate from the Labor/Overhead Table, in cost per hour, is used with the setup labor hours field of the associated routing to calculate the current setup labor cost. PDM product costing can optionally use this in determining current labor and labor overhead content this-level in the associated Item Master B-records.

Standard setup labor rate is also shown.

CURRENT LABOR OVERHEAD RATE/PERCENT. The current labor overhead rate or percent from the Labor/Overhead Table used in the labor overhead calculation.

Standard labor overhead rate or percent is also shown.

CURRENT LABOR OVERHEAD CODE. This code indicates which of four methods (A, B, C, or D) is used to calculate current labor overhead this-level in the associated Item Master B-records. PDM product costing must be active and the cost technique code in associated Item Master B-records must be R if this code is used.

Standard labor overhead code is also shown.

DESIRED SHIFT LENGTH. The number of prime load code hours normally available for the duration of shifts 1, 2, or 3 for this facility.

MAXIMUM SHIFT LENGTH. The maximum number of prime load code hours available for the duration of shifts 1, 2, or 3 for this facility.

DESIRED SHIFT CAPACITY. The number of workers or machines normally available in this facility during shifts 1, 2, or 3.

MAXIMUM SHIFT CAPACITY. The maximum number of workers or machines available in this facility during shifts 1, 2, or 3.

CALENDAR ID. The identifier of the production calendar associated with this facility. This field is used by REP to explicitly define the days a production line is available for work.

POST TO OLDEST SCHED. The method used for applying transaction quantities in REP:

blank Defaults to the setting from the REPCTL record.

0 Off, posting is by individual schedules for all items on this production line.

1 On, multi-schedule posting, beginning with the oldest schedule, is used for all items on this production line.

POST TO FUTURE SCHED. The method used for applying transaction quantities in REP. The valid codes are:

blank Defaults to the setting from the REPCTL record.
0 Off, post to past and current schedules on this production line.
1 On, post to past, current, and future schedules on this production line.

FACILITY STOCK LOC. The line location where component parts are delivered and used in a production line operation. This field is used by REP as a default line location when setting up the Item-Line definition for a schedule controlled item.

Production Facility Report (AMV43)

```
NORTHCREEK IND.                PRODUCTION FACILITY REPORT                  DATE **/**/**  TIME 16.24.32  PAGE   1   AMV43
                              SEQUENCED BY FACILITY

    FACILITY ID      AA001       FACILITY TYPE WORK CENTER       DESCRIPTION  SAWS/SHEARING
    DEPARTMENT        SAWS       QUEUE TIME-DAYS      2.00     AVG QUEUE TIME      34.81    DIRECT USAGES        0
    FOREMAN            NPM       PRIME LOAD CODE         3     QUEUE MAD             .72    EXTRACT MACH BREAKS  0
    LOCATION         B8E34       LAST MAINTAINED   5/16/**     TRACKING SIGNAL      1.46    PN FAC ACTG CLS    002
    STD EFFICIENCY     .88       AVG STD OUTPUT      94.52     MACH RESOURCE NO.   10005    REPORTING METHOD     0
    AVG EFFICIENCY     .00       AVG ACTL OUTPUT    111.20     LABOR RESOURCE NO.  20005    CLOCKING WINDOW       :00
    POST OLDEST SCHED    0       POST FUTURE SCHED       0     CALENDAR ID    **********

                                                                                  -----LENGTH-----    ----CAPACITY----
           MACHINE   RUN LABOR  SETUP LABOR  OVERHEAD    OVERHEAD                DESIRED  MAXIMUM    DESIRED  MAXIMUM
           RATE        RATE        RATE     RATE/PERCENT    CODE    SHIFT 1       7.5     9.0         3.0     4.0
CURRENT      2.600     7.150       9.100      200.000         B     SHIFT 2        .0      .0          .0      .0
STANDARD     2.600     6.760       8.710      200.000         B     SHIFT 3        .0      .0          .0      .0
                                                                                    FACILITY STOCK LOC  *******


    FACILITY ID      AS005       FACILITY TYPE WORK CENTER     DESCRIPTION  PUMP ASSEMBLY
    DEPARTMENT        ASSY       QUEUE TIME-DAYS      3.00     AVG QUEUE TIME     121.21    DIRECT USAGES       11
    FOREMAN            CFB       PRIME LOAD CODE         4     QUEUE MAD            8.20    EXTRACT MACH BREAKS  0
    LOCATION         P8N88       LAST MAINTAINED   7/05/**     TRACKING SIGNAL     11.18    PN FAC ACTG CLS    002
    STD EFFICIENCY     .78       AVG STD OUTPUT     137.86     MACH RESOURCE NO.   10005    REPORTING METHOD     0
    AVG EFFICIENCY     .72       AVG ACTL OUTPUT    191.47     LABOR RESOURCE NO.  20005    CLOCKING WINDOW       :00
    POST OLDEST SCHED    0       POST FUTURE SCHED       0     CALENDAR ID    **********

                                                                                 -----LENGTH-----     ----CAPACITY----
          MACHINE    RUN LABOR  SETUP LABOR  OVERHEAD    OVERHEAD               DESIRED  MAXIMUM     DESIRED  MAXIMUM
          RATE         RATE        RATE     RATE/PERCENT    CODE    SHIFT 1      7.5     9.0          5.0     6.0
CURRENT      .000      7.600       5.200      150.00          B     SHIFT 2       .0      .0           .0      .0
STANDARD     .000      7.150       5.200      15.00           B     SHIFT 3       .0      .0           .0      .0
                                                                                    FACILITY STOCK LOC    *******
```

Use this report to review production facility information.

This report is printed using option 2 (sequenced by facility) or 3 (sequenced by department) on the PDM Reports menu (AMEM03). It is also printed by using option 6 (by facility) or 7 (by department) on the CRP Reports menu (AMTM30).

Fields

FACILITY ID. An ID representing the facility.

FACILITY TYPE. Shows whether this facility is a work center, production line, or work station.

DESCRIPTION. A description of the facility.

DEPARTMENT. The department where this facility is located.

QUEUE TIME-DAYS (Standard queue time). The expected number of days a job can wait in the queue before work on it begins.

AV QUEUE TIME (Average queue time). The average queue time is the average of total of standard hours of work remaining in a facility for a period of time.

DIRECT USAGES. This field, used in maintenance, indicates the number of routing operation records on the facility where-used chain.

FOREMAN. A code that identifies the foreman for this facility.

PRIME LOAD CODE. The prime load code is used in calculating the length of operation time for the forward scheduling routine. It identifies the critical operation time factors necessary to schedule each operation's due date from its operation start date.

0 No hours accumulated
1 Run machine hours
2 Setup labor hours divided by setup crew size
3 (Setup labor hours divided by setup crew size) plus run machine hours
4 Run labor hours
5 (Setup labor hours divided by setup crew size) plus run labor hours

QUEUE MAD. The mean absolute deviation (MAD) is a smoothed average of the differences (made positive if they are negative) between the current queue within a facility and the old average queue of that facility.

EXTRACT MACH BREAKS. This code indicates to the PM&C application whether you want to extract break time from machine hours. The valid codes are:

0 Do not extract break time
1 Extract break time

LOCATION. A code that indicates the location of the facility.

LAST MAINTAINED. The date that the record for this production facility was last maintained.

TRACKING SIGNAL. The tracking signal is the sum of the deviations of the current queue from old average queue, calculated with each running of the PC&C Work Center Analysis report.

PN FAC ACTG CLS (Production facility accounting class). Class, defined by your company, to group or classify orders or items by production facility for accounting purposes.

STD EFFICIENCY (Standard efficiency). A standard you enter and maintain using Production Facility maintenance. It should reflect the expected value of average standard output divided by average actual output.

AVG STD OUTPUT (Average standard output). The average standard output is the average of the standard time (hours) produced per period at a facility. The standard hours are based on the operation quantity worked and the time basis code.

MACH RESOURCE NO. (Machine resource number). This number, used by MPSP, identifies a machine in a facility as a critical resource. For example, a machine that affects major work flow in a facility.

REPORTING METHOD. The method used at the facility for reporting job transactions. The values for the methods are:

0 ON/OF reporting. Both ON (On) and OF (Off) transactions are required for each job. Jobs completed without both transactions are flagged as errors.

1 Off-only reporting with full ON override. OF transactions are required for each job. ON transactions are optional. If a job starts with an ON transaction, all information is used from the ON transaction. If an ON transaction does not

exist, start times for the job are calculated from previous OF and T/A transactions and all other information is used from the OF transaction.

2 Off-only reporting with ON facility ID override. OF transactions are required for each job. ON transactions are optional. If the job starts with an ON transaction, the only information used from the ON transaction is the facility ID. All other information is used from the OF transaction. Start times are always calculated from previous OF and T/A transactions (even if an ON transaction exists).

AVG EFFICIENCY (Average efficiency). The average efficiency is the average of the standard output divided by the actual output of a period (in hours) for quantity worked. You enter and maintain this field using Production Facility maintenance. If PC&C is installed and interfacing, this field is also maintained or calculated automatically.

AVG ACTL OUTPUT (Average actual output). The average actual output is the average of the actual time (hours) worked per period at a facility.

LABOR RESOURCE NO. This number, used by MPSP, identifies the labor in a facility as a critical resource. For example, a facility with limited available labor hours because of workers with special skills.

CALENDAR ID. The identifier of the production calendar used by this work center. This field is used by REP to explicitly define the days a production line is available for work.

CLOCKING WINDOW. The clocking window time defined for facilities using off-only reporting to group jobs that run concurrently and apportion time among those jobs. It can be any value from 0:00 to 9:59 (one second less than ten minutes). A value of 0:00 indicates that jobs at this facility are treated as if they are done consecutively.

POST OLDEST SCHED: The method used for applying transaction quantities. The valid codes are:

blank Defaults to the setting from the REPCTL record.

0 Off, posting is by individual schedules for all items on this production line.

1 On, multi-schedule posting, beginning with the oldest schedule, is used for all items on this production line.

POST FUTURE SCHED: The method used for applying transaction quantities. The valid codes are:

blank Defaults to the setting from the REPCTL record.
0 Off, post to past and current schedules on this production line.
1 On, post to past, current, and future schedules on this production line.

MACHINE RATE (Current machine rate). This rate in cost per hour, is used with the run machine field of the associated routing to calculate the current run machine cost. PDM product costing can optionally use this in determining labor overhead content this-level in the associated Item Master B-records. Standard machine rate is also shown.

RUN LABOR RATE (Current run labor rate). This rate from the Labor/Overhead Table, in cost per hour, is used with the run labor field of the associated routing to calculate the current run labor cost. PDM product costing can optionally use this in

determining current labor and labor overhead content this-level in the associated Item Master B-records. Standard run labor rate is also shown.

SETUP LABOR RATE (Current setup labor rate). This rate from the Labor/ Overhead Table, in cost per hour, is used with the setup labor hours field of the associated routing to calculate the current setup labor cost. PDM product costing can optionally use this in determining current labor and labor overhead content this-level in the associated Item Master B-records. Standard setup labor rate is also shown.

OVERHEAD RATE/PERCENT (Current labor overhead rate/percent). The current labor overhead rate or percent from the Labor/Overhead Table used in the labor overhead calculation. Standard labor overhead rate or percent is also shown.

OVERHEAD CODE (Current labor overhead code). This code indicates which of four methods (A, B, C, or D) is used to calculate current labor overhead this-level in the associated Item Master B-records. PDM product costing must be active and the cost technique code in associated Item Master B-records must be R if this code is used. Standard labor overhead code is also shown.

LENGTH (Shift length).

DESIRED: The number of prime load code hours normally scheduled for the duration of shifts 1, 2, or 3 for this facility.

MAXIMUM: The maximum number of prime load code hours available for the duration of shifts 1, 2, or 3 for this facility.

CAPACITY.

DESIRED: The number of workers or machines normally available in this facility during shifts 1, 2, or 3.

MAXIMUM: The maximum number of workers or machines available in this facility during shifts 1, 2, or 3.

FACILITY STOCK LOC. The line location where component parts are delivered and used in a production line operation. This field is used by REP as a default line location when setting up the Item-Line definition for a schedule controlled item.

Variable Capacity File Maintenance (AMVTC)

```
   NORTHCREEK IND.                    VARIABLE CAPACITY MASTER FILE MAINTENANCE      DATE 10/24/**  TIME 10.37.37  PAGE    1  AMVTC
                                                                                    OPER JAG       UPDATE#   5

ACTION    PRODUCT    START        -------- LENGTH ---------  -------- RESOURCE -------                                MAINT
          FACILITY   DATE    DAYS  SHIFT 1  SHIFT 2  SHIFT 3  SHIFT 1  SHIFT 2  SHIFT 3   SOURCE DESCRIPTION           DATE

1 - ADD     CS015   1/07/**   10       7.5      7.5              3.0      5.0       .0    PLANNED OVERTIME           10/24/**

2 - BEFORE  AS005   1/06/**   99       8.0     10.0              3.0      5.0       .0    RESOURCE MOVE FROM AS095    3/23/**
    AFTER   AS005   1/06/**   30       8.0      8.0              3.0      5.0       .0    TEMP RESOURCE FROM AS095   10/24/**

3 - DELETE  LA035   2/14/**   99       8.0      8.0              3.0      3.0       .0    PLANNED OVERTIME            3/23/**

9 - DELETE  AS095   2/14/**   10                7.5              2.0      5.0       .0    PLANNED OVERTIME (TEMP)    10/24/**
    DELETE  AS095   5/01/**    3                                1.0-      .0       .0    PLANNED MACHINE P.M.       10/24/**
```

```
   NORTHCREEK IND.                    VARIABLE CAPACITY MASTER FILE MAINTENANCE      DATE 10/24/**  TIME 10.37.37  PAGE    2  AMVTC
                                                 CONTROL SHEET                      OPER JAG       UPDATE#   5


                                      ----------TRANSACTIONS----------
                                      TYPE                        TOTAL
                                      1 - ADDS ENTERED                1

                                      2 - CHANGES ENTERED             1

                                      3 - DELETES ENTERED             1

                                      9 - DELETE ALL ENTERED          1

                                      TOTAL TRANSACTIONS              4
```

Fields

ACTION. The type of activity performed on the record: add (A), delete (D), delete all (X), or in the case of change (C), the record as it was before maintenance and as it appears now.

PRODUCT FACILITY. The user-assigned identifier for the facility where this variable resource will be applied.

START DATE. The date this resource becomes available.

DAYS. The number of days this resource will be available.

SHIFT LENGTH. The number of hours that this resource will be effective during each shift.

RESOURCE. The number (plus or minus) of resource units applied during each shift.

SOURCE DESCRIPTION. A description of the variable resource.

MAINT DATE (Maintenance Date). The date this variable capacity record was last maintained.

Work Center Load Analysis (AMTH2A)

```
  NORTHCREEK IND.                           WORK CENTER LOAD ANALYSIS            DATE 10/24/**  TIME 10.33.59  PAGE   22  AMTH2A
                                  SITE ATL     SEQUENCED BY WORK CENTER

  WORK CENTER ID - WL085    DESCRIPTION - WELDING

           DEPARTMENT   DP50   AVG EFFICIENCY 1.33    AVERAGE QUEUE(DAYS)        .44   AVG ACTUAL OUTPUT     98.12
           FOREMAN       MLW   STD EFFICIENCY  .90    PLANNED QUEUE(DAYS)       2.00   AVG STD OUTPUT        86.39
           PRIME LOAD CODE 5 - (SETUP LABOR/SCS) AND LABOR HOURS                       ADJUST QUEUE - NO
           LOCATION    B1E33   DAILY SCHEDULING HOURS     7.5                          DELAY START  - NO

-------PERIOD------  -CAPACITY/PERIOD-    PRIMARY  -------------PERIOD TOTALS-------------   -------------GROUP TOTALS--------------
NUMBER         START  PLANNED   MAXIMUM      LOAD  AVAILABLE  PER%    LOAD TO CAPACITY %     AVAILABLE  GRP%    LOAD TO CAPACITY %
      LENGTH            HOURS     HOURS     HOURS   CAPACITY  LOAD  0         100%      200%    CAPACITY  LOAD  0         100%      200%
                                                                    .    .    .    .    .                     .    .    .    .    .
   0                                      1770.11                   .                                         .
   1     5   3/17/**     468       150     293.94     174.06    63  .000PPP                S      174.06    63  .000PPP
   2     5   3/24/**     468       150     209.74     258.26    45  .000PP                 S      432.32    54  .000PP
   3     5   3/31/**     468       150     235.97     232.03    50  .000PP                 S      664.35    53  .000PP
   4     5   4/07/**     468       150     211.16     256.84    45  .00PPP                 S      921.19    51  .000PP
   5     5   4/14/**     468       150     210.06     257.94    45  .00PPP                 S     1179.13    50  .000PP
   6     5   4/21/**     468       150     219.22     248.78    47  .000PP                 S     1427.91    49  .000PP
   7     5   4/28/**     468       150     242.01     225.99    52  .000PP                 S     1653.90    50  .000PP
```

Use this report to review summary information of work center load for the period from the CRP scheduling start date to the horizon end date. This report will only print if EPDM is activated.

Note: To see period or group totals in bar chart format, use option 1 on the Inquiry menu (AMTM20).

This report is printed on demand using option 1 (sequenced by work center) or 2 (sequenced by department) on the Reports menu (AMTM30) or automatically following a Capacity Requirements Planning run if you select to print the report using option 1 on the Planning Control Run menu (AMTM10).

The scheduling start date is calculated from the first period having a nonzero value as the period length.

The report shows:

- Group total comparisons of load to capacity according to the run time options defining the periods that are to be grouped together
- Available capacity for each period and each group total
- The load over time for each work center to determine if any overloading/ underloading can be smoothed out by redistributing work or resources.

Fields

Fields that contain historical statistics are updated by Production Control and Costing (PC&C), if it is installed. The queue statistic, average queue time (days), is updated every time PC&C prints the Work Center Analysis report, when PC&C closes out and purges an order, or when work list generation is run. The three output statistics average standard output, average efficiency, and average actual output,

are updated when PC&C closes out and purges orders. If PC&C is not installed, these four fields can be maintained using Production Facility file maintenance.

Site ID . The identifier of the site. This is printed only if EPDM is activated.

Work center ID. The user-assigned identifier for the work center.

Work center description. The description of the work center.

Department. The identifier of the department where the work center is located.

Foreman. The user-assigned code identifying the foreman of the work center.

Prime load code. Calculates the length of operation time for CRP's and PC&C's scheduling routines. It identifies the critical operation time factor used to schedule each operation. The codes are:

0 No hours accumulated
1 Run machine hours
2 Setup labor hours divided by setup crew size
3 Setup labor hours divided by setup crew size plus run machine hours
4 Run labor hours
5 Setup labor hours divided by setup crew size plus run labor hours

Location. The user-assigned code that identifies the location of the work center.

Average efficiency (see note). The average efficiency is the average of the standard output divided by the actual output of a period (in hours) for quantity worked.

Standard efficiency.. A standard you enter and maintain using Production Facility file maintenance. It should be compared by user to average efficiency and should reflect the expected value of average standard output divided by average actual output.

Average queue time (days) (see note). The average queue time is the average total of standard hours of work remaining in a work center.

Planned queue time (days). The expected number of days a job waits in the queue before work on it begins.

Average actual output (see note). The average of the actual hours worked per day at the work center.

Average standard output (see note). The average of the standard time (hours) produced per day at a work center. The standard hours are based on the operation quantity worked and the time basis code.

Adjust queue.

YES Queues compressed for open orders that are behind schedule, and expanded (if "delay start" is NO) for open orders ahead of schedule.

NO Start of scheduling for open orders has been adjusted by the days off schedule and standard queue times are used.

Delay start. (Applicable only if “queue adjustment” is YES.)

YES Scheduled start of operations for open orders ahead of schedule is adjusted by the days ahead of schedule.

NO Scheduled queue time is expanded for those orders.

Period.

Number. The number of the period; from 1 to 36.

Length. The length in days of the period.

Start. The start date of the period.

Capacity/Period.

Planned hours. The planned available capacity in hours for the period.

Maximum hours. The maximum available capacity in hours for the period.

Primary load hours. The number of hours of load in this work center during this period.

Period totals.

Available capacity. The total available capacity for the period.

Per% Load. The load to capacity percent for the period.

Load to capacity %. The load to capacity present for the period. Os represent committed (open) orders and Ps represent uncommitted (planned and customer) orders. Firm planned orders can optionally be placed in either category, depending on the particular business needs of your company.

Group totals.

Available capacity: The cumulative available capacity for the period grouping.

Grp% Load: The load to capacity percent for the period grouping.

Load to capacity %: The load to capacity percent for all period groupings. Os are committed (open) orders and Ps are uncommitted (planned and customer) orders. Firm planned orders can optionally be placed in either category, depending on the needs of your company.

Work Center Load Analysis Detail (AMTH3)

```
   NORTHCREEK IND.                        WORK CENTER LOAD ANALYSIS DETAIL        DATE 10/24/**  TIME 10.34.22  PAGE   27  AMTH3
SITE ATL
WORK CENTER ID - AS099    DESCRIPTION - FINAL ASSEMBLY                                    ADJUST QUEUE - NO     DELAY START - NO

PERIOD OPER   ITEM/ORDER         ----------OPERATION-------- ------PERIOD------  ----OPERATION-----  --------QUANTITY--------  NEXT
NUMBER START                TYPE SEQ STS DESCRIPTION            SETUP       RUN     SETUP       RUN          OPEN      ORDERED  W/C

  00  3/05/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     60.00       .00    759.26     2050.000     2050.000  IN040
  00  3/10/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00   9259.26    25000.000    25000.000  IN040

PERIOD TOTAL                                                     .00     97.50       TOTAL       97.50

  01  3/05/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    759.26     2050.000     2050.000  IN040
  01  3/10/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00   9259.26    25000.000    25000.000  IN040
  01  3/17/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    925.92     2500.000     2500.000  IN040

PERIOD TOTAL                         CAPACITY        320 HRS     .00    112.50       TOTAL      112.50           65%(UNDER)

  02  3/05/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    759.26     2050.000     2050.000  IN040
  02  3/10/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00   9259.26    25000.000    25000.000  IN040
  02  3/17/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    925.92     2500.000     2500.000  IN040
  02  3/24/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    333.33      900.000      900.000  IN040

PERIOD TOTAL                         CAPACITY        320 HRS     .00    150.00       TOTAL      150.00           53%(UNDER)

  03  3/05/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    759.26     2050.000     2050.000  IN040
  03  3/10/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00   9259.26    25000.000    25000.000  IN040
  03  3/17/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    925.92     2500.000     2500.000  IN040
  03  3/24/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    333.33      900.000      900.000  IN040
  03  3/31/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    333.33      900.000      900.000  IN040

PERIOD TOTAL                         CAPACITY        320 HRS     .00    187.50       TOTAL      187.50           41%(UNDER)

  04  3/05/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    759.26     2050.000     2050.000  IN040
  04  3/10/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00   9259.26    25000.000    25000.000  IN040
  04  3/17/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    925.92     2500.000     2500.000  IN040
  04  3/24/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    333.33      900.000      900.000  IN040
  04  3/31/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    333.33      900.000      900.000  IN040
  04  4/07/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    333.33      900.000      900.000  IN040

PERIOD TOTAL                         CAPACITY        320 HRS     .00    225.00       TOTAL      225.00           30%(UNDER)

  05  3/05/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    759.26     2050.000     2050.000  IN040
  05  3/10/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00   9259.26    25000.000    25000.000  IN040
  05  3/17/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    925.92     2500.000     2500.000  IN040
  05  3/24/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    333.33      900.000      900.000  IN040
  05  3/31/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    333.33      900.000      900.000  IN040
  05  4/07/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    333.33      900.000      900.000  IN040
  05  4/14/** 99001           P 0010     FINAL UNIT ASSEMBLY      .00     37.50       .00    333.33      900.000      900.000  IN040

PERIOD TOTAL                         CAPACITY        320 HRS     .00    262.50       TOTAL      262.50           18%(UNDER)
```

Use this report to analyze the operations or orders that are contributing to the work center load and to redistribute work load more evenly across work centers, if necessary.

This report is printed on demand by selecting option 3 on the Reports menu (AMTM30) or automatically following a Capacity Requirements Planning run if you select to print the report using option 1 on the Planning Control Run menu (AMTM10).

This report contains work center detail activity by period including operations, quantities ordered versus complete, and load for the period. Period capacity and load hours are totaled for each period for the work center.

Fields

Site ID . The site identifier. This is printed only if EPDM is activated.

Work center ID. The user-assigned identifier for the work center.

Work center description. The description of the work center.

Adjust queue.

YES Queues compressed for open orders that are behind schedule, and expanded (if “Delay start” is N) for open orders ahead of schedule.

NO Start of scheduling for open orders has been adjusted by the days off schedule and standard queue times are used.

Delay start. (Applicable only if “Adjust queue” is YES.)

YES Scheduled start of operations for open orders ahead of schedule is adjusted by the days ahead of schedule

NO Scheduled queue time is expanded for those orders

Period number. The number of the period; from 1 to 36.

Operation start date. The date the operation actually started or is scheduled to start.

Item/order. The number of the item or the order being worked on in the work center. If the order type (see the following field) is C, F, or P, this field shows the item number. If it is an O, this field shows the order number.

Order type. One of the following appears:

C Customer order
F Firm planned order
O Open order
P Planned order

Operation sequence number. The operation sequence number identifies the manufacturing steps being performed in this work center.

Operation status. The following codes show the status of the operation:

00 Inactive; not used in scheduling, costing, or activity reporting.
10 Active; planned but activity not yet reported
20 Material has been moved to this operation
30 Labor, machine, or outside operation activity reported.
40 Operation has been reported as complete
50 All material moved from this operation to next location or next operation.

Note: The operation status code is shown only for open orders.

Operation description. A description of the operation performed in the work center.

Period setup hours. That part of the setup hours for the operation that occur in the period.

Period run hours. That part of the run hours for the operation that occur in the period.

Note: If the total run and setup hours for the operation occur in this period, then the period setup hours and the period run hours equal the operation setup hours and the operation run hours respectively.

Operation setup hours. The total setup hours required for the operation.

Operation run hours. The total run hours required for the operation.

Quantity open. The quantity of the item remaining open on the order.

Quantity ordered. The total quantity of the item on the order. For type C, customer order, the value is the original release quantity.

Next work center identification. The user-assigned identification for the next work center that works on the order.

Total period capacity. The total hours of available capacity (planned period capacity) in the work center for the period. See “Capacity and daily scheduling hour formulas” on page 2-9 for an explanation of the planned period capacity calculation.

Total period setup hours. The total number of setup hours scheduled for the work center for the period.

Total period run hours. The total number of run hours scheduled for the work center for the period.

Total hours. The total period setup hours and the total period run hours scheduled for the work center for the period.

Over/under percent. The percentage that scheduled load is calculated to be more or less than available capacity. (Total hours - total period capacity divided by total period capacity x 100.)

Work Center Over/Underload Report (AMTH2B)

```
NORTHCREEK IND.                          WORK CENTER OVER/UNDERLOAD REPORT         DATE 10/24/**  TIME 10.34.17  PAGE    1  AMTH2B
                                SITE ATL     SEQUENCED BY WORK CENTER

NUMBER OF PERIODS FROM START   5    VARIANCE PERCENT OVER  10.0%    VARIANCE PERCENT UNDER  10.0%

WORK CENTER ID      OVER/UNDERLOADED PERIODS

    AA001           1  2  3  4  5
                       -  -     +

    AS095           1  2  3  4  5
                    +  +  +  +  +

    AS099           1  2  3  4  5
                    -  -  -  -  -

    CS015           1  2  3  4  5
                    +  +     +

    FINIS           1  2  3  4  5
                    -  -  -  -  -

    IN040           1  2  3  4  5
                    -  -  -  -  -

    OUT20           1  2  3  4  5
                    -  -  -  -  -

    PT065           1  2  3  4  5
                          -     +

    RS075           1  2  3  4  5
                    -  -  -  -  -

    SF055           1  2  3  4  5
                    +  +  +  +  +

    VEN01           1  2  3  4  5
                    -  -  -  -  -
```

Use this report to review all over/underloaded work centers so that you can make adjustments to available capacities. The reports shows the periods during which the work centers are over/underloaded as determined by the percentage variance. You can get additional detail from the Work Center Load Analysis and the Work Center Load Analysis Detail reports or by using option 1 on the Inquiry menu (AMTM20).

This report is printed on demand by selecting option 1 (sequenced by work center) or 2 (sequenced by department) on the Reports menu (AMTM30) or automatically following a Capacity Requirements Planning run if you select to print the report using option 1 on the Planning Control Run menu (AMTM10). It prints following the Work Center Load Analysis report (AMTH2A).

Fields

Site ID . The identifier of the site. This is printed only if EPDM is activated.

Work center. The user-assigned identifier for the work center.

Over/Underloaded periods. The period number having an overload or underload.

Work Center Variable Capacity Detail (AMTE2A)

```
GATEWAY MFG. CO.                          WORK CENTER VARIABLE CAPACITY DETAIL   DATE 11/11/**     TIME 8.35.00   PAGE 1   AMTE2A
                              SITE ATL     SEQUENCED BY WORK CENTER
   WORK CENTER ID ASOO5      DESCRIPTION/PUMP ASSEMBLY
           DEPARTMENT    ASSY      AVG EFFICIENCY  .72            AVERAGE QUEUE (DAYS)   3.24      AVG ACTUAL OUTPUT   38.29
           FOREMAN        CFB      STD EFFICIENCY  .78            PLANNED QUEUE (DAYS)   3.00      AVG STD OUTPUT      27.57
           PRIME LOAD CODE  4       RUN LABOR HOURS
           LOCATION     P8N88      DAILY SCHEDULING HOURS     7.5

     ----- SHIFT LENGTH -----
     --INCREMENTAL RESOURCE--
     START
     NUMBER
          DATE        DAYS       SHIFT 1  SHIFT 2  SHIFT 3          SHIFT 1  SHIFT 2  SHIFT 3        SOURCE DESCRIPTION
                                     7.5      0.0      0.0              5.0      0.0      0.0        WORK CENTER BASE VALUES
         1/05/**       99 *                          8.0              0.0      0.0      1.0        EXTRA SHIFT
   * NOTE:  THIS RECORD HAS AGED AND SHOULD BE MADE PART OF THE WORK CENTER BASE CAPACITY
        10/01/**       10 #                  7.5                      0.0      2.0      0.0        OVERLOAD
   # NOTE:  THIS RECORD HAS EXPIRED
        11/27/**       10                    7.5                      0.0      3.0      0.0        SPRING PROMOTION
        12/25/**        9                                             3.0-     0.0      0.0        HOLIDAY
```

Use this report to review detail from the Variable Capacity file. The first line of the data printed represents the work center base capacity as defined for the work center. One additional line of data is printed for each record in the Variable Capacity file.

This report is printed on demand by selecting option 4 (sequenced by work center) or 5 (sequenced by department) on the Reports menu (AMTM30).

Fields

Fields that contain historical statistics are updated by Production Control and Costing (PC&C), if it installed. The queue statistic, average queue time (days), is updated every time PC&C prints the Work Center Analysis report, when PC&C closes out and purges and order, or when work lists generation is run. The three output statistics average standard output, average efficiency, and average actual output, are updated when PC&C closes out and purges orders. If PC&C is not installed, these four fields can be maintained using Production Facility file maintenance.

Site. An identifier of the site. This is printed only if EPDM is activated.

Work center identification. The user-assigned identification for the work center.

Work center description. The description of the work center.

Department identification. The identification of the department where the work center is located.

Foreman. The user-assigned code identifying the foreman of the work center.

Prime load code. A code used to calculate the length of operation time for CRP's and PC&C's scheduling routines. It identifies the critical operation time factor used to schedule each operation. The codes are:

0 No hours accumulated
1 Run machine hours
2 Setup labor hours divided by setup crew size
3 Setup labor hours divided by setup crew size plus run machine hours
4 Run labor hours
5 Setup labor hours divided by setup crew size plus run labor hours

Work center location. The user-assigned code that identifies the location of the work center.

Average efficiency (see note). The average of the standard output divided by the actual output of a period (in hours) for quantity worked. If PC&C is not installed, you can enter and maintain this field using Production Facility file maintenance.

Standard efficiency (see note). A standard that you enter and maintain using Production Facility file maintenance. It should be compared, by user, to average efficiency and should reflect the expected value of average standard output divided by average actual output.

Daily scheduling hours. The average daily scheduling hours for the period.

Average queue time (days) (see note). The average total of standard days of work remaining in a work center at any time.

Planned queue time (days). The expected number of days a job waits in the queue before work on it begins.

Average actual output. The average of the actual time (hours) worked per day at a work center.

Average standard output (see note). The average of standard time (hours) produced per day at a work center. The standard hours are based on the operation quantity worked and the time basis code.

Variable capacity start date. The date that the variable capacity (resource and/or shift length) becomes effective.

Number of days. The total number of days that the variable capacity is to effective.

New shift length. The work center base values for the desired shift lengths in hours for shifts 1, 2, and 3 followed by one line of detail for each variable capacity record that adds to or subtracts time from the base shift length.

Incremental resource. The work center base values for the desired capacity for shifts 1,2 and 3 followed by one line of detail for each variable capacity record that adds or removes resource (workers or machines) to the base capacity.

Variable capacity source description. A description of the variable capacity record.

Work Center Variable Capacity Summary (AMTE2B)

```
NORTHCREEK IND.              WORK CENTER VARIABLE CAPACITY SUMMARY         DATE ******    TIME 10.24.43  PAGE    1  AMTE2B
                                    SITE ATL    SEQUENCED BY WORK CENTER
     WORK CENTER ID  - AS005   DESCRIPTION - PUMP ASSEMBLY
          DEPARTMENT    ASSY    AVG EFFICIENCY   .72          AVERAGE QUEUE(DAYS)     3.24     AVG ACTUAL OUTPUT     38.29
          FOREMAN        CFB    STD EFFICIENCY   .78          PLANNED QUEUE(DAYS)     3.00     AVG STD OUTPUT        27.57
          PRIME LOAD CODE 3 - RUN LABOR HOURS
          LOCATION     P8N88   DAILY SCHEDULING HOURS      7.5

                      AVERAGE      PLANNED
   PERIOD   PERIOD   START   ---- PLANNED LENGTH -----   ---- RESOURCE UNITS ---         DAILY        PERIOD
   NUMBER   LENGTH   DATE    SHIFT 1  SHIFT 2  SHIFT 3   SHIFT 1  SHIFT 2  SHIFT 3      CAPACITY     CAPACITY
                               7.5      0.0      0.0       5.0      0.0      0.0     WORK CENTER BASE VALUES
     1       5     11/13/**     7.5      0.0      0.0       5.0      0.0      0.0        37.5          188
     2       5     11/20/**     7.5      0.0      0.0       5.0      0.0      0.0        37.5          188
              5     11/27/**     7.5      7.5      0.0       5.0      3.0      0.0        60.0          300
```

Use this report to review total base capacity plus a profile of all variable capacity available by period as defined in the Production Facility and Variable Capacity files.

If capacity varies within a period, additional lines are printed to show the changes for the number of days specified in the Variable Capacity file.

This report is printed using option 4 (sequenced by work center) or 5 (sequenced by department) of the Reports menu (AMTM20). It prints following the Work Center Variable Capacity report (AMTE2A).

Fields

Fields that contain historical statistics are updated by Production Control and Costing (PC&C), if it installed. the queue statistic, average queue time (days), is updated every time PC&C prints the Work Center Analysis report, when PC&C closes out and purges and order, or when work lists generation is run. The three output statistics average standard output, average efficiency, and average actual output, are updated when PC&C closes out and purges orders. If PC&C is not installed, these four fields can be maintained using Production Facility file maintenance.

Site ID . An identifier of the site. This is printed only if EPDM is activated.

Work center identification. The user-assigned identifier for the work center.

Work center description. The description of the work center.

Department identification. The identifier of the department where the work center is located.

Foreman. The user-assigned identifier of the foreman of the work center.

Prime load code. The prime load code is used in calculating the length of operation time for CRP's and PC&C's scheduling routines. It identifies the critical operation time factor used to schedule each operation. The codes and their descriptions are:

0 No hours accumulated
1 Run machine hours
2 Setup labor hours divided by setup crew size
3 Setup labor hours divided by setup crew size plus run machine hours
4 Run labor hours
5 Setup labor hours divided by setup crew size plus run labor hours

Work center location. The user-assigned code that identifies the location of the work center.

Average efficiency (see note). The average efficiency is the average of the standard output divided by the actual output of a period (in hours) for quantity worked. If PC&C is not installed, you can enter and maintain this field using Production Facility file maintenance.

Standard efficiency (see note). A standard that you enter and maintain using Production Facility file maintenance. It should be compared, by user, to average efficiency. It should reflect the expected value of average standard output divided by average actual output.

Daily scheduling hours. The average daily scheduling hours for the period.

Average queue time (days) (see note). The average queue time is the average total of standard days of work remaining in a work center at any time.

Planned queue time (days). The expected number of days a job waits in the queue before work on it begins.

Average actual output. The average actual output is the average of the actual time (hours) worked per day at a work center.

Average standard output (see note). The average standard output is the average of standard time (hours) produced per day at a work center. The standard hours are based on the operation quantity worked and the time basis code.

Period number. The number of the period; from 1 to 36

Period length. The length in days of the period

Start date. The start date of the period

Planned length. The planned number of working hours in a shift

Resource units. The number of workers or machines available per shift per period for three shifts.

Average daily capacity. The average daily capacity available for the period, including any variable capacity.

Planned period capacity. The planned available capacity in hours for the period.

Work center base values. The shift lengths and resource units for this work center from the Production Facility file.

Work Load Exception Report (AMTF3)

```
NORTHCREEK IND.                        WORK LOAD EXCEPTION REPORT              DATE 10/23/**  TIME 10.28.44  PAGE    1  AMTF3
                          SITE ATL          CRITICAL ORDERS
                                       CRP SCHEDULING START DATE    10/01/**

                                DAYS BEHIND   REMAINING          -------REMAINING-------   ----OPERATION----
  ORDER SOURCE       ORDER/ITEM  SCHEDULE     STANDARD QUEUE     OPERATION    WORK CENTER    SETUP       RUN

  O OPEN ORDER       M000060            10           .00              0010          CS015     2.67     80.00

  O OPEN ORDER       M000070             7          2.00              0010          ML025               17.00

                                                                      0030          DR045      .11     32.26

  O OPEN ORDER       M000080             7          2.00              0010          WL085               50.00

  O OPEN ORDER       M000230             8           .00              0020          RS075               21.36

  O OPEN ORDER       M000240               8          .00                 0010          AS095               18.95
```

Use this report to review any orders where the days behind schedule exceeds the remaining standard queue. The report can be used as a past due load report if queue adjustments is not selected. It shows orders that are past due or are likely to become past due because days behind schedule exceeds remaining scheduled queue.

This report is printed following the Capacity Requirements Planning run (option 7 on menu AMTM10).

Fields

Site. An identifier of the site. This is printed only if EPDM is activated.

CRP scheduling start date. The date entered during planning parameter definition, option 1 menu AMTM10, which is used as a planning start date during the Capacity Requirements Planning run.

Order source. The source of the order: open, planned, firm planned, or customer.

Order/item. The number of the order, if it is an open or customer order, or of the item if it is a planned or firm planned order.

Days behind schedule. The difference between the scheduled completion date (using standard move, queue, setup and run) and the order due date.

Remaining standard queue. The remaining standard queue time in the job, regardless of the scheduling date.

Remaining operations. The sequence number of any incomplete operation

Remaining work centers. The work center associated with the incomplete operation.

Operation setup time. The amount of setup time required for the operation.

Operation runtime. The amount of runtime required for the operation

Work Load Extract Exception Report (AMTB4)

```
   NORTHCREEK IND.                          WORK LOAD EXTRACT EXCEPTION REPORT          DATE 10/24/
**  TIME 10.30.29  PAGE    1  AMTB4

ITEM            ORDER   SCHEDULE      ------QUANTITY------
NUMBER          NUMBER    DATE          OPEN      ORDERED  ORDER SOURCE                MESSAGE TEXT

21601A      01-C0123457  0/00/00   10000.000    10000.000  C CUSTOMER          * E AM-7044 MFG SCHEDULE DATE NOT WITHIN CALNDR FILE
                                                                               *   AM-7103 ITEM IS A KIT COMPONENT

26006-27        M000100  0/00/00     258.000      258.000  O OPEN              * E AM-7044 MFG SCHEDULE DATE NOT WITHIN CALNDR FILE
```

Use this report to identify items that require standard routing or open operation records for a Capacity Requirements Planning run. Depending on the order source, you add the records to either the PC&C Open Operations (MOROUT) file or the PDM Routing (ROUTNG) file and then run the Work Load Extract option again. See “Option 6. Work Load Extract” for more information.

This report is printed during a Work Load Extract run (option 6 on menu AMTM10).

Fields

Item number. The identification of the item number for an open, customer, planned, or firm planned order.

Order number. The identification of an order number for an open or customer order.

Schedule date. The date that work on the order or the item is to begin.

Quantity open. The quantity of the item remaining open on the order

Quantity ordered. The total number of the item ordered. For customer orders, the value is the original release quantity.

Order source. The source of the order; customer, open, planned or firm planned.

Message text. The message associated with the exception

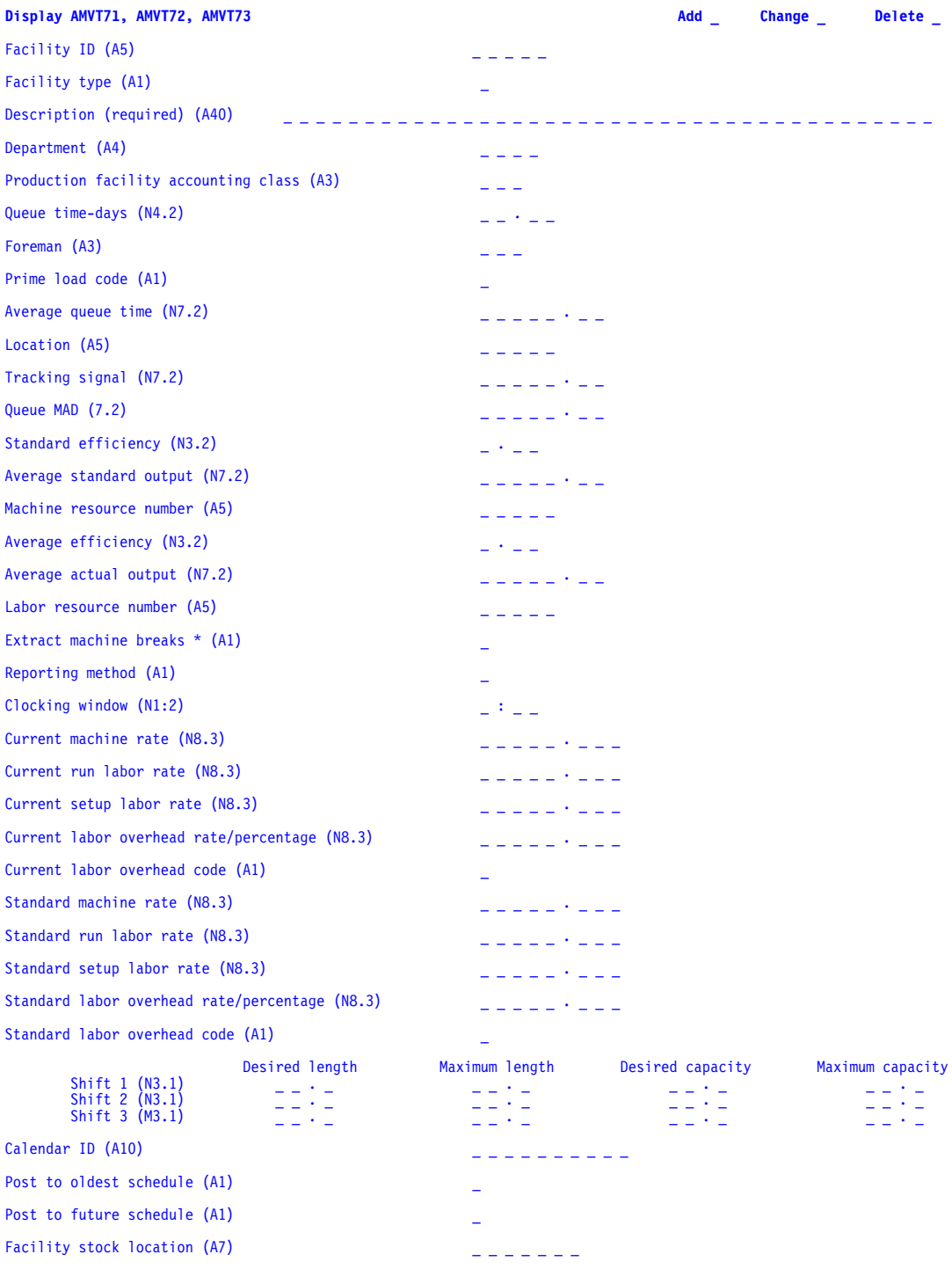
Chapter 7. Forms

This chapter contains the data entry forms that you use to prepare for Production Facility and Variable Capacity file maintenance:

PM-23 Production Facility Maintenance
TM-01 Work Center Variable Capacity Maintenance

Note: These forms are not copyrighted and can be reproduced without permission from Infor.

Production Facility Maintenance (PM-23)



Use form PM-23 to maintain production facility records in the Production Facility file.

See the following for a description of the fields on this form:

- “AMVT72—Production Facility Maintenance (Change)”
- “AMVT73—Production Facility Maintenance (Delete)”

Variable Capacity Master File Maintenance (TM-01)

```
                                                          _ 1. Add * (A1)
                                                          _ 2. Change
                                                          _ 3. Delete
                                                          _ 4. Delete all


Displays AMVTC1, AMVTC2, AMVTC3, AMVTC4, AMVTC5


Site (A3) *                  _ _ _

Facility ID * (A5)           _ _ _ _ _

Description (A40)            _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Start date * (N6)            _ _ _ _ _ _

Number of days * (N2)        _ _

New shift length:

  Shift 1 (N3.1)             _ _ . _

  Shift 2 (N3.1)             _ _ . _

  Shift 3 (N3.1)             _ _ . _

Incremental resources:

  Shift 1 (N3.1)              _ _ . _  +/-

  Shift 2 (N3.1)              _ _ . _  +/-

  Shift 3 (N3.1)              _ _ . _  +/-

Source description (N25)     _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

*Indicates a required field

+/- Indicates these fields are signed fields; you must show in the last position whether the value entered is
to be added or subtracted from the base capacity.
```

Use form TM-01 to add, change, or delete variable capacity information.

Add/Change/Delete. A required field that indicates the maintenance function you want to perform.

See “AMVTC1—Variable Capacity Maintenance (Select)”, “AMVTC2—Variable Capacity Maintenance (Add)”, and “AMVTC3—Variable Capacity Maintenance (Change)” for a description of the fields on this form.

Appendix A. Security areas

The options on the CAS Security Maintenance menu (AMZM38) allow you to protect application tasks from unauthorized users. You can define security areas and then define specific tasks associated with each area.

Security areas protect access to a group of menu options. The following table shows the application areas and their associated menu options and task IDs. To print a report of all application areas, see the description of the Generate reports option in the Security Maintenance chapter of the *CAS User's Guide*.

Security area	Menu/option	Description	Task ID
Inquiry	AMTM10/3	Work Center Variable Capacity	AMTM1003
	AMTM10/5	Production Facility	AMTM1005
	AMTM20/1	Work Center Load Analysis Detail	AMTM2001
	AMTM20/2	Work Center Variable Capacity	AMTM2002
	AMTM20/3	Production Facility	AMTM2003
	AMTM20/4	Routing	AMTM2004
	AMTM20/5	Order Status—Production	AMTM2005
Reports-Production Facility	AMTM30/6	Production Facility Report—by Facility	AMTM3006
	AMTM30/7	Production Facility Report—by Department	AMTM3007
Reports-W/C Capacity Reports	AMTM30/4	Work Center Capacity Report—by W/C	AMTM3004
	AMTM30/5	Work Center Capacity Report—by Department	AMTM3005
Reports-W/C Load Analysis	AMTM30/1	Work Center Load Analysis—by W/C	AMTM3001
	AMTM30/2	Work Center Load Analysis—by Department	AMTM3002
Variable Capacity Maintenance	AMTM10/2	Variable Capacity Maintenance	AMTM1001
Production Facility Maintenance	AMTM10/4	Production Facility Maintenance	AMTM1004
Reports-Load Analysis Detail	AMTM30/3	Work Center Load Analysis Detail	AMTM3003
Planning Control	AMTM10/1	Enter/Review Planning Parameters	AMTM1001
	AMTM10/6	Work Load Extract	AMTM1006
	AMTM10/7	Schedule and Accumulate Work Load	AMTM1007
	AMTM10/8	Delete Capacity Planning Work Files	AMTM1008

Glossary

This glossary defines terms that are important for this application. It does not include all XA terms nor all terms established for your system. If you do not find the term you are looking for, refer to the Index in this book or to glossaries in other XA publications.

This glossary includes definitions from:

- The American National Dictionary for Information Processing Systems, copyright 1982 by the Computer and Business Equipment Manufacturers Association (CBEMA). Copies may be purchased from the American National Standards Institute, 1430 Broadway, New York, New York 10018. Definitions are identified by symbol (A) after definition.
- The ISO Vocabulary – Information Processing and the ISO Vocabulary – Office Machines, developed by the International Organization for Standardization, Technical Committee 97, Subcommittee 1. Definitions of published sections of the vocabulary are identified by symbol (I) after definition; definitions from draft international standards draft proposals, and working papers in development by the ISO/TC97/SC1 vocabulary subcommittee are identified by symbol (T) after definition, indicating final agreement has not yet been reached among participating members.

application tailoring. The process of selecting options on an application questionnaire to satisfy the specific needs of a company.

assembly. The combination of two or more items to make a new item.

audit trail. (1) Data, in the form of a logical path linking a sequence of events, used for tracing the transactions that have affected the contents of a record. (2) Information that allows you to the history of an account, item record, order, and so forth. The more recent information may be stored online so you can retrieve it.

average daily capacity. The average number of hours available in a work center per day during a planning period.

backward scheduling. The technique of scheduling by beginning with an order due date and calculating the last operation's start date by subtracting operation setup times. Dates for previous operations are calculated in a similar manner, taking into account the wait or queue time between operations. This process is continued until the order start date is scheduled. Contrast with forward scheduling.

batch update. The process of updating master files using a group of transactions that are being held in a transaction file. Contrast with interactive and online update.

capacity. The rate at which work can be performed over time. It is affected by resource units, shift length, and the efficiency of the work center where the work is being performed.

capacity planning. The process of measuring the work center capacity required to meet a given manufacturing plan. or the execution of a particular program.

component. An item used to make a higher-level item.

daily capacity. A quantity of work, measured in hours, that a work center can perform in a 24-hour day, including adjustments for unproductive work breaks such as personal time and for work center efficiency.

database. A collection of stored data.

default. An alternative attribute, option, or value that is assumed when none has been specified.

designated work centers. User designated work centers for which period load detail records are generated during the execution of CRP.

entry. The record of a financial transaction in its appropriate book of account or master file.

firm planned order. An order whose date, quantity, and method of acquisition (manufacturing or purchase) have been fixed, but for which no paperwork authorizing production has been released and components have not been allocated.

forward scheduling. The technique of beginning with an order start date and adding planned queue time to determine the start date of the first operation. The subsequent operation start dates are determined by adding setup and run time (modified by efficiency factor) for the previous operation plus queue time at this operation. In CRP, order start date for planned orders is determined by subtracting the lead time from the due date. Contrast with backward scheduling.

horizon end date. The date the planning horizon ends. No work is scheduled after this date.

immediate update. The process of updating master files immediately upon receiving a transaction from a work station.

interactive data entry. A method of entering data in which the computer carries on a dialog with a work station operator, alternatively accepting entries and responding to them.

interface. The facility to allow information to pass from one application to another.

interoperation time. The elapsed time between the completion of one operation and the start of the next operation on the same job. It includes move time plus wait time at the next operation. It does not include setup time.

inventory management. Controlling a company's goods in a way that ensures economical buying and prompt customer service.

item. Any raw material, manufactured or purchased part, subassembly, assembly, or end-item.

lead time. The number of days, weeks, or months needed to place an order, process it, and receive the material into inventory.

line item. An individual entry on a voucher or customer order.

load analysis. An analysis of open and planned work load measured against the available capacity of a work center during a specific planning period or group of planning periods.

loading. The procedure for determining the capacity requirements of a manufacturing facility based on a given manufacturing plan.

manufacturing order. An order issued to the factory to produce a component or assembly.

master production schedule (MPS). A statement of how many of what items (products and options specified by customers) are planned to be produced and when. It is the major control point for planning the level of manufacturing activity. The master production schedule is one of the major inputs to material requirements planning.

material requirements planning (MRP). This technique of planning the acquisition of items required to produce products stated in a master production schedule.

move time. See interoperation time.

MRP. Material requirements planning.

online update. A method of entering data where the associated master files are updated immediately. Contrast with batch update.

open. To prepare a file for processing.

open load. That portion of the work load generated by CRP which is derived from open orders, customer orders, and firm planned orders if requested to be treated as part of open load.

open order. An authorization to manufacture an item.

operation. A manufacturing or assembly procedure performed on an item. A routing defines the sequence of several operations.

operation sequence number. A number assigned to an operation which defines the sequence within a routing.

order quantity. A quantity to be ordered when issuing a replenishment order. See also lot sizing.

order release. (1) In order processing, authorization to fill a customer's order. (2) In manufacturing, authorization to assemble or fabricate a product identified by a shop order.

output data. Data delivered or ready to be delivered from a device or program, usually after some processing.

overload. A condition resulting when the work load exceeds the capacity of a work center for a period of time.

password. An alphameric security code that allows access to certain functions.

past due load. The amount of work that should have been completed prior to the CRP scheduling start date if a manufacturing order is to be completed by its due date without expediting.

period load. The total work load scheduled for a given work center for a given planning period.

planned load. That portion of the work load generated by CRP which is derived from customer orders from COM and planned orders from MRP or firm planned orders, if requested to be treated as part of planned load.

planned order. An order, which specifies delivery date and quantity, developed in a material requirements planning system. It is used to plan lower-level component requirements or capacity requirements. A planned order is not committed to the vendor or shop floor until it is released.

planned period capacity. The total number of hours available in a work center during the entire planning period.

planning horizon. The period of time established by CRP for work load analysis. The planning horizon is bounded by the CRP scheduling start date and the horizon end date, and is divided into up to 36 planning periods each with its own start date and duration.

planned period. See planning horizon.

prime load code. A code used to define the major constraint (workers or machines) to be considered when scheduling and loading a work center.

production control. The functional area of the business responsible for the day-to-day scheduling of plant-floor resources. Shop order release, expediting, and order tracking are the primary responsibilities of this area.

production facility. A facility can be either a work center, production line, or work station. A facility is a group of machines with similar characteristics that are used to perform a manufacturing process; for example, an assembly area or milling machine center. It describes the area (group of workers or machines) in which the operations contained in the Routing file are performed. You can have run machine, run labor, setup labor, and overhead standard rates associated with it.

production line. A series of pieces of equipment dedicated to the manufacture of a specific number of products or families.

queue. The backlog of work waiting to be processed at a work center.

queue adjustment. The queue time for each operation is lengthened or shortened to fit open orders between the CRP scheduling start date and the order due date.

reference number. In data entry, a number used for starting a batch or selecting an existing batch.

release. (1) To authorize an order commitment by changing a planned order into a purchase order or shop order. (2) To specify a date and quantity to be shipped under a blanket order.

released order. An order that is in the process of being issued or has already been issued to the shop floor or a vendor. Once issued, it is a commitment that can only be canceled or rescheduled through negotiation.

routing. The sequence of operations or processes required to make a manufactured item. Must identify work centers and can have machine, labor, and overhead standards associated with it.

routing operation. The additional descriptive information for a routing operation.

run time. The elapsed time an item is actually being worked on in a work center. It is calculated, at standard, by multiplying order size by time per piece.

run time option. A specification, made when a computer job is run, that tells how the job is to be run.

scheduling start date. The date the planning horizon is to begin.

shift length. The number of scheduled working hours in a shift.

source document. The original record of a transaction.

tracking signal. A value maintained by computer-based forecasting systems that detects significant changes in the average.

transaction. An item of business, such as receipt of an order or paying a bill.

underload. A condition resulting when the work load is less than the capacity of a work center for a period of time.

variable capacity. A variation from the normal numbers of resource units or rate at which work can be performed for a specified period of time.

where-used. A report or inquiry showing what higher-level assemblies use an item (the next level or all levels) or what operations are performed in what work centers. It is a tool for maintaining the engineering and production database.

work center. A facility, normally a group of machines having similar characteristics, used to perform a manufacturing process; for example, an assembly area or milling machine center. Describes the area (group of workers or machines) in which the operations contained in the Routing file are performed. Can have run machine, run labor, setup labor, and overhead standard rates associated with it.

work center capacity. The hours available by time period to complete operations in a work center. Hours available depend on resource units, shift length, and efficiency of the work center.

work load. The amount of work, usually measured in hours necessary to complete an operation or operations in a work center.

work load extract. CRP generated work files built from order types selected by the user. These files can contain open orders, planned orders, firm planned orders, customer orders and standard routing operations.

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