FACTS
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FACTS

Manufacturing Control

Release 7.4

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Table of Contents

Manufacturing Control

Preface

Welcome to the FACTS System software that automates your business operations! The FACTS System is composed of 22 highly integrated modules. Each module has a manual dedicated its use and functionality. For ease of use, the manuals are formatted similarly. All of the FACTS manuals contain the following sections: system overview, program descriptions, references, glossary of terms, and sample reports.

System Overview

This section discusses the function and process flow for each module. Each System Overview section contains:

- An overview of each module and its interaction with other modules
- Flow charts of the module's system
- An overview of the modules posting to the General Ledger. This section should be reviewed even if the General Ledger Module is not being used
- Procedures and close-out checklists for daily, weekly, periodic (monthly) and yearly processing

Program Descriptions

These chapters detail each program in the module. Each program description includes the functions, user inputs, and a screen print. The programs are listed in the order that they appear on the menu. There is an overview preceding each menu that explains the interaction of the programs within the menu.

References

Throughout the documentation the phrase (ref. #) is used. This is referring to the appendix called "References."

References are used to prevent the same information from being repeated one program to the next. They are located at inputs where a user might want further information. References are always numbered. For example, F2 allows a search (ref.5): this indicates that pressing F2 will allow a search on the input, and more information on searches can be found in the Reference Appendix under reference #5.

Glossary of Terms

The glossary provides a definition of terms used in the manual and related terms from other modules.

Sample Reports

This section provides a sample printout of most of the reports and prints in the module. A directory is included that lists each report and the page number in the section.

CHAPTER 1

System Overview

The FACTS Manufacturing Control module is a system that will maintain accurate file information, provide complete audit trails and will optionally post to general ledger. Interaction with General Ledger is automatic and great flexibility is available through the use of GL posting tables (see section on Posting to GL).

The system has been designed so that all transactions will produce a printed audit trail. This allows users the secure feeling that all information is traceable throughout the system. Instructional prompts, default values and the capability to back up to previous inputs promotes both operator efficiency and comfort in using the system.

Manufacturing Control is broken down into the following menus: Bill of Materials, Formulation, Inquiries, Reports & Prints, End of Period and File Maintenances.

File maintenance programs allow the user to enter, change and delete data. These programs are used to enter the initial data required to set up the system. The user can add, change and delete the records in a file. This is called maintaining the file. Some file maintenance programs will be used often where others will be used infrequently. These infrequent file maintenances (found on the Infrequent File Maintenance menu) are used mostly in the installation of the system.

The Manufacturing System consists of two methods of production: bill of materials and formulation. A bill of material (BOM) item is an item whose quantities are maintained in a warehouse and it is produced by using component items whose quantities are also maintained in the same warehouse. As the bill of material finished item is produced, its on hand quantity is increased and the components' quantifies are decreased.

An example of a bill of material item would be a tool kit. The components would be one screwdriver, one wrench, one hammer, one saw, one box of nails, one roll of sandpaper and one plastic box (for packaging). All BOM finished items and component items must be set up in Inventory Control and must exist in a warehouse.

A formulation finished item is an item whose quantities are maintained in a warehouse and is produced using a formula (not an inventory item) and packaging items whose quantities are maintained in the same warehouse. The formula is produced using ingredient items which are also maintained in the same warehouse. Following is an example of a formulation finished item produced through the formulation system:

Formula: F300 Cough Syrup	
Standard production amount:	800 ounces
Ingredients of formula:	hydrobromide - 400 ounces
	glycerin - 300 ounces
	camphon - 75 ounces
	sugar - 25 ounces

Finished item: 1 case of cough syrup	
Uses 800 ounces of formula (F300)	
Packaging items:	100 8-ounce bottles
	100 bottle caps
	100 labels
	1 crate

In the example, the finished item is a case of cough syrup which consists of 100 8-ounce bottles of cough syrup. Packaging items are used to produce the finished item along with the formula of 800 ounces of cough syrup. The formula is produced using the ingredients.

In the bill of materials subsystem, the BOM finished item is set up in the BOM Entry program. The user enters the BOM finished item in the overhead, labor and packaging factors (extra costs) in addition to each component item used and its quantity needed to produce the BOM finished item. Serial/lot items may be used for either the component or BOM finished items. Once the BOM finished item is set up the item is ready for production. Planned future production may be entered into the system through the Production planning Entry program. Production may be entered by finished item or by date. The Production Entry programs are where actual production is entered and Planned Production may be pulled over automatically from the planned production file (if applicable). During Production Entry, the user enters the number of BOM finished items to be produced. The system indicates whether there is enough of the component items on hand to complete production. After the production is entered, a production ticket must be printed to send to the warehouse to instruct production crews on what is needed. Production tickets are printed through the Production Ticket Print program.

When the BOM items are produced, the user must confirm that production is complete through the Production Confirmation program. The Production Register is finally printed and updated to provide an audit trail of production and to update ell appropriate Inventory, Manufacturing and General Ledger files.

A flag may be set in the SO Static Control F/M program telling the Bill of Materials system that production takes place when the item is sold and updated by the SO Daily Sales Register. If the flag is set to Y, the component items are updated in the SO system thus making production in the Bill of Materials system unnecessary.

In the formulation subsystem, the formula is set up in the Formula Entry program. Formulas are not inventory items, however, their ingredients are inventory items. The formulation finished items are set up through the Finished Item Entry program. The user enters the formulation finished item, the formula required to produce this finished item and the overhead and labor factors (extra costs). In addition, the user enters each packaging item used and its quantity needed to produce the formulation finished item. Serial/lot items may be used for either the finished item or the ingredient or packaging items. Once the formulation finished item is set up the item is ready for production.

Planned future production may be entered into the system through the Production Planning entry program. Production may be entered by finished item or be date. The Production Entry program is where actual production is entered and Planned Production may be pulled over automatically from the planned production file (if applicable). During Production Entry, the user enters the number of formulation finished items to be produced. The system indicates whether there is enough of the ingredient or packaging items on hand to complete production. After the production is entered, two production tickets (one for formula, one for finished items) are printed to send to the warehouse to instruct production crews on what is needed to produce the formula and the finished item(s). Production tickets are printed through the Production Ticket Print program. When the formula items are produced, the user must confirm that production is complete through the Production Confirmation program. The Production Register is finally printed and updated to provide an audit trail of production and to update all appropriate Inventory, Manufacturing and General Ledger files.

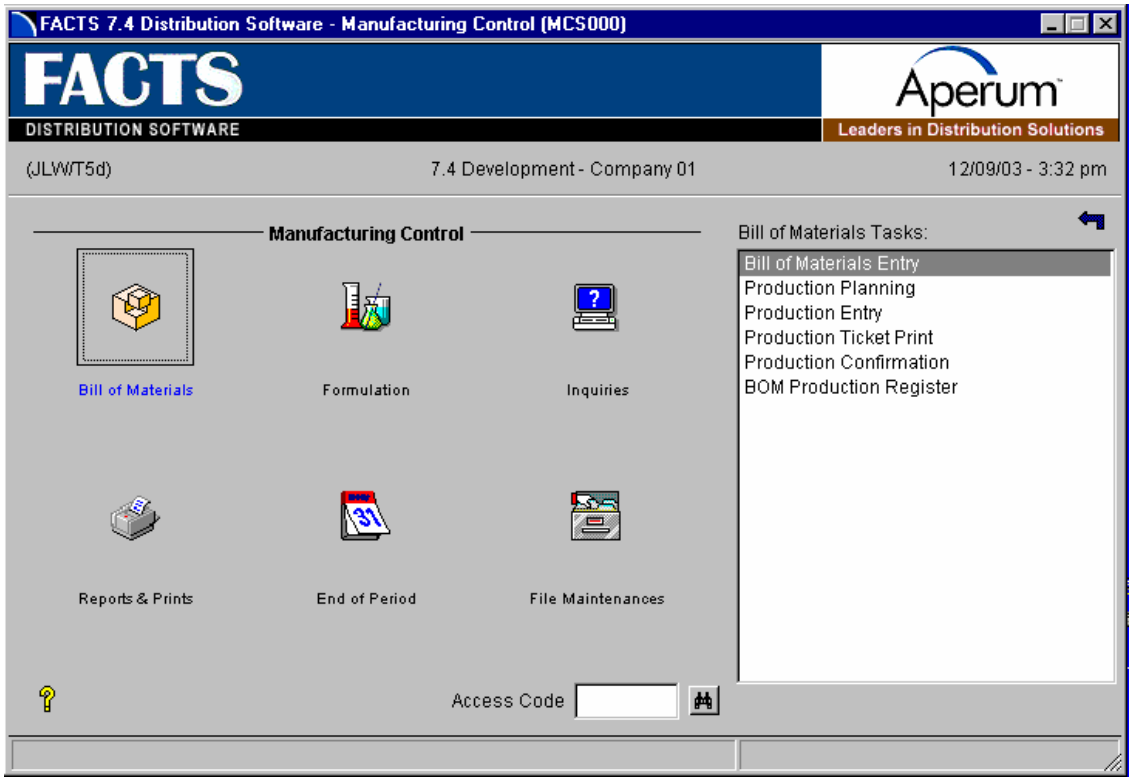
All bill of material and formulation information is available for display through the inquiry programs respectively. Information includes components (BOM) or ingredients and finished item (formulation), planned production, production in process, costing information, production history and production requirements. BOM or formulation notes may also be entered through the inquiries. The Inquiries provide users with all the production information at their fingertips and make production management an organized and efficient process.

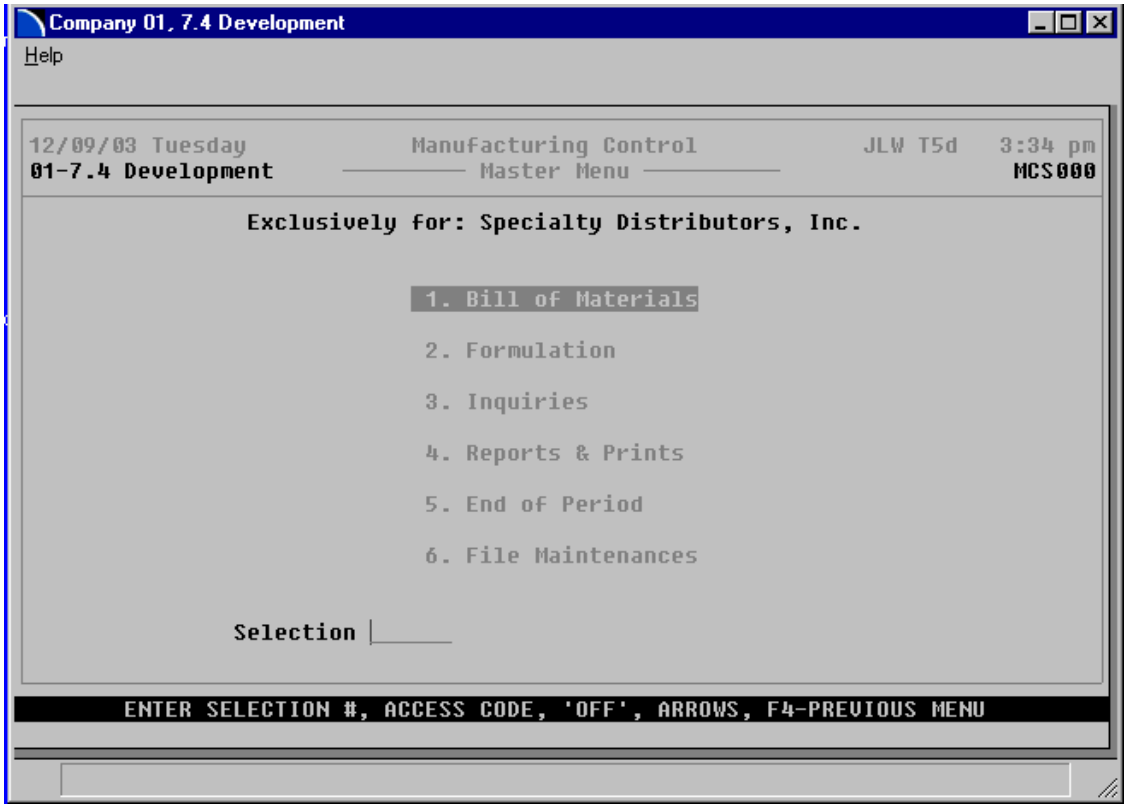
The Manufacturing reports are provided to aid the user in the management of production. Each of the following reports are available in the Manufacturing Control module:

1. The Bill of Materials Listing provides a report of bill of material finished items and the component and costing information associated with each finished item.

2. The BOM Open Production Report provides a report listing by ticket (or item) the production tickets in process.
3. The BOM Requirements Report provides a report listing up to five time periods (months) of bill of material quantify requirements based on planned production.
4. The BOM Cost Change Analysis Report provides a list of new costs of BOM items if component costs are changed. It allows users to analyze how component cost changes affect total costs.
5. The Formula Listing provides a report of formulas and the ingredients, finished item, packaging items and costing information associated with code finished item.
6. The Formulation Open Production Report provides a report listing by ticket or formula, the production tickets in process.
7. The Formulation Requirements Report provides a report listing up to five time periods of formulation quantity requirements based on planned production.
8. The Formulation Cost Change Analysis Report provides a list of new costs of formulas if component costs (packaging and / or ingredient items are changed). It allows users to analyze how component cost changes affect total costs.

File maintenance programs allow the user to enter, change and delete data. These programs are used to enter the initial data required to set up the system. The user can add, change and delete the records in a file. This is called maintaining the file. Most file maintenance programs in Manufacturing are only used in the installation of the system.



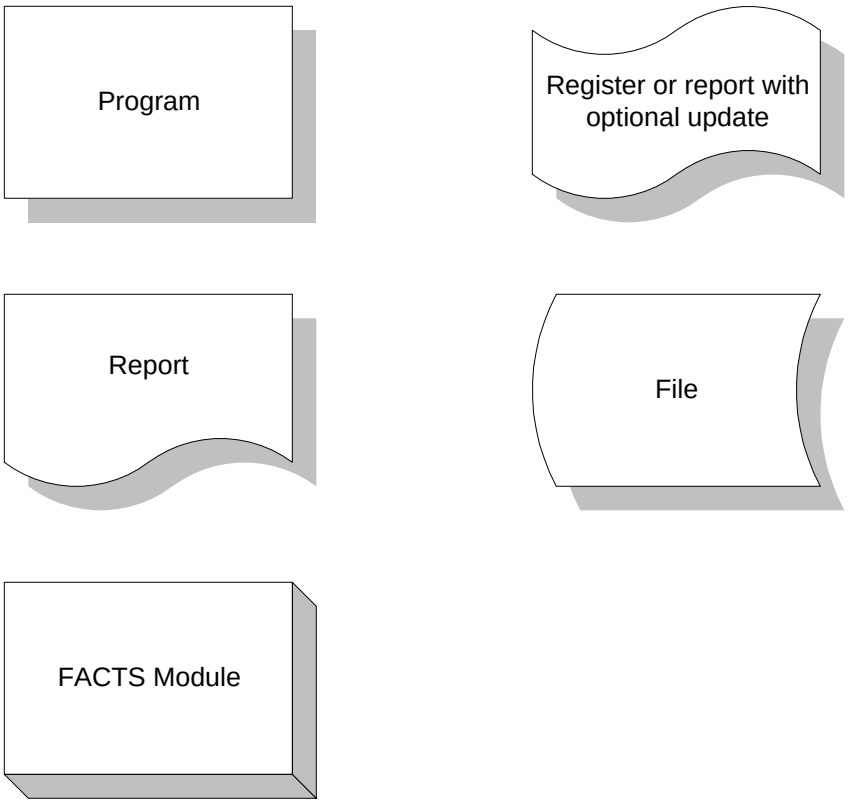


Manufacturing Control Flow Charts

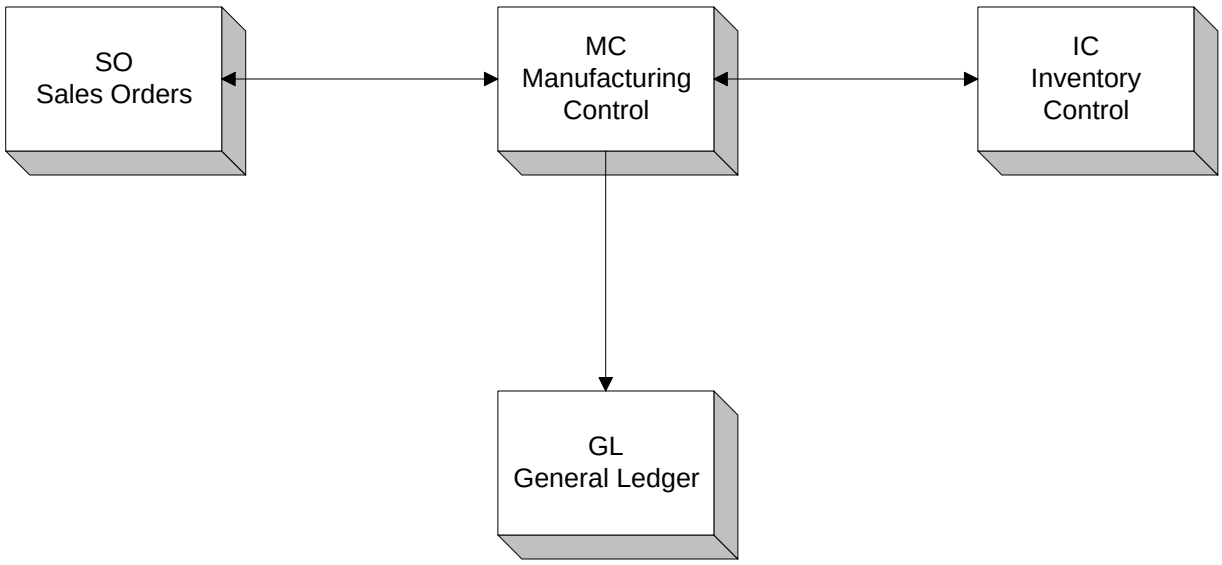
The following pages present flow charts that illustrate the flow of information from Inventory Control to the other modules in the FACTS System. They also illustrate the flow of information within Inventory Control.

Note that not all files and programs are shown. The flow charts simply present how information flows through the system.

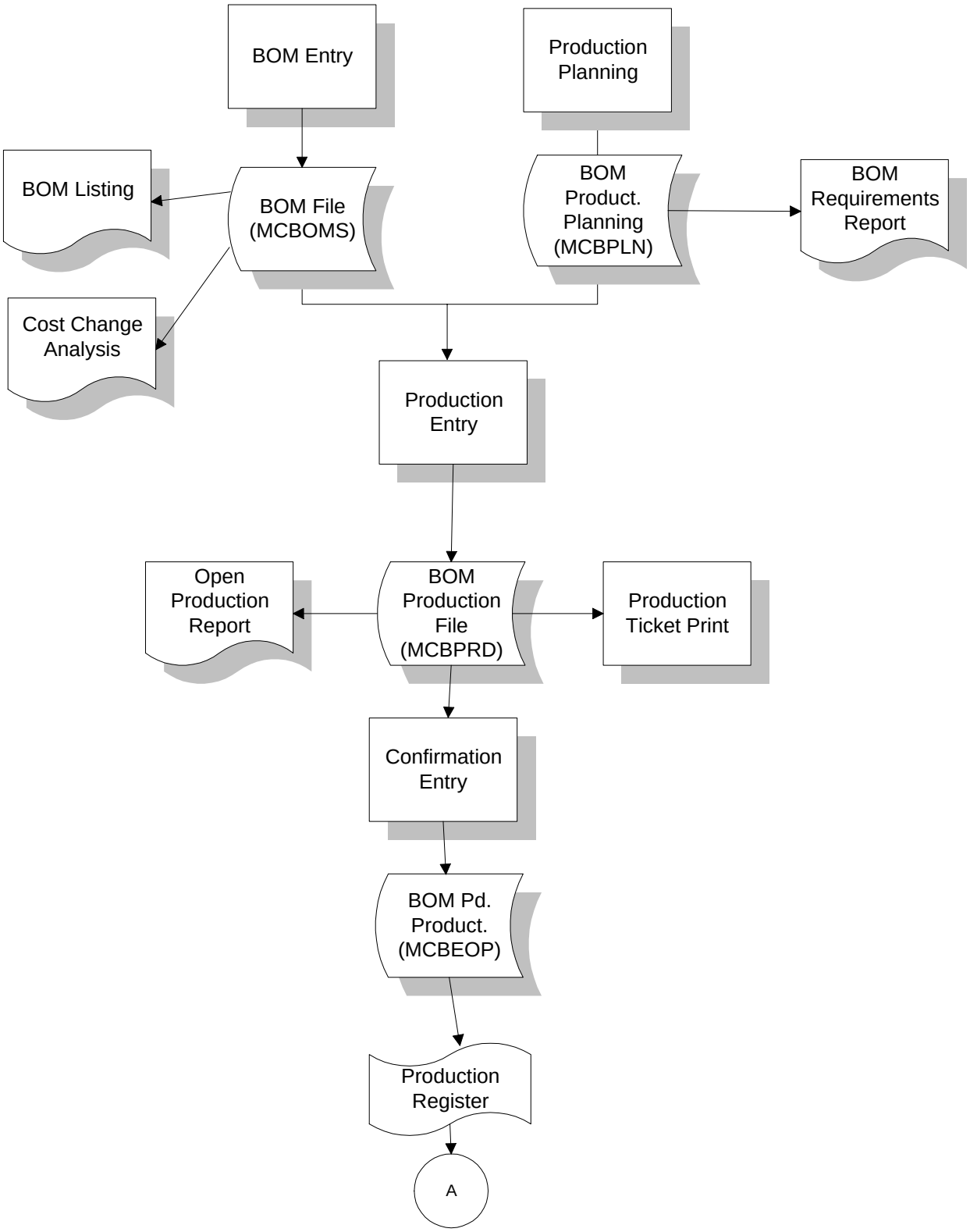
The following symbols represent the types of information shown on the flow charts.



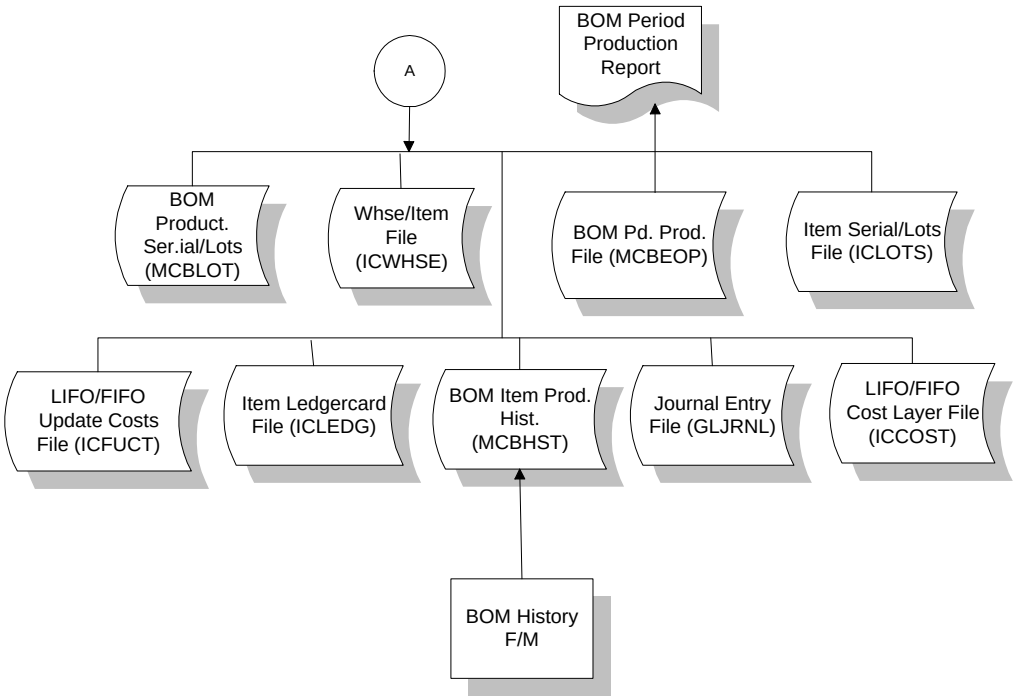
Manufacturing Control Interaction with Other FACTS Modules



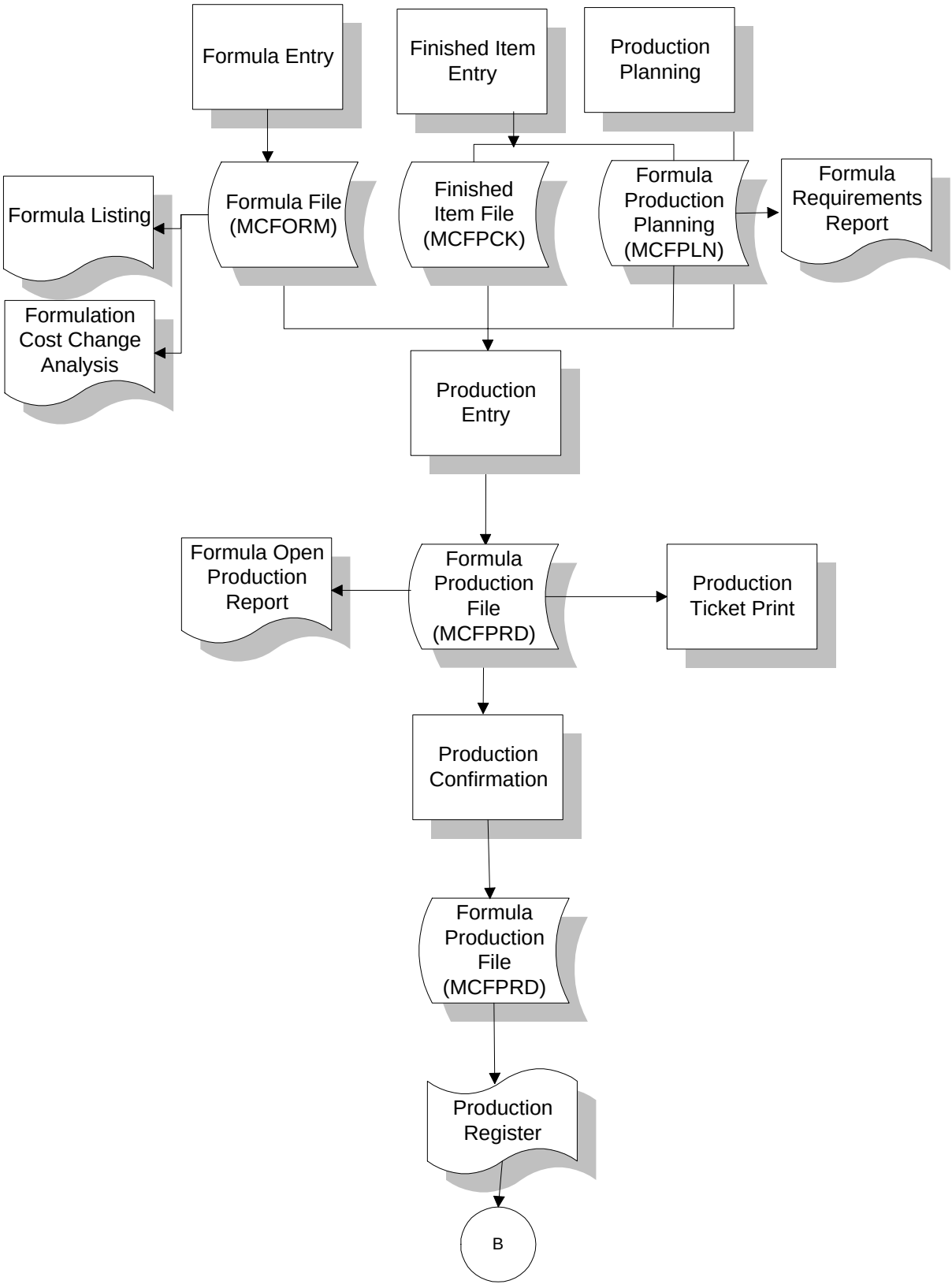
Bill of Materials



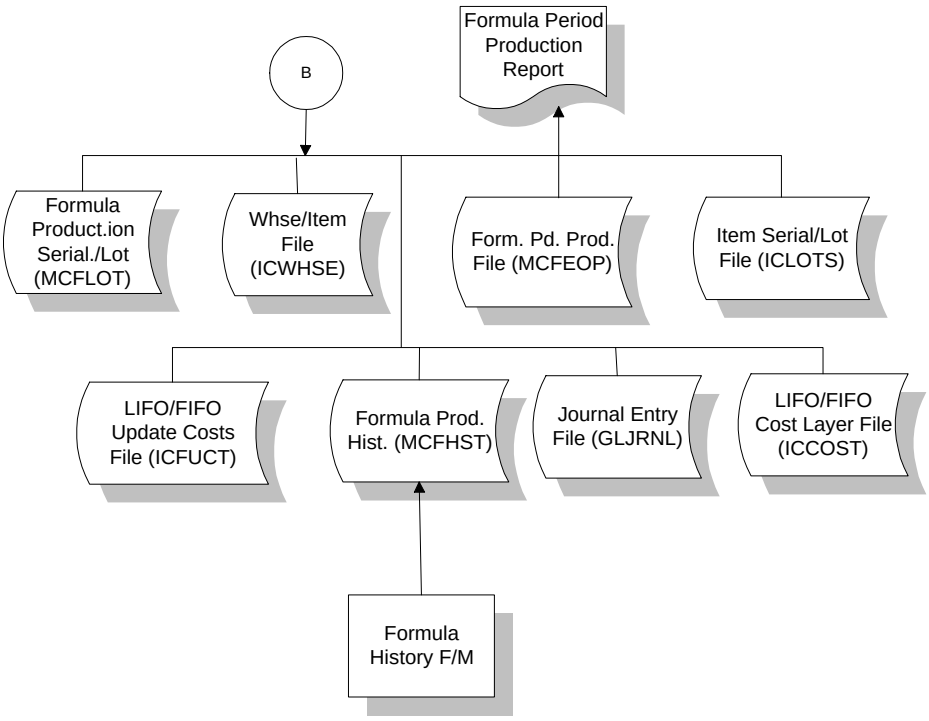
Bill of Materials (cont.)



Formulation



Formulation (cont.)



Posting to General Ledger

Transactions from Manufacturing Control may automatically post to General Ledger. Through the **GL Distribution Flag** set in the MC to GL Posting Control F/M Program, the user determines how to post to GL (if at all). The flag may be set to one of the following: **0** - indicating no GL distribution is printed or posted; **1** - indicating the GL distribution is printed (printing is in detail format) but not posted to GL; **2** - indicating the GL distribution is printed (printing is in detail format) and posted to GL in summary (posting includes the total amount posted to each account number); or **3** - indicating the GL distribution is printed (printing is in detail format) and posted to GL in detail (posting includes each item contributing to the amount for each account number).

Through the **Bill Of Materials Journal** and **Formula Production Journal** the user determines which GL journals (where in the general ledger journal file) to post production transactions from the bill of materials and formulation sub-systems.

The manufacturing transactions that may print a GL distribution and post to GL are the transactions from the BOM Production Register and the Formulation Production Register.

In the MC to GL Posting Control F/M Program, the user sets the production overhead, package and labor GL account numbers to post during production. In the GL posting tables set in Inventory Control, the user establishes for production the inventory, MC finished goods and MC components

GL account numbers to post during production. Each item in the inventory is assigned to a GL posting table. The GL account numbers used in posting production from the GL posting tables are based on the table assigned to the item in inventory. On the following page is an example of how BOM and formula production is posted to general ledger:

Production Register

Component cost -item 1	25.00	
Component cost -item 2	30.00	
Total component cost		55.00
Overhead cost		5.00
Package cost	3.00	
Labor cost	4.00	
Total cost to produce finished item		67.00

GL Distribution

	DEBIT	CREDIT
** Inventory (Finished)	67.00	
** Inventory (Components)		55.00
*Overhead		5.00
*Package		3.00
*Labor		4.00
** MC Finished		55.00
** MC Components	55.00	

* indicates GL number is created in the manufacturing GL posting control record.

** indicates GL number is created in the Inventory GL posting tables.

Finally, the user determines whether to post by branch in the MC to GL Posting Control F/M program. If set to Y, when building the GL distribution, the program inserts the branch assigned to the warehouse (in the IC Warehouse F/M) producing the materials (manufacturing the items).

Example: the G/L number is 120-00 and the branch is the last two characters (as set in the System Control F/M program). If the warehouse manufacturing the items is assigned branch 02, then if posting by branch, the G/L number posted is 120-02.

Standard Procedures

This section covers standard procedures to be followed for accounts receivable. These procedures may vary depending on how your company's business is conducted. The following three sections of standard procedures are provided as a guideline:

1) RECOMMENDED OPERATING PROCEDURES

An outline is provided of routine procedures on a daily, weekly, period (month, if 12 periods are used) and yearly basis.

2) END-OF-PERIOD CHECKLIST

The end-of-period procedures are critical to the proper functioning of the system. Certain programs must be run in a specific order to close the accounts receivable module accurately.

It is suggested that copies of the checklist be made and used for each period close-out to be filed for future reference.

3) END-OF-PERIOD CHECKLIST EXPLANATION

A detailed account is provided of the purpose of each program on the checklist.

Recommended Operating Procedures

Daily Procedures (or as needed)

(For Bill of Materials and / or Formulation)

1. Enter Production Planning
2. Enter production
3. Print production tickets
4. Confirm production
5. Print / update Production Registers

Weekly Procedures (or as needed)

1. Print Requirements Report (for BOM and / or Formulation)

Period Procedures (or as needed)

1. Complete all BOM and / or Formulation production
2. Print / update BOM Period Production Report
3. Print / update Formulation Period Production Report
4. Run End-of-Period Update

Yearly Procedures

*1. Run End-of-Period Update (already covered in period procedures - do NOT run twice)

* indicates the procedure is required and must be performed in the time period designated.

End-Of-Period Checklist - Manufacturing Control

Period ____ ***Year*** _____

User	Date	Menu		Description
_____	_____	BOM	1.	Complete all BOM production
_____	_____	Formula	2.	Complete all formulation production
_____	_____	EOP	3.	Print/update BOM Period Production Report
_____	_____	EOP	4.	Print/update Formulation Period Production Report
_____	_____	EOP	5.	Run End-of-Period Update
_____	_____	EOP	6.	Print/update Serial/Lot number Removal Register
_____	_____	EOP	7.	Run Item Ledgercard Removal
_____	_____	EOP	8.	Run End-of-Period Update
_____	_____	EOP	9.	Print Flagged Item Report
_____	_____	F/M	10.	Adjust flagged items
_____	_____	EOP	11.	Run Item Restocking Amounts Reset

End-Of-Period Checklist Explanation

1-2. Complete all production. For bill of materials and formulation, all production should be completed to ensure the inventory quantities and production figures are accurate when the period procedures begin. All completed production tickets should be confirmed and the Production Registers should be printed and updated.

3-4. Print BOM and Formulation Period Production Reports. These reports allow the user to obtain a report of production completed for the current period. After the report prints, the user should remove the records just printed to clear the file. Records not removed accumulate in the file indefinitely. All Period Production Reports should be kept as an audit trail.

5. Run End-of-Period Update. This is the last step to closing the manufacturing control current period and should only be run after all of the above procedures are complete. The program sets period-to-date production history to zero and closes the current period. If it is the last period of the year, year-to-date figures in these files are rolled into prior year. When this program is complete, the user may begin daily procedures in manufacturing in the new (current) period.

CHAPTER 2

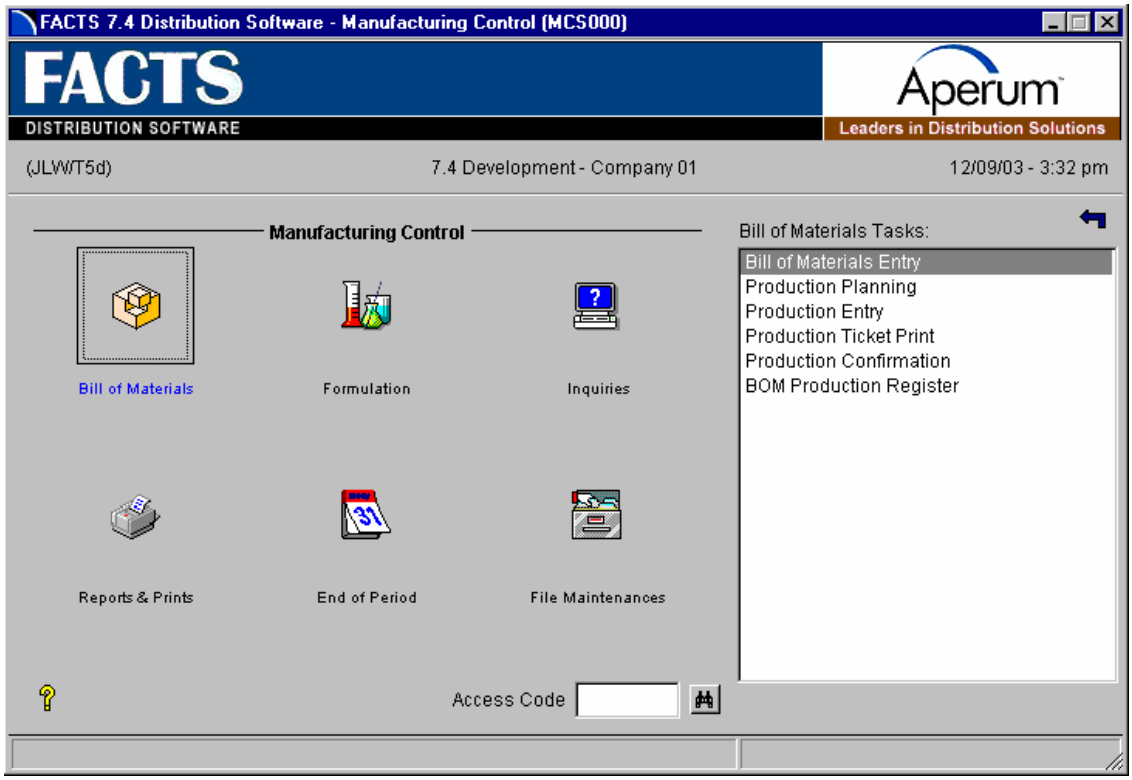
Bill of Materials (MCS100)

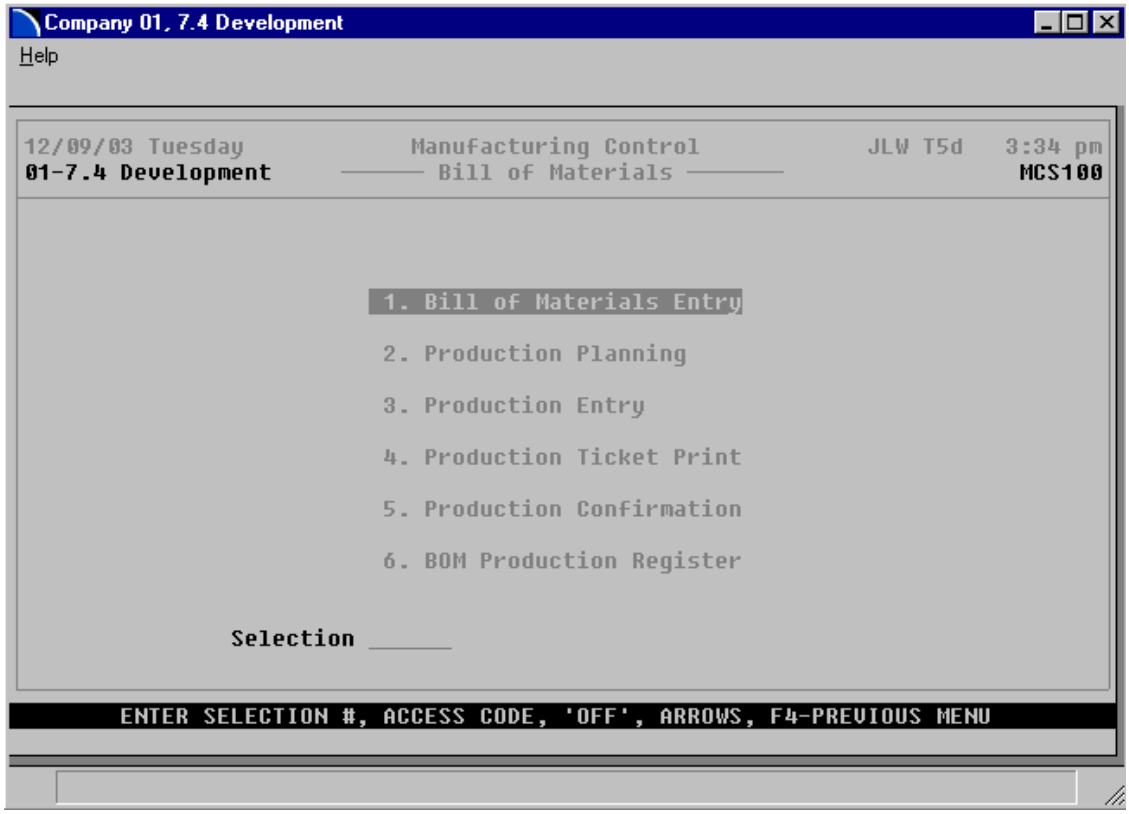
The programs on this menu allow the user to produce bill of material finished items. A bill of material item is an item whose quantities are maintained in a warehouse and it is produced by using component items whose quantities are also maintained in the same warehouse. As the BOM finished item is produced, its on hand quantity is increased and the components quantities are decreased.

The Bill of Material Entry program is used to enter the component items and number of units used to produce one finished item. Production Planning may be used any time to enter production planned for the current or any future date. Production planning does not update any warehouse / item information.

When an item is to be produced, it is entered on a production ticket through the Production Entry program. Only one finished item (multiple units) is entered per production ticket. Production tickets are then printed through the Production Ticket Print program. A production ticket tells the warehouse staff how many of a finished item to produce and the component items and number of each used to produce the finished item.

When production is complete, production is entered through the Production Confirmation program. The Production Register is printed to provide an audit trail of production and to update all appropriate inventory and manufacturing files.





Bill of Materials Entry (MCE110)

Function

This program allows the user of the FACTS system to enter bill of material finished items. The Bill of Material Entry screen consists of two sections. The upper portion of the screen is called the header portion where general information such as the finished item number, overhead, packaging and labor factors are entered. The lower portion of the screen is called the line-item portion where each component item and quantity used to make the bill of material item is entered.

Once the bill of material item is set up in the entry program, production planning may be entered as well as actual production.

The user has the option of changing, adding to, removing line-items from or deleting the bill of material item at any time.

A bill of material item must be set through the Item F/M program and the **BOM/Formula** flag must be set to B before the items bill may be set up. All component items (items which are used to produce the bill of material item) must also be set up through the Item F/M program.

User Inputs

The following inputs are involved in creating a bill of material record for a finished item:

1. Finished Item

Enter the finished item number. The entry must be a valid finished item number which displays the description(s) and stocking unit of measure. F3 allows a search (ref. 11). F2 allows a search of finished items already set up.

2. Overhead

Enter the overhead cost per unit of producing this item as an amount or a percentage. If entered as a percentage, enter the number and a % before pressing CR.

3. Package

Enter the packaging cost per unit of producing this item as an amount or a percentage. If entered as a percentage, enter the number and a % before pressing CR.

4. Labor

Enter the labor cost per unit of producing this item as an amount or a percentage. If entered as a percentage, enter the number and a % before pressing CR.

5. Update in SO

Enter one of the following values to indicate if component items for this finished item can be updated in Sales Orders:

F - finished items can only be assembled in MC, i.e., finished items can only be produced by using the MC entry and register programs.

C - finished items must be assembled from components entered in an SO entry program to update on-hand quantities. The user will have the option at the time of entry whether to create BOM component line-items automatically or one at a time. Creating component line-items automatically means the BOM Component Entry window is displayed at the prompt-selection input with the line-items already entered. Creating component line-items one at a time means the system displays the BOM Component Entry window but waits for you to enter the number of units needed for each line-item.

A - finished items must be assembled from components entered in an SO entry program to update on-hand quantities. In SO the system will display a message that it is creating component items, then it will proceed to the next input. The BOM Component Entry window is not displayed. However, you can back up to the window if changes are necessary.

O - the operator can decide at the time of entry in SO whether to enter BOM component items as previously described for options **F**, **C**, or **A**.

If you enter options **C** or **A,** the finished items should not be produced with MC.

CR defaults to **F**. The **BOM Update** flag of the SO static control record must be set to **Y** for an entry of **C**, **A**, or **O** in this field to be meaningful.

This concludes the header portion of the Bill of Material Entry program. At this time, the header record is created. After the header record is created, all the header inputs except #1 are accessible through the change header routine. Input #1 can only be changed by deleting and reentering the finished item number.

Line numbers are assigned automatically beginning with 001 and incrementing by one for each additional line-item up to 999. In the rare case where 999 line-items have been entered, the program advances to the prompt-selection input D and refuses further entries.

6. Item Number

Enter the component item number to be used to produce the bill of material finished item. The entry must be a valid number. Valid entries display the item description and stocking unit of measure. The user may create a memo line by entering M as the item number. The program assumes a memo line is to be entered and advances to the description input. F1 allows the currently displayed value to remain the same. F3 advances to the **prompt-selection input**. F4 removes the line and backs up to the previous line number. F2 allows a search (ref. 11).

7. Units

Enter the number of units needed to produce one finished item.

8. Memo

Enter the memo to appear on the BOM listing (up to 20 characters).

This concludes the line-item portion of the Finished Item Entry. The **prompt-selection** input allows the user to perform the following functions:

- Changes a line-item

L - Lists line items

A - Adds a line-item

D - Deletes the finished item

F2 - Changes header

F3 - Accesses the ending routine (ref. 10)

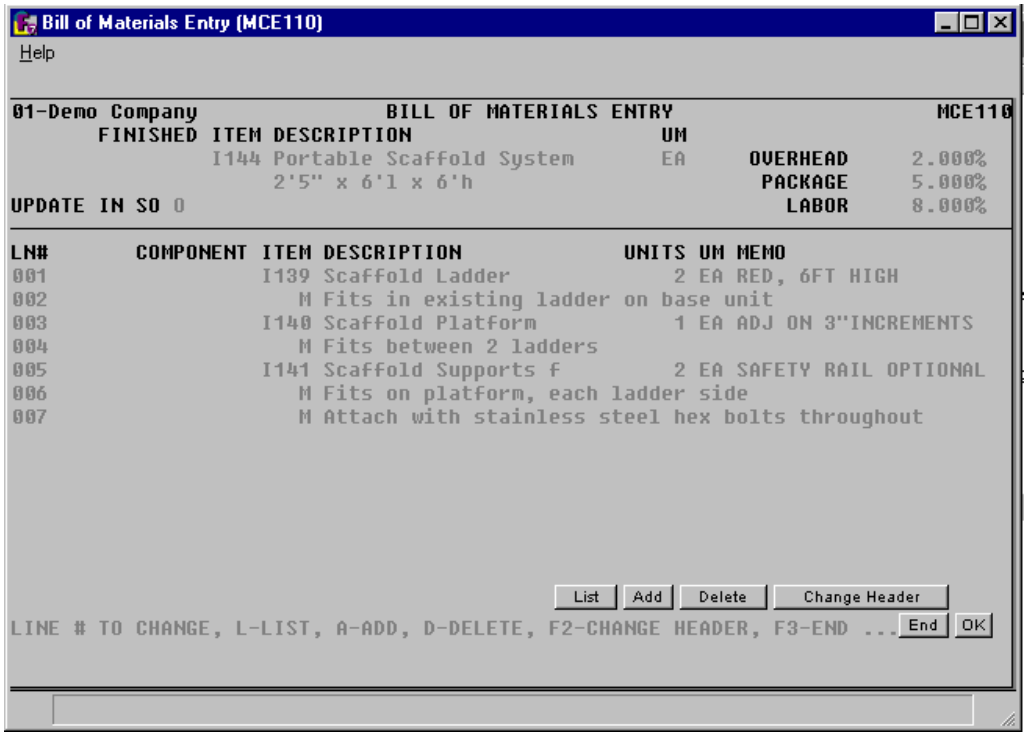
The ending routine allows the user to **CR**-continue, concluding the entry of the bill of material item. The screen is cleared of input information and the program returns to input #1. F4 backs up to the prompt-selection input.

Technical Notes

At the conclusion of the header portion, a header record is created in the bill of materials file (MCBOMS). At the conclusion of a line-item, a line-item record is created in the bill of materials file. If a bill of material is deleted, its history is deleted from the bill of materials history file (MCBHST).

FILES USED - SMCNTL, ICMAST, ICALPX, ICCLSX, ICINTR, MCBPLX, MCBPIX

FILES UPDATED - MCBOMS, MCBHST



Production Planning (MCE120)

Function

This program allows the user of the FACTS system to enter and display bill of material finished items planned for production. The user may enter finished items planned for production and the quantity planned to produce. The user may also display finished items planned for production in date or item order.

Once an item has been entered for planned production, the user may display the requirements of the component items which lists the following: component item number and description, quantity required to produce finished item, stocking unit of measure, current quantities on hand, on order and committed.

The user may change, add or delete any finished items planned for production.

User Inputs

The following inputs are involved in entering finished items planned for production:

1. Order

Enter whether to display planned production in D-date or I-item order. CR defaults to D.

2. Beginning Date

If I was entered in input #1, this input is skipped. Enter the beginning date to display (ref. 2). CR defaults to FIRST.

3. Beginning Item

If D was entered in input #1, this input is skipped. Enter the beginning finished item number to display. CR defaults to FIRST.

The program displays planned production in either date order (beginning with date entered in input #2,) or item order (beginning with item entered in input #3).

The prompt-selection input allows the user to perform a number of functions:

 # - Changes a line-item - Line-items may be changed or deleted by entering the line number to be changed. During the change routine, F1 allows the currently displayed value to remain the same.

CR - Continues - A limited number of line-items appear on the screen at any one time. The continue function allows line-items to be redisplayed.

A - Adds a line-item - Line items may be added when entering planned production of finished items.

1. Enter the planned production date (ref. 2). CR defaults to the system date. F3 or F4 returns to the **prompt-selection input**.
2. Enter the warehouse. The entry must be a valid warehouse. CR defaults to the warehouse assigned to the terminal. F2 allows a search (ref. 11).
3. Enter the bill of material finished item number. The entry must be a valid finished item. F2 allows a search (ref. 11). If the item is already entered for the same date on a previous line, the user must edit the current entry to change or delete.
4. Enter the quantity planned to produce.
5. CR to continue or F2 displays the requirements for producing the quantity of the finished item entered.

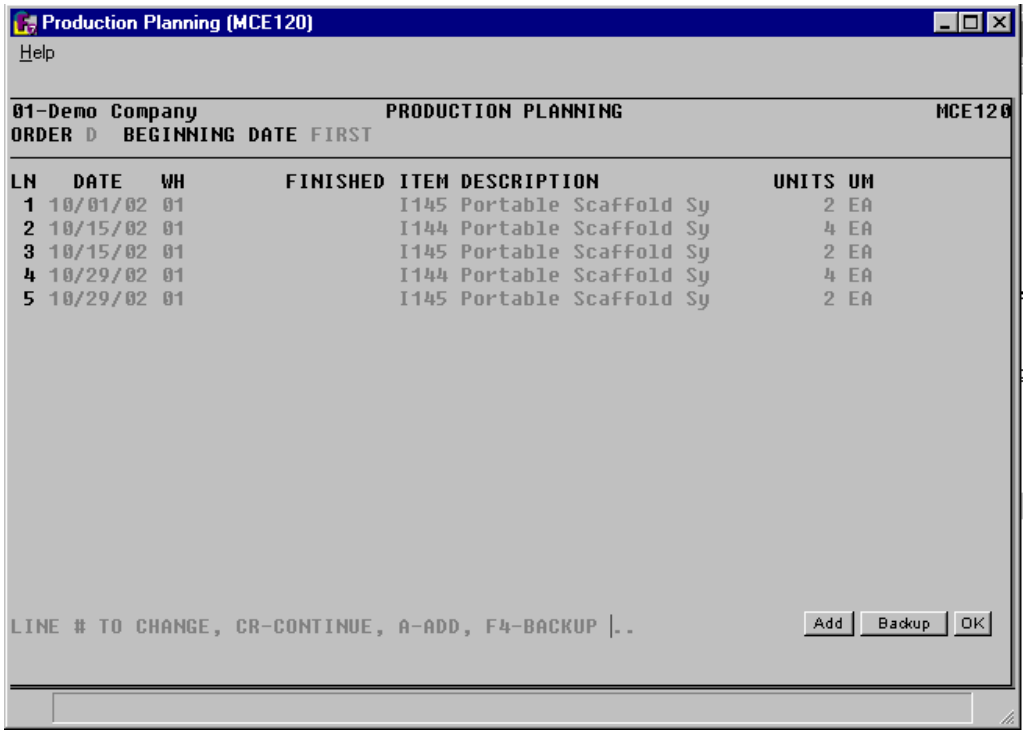
If requirements are displayed, press CR to continue listing line-items or press F4 to back up (and skip requirements). When requirements are displayed, an asterisk (*) next to the units indicates that the number of units required is greater than available (available = on hand - committed).

Technical Notes

At the conclusion of the header portion, a header record is created in the BOM planned production file (MCBPLN) and its associated sort file (MCBPLX).

FILES USED - SMCNTL, MCBOMS, ICMAST, ICWHSE, ICINTR

FILES UPDATED - MCBPLN, MCBPLX



Production Entry (MCE130)

Function

This program allows the user of the FACTS system to enter production tickets for bill of material finished items.

The Production Entry screen consists of two sections. The upper portion of the screen is called the header portion where the finished item number, number of units to be produced, etc. are entered. The lower portion is called the line-item portion where the component items, number of units required, etc. are entered.

The user has the option of changing, adding to, removing line-items from or deleting the production ticket at any time. Deleted production ticket numbers may be used again.

A number of additional features are available in the Production Entry program:

A bill of material finished item search may be performed.
A component item search may be performed.
Memo lines may be entered.
A memo may be entered for each component.

Existing production planning for the bill of material finished item may be displayed. Production tickets are available for printing using the Production Ticket Print. Production tickets may later be confirmed and a register may be run to update on-hand quantities.

User Inputs

The following inputs are involved in entering production tickets for bill of material finished items:

1. Ticket

Enter the number of the ticket (1-999999). CR assigns the next number on file. NEXT is displayed as the ticket number until the header portion of the ticket is complete and the actual ticket number is assigned and displayed. F2 allows a production ticket number search (ref. 11).

2. Finished Item

Enter the BOM finished item number. The entry must be a valid finished item number which displays the description(s) and the stocking unit of measure. F2 allows a search (ref. 11). F3 allows a finished item search of items with a bill of materials already set up.

3. Whse

Enter the warehouse to produce the finished item (i.e., all component items will come from this warehouse). CR defaults to the warehouse assigned to the terminal. F2 allows a search (ref. 11).

4. Entered

Enter the date of the production entry (ref. 2). CR defaults to the system date.

5. Production

Enter the planned production date (ref. 2), i.e., date production is scheduled to take place. CR defaults to the system date.

6. Units

Enter the number of units to produce. F2 displays production planning for the finished item being entered (ref. 11). If a line number is selected from production planning, the program advances to the **prompt-selection input**. On hand, on order, committed quantities and the stocking units of measure are displayed in the line-item section of the screen during this input.

This concludes the header portion of the production entry program. At this time, a ticket number is automatically assigned and displayed. After the header record is created, all header inputs except #1-3 are accessible through the change header routine. Inputs #1-3 can only be changed by deleting and reentering the production ticket.

Upon completion of the header, the on-order quantities are updated for the warehouse for the BOM finished item.

The line-item portion of the program allows entry of up to 999 line-items and memo lines to complete the ticket.

Line numbers are assigned automatically beginning with 001 and incrementing by one for each additional line-item up to 999. In the rare case where 999 line-items have been entered on a single ticket, the program advances to the **prompt-selection input** and refuses further entries.

Upon completion of the header, the program automatically displays the required component line-items. The units required of the component items are calculated based on the number of finished units entered in the header. After the line-items are added, the program advances to the **prompt-selection input**. Once the component line-items are added, the committed quantities are updated in the warehouse for those component items.

The **prompt-selection input** allows the user to perform a number of functions:

- Changes a line-item

L - Lists line-items

A - Adds line-items

D - Deletes the production ticket

F2 - Changes the header

F3 - Accesses the ending routine (ref. 10)

The ending routine allows the user to CR-continue concluding the entry of the production ticket. The screen is cleared of input information and the program returns to input #1. F4 backs up to the **prompt-selection input**.

Technical Notes

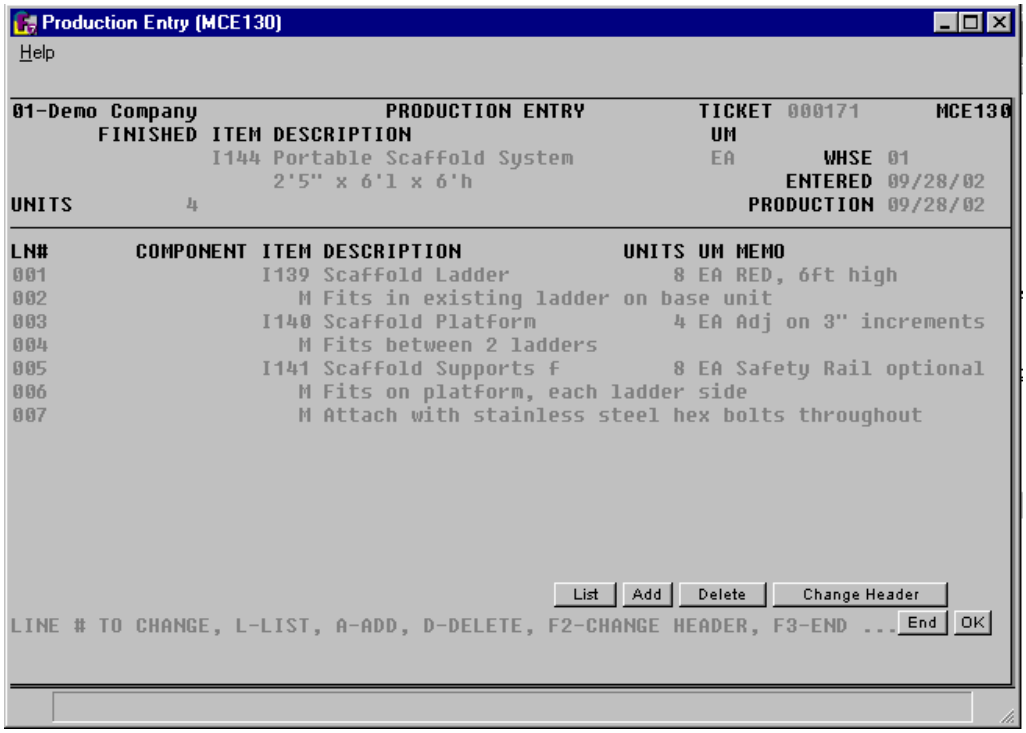
At the conclusion of the header portion, a header record is created in the BOM production file (MCBPRD). The sort files BOM production ticket by finished item (MCBPIX) and the production ticket by item sort (items in process)

(MCITMX) are maintained. The on order quantities are updated for the finished item in the warehouse/item file (ICWHSE).

At the end of each line, a line-item record is created in the BOM production file and the sort file (MCITMX) is maintained. The committed quantities are updated for the component items in the warehouse/item file.

FILES USED - MCBOMS, ICMAST, ICCLSX, ICALPX, ICINTR

FILES UPDATED - SMCNTL, MCBPRD, ICWHSE, MCBPIX, MCITMX, MCBPLX, MCBPLN



Production Ticket Print (MCP110)

Function

This program allows the user of the FACTS system to print and, if necessary, reprint production tickets entered through the Production Entry program.

The printed production tickets include all header and line-item information. The ticket's print size is 8-1/2" x 11" and will not exceed 80 columns.

The user has the option to:

Print an alignment.
Print or reprint selected or all production tickets.
Select warehouse(s) to print.
Select a cutoff date.

User Inputs

The following inputs are involved in printing BOM production tickets:

1. Alignment

(ref. 1)

2. Print/Reprint

Enter whether tickets are to be **P**-printed (printed for the first time) or **R**-reprinted (ticket has been printed at least once already). CR defaults to P.

3. Warehouse

Enter up to twenty 2-character warehouse codes side by side to print. CR defaults to the warehouse assigned to the terminal. F3 defaults to ALL.

4. Cutoff Date

Enter the cutoff date (ref. 2). Tickets entered on or before this date will print. Tickets entered after this date will not print. CR defaults to the system date.

5. Ticket

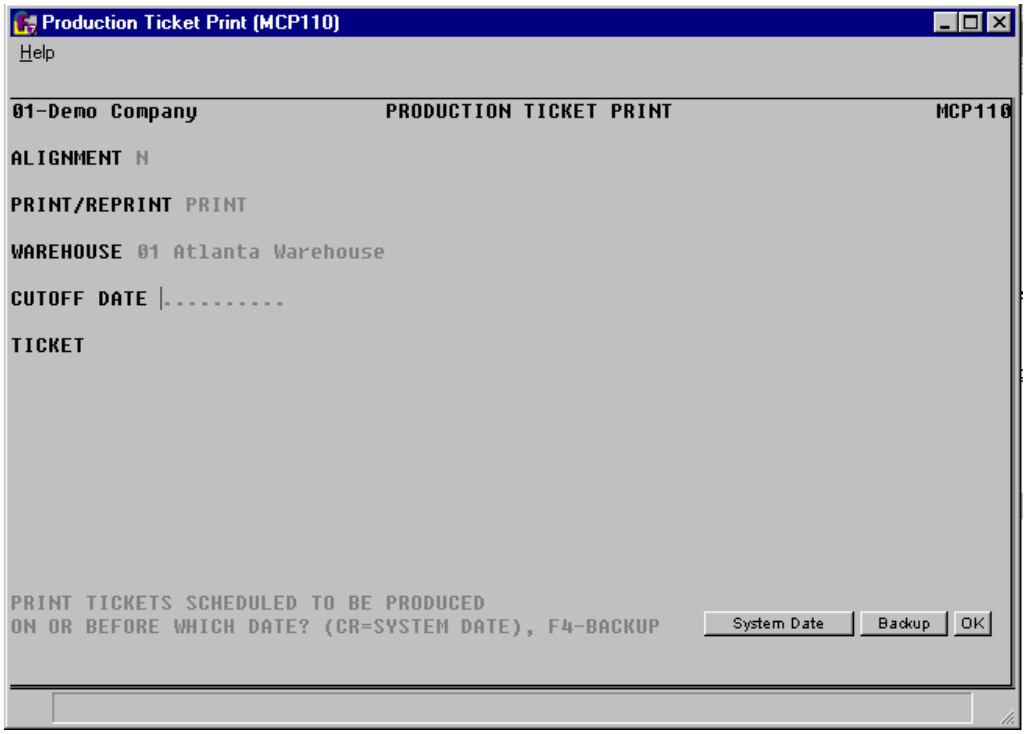
Enter the production ticket(s) to (re)print (1-999999). CR defaults to all tickets not yet printed if P was entered in input #2. CR defaults to all tickets already printed (and not yet confirmed) if R was entered in input #2.

Technical Notes

Printing proceeds by reading through the BOM production file (MCBPRD) and printing the chosen tickets. If printing for the first time, the cycle status flag in the BOM production file will be updated from **E**-entered to **P**-printed.

FILES USED - SMCNTL, ICMAST

FILES UPDATED - MCBPRD



Production Confirmation (MCE140)

Function

This program allows the user of the FACTS system to confirm BOM production tickets entered through the Production Entry program. The program also allows users to correct production tickets already confirmed and not updated by the Production Register. The confirmation process involves confirming that a finished BOM item was produced. Once a production ticket is confirmed, it is ready to print on the next Production Register.

The user may access the ticket by ticket number or BOM finished item number. If accessing by finished item number, information for entered, printed and confirmed tickets is displayed in summary so the user may select the ticket to confirm.

The summary screen displays the line number, ticket number, status of ticket (**E**-entered, **P**-printed or **C**-confirmed), warehouse produced in, entry date, schedule production date and quantity to be produced.

The ticket number to be confirmed is displayed in a format similar to that used in the Production Entry program. The user enters the number of items produced and the date of actual production and each line-item is displayed.

The user has the option of changing, adding to, or removing line-items from the ticket. The user may also delete the production ticket or stop confirmation at any time. Deleted production ticket numbers may be used again.

User Inputs

The following inputs are involved in confirming a production ticket:

1. Ticket

Enter the number of the production ticket to be confirmed. If the ticket has not been printed, the user may enter **N** or **YES** to confirm it anyway. If N is entered, the program returns to this input for the user to enter another ticket number. Entering YES proceeds with the program. F2 allows a search of tickets or finished items (ref. 11). Inputs #2-3 are skipped if a valid ticket number is entered in input #1.

2. Search

Enter whether to search by **T**-ticket or **I**-finished item. If searching tickets by finished item enter the finished item number for inquiry. A listing of tickets is displayed including the status (**E**-entered, **P**-printed, **C**-confirmed), warehouse, entry date, scheduled production date and planned production quantity for each ticket. F2 allows a search. F3 allows a finished item search (ref. 11).

3. Line #

Enter the line number of the ticket to display. Press CR to continue if the screen is full and the ticket has not yet been displayed.

The header portion of the production ticket is displayed.

4. Units

Enter the number of units that were actually produced. CR defaults to the number of units entered originally to be produced.

5. Serial/Lot # Entry

If the finished item is not a serial/lot number, this input is skipped. F2 allows entry of the serial/lot number(s). Enter the serial/lot number of the finished item. Enter the quantity (if a serial number, 1 is entered automatically). The undistributed amount displayed must equal zero in order to produce all units. F3 to end serial/lot entry.

6. Date

Enter the date of actual production (i.e., when the finished item was produced) (ref. 2). CR defaults to the scheduled production date entered through the Production Entry program.

This concludes the header portion of the Production Confirmation program. The program automatically displays the required component line-items. The units required of the component items are calculated based on the number of produced units entered in the header. During the process of displaying component items, if an item is a serial/lot item proceed to input #7. If items are not serial/lot items, input #7 is skipped.

7. Serial/Lot # Entry

Enter the serial/lot number of the component item(s) used to produce the finished item. The entry must be a valid serial/lot number. F2 allows a search (ref. 11). Enter the quantity (if a serial number, 1 is entered automatically). The undistributed amount displayed must equal zero in order to produce all units. F3 to end entries. If the undistributed is not equal to 0, the amount left undistributed is set to 0 and reduces the components units for production by the undistributed amount.

Upon completion of the display of line-items, the **prompt-selection input** allows the user to perform the following functions:

- Changes a line-item

L - Lists line items

A - Adds line-items

D - Deletes the production ticket

F2 - Changes the header

F3 - Accesses the ending routine (ref. 10)

S - Stops confirmation. Confirmation may be stopped prior to completion. Changes to the production ticket will remain changed, except for the units produced and the serial/lot numbers. These will be reset when the ticket is entered again for confirmation.

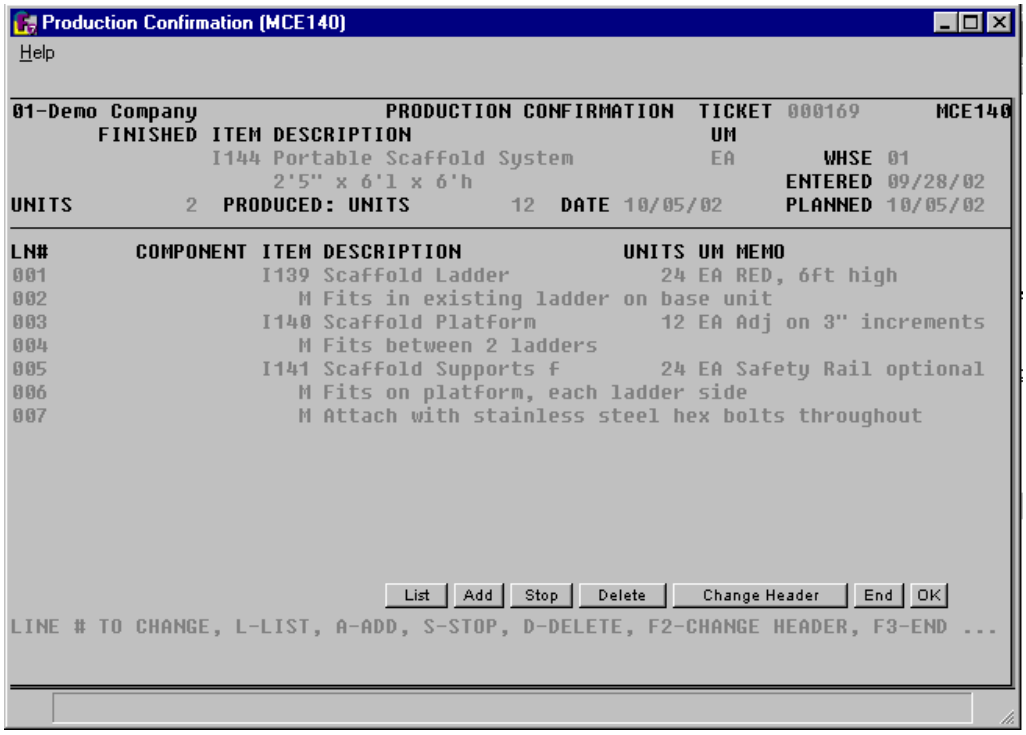
The ending routine allows the user to **CR**-continue, concluding the confirmation of the production ticket. The screen is cleared of input information and the program returns to input #1. F4 backs up to the **prompt-selection input**.

Technical Notes

Any changes made in number of finished items produced or units used for component items are updated in the BOM production file (MCBPRD), and its associated sort files (MCBPIX, MCITMX) and the item / warehouse file (ICWHSE). If serial / lot numbers are entered, the inventory (ICLOTS) and manufacturing (MCBLOT) serial / lot files are updated.

FILES USED - SMCNTL, MCBOMS, ICMAST, ICALPX, ICCLSX, ICINTR

FILES UPDATED - MCBPRD, ICWHSE, MCBPIX, MCBLOT, ICLOTS, MCITMX



Production Register (MCR110)

Function

This program allows the user of the FACTS system to print a register of all BOM production tickets confirmed through the Production Confirmation program.

This program:

Prints a listing of BOM production tickets confirmed, component items used and costing information.
Note about costing information: You have the ability to cost serial and lot items by the system cost (costing method for the module). The feature provides for GAAP compliance. For the FACTS SO, IC and MC modules, you can decide if the cost for serial and lot items will be averaged actual (as it has always operated in the past) or system cost (costing method for the module). The default setting for each Static Control F/M is **A**-Averaged Actual (same behavior as they have before the monthly is applied). Users who want to take advantage of this change will need to change the option to **S**-System Cost for each of the applicable modules. The net result of selecting **S**-System Cost is that serial/lot items will be costed like non-serial/lot items. The results of this program are affected by this selection.
Builds and prints a general ledger distribution, if desired.
Posts to general ledger, if general ledger is built.
Updates inventory and manufacturing files.

Register information includes the following:

Ticket: Each ticket includes ticket number, date, warehouse, finished item number and description.
Component: Each component used includes the component item number and description, units used, stocking unit of measure, cost, costing unit of measure and extended cost.
Ticket totals: Each ticket includes overhead, package and labor costs, component cost, calculated cost, total units produced and extended cost. The total number of tickets printed is also included.

Once this register is updated, all production tickets included on the register are not accessible for corrections.

Usage: The system assigns usage to the warehouse of the production header if the Replenish flag on the Main screen of Warehouse/Item F/M (ICF920) set to Y.

User Inputs

The following steps are involved in printing the BOM Production Register:

1. Beginning Ticket

Enter the beginning ticket to print (1-999999). CR defaults to FIRST.

2. Ending Ticket

Enter the ending ticket to print (1-999999). CR defaults to LAST.

3. Beginning Date

Enter the beginning production date to print (ref. 2). CR defaults to FIRST.

4. Ending Date

Enter the ending production date to print (ref. 2). CR defaults to LAST.

5. Warehouse

Enter the warehouse to print. The entry must be a valid warehouse. CR defaults to the warehouse assigned to the terminal. F2 defaults to ALL.

6. Date

Enter the Production Register date (ref. 2). The date must be in the current manufacturing period. The current period for manufacturing control (MC) general ledger (GL) and inventory control (IC) is displayed in the upper right corner of the screen. CR defaults to the system date.

7. End Of Inputs

(ref. 3)

The general ledger distribution is built during the printing of the Production Register according to the entries made in the Production Confirmation program and the information entered in the general ledger posting tables and the MC to GL posting control record.

For users printing the GL distribution, the following input is displayed:

8a. Check register. OK to print GL distribution?

After printing the Production Register, **verify the printout**. If there is a correction to be made, enter **N** to exit the program. After the correction is made, the register can be rerun. If everything is correct, enter **YES** to continue. The program then prints the GL distribution. Once the GL distribution is printed, proceed to input #9.

For users not printing the GL distribution, the following input is displayed:

8b. Check register. OK to update?

After printing the Production Register, **verify the printout**. If there is a correction to be made, enter **N** to exit the program. After the correction is made, the register can be rerun. If everything is correct, enter **YES** to continue and no GL distribution will be printed, the following input (#9) is skipped and the program proceeds with the update.

9. Check GL distribution. OK to update?

After printing the distribution, **verify the printout**. If everything is correct, enter **YES** to continue. The program proceeds with the update. If there is a correction to be made, enter **N** to exit the program. After the correction is made, the entire register process begins again.

Technical Notes

Printing of the Production Register proceeds by reading through the BOM production file (MCBPRD) and referencing tickets with a cycle status of **C**-confirmed.

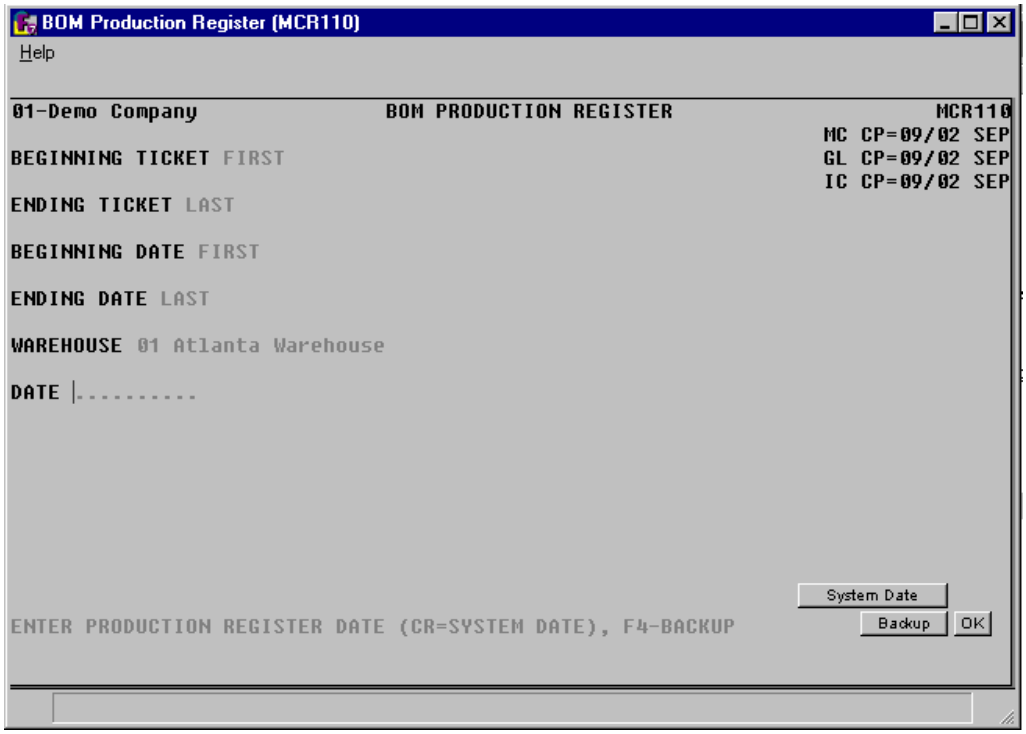
The general ledger distribution is built during the printing of the register using the distribution file (SMGLD?) after it is initialized.

During the update, committed and on hand quantities for the component items and on order and on hand quantities for the finished item are updated in the item / warehouse file (ICWHSE). If the finished or component items are serial / lot items, records are removed from the BOM serial / lot file (MCBLOT) and updated in the inventory serial / lot file (ICLOTS). If LIFO / FIFO costing is used, the LIFO / FIFO cost layer file (ICCOST) and FIFO / LIFO update costs file (ICFUCT) are updated for the finished item. The average and last costs are updated in the item / warehouse file (ICWHSE). If ledgercards are stored for the finished or component items, the transaction is updated to the item ledgercards file (ICLEDG). The BOM period production file (MCBEOP) is updated. The BOM item production history file (MCBHST) is updated. The records from the BOM production file (MCBPRD) and its associated sort file (MCBPIX) are removed after the information from the record has been used to update the appropriate files listed above. Finally, the last register number used is updated in the control file (SMCNTL).

If the general ledger distribution is printed and is to be updated, the GL journal update posts a journal entry automatically to the journal file (GLJRNL) and its associated sort file (GLJRNX).

FILES USED - ICMAST, MCBOMS, GLMSTR, SMGLD?

FILES UPDATED - SMCNTL, MCBPRD, ICWHSE, MCBLOT, ICLOTS, MCBEOP, ICCOST, ICFUCT, MCBPIX, ICLEDG, MCBHST, GLJRNL, GLJRNX, MCITMX



CHAPTER 3

Formulation (MCS200)

The programs on this menu allow the user to produce formulas and finished items using the formulas. Formulas are not inventory items, however, a formula is made up of ingredients which are items maintained in a warehouse. A finished item is an item produced which consists of (part of) a formula and packaging items. Packaging items are maintained in the same warehouse.

Following is an example of how formulation might be used:

Formula: F300 Cough Syrup
Standard Production Amount 800 ounces
Ingredients: hydrobromide 400 ounces
glycerin 300 ounces
camphon 75 ounces
sugar 25 ounces

Finished Item: 1 case cough syrup
Uses: 800 ounces of formula (#300)
Packaging items: 100 8-ounce bottles
100 bottle caps
100 labels
1 crate

In the example, the finished item is a case of cough syrup which consists of 100 8-ounce bottles of cough syrup. Packaging items are used to produce the finished item along with the formula of 800 ounces of cough syrup. The formula is produced using the ingredients.

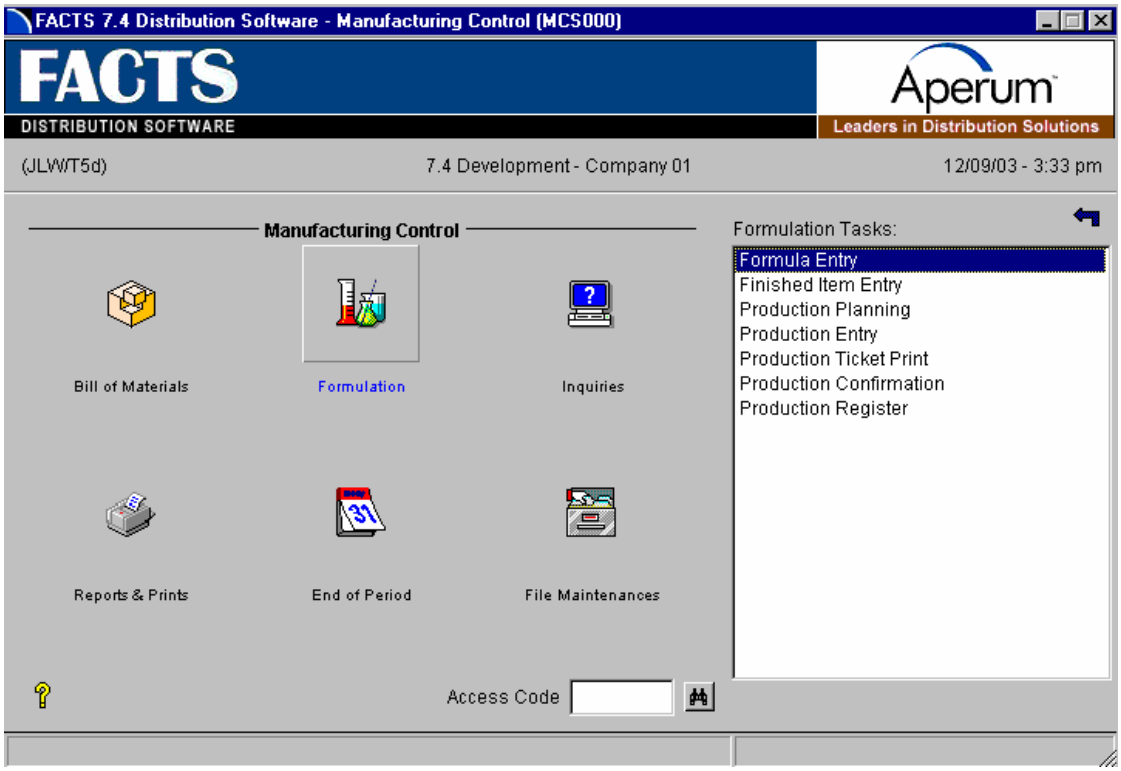
When a one case cough syrup item is produced, its on hand quantity is increased by one. The ingredients: hydrobromide on hand quantity is decreased by 400, glycerin on hand quantity is decreased by 300, camphon on hand quantity is decreased by 75 and sugar on hand quantity is decreased by 25.

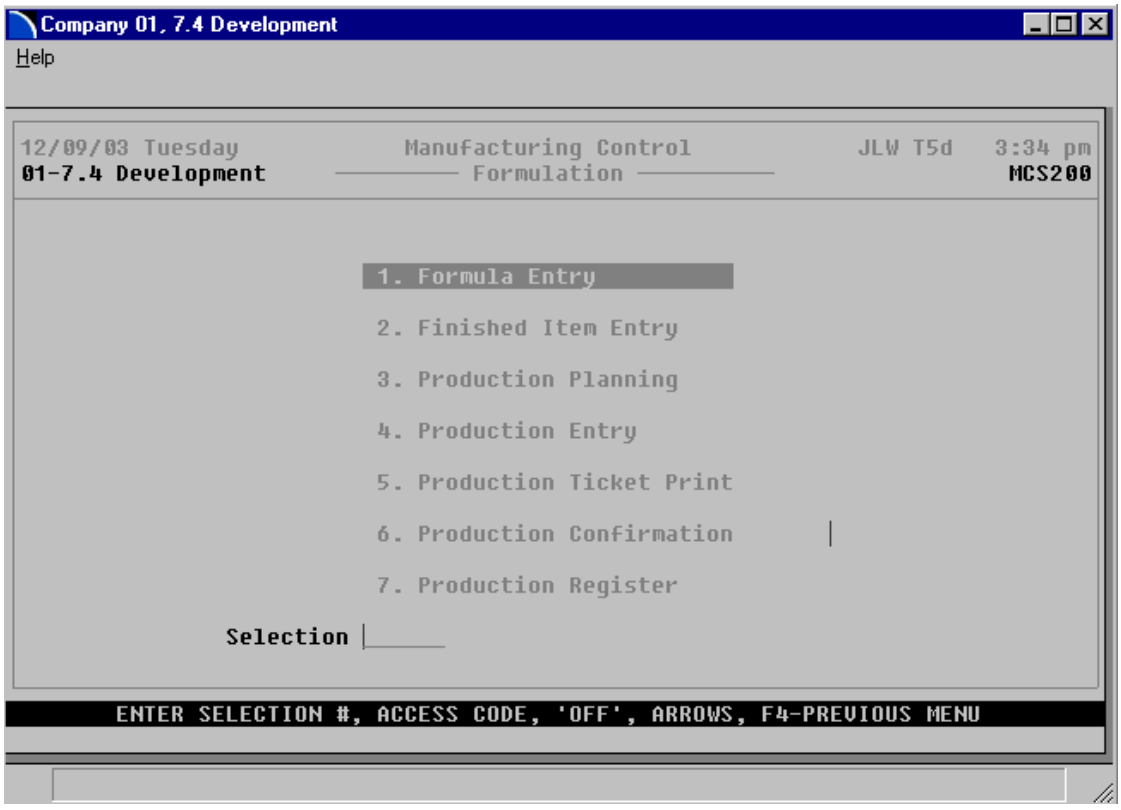
The packaging items: 8-ounce bottle on hand quantity is decreased by 100, bottle cap on hand quantity is decreased by 100, label on hand quantity is decreased by 100 and crate on hand quantity is decreased by 1.

The Formula Entry program is used to enter the ingredient items and number of units used to produce a formula. The Finished item Entry program is used to enter the packaging items and number of units used to produce a finished item. Production Planning may be used any time to enter production planned for the current or any future date. Production Planning does not update any warehouse/item information.

When a finished item is to be produced, it is entered on a formula production ticket through the Production Entry program. Only one formula (with multiple finished items as needed) is entered per production ticket. Two production tickets are then printed through the Production Ticket Print program: 1) telling the warehouse staff how much of a formula to produce and the ingredients and number of each used to produce the formula; and 2) telling the warehouse staff how much of the finished item(s) to produce and the packaging items and number of each used to produce the finished item(s).

When production is complete, production is entered through the Production Confirmation program. The Production Register is printed to provide an audit trail of production and to update all appropriate inventory and manufacturing files.





Formula Entry (MCE210)

Function

This program allows the user of the FACTS system to enter formulas using ingredients. The Formula Entry screen consists of two sections. The upper portion of the screen is called the header portion where general information such as the formula number, overhead and labor factors are entered. The lower portion of the screen is called the line-item portion where each ingredient item and quantity used to make up the formula is entered.

Once the formula number is set up in the entry program, the finished items using the formula should be set up in the Finished Item Entry program. After packages are set up, production planning may be entered as well as actual production.

The user has the option of changing, adding to, removing line-items from or deleting the formula at any time. Deleted formula numbers may be reused. All ingredient items (items which are used to produce the formula) must be set up through the Item F/M program.

User Inputs

The following inputs are involved in creating a formula number:

1. Formula

Enter the formula (up to 6 characters). Formulas are defined by the user. F2 allows a formula search (formulas previously entered through this program) (ref. 11).

2. Desc

Enter the formula's name or description (up to 30 characters).

3. Overhead

Enter the overhead cost per unit of producing this formula as an amount or a percentage. If entered as a percentage, enter the number and a % before pressing CR.

4. Labor

Enter the labor cost per unit of producing this formula as an amount or a percentage. If entered as a percentage, enter the number and a % before pressing CR.

5. Standard Production Quantity

Enter the standard quantity of this formula that is normally produced (0-99999999). For example, enter the quantity of a standard batch.

6. UM (Unit Of Measure)

Enter the unit of measure of the standard quantity (up to 2 characters). For example, if 100 pounds are normally produced, enter LB.

7. Waste %

Enter the total maximum percentage of waste when this formula is produced for the standard production quantity (0-99.9). This waste % is used in the Production Entry and Confirmation programs to ensure that the units of formula produced do not differ from the units required by more than this percentage.

This concludes the header portion of the Formula Entry program. At this time, the header record is created. After the header record is created, all the header inputs except #1 are accessible through the change header routine. Input #1 can only be changed by deleting and reentering the formula number.

Line numbers are assigned automatically beginning with 001 and incrementing by one for each additional line-item up to 999. In the rare case where 999 line-items have been entered, the program advances to the **prompt-selection input** and refuses further entries.

8. Item Number

Enter the ingredient item number to be used to produce the formula. The entry must be a valid number. Valid entries display the item description and stocking unit of measure. The user may create a memo line by entering M as the item number. The program assumes a memo line is to be entered and advances to the description input. F1 allows the currently displayed value to remain the same. F3 advances to the **prompt-selection input**. F4 removes the line and backs up to the previous line number. F2 allows a search (ref. 11).

9. Units

Enter the number of units needed to produce the standard production quantity (input #5) (1-99999999).

10. Memo

Enter the memo to appear on the BOM listing (up to 20 characters).

This concludes the line-item portion of the Formula Entry. The **prompt-selection input** allows the user to perform the following functions:

- Changes a line item

L - Lists line-items

A - Adds a line-item

D - Deletes the finished item

F2 - Changes header

F3 - Accesses the ending routine (ref. 10)

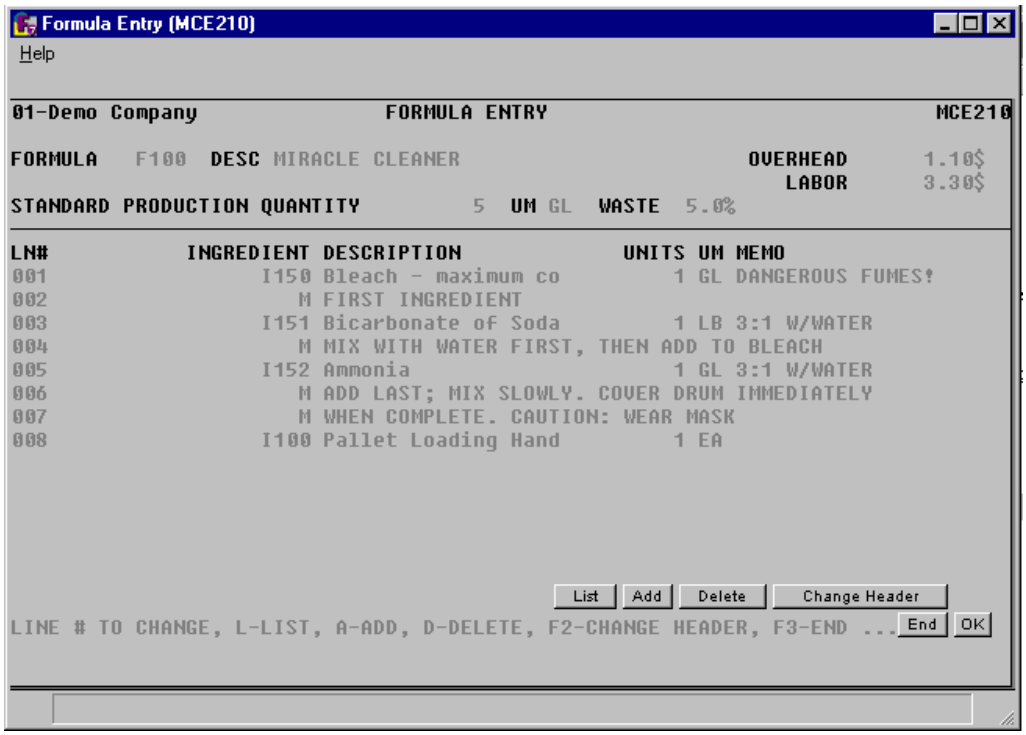
The ending routine allows the user to **CR**-continue, concluding the entry of the formula. The screen is cleared of input information and the program returns to input #1. F4 backs up to the **prompt-selection input**.

Technical Notes

At the conclusion of the header portion, a header record is created in the formula file (MCFORM). At the conclusion of a line-item, a line-item record is created in the formula file. If a formula is deleted, its history is deleted from the formula history file (MCFHST).

FILES USED - SMCNTL, ICMAST, ICALPX, ICCLSX, ICINTR

FILES UPDATED - MCFORM, MCFHST



Finished Item Entry (MCE220)

Function

This program allows the user of the FACTS system to enter formulation finished items. The Finished Item Entry screen consists of two sections. The upper portion of the screen is called the header portion where general information such as the finished item number, overhead, and labor factors are entered. The lower portion of the screen is called the line-item portion where each packaging item and quantity used to make the formulation finished item is entered.

Once the finished item is set up in this program, production planning may be entered as well as actual production.

The user has the option of changing, adding to, removing line-items from or deleting the package item at any time.

A formulation finished item must be set through the Item F/M program and the BOM/FORMULA flag must be set to F before the finished item may be set up. All packaging items (items which are used to produce the formulation finished item) must also be set up through the Item F/M program.

User Inputs

The following inputs are involved in creating a formulation finished item:

1. Finished Item

Enter the finished item number. The entry must be a valid finished item number which displays the description(s) and stocking unit of measure. F3 allows a search (ref. 11). F2 allows a finished item search of items already set up through this program.

2. Overhead

Enter the overhead cost of producing this finished item as an amount or a percentage. If entered as a percentage, enter the number and a % before pressing CR.

3. Labor

Enter the labor cost of producing this finished item as an amount or a percentage. If entered as a percentage, enter the number and a % before pressing CR.

4. Formula #

Enter the formula number used to make up this finished item (i.e., formula contains the ingredients). F2 allows a formula search (ref. 11).

5. Quantity

Enter the quantity of the formula needed to produce one finished item, i.e., enter the quantity or amount of the formula (lbs., ounces, boxes, etc.) needed to produce one finished item. CR defaults to the standard quantity produced of the formula.

This concludes the header portion of the Finished Item Entry program. At this time, the header record is created. After the header record is created, all the header inputs except #1 are accessible through the change header routine. Input #1 can only be changed by deleting and reentering the finished item number.

Line numbers are assigned automatically beginning with 001 and incrementing by one for each additional line-item up to 999. In the rare case where 999 line-items have been entered, the program advances to the **prompt-selection input** and refuses further entries.

6. Item Number

Enter the packaging item number to be used to produce the finished item. The entry must be a valid number. Valid entries display the item description and stocking unit of measure. The user may create a memo line by entering **M** as the item number. The program assumes a memo line is to be entered and advances to the description input. F1 allows the currently displayed value to remain the same. F3 advances to the **prompt-selection input**. F4 removes the line and backs up to the previous line number. F2 allows a search (ref. 11).

7. Units

Enter the number of units needed to produce one finished item (1-99999999).

8. Memo

Enter the memo to appear on the production ticket (up to 20 characters).

This concludes the line-item portion of the Finished Item Entry. The **prompt-selection input** allows the user to perform the following functions:

- Changes a line item

L - Lists line-items

A - Adds a line-item

D - Deletes the finished item

F2 - Changes header

F3 - Accesses the ending routine (ref. 10)

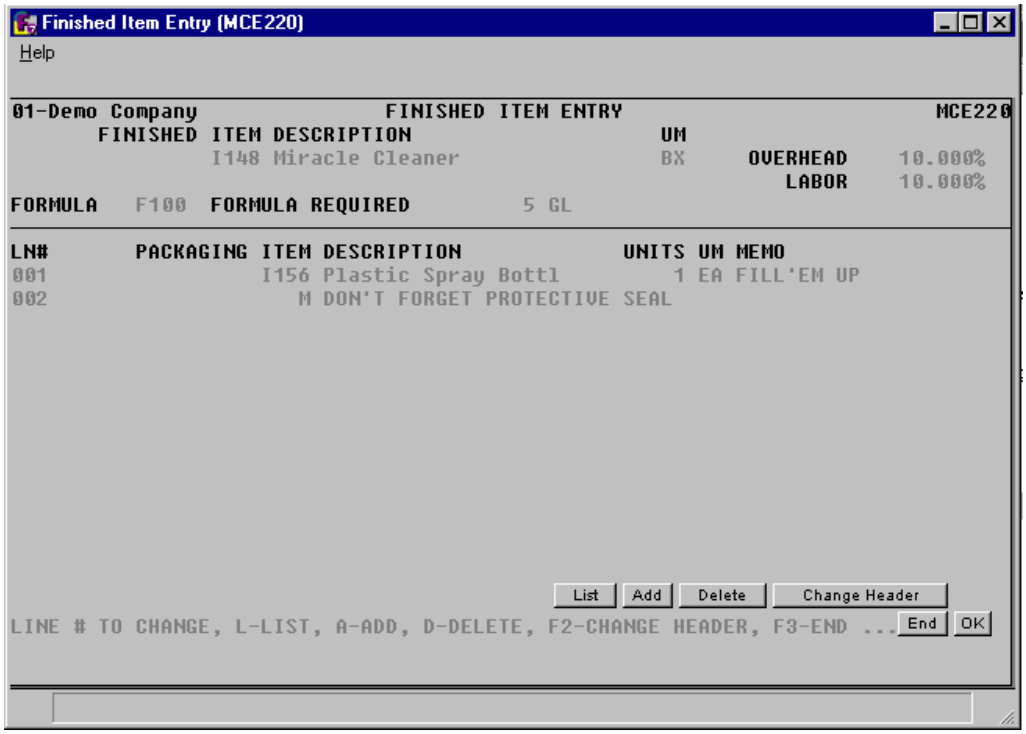
The ending routine allows the user to **CR**-continue, concluding the entry of the finished item. The screen is cleared of input information and the program returns to input #1. F4 backs up to the **prompt-selection input**.

Technical Notes

At the conclusion of the header portion, a header record is created in the formula finished item file (MCFPCK) and its associated sort file (MCFPKX). At the conclusion of a line-item, a line-item record is created in the formula finished item file.

FILES USED - SMCNTL, ICMAST, ICALPX, ICCLSX, MCFORM, ICINTR

FILES UPDATED - MCFPCK, MCFPKX



Production Planning (MCE230)

Function

This program allows the user of the FACTS system to enter and display formulas and finished items planned for production. The user may enter formulas and quantity planned for production and the finished items and the quantity planned for production. The user may also display formulas planned for production in date or formula order.

Once a formula has been entered for planned production, the user may display the requirements of the ingredient items which lists the following: ingredient item number and description, quantity required to produce finished item, stocking unit of measure, current quantities on hand, on order and committed.

The user may change, add or delete any formulas planned for production along with finished items.

User Inputs

The following inputs are involved in entering formulas and finished items planned for production:

1. Order

Enter whether to display planned production in **D**-date or **F**-formula order. CR defaults to D.

2. Beginning Date

If F was entered in input #1, this input is skipped. Enter the beginning date to display (ref. 2). CR defaults to the system date.

3. Beginning Formula

If D was entered in input #1, this input is skipped. Enter the beginning formula number to display. CR defaults to FIRST.

The program displays planned production in either date order (beginning with date entered in input #2) or formula order (beginning with formula entered in input #3).

The **prompt-selection input #1** allows the user to perform a number of functions:

- Changes a line number. Line-items may be changed or deleted by entering the line number to be changed. During this change routine, F1 defaults to the currently displayed value of the input.

CR - Continues. A limited number of line-items appear on the screen at any one time. The continue function allows line-items to be redisplayed.

A - Adds a line-item. Line-items are added when entering planned production of formula numbers.

1. Enter the planned production date (ref. 2). CR defaults to the system date. F4 returns to the **prompt-selection input#1**.

2. Enter the warehouse. The entry must be a valid warehouse. CR defaults to the warehouse assigned to the terminal. F2 allows a search (ref. 11).
3. Enter the formula number. The entry must be a valid formula. F1 allows the currently displayed value to remain the same. F2 allows a search (ref. 11). If the formula is already entered for the same date on a previous line, the user must edit the current entry to change or delete.
4. Enter the quantity planned to produce. CR defaults to the standard production quantity entered for the formula in the Formula Entry program.
5. CR to enter finished item or F2 to display the requirements for producing the quantity of the formula entered.

If requirements are displayed, press CR to continue listing line-items or press F4 to back up to CR to continue (and enter finished item). An asterisk (*) displayed next to the quantity indicates that the quantity required is greater than the available (available = on hand - committed).

4. Finished Item

Enter the finished item number to be produced using this formula (i.e., enter how this formula is to be packaged). The entry must be a valid item set up in the Item F/M with the **BOM/formula** flag set to **F**-formulation. The finished item entered must use the same formula as set in the Finished Item Entry program. F1 allows the currently displayed value to remain the same. F3 advances to the **prompt-selection input #2**. Valid entries display the item description and stocking unit of measure. F2 allows a finished item search (ref. 11).

5. Units

Enter the number of units needed to produce the production quantity of the formula (1-99999999).

6. Memo

Enter the memo to appear on the production ticket.

The **prompt-selection input #2** allows the user to perform a number of functions:

- Changes a line number. Line-items may be changed or deleted by entering the line number to be changed. During this change routine, F1 allows the currently displayed value to remain the same.

L - Lists. A limited number of line-items appear on the screen at any one time. The continue function allows line-items to be redisplayed.

A - Adds a line-item. Line-items are added when entering planned production of formula numbers.

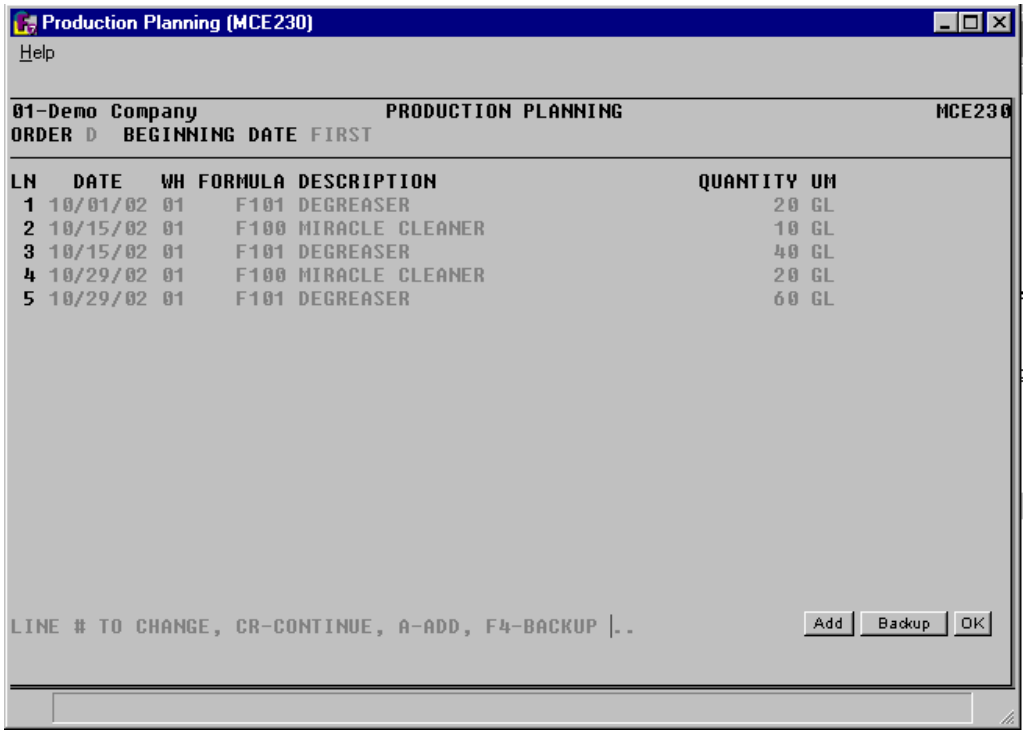
F3 - Returns to addition routine of **prompt-selection input #1**.

Technical Notes

At the conclusion of the header portion, a header record is created in the formula planned production file (MCFPLN) and its associated sort file (MCFPLX).

FILES USED - SMCNTL, MCFORM, ICMAST, ICWHSE, MCFPCK, ICINTR

FILES UPDATED - MCFPLN, MCFPLX



Production Entry (MCE240)

Function

This program allows the user of the FACTS system to enter production tickets for formulas along with finished item information.

The Production Entry screen consists of two sections. The upper portion of the screen is called the header portion where the formula number, quantity to be produced, etc. are entered. The lower portion is called the line-item portion where the finished items, number of units required, etc. are entered.

The user has the option of changing, adding to, removing line-items from or deleting the production ticket at any time. Deleted production ticket numbers may be reused.

A number of additional features are available in the Production Entry program:

- A formula search may be performed.
- Ingredients for the formula may be displayed.
- A finished item search may be performed.
- Packaging items for the finished item may be displayed.
- Memo lines may be entered.
- A memo may be entered for each finished item.
- Existing production planning for formulas may be displayed.

Production tickets are available for printing using the Production Ticket Print. Production tickets may later be confirmed and a register may be run to update on-hand quantities.

User Inputs

The following inputs are involved in entering production tickets for formulas:

1. Ticket

Enter the number of ticket (1-999999). CR assigns the next number on file. NEXT is displayed as the ticket number until the header portion of the ticket is complete and the actual ticket number is assigned and displayed. F2 allows a production ticket number search (ref. 11).

2. Formula #

Enter the formula number. The entry must be a valid formula number that displays the description and the unit of measure. F2 allows a search (ref. 11).

3. Whse

Enter the warehouse to produce the formula (i.e., all ingredients will come from this warehouse). CR defaults to the warehouse assigned to the terminal. F2 allows a search (ref. 11).

4. Entered

Enter the date of the production entry (ref. 2). CR defaults to the system date.

5. Production

Enter the planned production date (ref. 2), i.e., date production is scheduled to take place. CR defaults to the system date.

6. Formula: To Produce

Enter the quantity of the formula to produce. CR defaults to the standard production quantity as set in the Formula Entry program. F2 displays production planning by date for the formula being entered (ref. 11). If at any time during the Production Entry program this number is modified through the change header routine, the following input is asked: Recalc (recalculate) **I**-ingredients, **F**-finished items, **B**-both or **N**-neither. Quantities are recalculated as needed.

This concludes the header portion of the production entry program. At this time, a ticket number is automatically assigned and displayed. After the header record is created, all header inputs except #1-4 are accessible through the change header routine. Inputs #1-4 can only be changed by deleting and reentering the production ticket.

7. Display Ingredients?

Enter **N** or **Y** to indicate whether to display ingredients for the formula. Information displayed includes for each ingredient, the item number and description, units needed, stocking unit of measure and memo. If Y is entered, the program proceeds to **prompt-selection input #1**. CR defaults to N and proceeds to input #8.

The **prompt-selection input #1** allows the user to perform a number of functions:

- Changes a line number. Line-items may be changed or deleted by entering the line number to be changed. During this change routine, F1 allows the currently displayed value to remain the same.

L - Lists line-items. A limited number of line-items appear on the screen at any one time. The list function allows line-items to be displayed.

A - Adds a line-item. Line-items may be added when entering production.

1. Enter the item number. The entry must be a valid number. Valid entries display the item description and stocking unit of measure. The user may create a memo line by entering **M** as the item number. The program assumes a memo line is to be entered and advances to the description input. F1 allows the currently displayed value to remain the same. F3 advances to the **prompt-selection input**

   #1. F4 removes the line and backs up to the previous line number. F2 allows a search (ref. 10).

2. Enter the number of units needed.

3. Enter the memo (up to 20 characters).

Upon completion of the ingredients or packaging items, the committed quantities are updated in the warehouse for the ingredient items.

Press **F3** to end **prompt-selection input #1**. The line-item portion of the program allows entry of up to 999 finished line-items (finished items) and memo lines to complete the ticket.

Line numbers are assigned automatically beginning with 001 and incrementing by one for each additional line-item up to 999. In the rare case where 999 line-items have been entered on a single ticket, the program advances to the **prompt-selection input #2** and refuses further entries.

Upon completion of the header, if planned production was selected, the program automatically displays the required finished items for the formula. The units required of the ingredient items are calculated based on the number of finished units entered in the header. If planned production was not selected, the user must enter the finished item information.

8. Item Number

Enter the finished item number. The entry must be a valid formulation finished item. Valid entries display the item description and stocking unit of measure. The user may create a memo line by entering **M** as the item number. The program assumes a memo line is to be entered and advances to the description input. F1 allows the currently displayed value to remain the same. F3 advances to the **prompt-selection input #2**. F4 removes the line and backs up to the previous line number. F2 allows a finished item search (ref. 11).

9. Units

Enter the number of units needed of this finished item for the formula being produced.

10. Memo

Enter the memo to appear on the Production Register (up to 20 characters).

11. Recalc quantities for packaging items

If the finished items were changed or modified for the formula, enter **Y** or **N** to indicate whether to recalculate quantities for the packaging items of the finished item just entered. If the finished items were not changed or modified for the formula, this input is skipped.

12. Display packaging lines for this item?

Enter **N** or **Y** to indicate whether to display packaging items of the finished item. If Y is entered, the program proceeds to **prompt-selection input #1**. CR defaults to N and proceeds to input #8.

After the finished line-items are added, the program proceeds to the **prompt-selection input #2**. Once the finished line-items are added, the on order quantities are updated in the warehouse for those finished items. The committed quantities are updated in the warehouse for the component items of the finished items.

The **prompt-selection input #2** allows the user to perform a number of functions:

- Changes a line-item

L - Lists line-items

A - Adds line-items

D - Deletes the production ticket

F2 - Changes the header

F3 - Accesses the ending routine (ref. 10)

The ending routine allows the user to **CR**-continue concluding the entry of the production ticket. The screen is cleared of input information and the program returns to input #1. F4 backs up to the **prompt-selection input #2**.

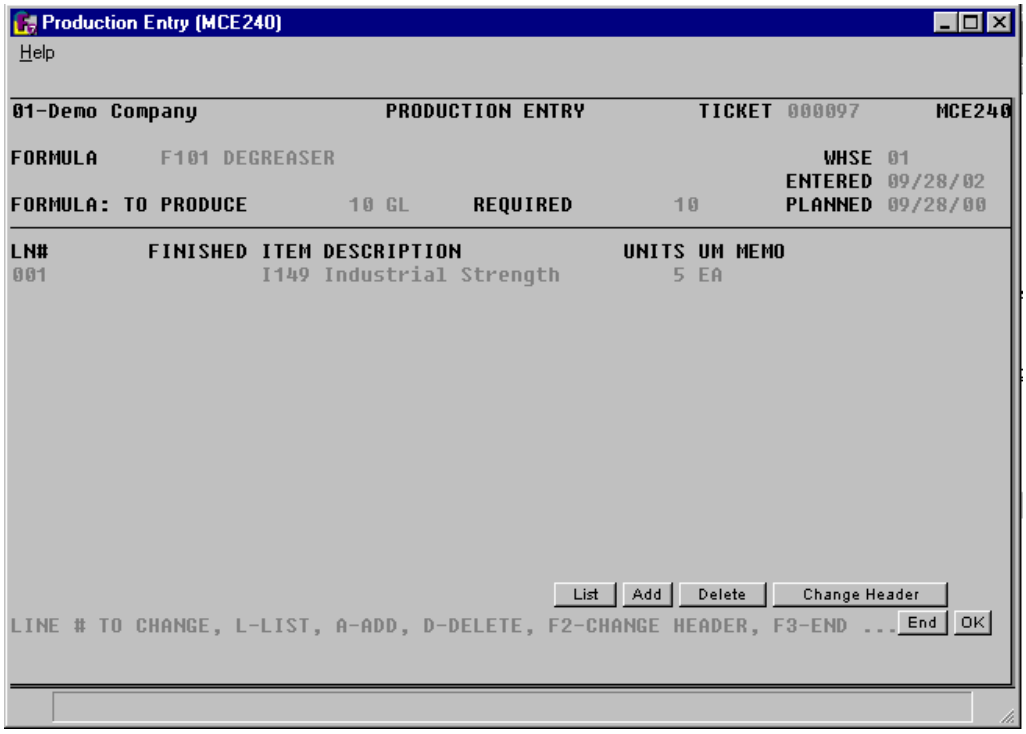
Technical Notes

At the conclusion of the header portion, a header record is created in the formulation production file (MCFPRD). The sort files formulation production ticket by formula (MCFPRX) and the production ticket by item sort (items in process) (MCITMX) are maintained. The committed quantities are updated for the ingredients.

At the end of each line, a line-item record is created in the formulation production file and the sort file (MCITMX) is maintained. The committed quantities are updated for the component items in the warehouse/item file. The on-order quantities are updated for the finished items in the warehouse/item file (ICWHSE).

FILES USED - MCFORM, ICMAST, ICCLSX, ICALPX, MCFPCK, ICINTR

FILES UPDATED - SMCNTL, MCFPRD, ICWHSE, MCFPRX, MCITMX, MCFPLX, MCFPLN



Production Ticket Print (MCP210)

Function

This program allows the user of the FACTS system to print and, if necessary, reprint production tickets entered through the Production Entry program.

The printed production tickets include all header and line-item information. The system will print the two following tickets:

- Formulation Production Ticket: Includes the formula number and quantity of the formula and for each of its ingredients, the number of units needed and a memo.
- Finished Item Ticket: Includes the formula number, each finished item and the quantity of the finished item and for each of its packaging items, the number of units needed and a memo.

The ticket's print size is 8-1/2" x 11" and will not exceed 80 columns.

The user has the option to:

- Print an alignment.
- Print or reprint selected or all production tickets.
- Select warehouse(s) to print.
- Select a cutoff date.

User Inputs

The following inputs are involved in printing formulation production tickets:

1. Alignment

(ref. 1)

2. Print/Reprint

Enter whether tickets are to be **P**-printed (printed for the first time) or **R**-reprinted (ticket has been printed at least once already). CR defaults to P.

3. Warehouse

Enter up to twenty 2-character warehouse codes side by side to print. CR defaults to the warehouse assigned to the terminal. F3 defaults to ALL.

4. Cutoff Date

Enter the cutoff date (ref. 2). Tickets entered on or before this date will print. Tickets entered after this date will not print. CR defaults to the system date.

5. Ticket

Enter the production ticket(s) to (re)print (1-999999). CR defaults to all tickets not yet printed if P was entered in input #2. CR defaults to all tickets already printed (and not yet confirmed) if R was entered in input #2.

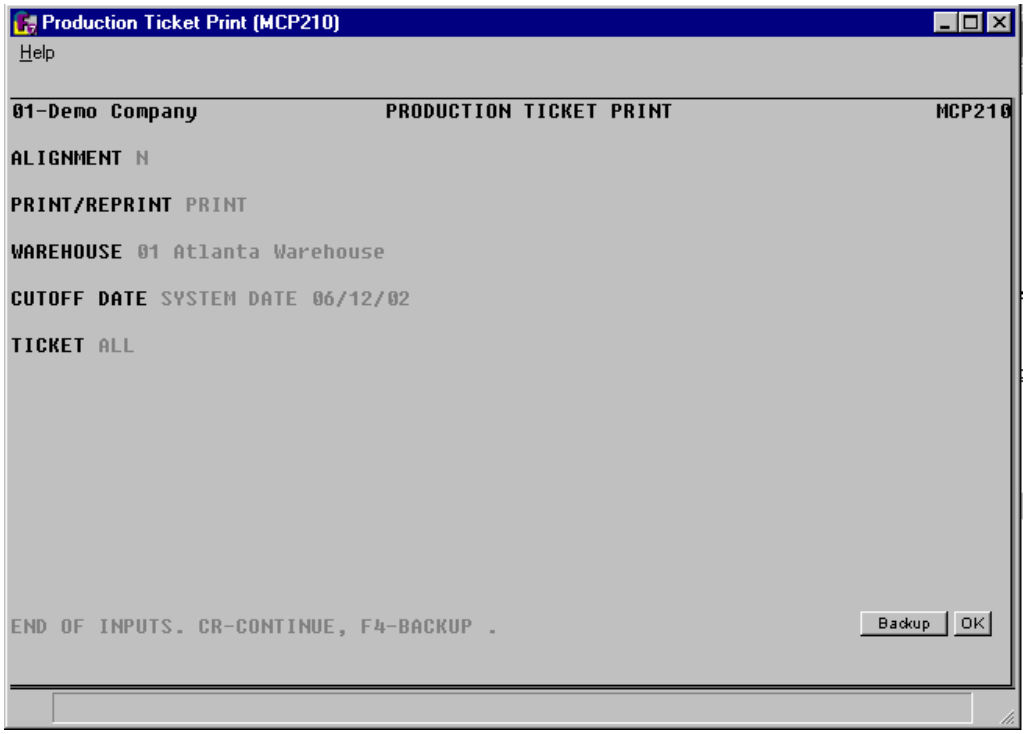
6. End Of Inputs

Technical Notes

Printing proceeds by reading through the formulation production file (MCFPRD) and printing the chosen tickets. If printing for the first time, the cycle status flag in the formulation production file will be updated from **E**-entered to **P**-printed.

FILES USED - SMCNTL, ICMAST, MCFORM, MCFPCK

FILES UPDATED - MCFPRD



Production Confirmation (MCE250)

Function

This program allows the user of the FACTS system to confirm formulation production tickets entered through the Production Entry program. The program also allows users to correct production tickets already confirmed and not updated by the Production Register. The confirmation process involves confirming that a formula was produced along with the finished items which use the formula. Once a production ticket is confirmed, it is ready to print on the next Production Register.

The user may access the ticket by ticket number or formula. If accessing by formula number, information for entered, printed and confirmed tickets is displayed in summary so the user may select which ticket to confirm.

The summary screen displays the line number, ticket number, status of ticket (**E**-entered, **P**-printed or **C**-confirmed), warehouse produced in, entry date, scheduled production date and quantity to be produced.

The ticket number to be confirmed is displayed in a format similar to that used in the Production Entry program. The user enters the number of items produced and the date of actual production and each line-item is displayed.

The user has the option of changing, adding to or removing line-items from the ticket. The user may also delete the production ticket or stop confirmation at any time. Deleted production ticket numbers may be used again.

User Inputs

The following inputs are involved in confirming a production ticket:

1. Ticket

Enter the number of the production ticket to be confirmed. If the ticket has not been printed, the user may enter **N** or **YES** to confirm it anyway. If N is entered, the program returns to this input for the user to enter another ticket number. Entering YES proceeds with the program. F2 allows a search of tickets or formulas (ref. 11). Inputs #2-3 are skipped if a valid ticket number is entered in input #1.

2. Search

Enter whether to search by **T**-ticket or **F**-formula. If searching tickets by formula enter the formula number for inquiry. A listing of tickets is displayed including the status (**E**-entered, **P**-printed, **C**-confirmed), warehouse, entry date, scheduled production date and planned production quantity for each ticket. F2 allows a search of formulas (ref. 11).

3. Line #

Enter the line number of the ticket to confirm. Press **CR** to continue if the screen is full and the ticket has not yet been displayed.

The header portion of the production ticket is displayed.

4. Formula: produced

Enter the quantity of the formula that was actually produced. CR defaults to the number of units entered originally to be produced.

5. Date

Enter the date of actual production (i.e., when the formula was produced) (ref. 2). CR defaults to the scheduled production date entered when the ticket was entered originally in the Production Entry program.

This concludes the header portion of the Production Confirmation program. The program automatically displays the finished items. The units required of the finished items are calculated based on the quantity produced of the formula entered in the header.

The line-item portion of the program allows entry of up to 999 finished line-items and memo lines to complete the ticket.

Line numbers are assigned automatically beginning with 001 and incrementing by one for each additional line-item up to 999. In the rare case where 999 line-items have been entered on a single ticket, the program advances to the **prompt-selection input #1** and refuses further entries.

6. Serial/Lot # Entry

If an ingredient, finished or packaging item is not a serial/lot number, this input is skipped. Enter the serial/lot number of the ingredient, finished or packaging item (where applicable). F2 allows a search (ref. 11). Enter the quantity (if a serial number, 1 is entered automatically). The undistributed amount must equal zero in order to produce all of the formula. The undistributed is displayed. F3 to end entries. If the undistributed is not equal to 0, the amount left undistributed is set to 0 and reduces the units used for production by the undistributed amount.

Upon completion of the display of finished line-items, the **prompt-selection input #1** allows the user to perform a number of functions:

- Changes a line-item. Line-items may be changed or deleted by entering the line number to be changed. During this change routine, F1 allows the currently displayed value to remain the same. After changing a finished item, the prompts asks **Display packaging lines for this item?** Enter **N** or **Y** to indicate whether to display packaging items used to produce the finished item. If Y is entered, the programs proceeds to **prompt-selection input #2**. CR defaults to N and returns to **prompt-selection input #1**.

L - Lists line-items. A limited number of line-items appear on the screen at any one time. The list function allows line-items to be redisplayed. The user selects the beginning line number to list.

A - Adds a line-item. Line-items may be added as needed.

1. Item number. Enter the finished item number. The entry must be a valid formulation finished item. Valid entries display the item description and stocking unit of measure. The user may create a memo line by entering **M** as the item number. The program assumes a memo line is to be entered and advances to the description input. F1 allows the currently displayed value to remain the same. F3 advances to the **prompt-selection**

input #1. F4 removes the line and backs up to the previous line number. F2 allows a finished item search (ref. 11).

2. Units. Enter the number of units needed of finished item for the formula being produced. **CR**-continue; **F2**-serial/lot number entry.

3. Memo. Enter the memo to appear on the Production Register (up to 20 characters).

4. Display packaging lines for this item? Enter **N** or **Y** to indicate whether to display packaging items of the finished item. If Y is entered, the program proceeds to the **prompt-selection input #2**. CR defaults to N and returns to **prompt-selection input #1**.

S - Stops confirmation. Confirmation may be stopped prior to completion. Changes to the production ticket will remain unchanged, except for the units produced and the serial/lot numbers. These are set when the ticket is entered again for confirmation.

D - Deletes the entire ticket. The entire production ticket may be deleted at any time. All line-item records are removed. The screen is then cleared and the program returns to input #1 to await further entries. Enter **YES** to delete ticket. CR defaults to N and returns to **prompt-selection input #1**.

F2 - Changes header. Certain header information in the upper portion of the screen may be changed as necessary. During this change routine, F1 allows the currently displayed value to remain the same.

1. Recalc ingredients, finished items, both or neither. Enter whether to recalculate the **I**-ingredients, **F**-finished items, **B**-both or **N**-neither.

2. Display ingredients? Enter **N** or **Y** to indicate whether to display ingredients for the formula. Information displayed for each ingredient includes, the item number and description, units needed, stocking unit of measure and memo. If Y is entered, the program proceeds to **prompt-selection input #2**.

F3 - Accesses the ending routine. The ending routine allows the user to **CR**-continue, concluding the confirmation of the production ticket. The screen is cleared of input information and the program returns to input #1. F4 backs up to the **prompt-selection input #1**.

The **prompt-selection input #2** allows the user to perform the following functions:

- Changes a line number. Line-items may be changed or deleted by entering the line number to be changed. During this change routine, F1 allows the currently displayed value to remain the same.

L - Lists line-items. A limited number of line-items appear on the screen at any one time. The list function allows line-items to be displayed.

A - Adds a line-item. Line-items may be added when confirming production.

1. Enter the item number. The entry must be a valid number. Valid entries display the item description and stocking unit of measure. The user may create a memo line by entering **M** as the input number. The program assumes a memo line is to be entered and advances to the description input. F1 allows the currently displayed value to remain the same. F3 advances to the **prompt-selection input #2**. F4 removes the line and backs up to the previous line number. F2 allows a search (ref. 11).

2. Enter the number of units needed.

3. Enter the memo (up to 20 characters).

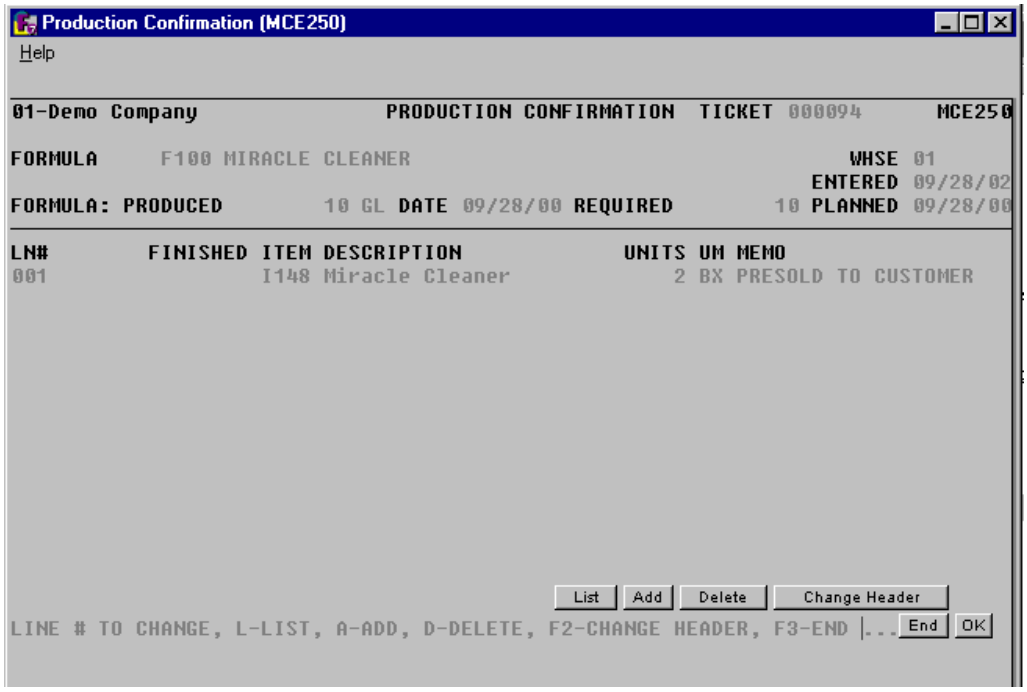
F3 - Ends. Pressing **F3** returns to the **prompt-selection input #1**.

Technical Notes

Any changes made in the formula or finished items produced or units used for packaging or ingredient items are updated in the formulation production file (MCFPRD), its associated sort files (MCFPRX and MCITMX) and the warehouse/item file (ICWHSE). If serial/lot numbers are entered, the inventory (ICLOTS) and manufacturing (MCFLOT) serial/lot files are updated.

FILES USED - SMCNTL, MCFORM, ICMAST, ICALPX, ICCLSX, MCFPCK, ICINTR

FILES UPDATED - MCFPRD, ICWHSE, MCFLOT, ICLOTS, MCITMX, MCFPRX



Production Register (MCR210)

Function

This program allows the user of the FACTS system to print a register of formulation production tickets confirmed through the Production Confirmation program.

This program will:

- Print a listing of formulation production tickets confirmed, ingredients used, finished item produced, packaging items used and costing information.

  Note about costing information: You now have the ability to cost serial and lot items by the system cost (costing method for the module). The feature provides for GAAP compliance. For the FACTS SO, IC and MC modules, you can decide if the cost for serial and lot items will be averaged actual (as it has always operated in the past) or system cost (costing method for the module). The default setting for each Static Control F/M is **A**-Averaged Actual (same behavior as they have before the monthly is applied). Users who want to take advantage of this change will need to change the option to **S**-System Cost for each of the applicable modules. The net result of selecting **S**-System Cost is that serial/lot items will be costed like non-serial/lot items. The results of this program are affected by this selection.

- Build and print a general ledger distribution, if desired.
- Post to general ledger, if general ledger is built.
- Update inventory and manufacturing files.

Register information includes the following:

- Ticket: Each ticket includes ticket number, date, warehouse, formula and quantity.
- Ingredients: Each ingredient used includes the item number and description, units used, stocking unit of measure, cost, costing unit of measure and extended cost.
- Ticket Formula: Each ticket includes overhead, and labor costs, ingredient cost and total cost.
- Finished Item: Finished item number, description and formula quantity.
- Packaging: Each packaging item used includes the item number, description, units used, stocking unit of measure, cost, costing unit of measure and extended cost.
- Ticket Totals: Each ticket includes formula, overhead, labor and component cost, calculated cost, total units produced and extended cost. The total number of tickets printed is also included.

Once this register is updated, all production tickets included on the register are not accessible for corrections.

Usage: The system assigns usage to the warehouse of the production header if the Replenish flag on the Main screen of Warehouse / Item F / M (ICF920) set to Y.

User Inputs

The following inputs are involved in printing the Formulation Production Register:

1. Beginning Ticket

Enter the beginning ticket to print (0-999999). CR defaults to FIRST.

2. Ending Ticket

Enter the ending ticket to print (0-999999). CR defaults to LAST.

3. Beginning Date

Enter the beginning production date to print (ref. 2). CR defaults to FIRST.

4. Ending Date

Enter the ending production date to print (ref. 2). CR defaults to LAST.

5. Warehouse

Enter the warehouse to print. The entry must be a valid warehouse. CR defaults to the warehouse assigned to the terminal. F3 defaults to ALL.

6. Date

Enter the Production Register date (ref. 2). The date must be in the current manufacturing period. The current period for manufacturing control (MC), general ledger (GL) and inventory control (IC) is displayed in the upper right side of the screen. CR defaults to the system date.

7. End Of Inputs

(ref. 3)

The general ledger distribution is built during the printing of the Production Register according to the entries made in the Production Confirmation program and the information entered in the inventory general ledger posting tables and the GL posting control record.

For users printing the GL distribution, the following input is displayed:

8a. Check register. OK to print GL distribution?

After printing the Production Register, **verify the printout**. If there is a correction to be made, enter **N** to exit the program. After the correction is made, the register can be rerun. If everything is correct, enter **YES** to continue. The program then prints the GL distribution. Once the GL distribution is printed, proceed to input #9.

For users not printing the GL distribution, the following input is displayed:

8b. Check Register. OK To Update?

After printing the Production Register, **verify the printout**. If there is a correction to be made, enter **N** to exit the program. After the correction is made,

the register can be rerun. If everything is correct, enter **YES** to continue and no GL distribution will be printed, the following input (#9) is skipped and the program proceeds with the update.

9. Check GL Distribution. OK To Update?

After printing the distribution, verify the printout. If everything is correct, enter YES to continue. The program proceeds with the update. If there is a correction to be made, enter N to exit the program. After the correction is made, the entire register process begins again.

Technical Notes

Printing of the Production Register proceeds by reading through the formulation production file (MCFPRD) and referencing tickets with a cycle status of **C**-confirmed.

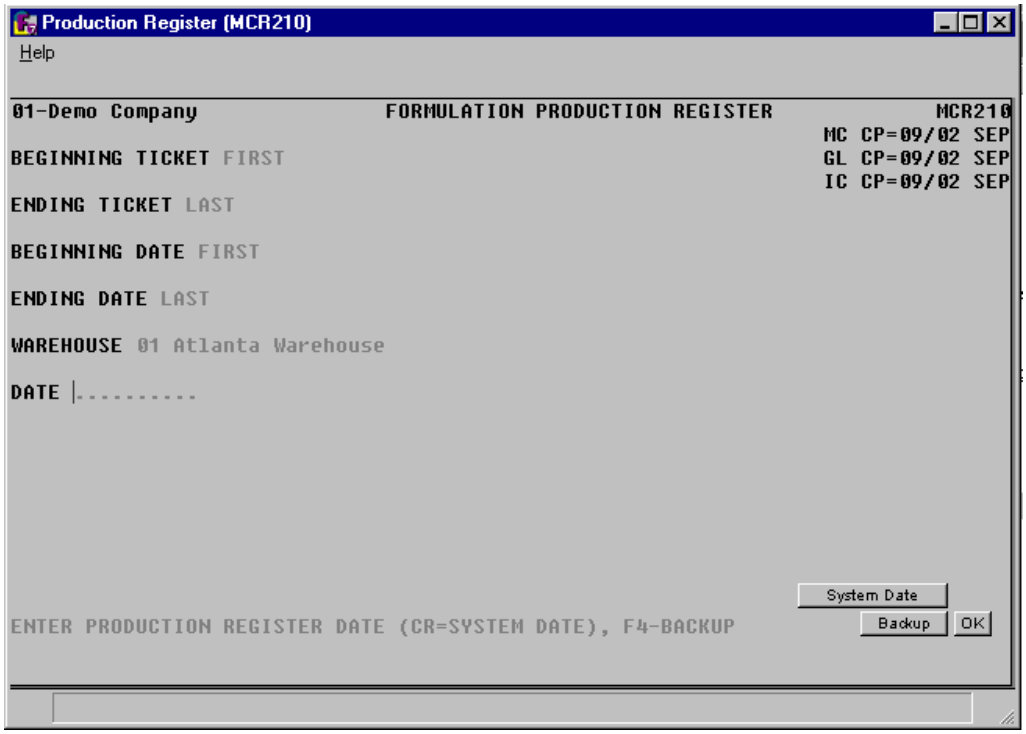
The general ledger distribution is built during the printing of the register using the distribution file (SMGLD?) after it is initialized.

During the update, committed and on hand quantities for the ingredient items for the formula, and packaging items for the finished item are updated. On order and on hand quantities are also updated for the finished item in the item / warehouse file (ICWHSE). If the ingredients, finished or packaging items are serial / lot items, records are removed from the formulation serial / lot file (MCFLOT) and updated in the inventory serial / lot file (ICLOTS). If LIFO / FIFO costing is used, the LIFO / FIFO cost layer file (ICCOST) and FIFO / LIFO update costs file (ICFUCT) are updated for the finished item. The average and last costs are updated in the item / warehouse file (ICWHSE). If ledgercards are stored for the ingredient, finished or component items, the transaction is updated to the item ledgercards file (ICLEDG). The formulation period production file (MCFEOP) is updated. The formulation item production history file (MCFHST) is updated. The records from the formulation production file (MCFPRD) and its associated sort file (MCFPRX) are removed after the information from the record has been used to update the appropriate files listed above. Finally, the last register number used is updated in the control file (SMCNTL).

If the general ledger distribution is printed and is to be updated, the GL journal update posts a journal entry automatically to the journal file (GLJRNL) and its associated sort file (GLJRNX).

FILES USED - ICMAST, MCFORM, GLMSTR, SMGLD?, ICWHSX, MCFPCK

FILES UPDATED - SMCNTL, MCFPRD, ICWHSE, MCFLOT, ICLOTS, MCFEOP, ICCOST, ICFUCT, ICLEDG, MCFHST, GLJRNL, GLJRNX, MCITMX, MCFPRX



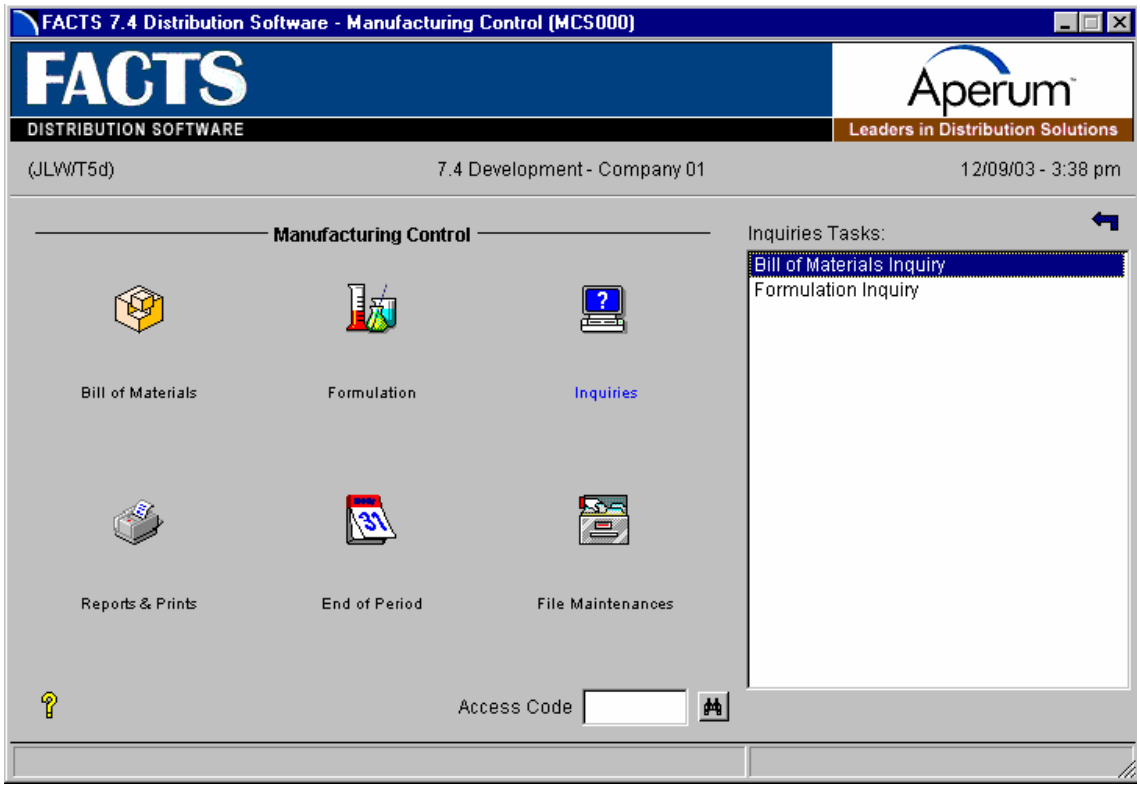
CHAPTER 4

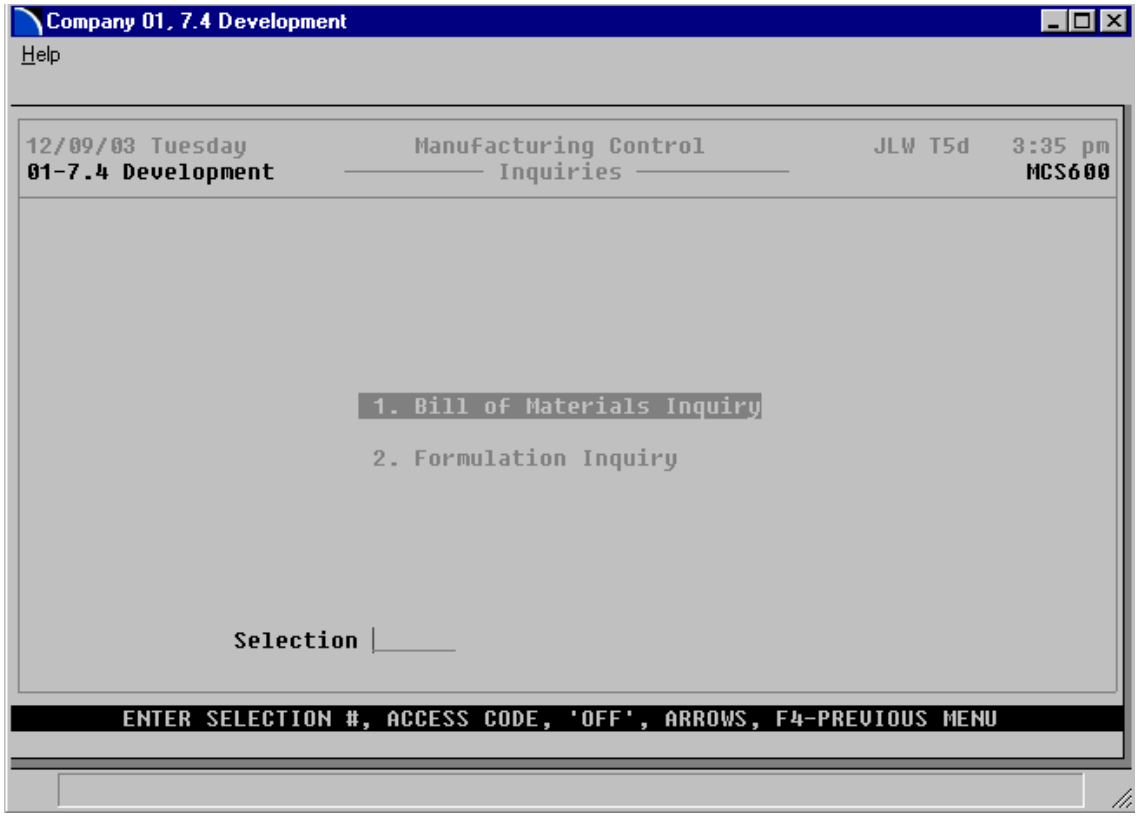
Inquiries (MCS600)

The inquiry menu allows users to display specific information for bill of material items and formulas.

The Bill of Materials Inquiry provides the following: component information (items, number of units, etc.), planned production by date, production tickets in process (summary and detail), costing history information, history information, requirements and notes (created through this program).

The Formula Inquiry provides the following: ingredient information (items, number of units, etc.), finished items (including packaging information), planned production by date, production tickets in process (summary and detail), costing information, history information, requirements and notes (created through this program).





Bill of Materials Inquiry (MCI610)

Function

This program allows the user of the FACTS system to display the following information about any bill of material finished item:

- Components
- Planned
- Production
- Cost
- History
- Requirements
- Notes (entered through this program)

User Inputs

The following inputs are involved in displaying bill of material finished item information:

1. BOM Item

Enter the bill of material finished item number to be displayed. Input of a valid bill of material item number displays the description, indicator for updating in the SO module, standard pack, stocking unit of measure and the overhead, package and labor factors. F2 allows a search (ref. 11).

2. Information

Enter the following information type to display for this bill of material item. When a type is selected, the entire information type display is highlighted. CR displays the next bill of material item on file and information based on the information type previously selected.

NOTE: On some implementations of Business Basic the system allows, and prompts for, the use of the arrow and function keys for special features. Please refer to SM Appendix C.

C - displays component information including the component item number, description, number of units, stocking unit of measure and memo.

P - displays the planned production currently in the BOM system for the finished item. Enter the beginning date to display. CR defaults to first. Planned production is displayed in date order. Enter the line number to display requirements. Requirements include for each component, the item number, part of the item description, units required, stocking unit of measure, on hand, on order and committed quantities. An asterisk (*) next to the units indicates that the number of units required is greater than available (available = on hand + on order - committed).

PR- displays the production tickets in process for the finished item in summary. Summary information includes ticket number, status (**E**-entered, **P**-printed and **C**-confirmed), entry date, planned production date, production date (if not confirmed, date is blank), units planned to be produced and actual units produced. Enter the line number of ticket to be displayed. The ticket is displayed in the same screen format as it was entered.

CO - displays costing information by warehouse to produce one BOM finished item. Enter the warehouse. Information for each component item includes item number and description, units needed to produce the BOM finished item, stocking unit of measure, cost, costing unit of measure and extension. Total information includes components, overhead, package, labor, and total costs.

HI - displays the history of the item. Enter the beginning warehouse. Information by warehouse includes month-to-date, year-to-date and prior year units produced and the last date produced.

R - displays the requirements for producing a number of units as entered by the user. Enter the warehouse where it would be produced. CR defaults to the warehouse assigned to the terminal. Enter the number of units to be produced. The requirements to produce the finished item are displayed including the following for each component: the item number and a part of the description, units required, stocking unit of measure, on hand, on order and committed quantities. An asterisk (*) next to the units indicates that the number of units required is greater than available (available = on hand + on order - committed).

N - displays all notes recorded for this item. If no notes exist for the item displayed, the system will ask **Enter notes for this item**. Enter **N** or **Y** to indicate whether to enter notes for this item. CR defaults to N and returns to the main input. If the user enters Y, line numbers are assigned beginning with 010 and will automatically increment by 10. Enter text (up to 70 characters per line). F3 ends entry of lines. F4 backs up to the line number; enter the beginning line number. F2 allows the user to set the line number increments (1-10). If the increment is set to one, a maximum of 999 lines may be entered. F4 (from line number) will back up and delete the previous line.

Once notes have been added, the following options are available:

- Changes a line number. Notes may be changed or deleted by entering the line number. Enter whether to **C**-change or **D**-delete. If D is entered, the line is deleted. If C is entered, enter text (up to 70 characters). During this change routine F1 defaults to the currently displayed value of the input. F3 ends entry of lines. F4 backs up to the line number; enter the new line number. If a new line number is added, the old line number is deleted. F2 allows the user to set the line number increment (1-10). F4 backs up to the main input.

L - Lists line numbers. A limited number of line numbers appear on the screen at any time. The list function allows line numbers to be redisplayed. The user selects the beginning line number to list.

A - Adds a line number. New line numbers may be added as needed. F3 ends entry of lines. F4 backs up to the line number; enter the new line number. F2 allows the user to set the line number increment (1-10). F4 (from line number) will back up and delete the previous line.

M - Moves a line number. Enter beginning line number to move. Enter ending line number to move. Enter line number where text will be moved (existing lines will be replaced) one line at a time or blocks of lines may be moved.

D - Deletes a line number. One line or several lines of notes can be deleted at any one time. Enter beginning and ending line numbers to be deleted. Enter **N** or **YES** to delete. CR defaults to N.

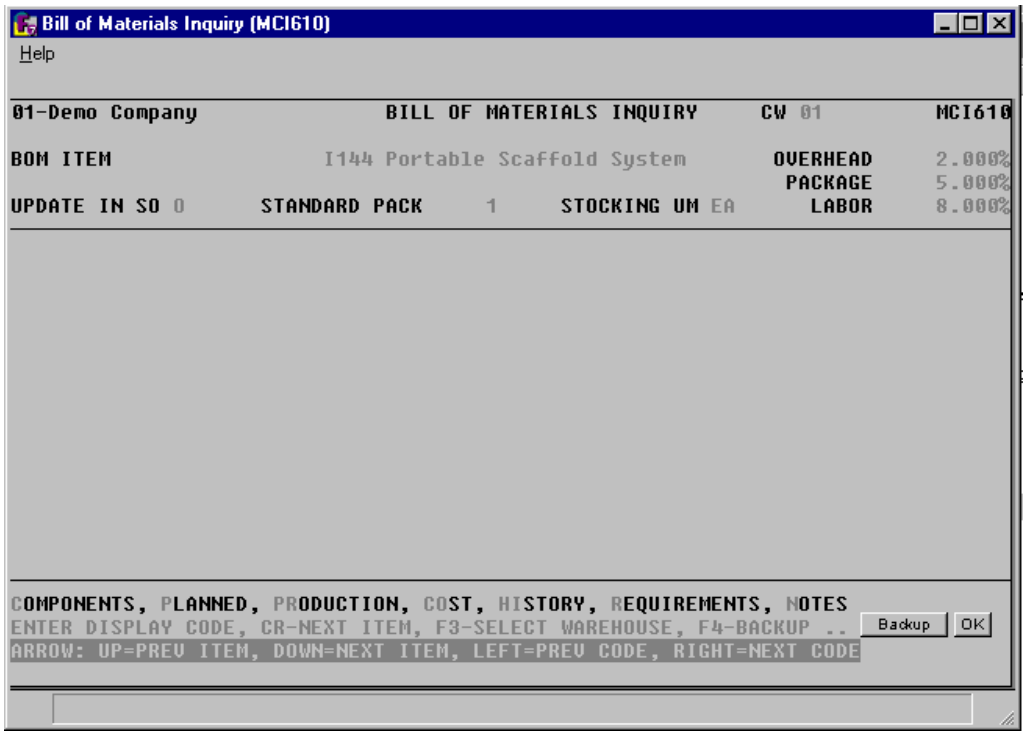
Technical Notes

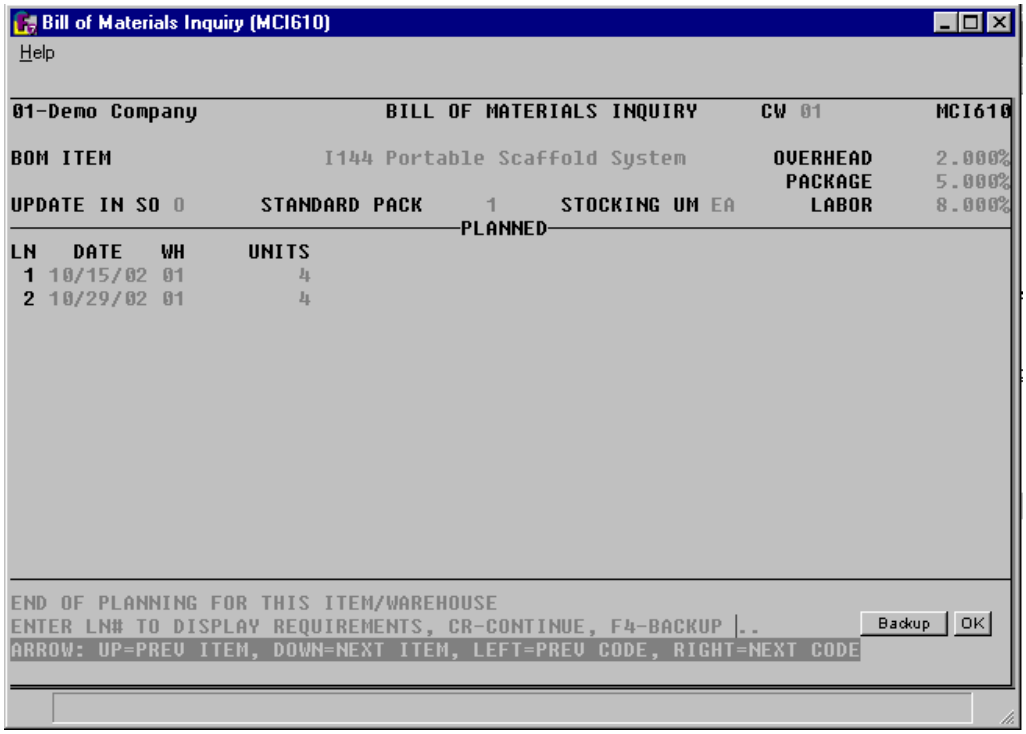
Information displayed is accessed from the following files:

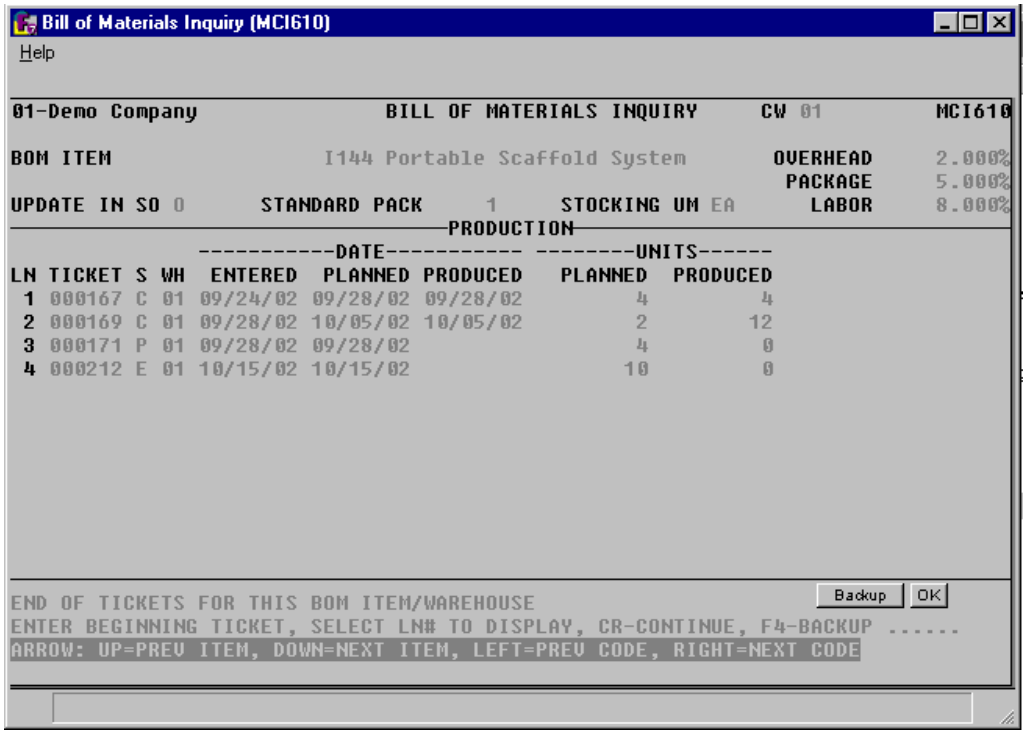
- Components (MCBOMS)
- Planned (MCBPLN)
- Production (MCBPRD)
- Cost (MCBOMS)
- History (MCBHST)
- Requirements (MCBOMS)
- Notes (MCBNOT)

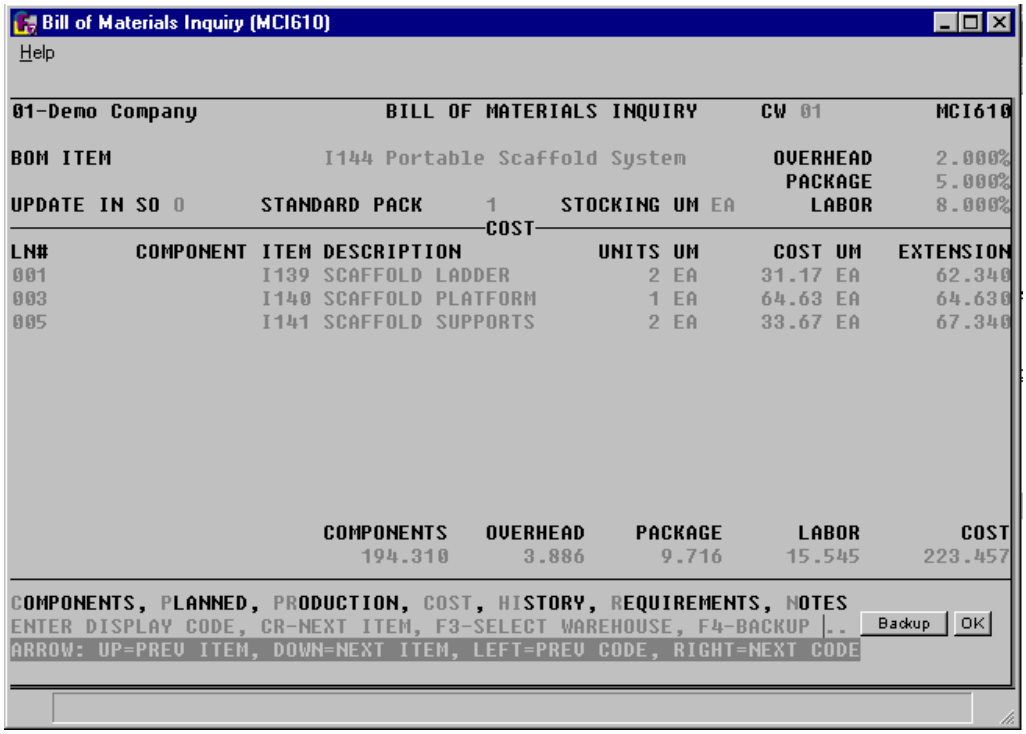
FILES USED- SMCNTL, MCBOMS, MCBHST, ICMAST, ICWHSE, MCBPIX, MCBNOT, MCBPRD, MCBPLN, MCBPLX, ICINTR

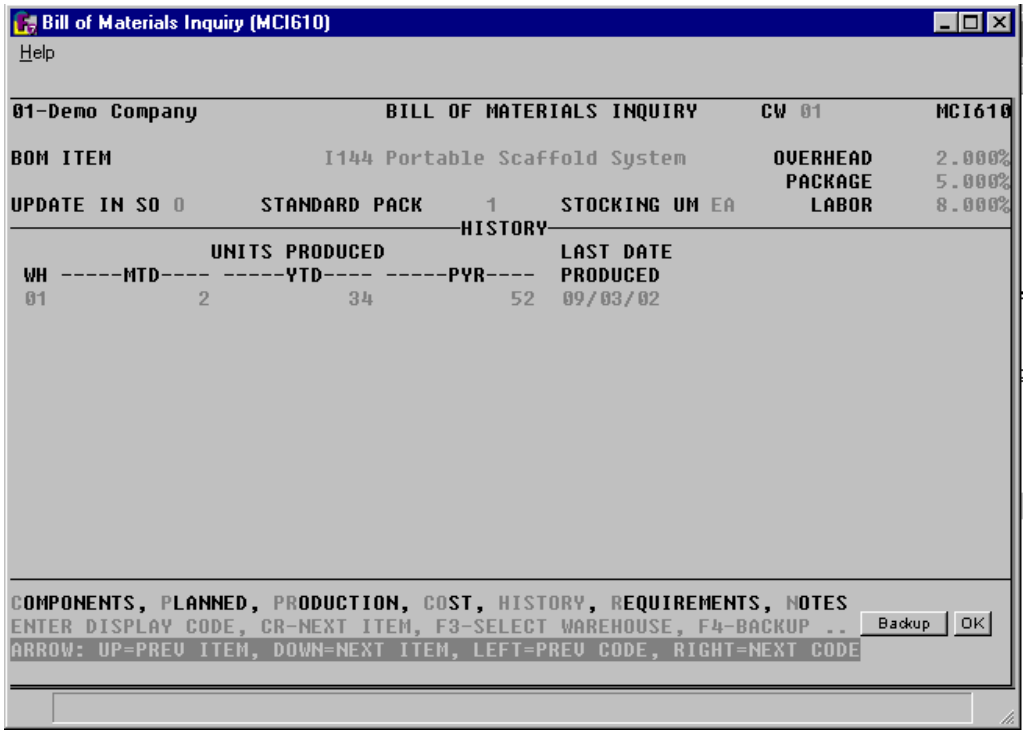
FILES UPDATED - MCBNOT

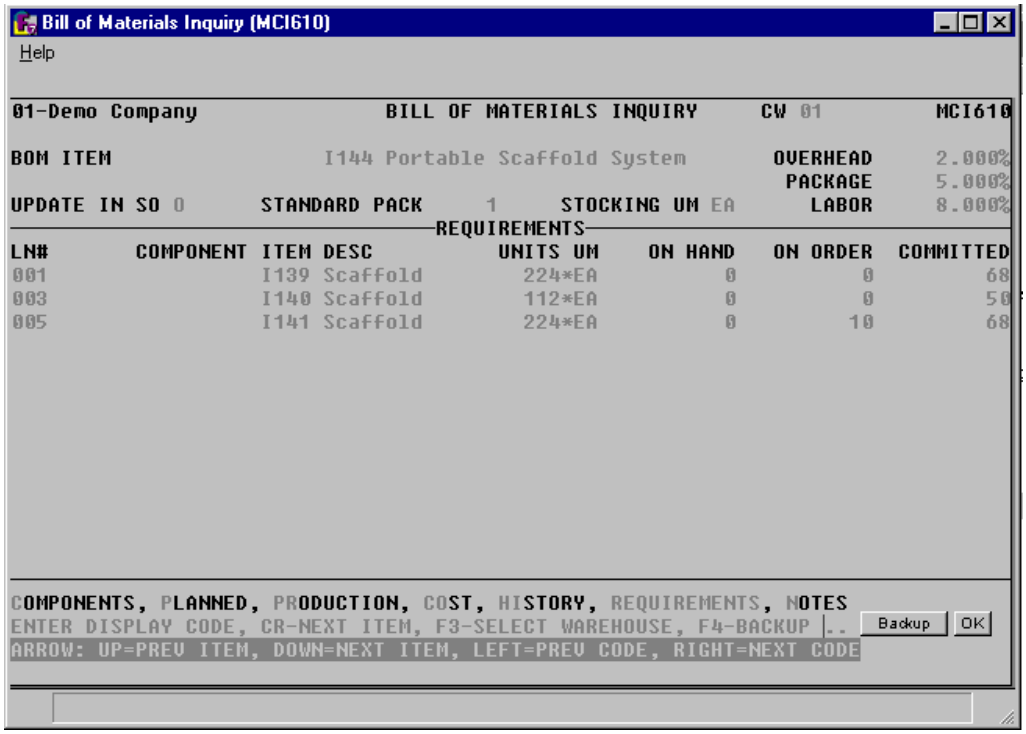


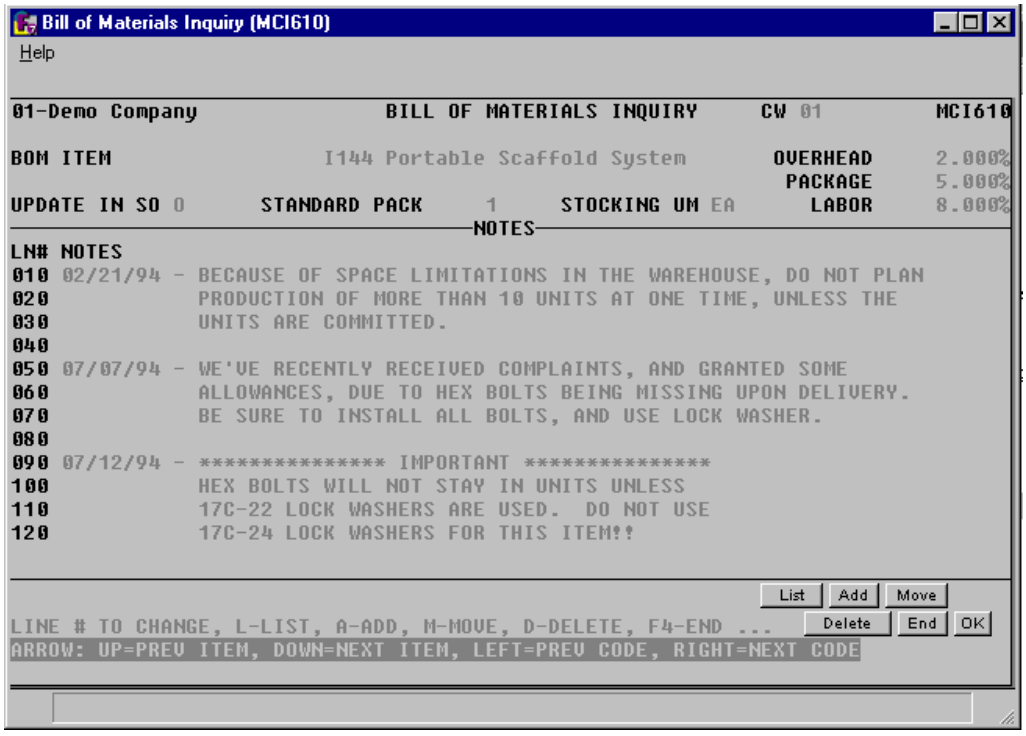












Formulation Inquiry (MCI620)

Function

This program allows the user of the FACTS system to display the following information about any formula:

- Ingredients
- Finished
- Planned
- Production
- Cost
- History
- Requirements
- Notes (entered through this program)

User Inputs

The following inputs are involved in displaying formula information:

1. Formula

Enter the formula number to be displayed. Input of a valid formula number displays the standard production quantity, unit of measure, overhead and labor factors. F2 allows a search (ref. 11).

2. Information

Enter the following information type to be displayed for this formula. When a type is selected, the entire information type display is highlighted. CR displays the next formula on file and information based on the information type previously selected.

NOTE: On some implementations of Business Basic the system allows, and prompts for, the use of the arrow and function keys for special features. Please refer to SM Appendix C.

I - displays ingredient information including the item number, description, number of units, unit of measure and memo.

F - displays the finished items in summary. Summary information includes the item number and description, stocking unit of measure and the amount of formula required for the finished item. Enter the line number of finished item to display the packaging information which includes the item number and description, units, stocking unit of measure and memo.

P - displays the planned production currently in the formulation system for the formula. Enter the beginning date to display. CR defaults to first. Planned production is displayed in date order. Enter the line number to display requirements. Enter whether to display **I**-ingredients or **F**-finished items. Requirements for each item include the item number, part of the item description, units required, unit of measure, on hand, on order and committed quantities. An asterisk (*) displayed next to the units indicates that the number of units required is greater than the available (available = on hand + on order - committed.)

PR- displays summary information of the production tickets in process for the formula. Summary information includes for each ticket, ticket number, status (**E**-entered, **P**-printed and **C**-confirmed), entry date, planned production date, production date (if not confirmed, date is blank), units planned to be produced and actual units produced. Enter line number of ticket to be displayed in detail. The ticket detail is displayed in the same screen format as it was entered.

C - displays costing information by warehouse to produce one formula. Enter the warehouse. Information for each ingredient item includes item number and description, units needed to produce one formula, stocking unit of measure, cost, costing unit of measure and extension. The cost per unit is listed along with the total information which includes the ingredient, overhead, labor and total cost.

HI- displays the history of the item. Enter the beginning warehouse. Information by warehouse includes month-to-date, year-to-date and prior year units produced and the last date produced.

R - displays the requirements for producing a number of units as entered by the user. Enter the warehouse where it would be produced. CR defaults to the warehouse assigned to the terminal. Enter the number of units to be produced. The requirements to produce the finished item are displayed including the following for each component: the item number and a part of the description, units required, stocking unit of measure, on hand, on order and committed quantities. An asterisk (*) displayed next to the units indicates that the number of units required is greater than available (available = on hand + on order - committed).

N - displays all notes recorded for this formula. If no notes exist for the formula displayed, the system will ask **Enter notes for this formula**. Enter **N** or **Y** to indicate whether to enter notes for this formula. CR defaults to N and returns to the main input. If the user enters a Y, line numbers are assigned beginning with 010 and will automatically increment by 10. Enter text (up to 70 characters per line). F3 ends entry of lines. F4 backs up to the line number; enter the beginning line number. F2 allows the user to set the line number increments (1-10). If the increment is set to one, a maximum of 999 lines may be entered. F4 (from line number) will back up and delete the previous line.

Once notes have been added, the following options are available:

- Line number to change. Notes may be changed or deleted by entering the line number. Enter whether to **C**-change or **D**-delete. If D is entered, the line is deleted. If C is entered, enter text (up to 70 characters). During this change routine, F1 defaults to the currently displayed value of the input. F3 ends entry of lines. F4 backs up to the line number; enter the new line number. If a new line number is added, the old line number is deleted. F2 allows the user to set the line number increment (1-10). F4 backs up to the main input.

L - Lists line numbers. A limited number of line numbers appear on the screen at any time. The list function allows line numbers to be redisplayed. The user selects the beginning line number to list.

A - Adds a line number. New line numbers may be added as needed. F3 ends entry of lines. F4 backs up to the line number; enter the new line number. F2 allows the user to set the line number increment (1-10). F4 (from line number) will back up and delete the previous line.

M - Moves a line number. Enter beginning line number to move. Enter ending line number to move. Enter line number where text will be moved (existing lines will be replaced) one line at a time or blocks of lines may be moved.

D - Deletes a line number. One line or several lines of notes can be deleted at any one time. Enter beginning and ending line numbers to delete. Enter **N** or **YES** to delete. CR defaults to N.

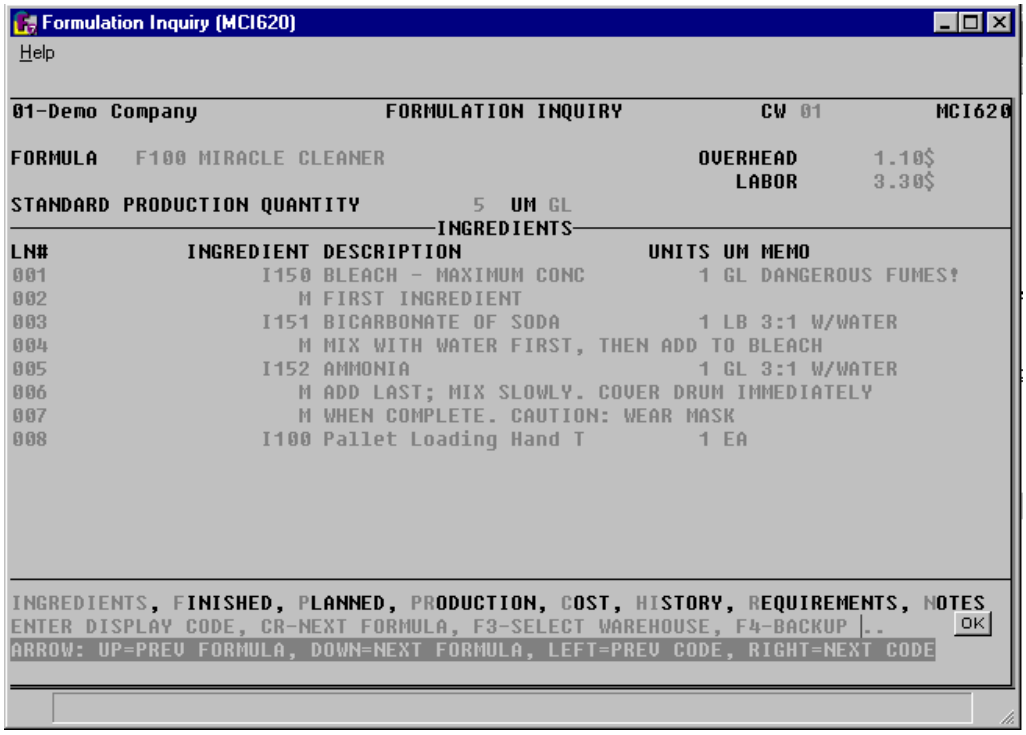
Technical Notes

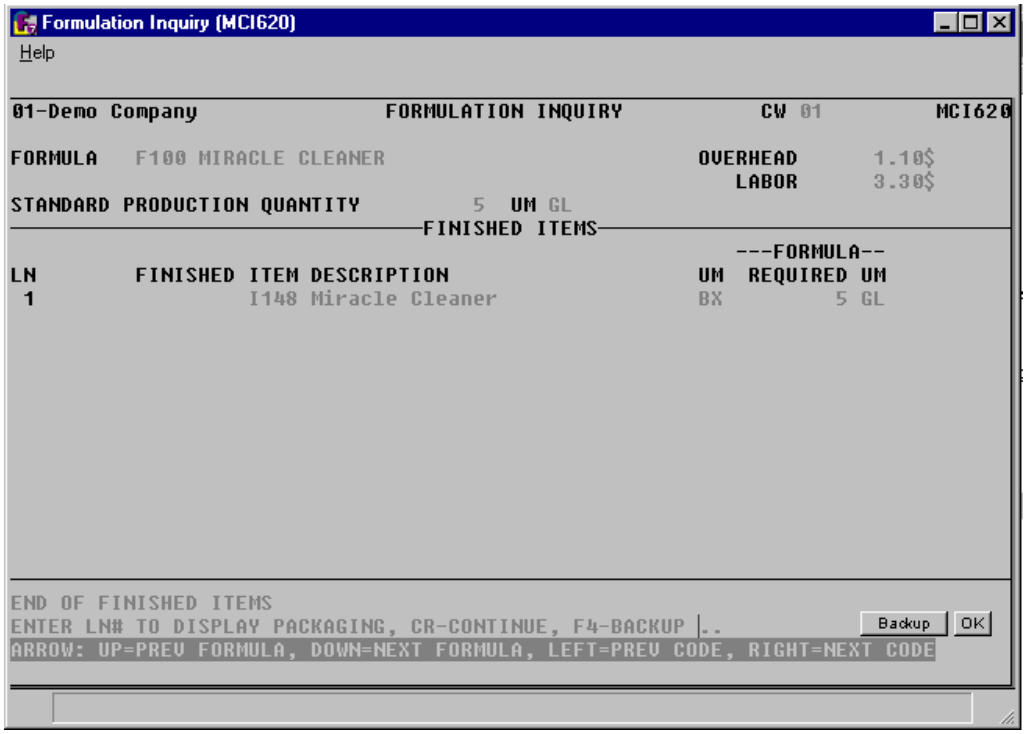
Information displayed is accessed from the following files:

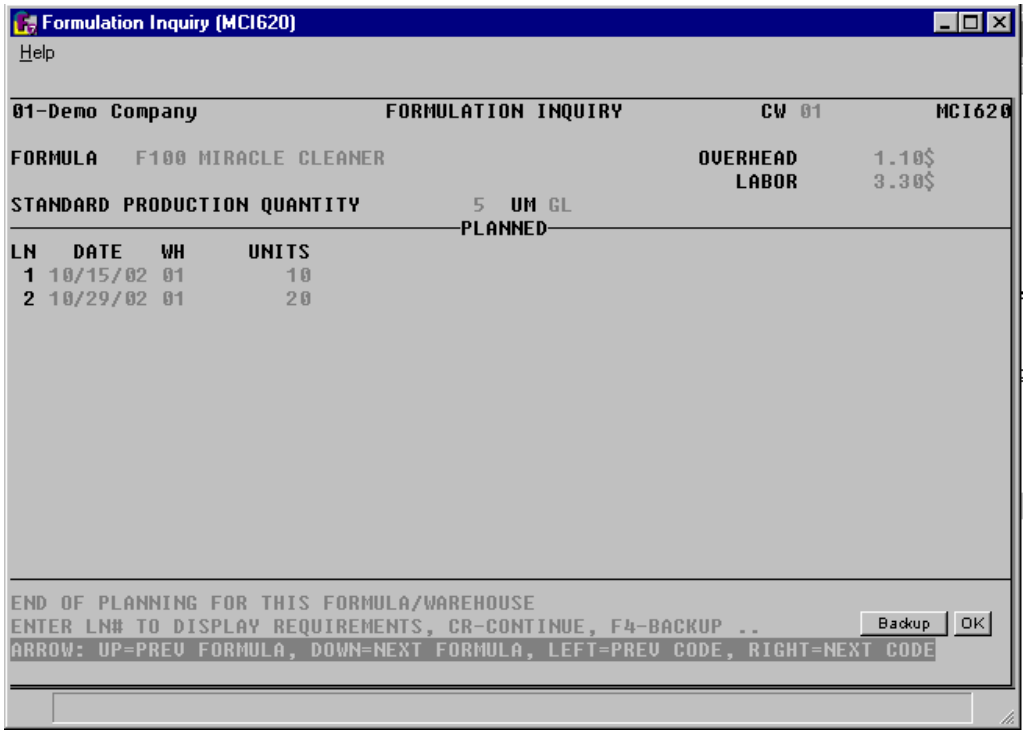
- Ingredients (MCFORM)
- Finished (MCFPCK)
- Planned (MCFPLN)
- Production (MCFPRD)
- Cost (MCFORM)
- History (MCFHST)
- Requirements (MCFORM)
- Notes (MCFNOT)

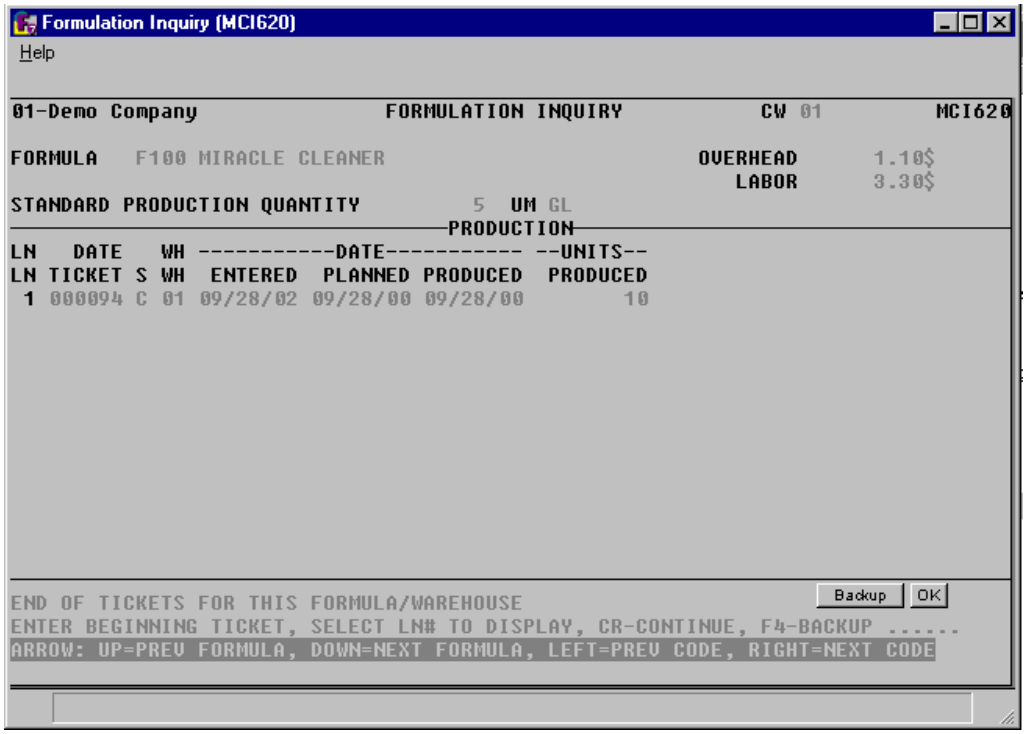
FILES USED - SMCNTL, MCFORM, MCFPCK, ICMAST, ICWHSE, MCFPRX, MCFPRD, MCFPLX, MCFPLN, MCFHST, MCFNOT, MCFPKX

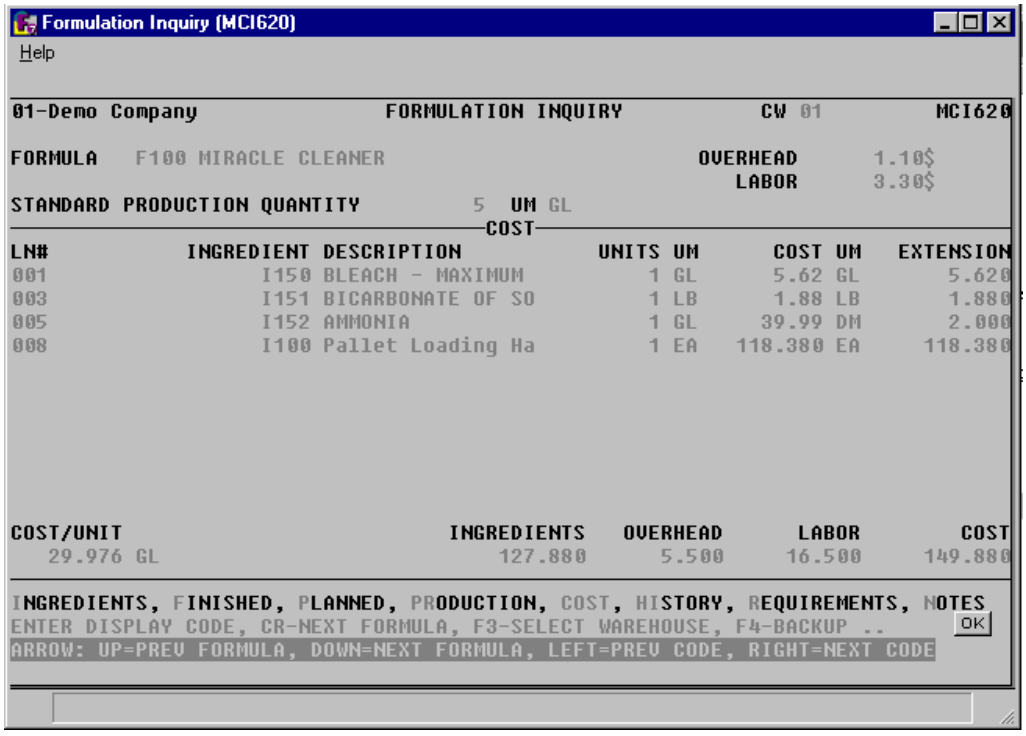
FILES UPDATED - MCFNOT

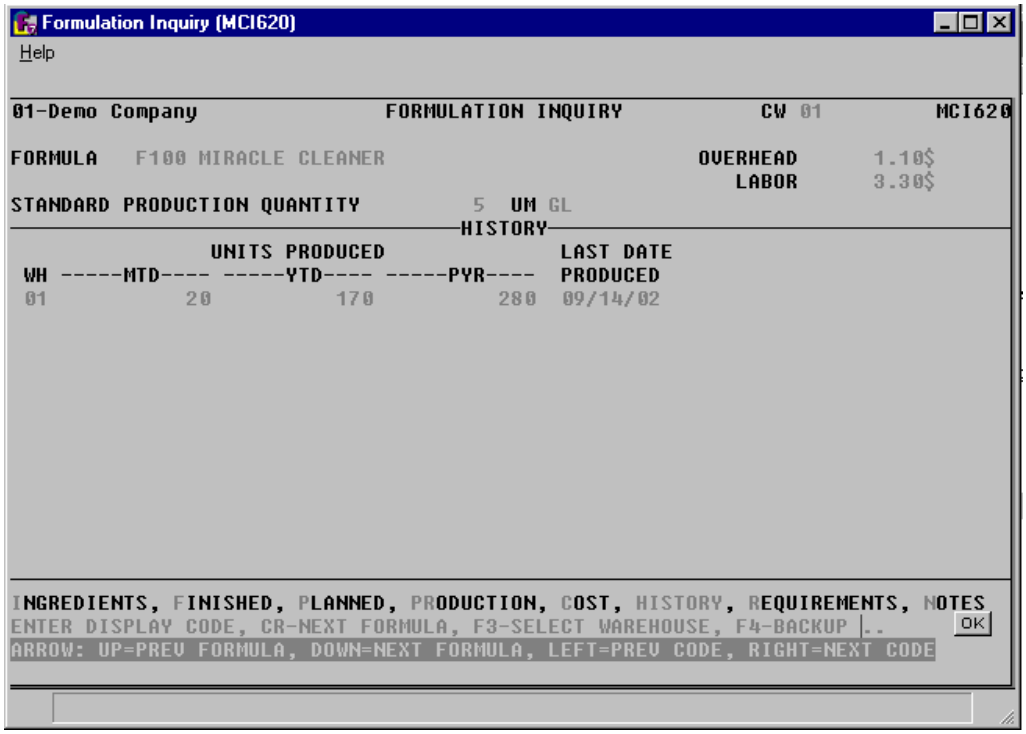


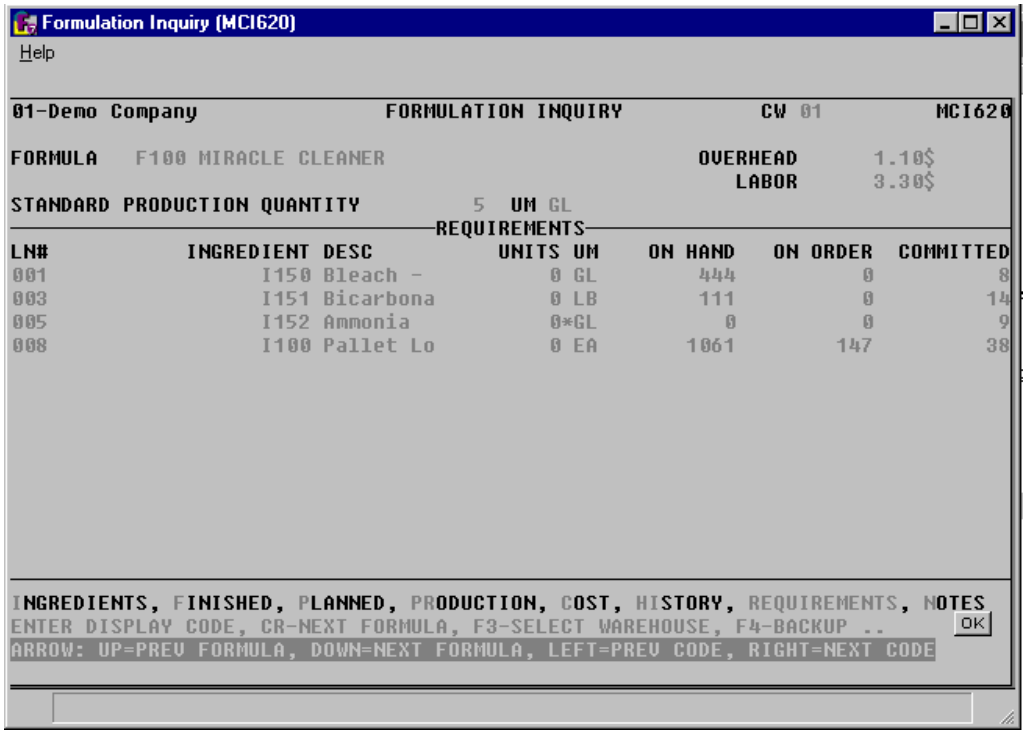


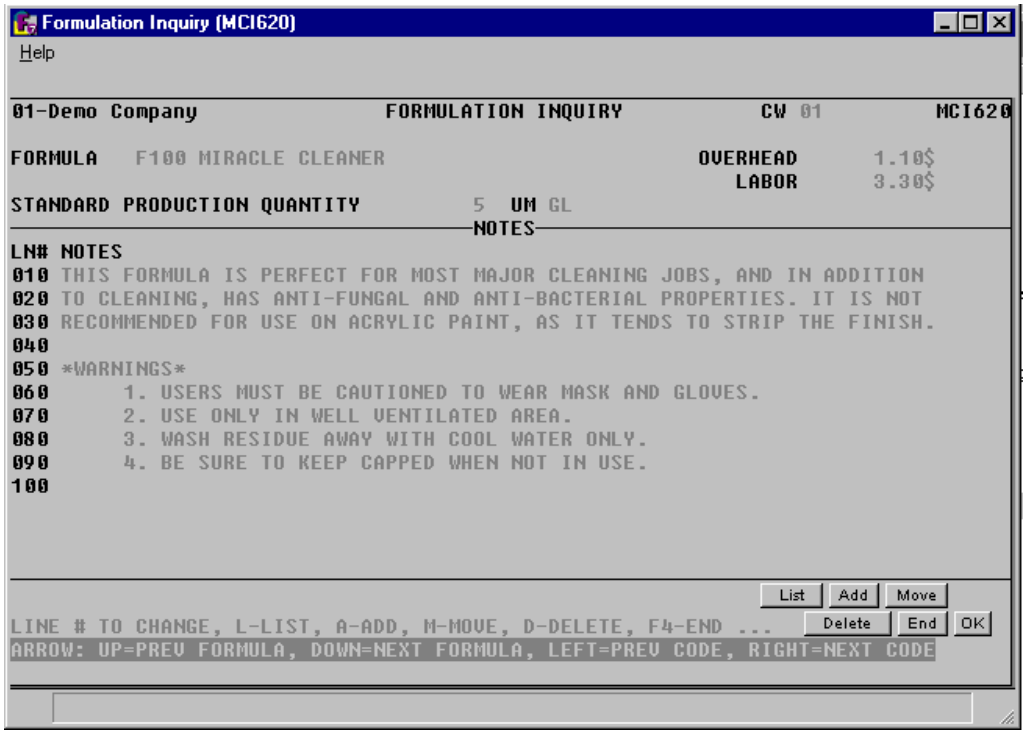








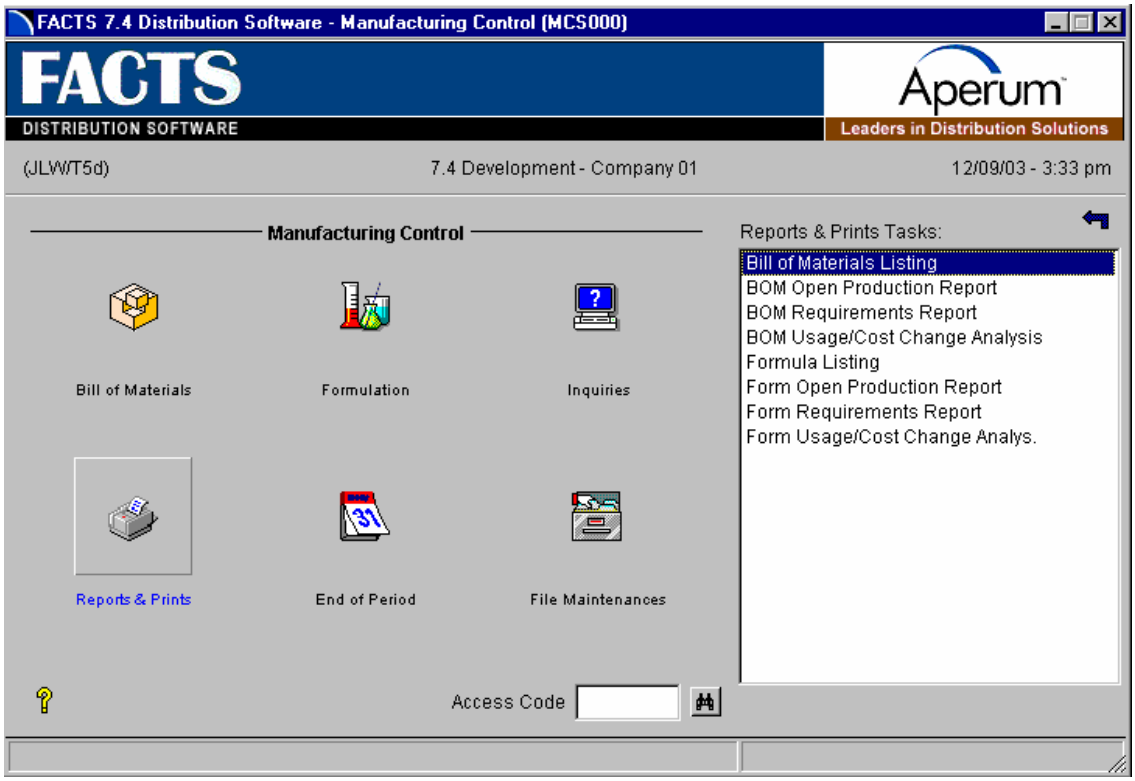


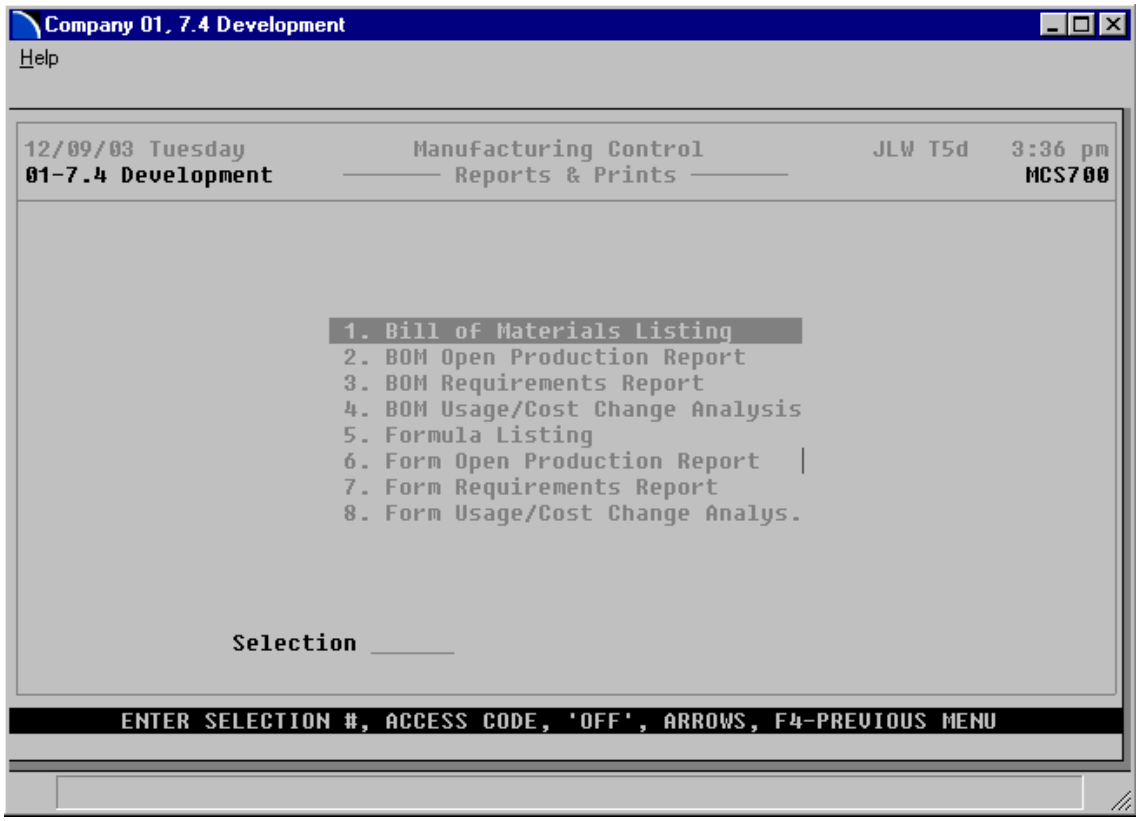


CHAPTER 5

Reports & Prints (MCS700)

1. The Bill of Materials Listing provides a report of bill of material finished items and the component and costing information associated with each finished item.
2. The BOM Open Production Report provides a report listing by ticket (or item) the production tickets in process.
3. The BOM Requirements Report provides a report listing up to five time periods (months) of bill of material quantity requirements based on planned production.
4. The BOM Cost Change Analysis Report provides a list of new costs of BOM items if component costs are changed. It allows users to analyze how component cost changes affect total costs.
5. The Formula Listing provides a report of formulas and the ingredients, finished items, packaging items and costing information associated with code finished item.
6. The Formulation Open Production Report provides a report listing by ticket (or formula), the production tickets in process.
7. The Formulation Requirements Report provides a report listing up to five time periods of formulation quantity requirements based on planned production.
8. The Formulation Cost Change Analysis Report provides a list of new costs of formulas if component costs (packaging and / or ingredient items) are changed. It allows users to analyze how component cost changes affect total costs.





Bill of Materials Listing (MCR710)

Function

This program allows the user of the FACTS system to print a listing of all bill of material finished items entered through the Bill of Materials Entry program.

The user has the option to:

- Select the print order - item, alpha, vendor or item class.
- Select the beginning and ending order choice.
- Select vendor (or item class) to print.
- Select item description(s) to print.
- Print costing information.
- Print components item information.

Report information includes the following:

- Summary: Each BOM finished item number, description(s), stocking unit of measure, and indicator for updating in SO Daily Sales Register.
- Detail (includes component information): Summary information plus each component item and description(s), units for production, stocking unit of measure and memo.
- Costing Summary: Overhead, package, labor, component and total cost for each BOM finished item number.
- Costing Detail (includes component information): Overhead, package and labor factor for each BOM finished item. Cost and extension for each component item. Overhead, package, labor component and total cost for each BOM finished item.

The total number of finished items listed is also included.

User Inputs

The following inputs are involved in printing the Bill of Materials Listing:

1. Order

Select the order the report is to print (ref. 4).

2. Beginning Order Choice

Select the beginning order choice to print (ref. 5).

3. Ending Order Choice

Select the ending order choice to print (ref. 6).

4. Vendor/Item Class

Enter the vendor (item class if vendor selected in input #1) for which to print. The entry must be a valid vendor (item class). CR defaults to ALL.

5. Item Description

Enter whether to print item description **1**, **2** or **B**-both as set in the item F/M. CR defaults to 1.

6. Include cost

Enter **N** or **Y** to indicate whether to print cost information on the listing. CR defaults to N.

7. Cost

If N was entered in input #6, this entry is skipped. Enter whether to use **S**-standard, **A**-average, **L**-last or **M**-manual cost when calculating cost information. CR defaults to S.

8. Warehouse

If N was entered in input #6, this entry is skipped. Enter the warehouse to retrieve the cost from. The entry must be a valid warehouse. CR defaults to the warehouse assigned to the terminal.

9. Include Components

Enter **N** or **Y** to indicate whether to include component items. CR defaults to N.

10. End Of Inputs

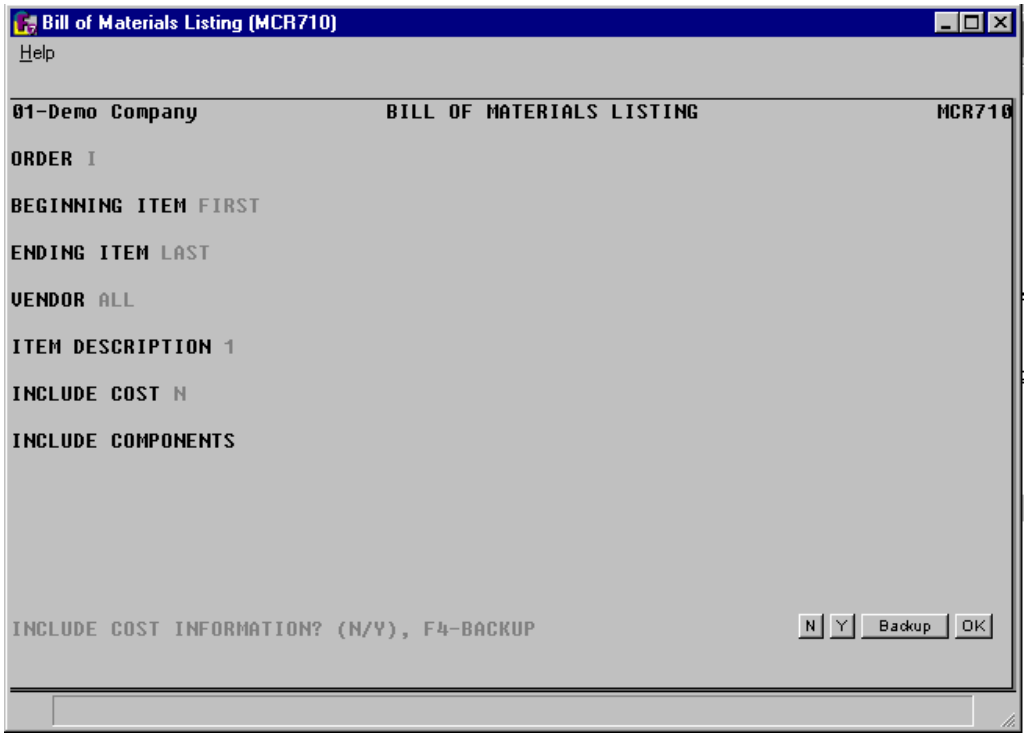
(ref. 3)

Technical Notes

Printing proceeds by reading through the chosen file, item (ICMAST), alpha (ICALPX), vendor (ICVNDX) or item class (ICCLSX) for sorting. The bill of material file (MCBOMS) is then checked for finished items meeting criteria entered. Costing information is read from the item/warehouse file (ICWHSE).

FILES USED - SMCNTL, ICMAST, ICALPX, APVEND, MCBOMS, ICWHSE, ICVNDX, ICCLSX, ICCOST, ICFUCT

FILES UPDATED - NONE



BOM Open Production Report (MCR720)

Function

This program allows the user of the FACTS system to print a report of all BOM production tickets in process.

The user has the option to:

- Select the print order (ticket or item).
- Select the beginning and ending order choice.
- Select the beginning and ending date to print.
- Select item description(s) to print.
- Sort information by date.
- Select warehouse(s) to print.
- Print entered, printed and/or confirmed tickets.

Report information includes the following for each production ticket: ticket number, planned date, status (**E**-entered, **P**-printed, **C**-confirmed), warehouse, finished item number and description(s), units, stocking unit of measure, on hand, on order and committed quantities (of the finished item). The total number of tickets printed is also included.

User Inputs

The following inputs are involved in printing the Bill of Materials Open Production Report:

1. Order

Enter whether to print in **T**-ticket or **I**-item order (ref. 7). CR defaults to T.

2. Beginning Order Choice

Enter the beginning order choice to print (ref. 8).

3. Ending Order Choice

Enter the ending order choice to print (ref. 9).

4. Beginning Date

Enter the beginning planned date to print (ref. 2). CR defaults to FIRST.

5. Ending Date

Enter the ending planned date to print (ref. 2). CR defaults to LAST.

6. Item Description

Enter whether to print item description **1**, **2** or **B**-both as set in the Item F/M. CR defaults to 1.

7. Sort By Date

Enter **N** or **Y** to indicate whether to sort the report in date order. CR defaults to N.

8. Warehouse

Enter warehouse to print. The entry must be a valid warehouse. CR defaults to the warehouse assigned to the terminal. F3 defaults to ALL.

9. Status

Enter whether to print **E**-entered, **P**-printed and / or **C**-confirmed tickets. CR defaults to ALL.

10. End Of Inputs

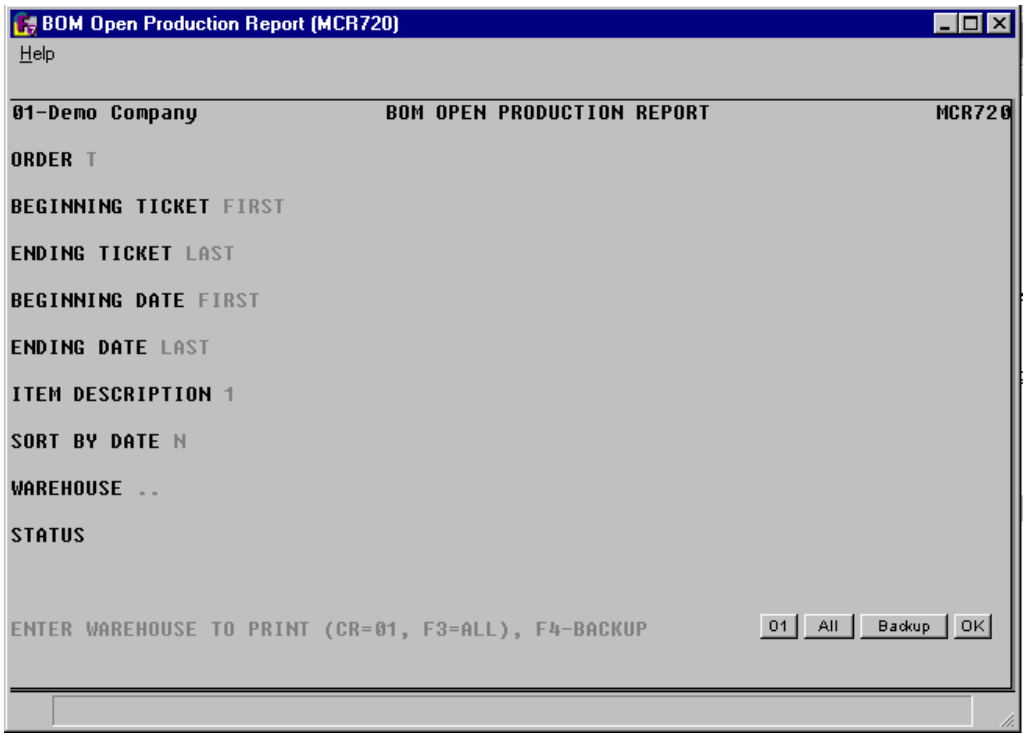
(ref. 3)

Technical Notes

Printing proceeds by reading through the BOM production file (MCBPRD) or its associated sort file (MCBPIX). Information is accessed through the item file (ICMAST), item warehouse file (ICWHSE) for item and warehouse information. The sort file (SMSRT?) is used if sorting the report by date.

FILES USED - SMCNTL, MCBPRD, MCBPIX, ICMAST, ICWHSE, SMSRT?

FILES UPDATED - NONE



BOM Requirements Report (MCR730)

Function

This program allows the user of the FACTS system to print up to five time periods of bill of material quantity requirements based on planned production. The user prints a listing of what is required to produce and what components are needed based on all planned production that has been entered in the BOM Planned Production Entry program. At the end of the report, the user may remove the planned production information, convert it to production or leave requirements alone.

The user has the option to:

- Select the beginning and ending item to print.
- Select item description(s) to print.
- Select warehouse to print.
- Print components.
- Select the number of time groupings.
- Select the number of days to be used for automatic date increments.
- Select the dates for time groupings.

Report information includes the following:

- Bill of material items: Item number, description, on hand, on order and committed quantities, stocking unit of measure, required amount for each time period and total required. The total number of BOM items listed is also included.
- Component items: The same information as BOM item for each component. The total number of component items listed is also included.

User Inputs

The following inputs are involved in printing the Bill of Materials Requirements Report:

1. Beginning Item

Enter the beginning item to print. CR defaults to FIRST.

2. Ending Item

Enter the ending item to print. CR defaults to LAST.

3. Item Description

Enter whether to print item description **1**, **2** or **B**-both as set in the Item F/M. CR defaults to 1.

4. Warehouse

Enter the warehouse to print requirements. The entry must be a valid warehouse. CR defaults to the warehouse assigned to the terminal.

5. Include Components

Enter **N** or **Y** to indicate whether to include requirements of the component items needed to produce the BOM items. CR defaults to N.

6. Groupings

Enter the number of date groupings to print (2-5). CR defaults to 5.

7. Auto Increment

Enter the number of days to be used for automatic date increments (0-99). CR defaults to 7. Entry of 0 indicates the user will manually type in the dates of time groupings.

8. Dates

Enter the ending date for the first date grouping (ref. 2). CR defaults to the system date. If automatic increments are to be used, the next dates are calculated automatically. If automatic increments are not used, enter each group ending date up to the number of groups selected.

9. End Of Inputs

(ref. 3)

10. Check Report. Do You Wish To Remove Printed Records, Convert To Production Or Neither?

Enter whether to **R**-remove planned production records for the items just printed, **C**-convert planned production just printed to production tickets, or **N**-neither, where no updating occurs.

Technical Notes

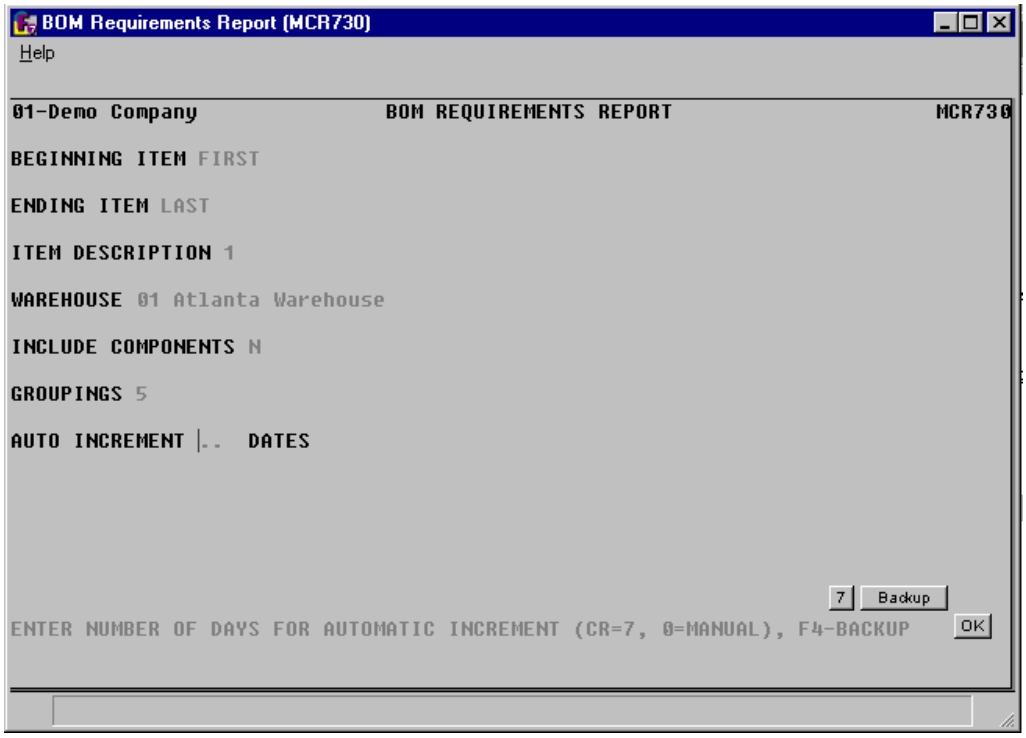
Printing proceeds by reading through the BOM production planning file (MCBPLN) and checking for BOM items meeting criteria entered.

Component item information is read from the BOM file (MCBOMS). Various item (/ warehouse) information is read from the item (ICMAST) and item / warehouse (ICWHSE) file.

If planned production is removed, records are removed from the planned production file (MCBPLN) and its associated sort file (MCBPLX). If planned production is converted to actual production , i.e., into production tickets, the planned production is removed after creating production tickets (MCBPRD), updating various sort files (MCBPIX and MCITMX), and committing component items and creating on order quantities in the warehouse.

FILES USED - SMCNTL, MCBOMS, ICMAST, SMSRT?

FILES UPDATED - MCBPLN, MCBPLX, ICWHSE, MCBPRD, MCBPIX, MCITMX



BOM Cost Change Analysis (MCR740)

Function

This program allows the user of the FACTS system to enter new costs for component items and the system calculates what effect those new costs have on the final cost of the BOM item it is used to produce. It allows users to analyze how component cost changes affect their total costs.

The user has the option to:

Select the beginning and ending BOM finished item to print.
Select item description(s) to print.
Select which cost to use in calculating cost changes - standard, average, last or manual.
Enter up to six component item cost changes.

Report information includes the following: component item(s) entered and their new cost and the costing unit of measure. For each BOM item, the item number and description, price, pricing unit of measure, current and new cost, costing unit of measure, $ difference and the percentage (%) change are printed. The total number of BOM items listed is also included.

User Inputs

The following inputs are involved in printing the Bill of Materials Cost Change Analysis:

1. Beginning Item

Enter the beginning finished item to print. CR defaults to FIRST.

2. Ending Item

Enter the ending finished item to print. CR defaults to LAST.

3. Item Description

Enter whether to print item description **1**, **2** or **B**-both as set in the Item F/M. CR defaults to 1.

4. Cost

Enter whether to use **S**-standard, **A**-average, **L**-last or **M**-manual cost calculations. CR defaults to S.

5. Warehouse

If M is entered in input #4, this input is skipped. If S, A or L is entered in input #4, enter the warehouse to retrieve the cost from. The entry must be a valid warehouse. CR defaults to the warehouse assigned to the terminal

6. Component 1-6

Enter the item (component) number with a cost change. F3 ends entry of component items with cost changes. The current cost is displayed. Enter the new cost.

7. End Of Inputs

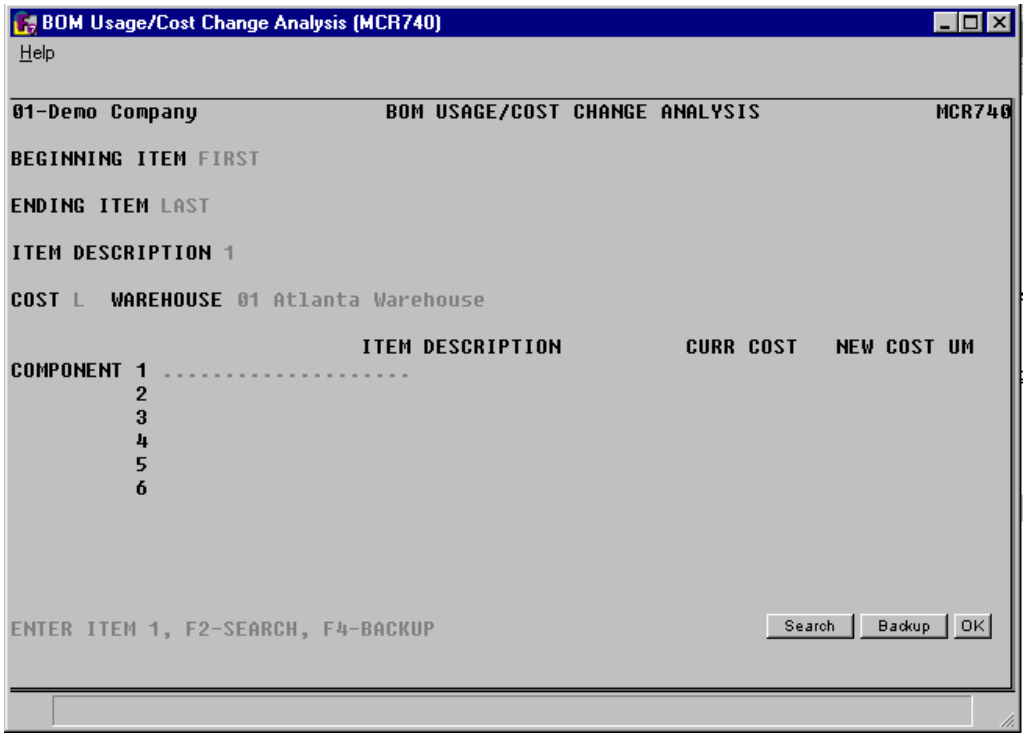
(ref. 3)

Technical Notes

Printing proceeds by reading through the bill of materials file (MCBOMS) checking for items meeting criteria (i.e., if a component item has had a new cost entered). General information is read from the item file (ICMAST) and costing information is read from the item / warehouse file (ICWHSE).

FILES USED - SMCNTL, MCBOMS, ICWHSE, ICCOST, ICFUCT, ICALPX, ICCLSX, ICINTR, ICPRIC

FILES UPDATED - NONE



Formula Listing (MCR750)

Function

This program allows the user of the FACTS system to print a listing of all formulas entered through the Formula Entry program.

The user has the option to:

Select the beginning and ending formula to print.
Print costing information.
Print ingredient information.
Print finished item information.

Report information includes the following:

Summary: Formula number and description, standard quantity, unit of measure, waste percentage, overhead and labor factors.
Detail: Summary information plus each ingredient, finished and/or packaging item number and description, units for production, stocking unit of measure and memo.
Costing (includes ingredient, finished and/or packaging): For each item the cost, costing unit of measure and extension. For each formula, overhead, labor, ingredients and total cost.

The total number of formulas listed is also included.

User Inputs

The following inputs are involved in printing the Formula Listing:

1. Beginning Formula

Enter the beginning formula to list (1-999999). CR defaults to FIRST.

2. Ending Formula

Enter the ending formula to list (1-999999). CR defaults to LAST.

3. Include Cost

Enter **N** or **Y** to indicate whether to include cost information on the listing. CR defaults to N.

4. Cost

If N is entered in input #3, this input is skipped. If Y is entered in input #3, enter whether to use **S**-standard, **A**-average, **L**-last or **M**-manual cost calculations. CR defaults to S.

5. Warehouse

If M is entered in input #4, this entry is skipped. If S, A or L is entered in input #4, enter the warehouse to retrieve the cost from. The entry must be a valid warehouse. CR defaults to the warehouse assigned to the terminal.

6. Include Ingredients

Enter **N** or **Y** to indicate whether to include ingredient information on the report. CR defaults to N.

7. Include Finished Items

Enter **N** or **Y** to indicate whether to include finished item information on the report. CR defaults to N.

8. Include Packaging Items

Enter **N** or **Y** to indicate whether to include packaged item information on the report. CR defaults to N.

9. End Of Inputs

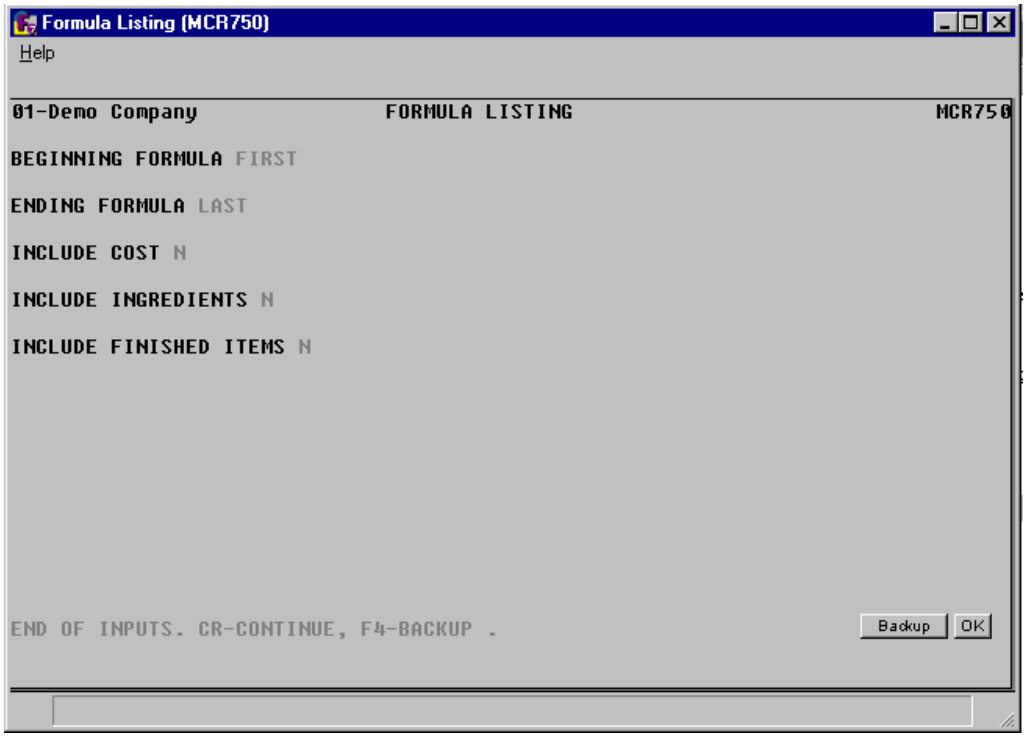
(ref. 3)

Technical Notes

Printing proceeds by reading through the formula file (MCFORM) for formulas meeting criteria entered. Costing information is read from the item / warehouse file (ICWHSE). General information (descriptions) is read from the item file (ICMAST).

FILES USED - SMCNTL, MCFORM, ICMAST, ICCOST, ICWHSE, ICFUCT, MCFPCK, MCFPKX

FILES UPDATED - NONE



Formulation Open Production Report (MCR760)

Function

This program allows the user of the FACTS system to print a report of all formulation production tickets in process.

The user has the option to:

Select the print order (ticket or formula).
Select the beginning and ending order choice.
Select the beginning and ending date to print.
Sort tickets by date.
Select warehouse(s) to print.
Print entered, printed and/or confirmed tickets.

Report information includes the following for each formulation production ticket: ticket number, date, status (**E**-entered, **P**-printed, **C**-confirmed), warehouse, formula number and description, each finished item, the item number and description, units, stocking unit of measure, on hand, on order and committed quantities (of the finished item). The total number of tickets printed is also included.

User Inputs

The following inputs are involved in printing the Formulation Open Production Report:

1. Order

Enter whether to print in **T**-ticket or **F**-formula order (ref. 7). CR defaults to T.

2. Beginning Order Choice

Enter the beginning order choice to print (ref. 8).

3. Ending Order Choice

Enter the ending order choice to print (ref. 9).

4. Beginning Date

Enter the beginning planned date to print (ref. 2). CR defaults to FIRST.

5. ENDING DATE

Enter the ending planned date to print (ref. 2). CR defaults to LAST.

6. Sort By Date

Enter **N** or **Y** to indicate whether to sort the report in date order. CR defaults to N.

7. Warehouse

Enter the warehouse to print. The entry must be a valid warehouse. CR defaults to the warehouse assigned to the terminal. F3 defaults to ALL

8. Status

Enter whether to print **E**-entered, **P**-printed and / or **C**-confirmed tickets. CR defaults to ALL.

9. End Of Inputs

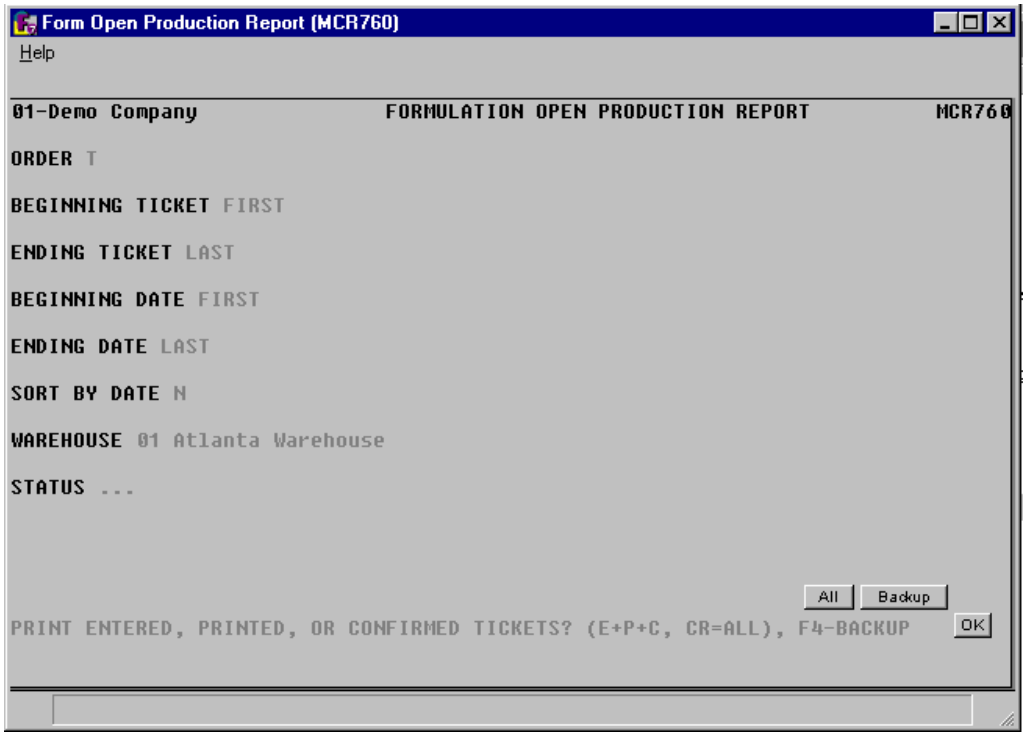
(ref. 3)

Technical Notes

Printing proceeds by reading through the formulation production file (MCFPRD). Information is accessed through the item file (ICMAST) and item warehouse file (ICWHSE) for item and warehouse information. The sort file (SMSRT?) is used if sorting the report by date.

FILES USED - SMCNTL, MCFPRD, MCFORM, ICMAST, ICWHSE, SMSRT

FILES UPDATED - NONE



Formulation Requirements Report (MCR770)

Function

This program allows the user of the FACTS system to print up to five time periods of formulation quantity requirements based on planned production. The user prints a listing of what formulas will be required to produce, what ingredients will be needed, what finished items are required to produce, and what packaging items are needed based on all planned production that has been entered in the Formulation Planned Production Entry program. At the end of the report, the user may remove the planned production information, convert to production or leave requirements alone.

The user has the option to:

Select the beginning and ending formula to print.
Select warehouse(s) to print.
Print detail information - ingredients, finished items, packaging items.
Determine the number of time groupings.
Determine the number of days to be used for automatic date increments.
Select the dates for time groupings.

Report information includes the following:

Formulas: Formula number, description, unit of measure, required amount for each time period and total required. The total number of formulas listed is also included.
Ingredients: Item number, on hand, on order and committed quantities, stocking unit of measure, required amount for each time period and total required. The total number of ingredients listed is also included.
Finished items: The same information as ingredients. The total number of finished items listed is also included.
Packaging items: The same information as ingredients. The total number of packaging items listed is also included.

User Inputs

The following inputs are involved in printing the Formulation Requirements Report:

1. Beginning Formula

Enter the beginning formula to print. CR defaults to FIRST.

2. Ending Formula

Enter the ending formula to print. CR defaults to LAST.

3. Warehouse

Enter the warehouse to print requirements. The entry must be a valid warehouse. CR defaults to the warehouse assigned to the terminal.

4. Include detail

Enter **N** or **Y** to indicate whether to include requirements of the ingredients, finished items and packaging items needed to produce the formulas. CR defaults to N.

5. Groupings

Enter the number of date groupings to print (2-5). CR defaults to 5.

6. Auto Increment

Enter the number of days to be used for automatic date increments (0-99). CR defaults to 7. Entry of 0 indicates the user will manually type in the dates of time groupings.

7. Dates

Enter the ending date for the first date grouping (ref. 2). CR defaults to the system date. If automatic increments are to be used, the next dates are calculated automatically. If automatic increments are not used, enter each group ending date up to the number of groups selected.

8. End Of Inputs

(ref. 3)

9. CHECK REPORT. DO YOU WISH TO REMOVE PRINTED RECORDS, CONVERT TO PRODUCTION OR NEITHER?

Enter whether to **R**-remove planned production records for the formulas just printed, **C**-convert planned production just printed to production tickets, or **N**-neither, where no updating occurs.

Technical Notes

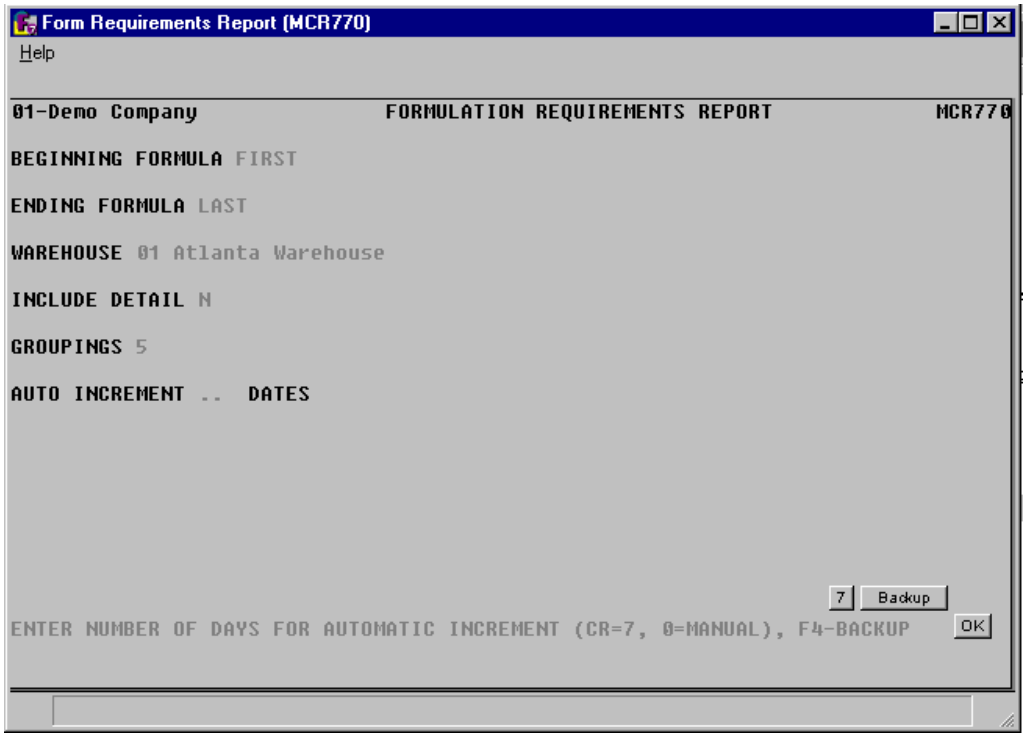
Printing proceeds by reading through the formulation production planning file (MCFPLN) and checking for formulas meeting criteria entered.

Ingredient item information is read from the formula file (MCFORM). Various item (/ warehouse) information is read from the item (ICMAST) and item / warehouse (ICWHSE) file.

If planned production is removed, records are removed from the planned production file (MCFPLN) and its associated sort file (MCFPLX). If planned production is converted to actual production (i.e., into production tickets), the planned production is removed after creating production tickets (MCFPRD), updating various sort files (MCFPRX and MCITMX), and committing component items and creating on order quantities in the warehouse.

FILES USED - SMCNTL, MCFORM, ICMAST, MCFPCK, SMSRT?

FILES UPDATED - MCFPLN, MCFPLX, ICWHSE, MCFPRD, MCFPRX, MCITMX



Formulation Usage/Cost Change Analysis (MCR780)

Function

This program allows the user of the FACTS system to enter new costs for packaging and / or ingredient items and the system calculates what effect those new costs have on the final cost of the finished item and formulas they are used to produce. It allows users to analyze how packaging and / or ingredient cost changes affect their total costs.

The user has the option to:

Select the beginning and ending formulation finished item to print.
Select item description(s) to print.
Select which cost to use in calculating cost changes - standard, average, last or manual.
Enter up to six packaging and / or ingredient item cost changes.

Report information includes the following: packaging and / or ingredient item(s) entered and their old and new cost and the costing unit of measure. For each formula, the formula and description, current and new cost, costing units of measure, $ difference and the percentage (%) change are printed. For each finished item the item number and description, formula number and description used, price, pricing unit of measure, current and new cost, costing unit of measure, $ difference and the percentage (%) change are printed. The total number of finished items listed is also included.

User Inputs

The following inputs are involved in printing the Formulation Cost Change Analysis:

1. Beginning Item

Enter the beginning finished item to print. CR defaults to FIRST.

2. Ending Item

Enter the ending finished item to print. CR defaults to LAST.

3. Item Description

Enter whether to print item description **1**, **2** or **B**-both as set in the Item F / M. CR defaults to 1.

4. Cost

Enter whether to use **S**-standard, **A**-average, **L**-last or **M**-manual cost calculations. CR defaults to S.

5. Warehouse

If M is entered in input #4, this input is skipped. If S, A or L is entered in input #4, enter the warehouse to retrieve the cost from. The entry must be a valid warehouse. CR defaults to the warehouse assigned to the terminal.

6. Component 1-6

Enter the packaging and / or ingredient item number with a cost change. F3 ends entry of items with cost changes. The current cost is displayed. Enter the new cost.

7. End Of Inputs

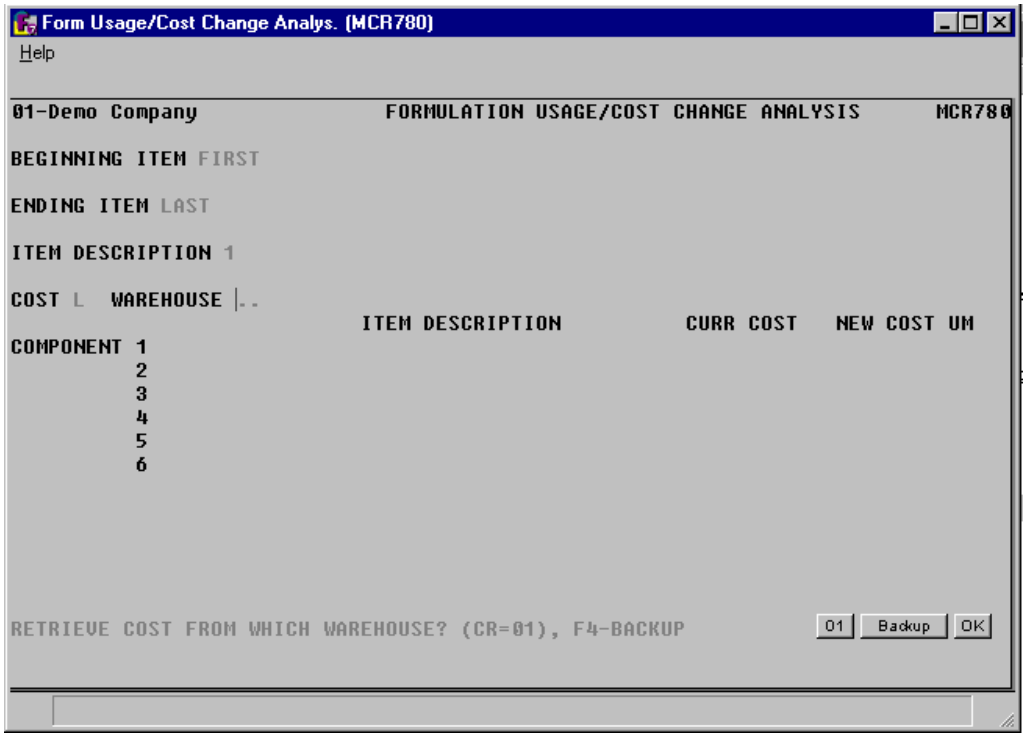
(ref. 3)

Technical Notes

Printing proceeds by reading through the finished item file (MCFPCK) checking for items meeting criteria (i.e., if a packaging item has had a new cost entered). General information is read from the item file (ICMAST) and costing information is read from the item / warehouse file (ICWHSE).

FILES USED - SMCNTL, MCFPCK, ICWHSE, MCFORM, ICCOST, ICFUCT, ICALPX, ICCLSX, ICINTR, ICPRIC

FILES UPDATED - NONE



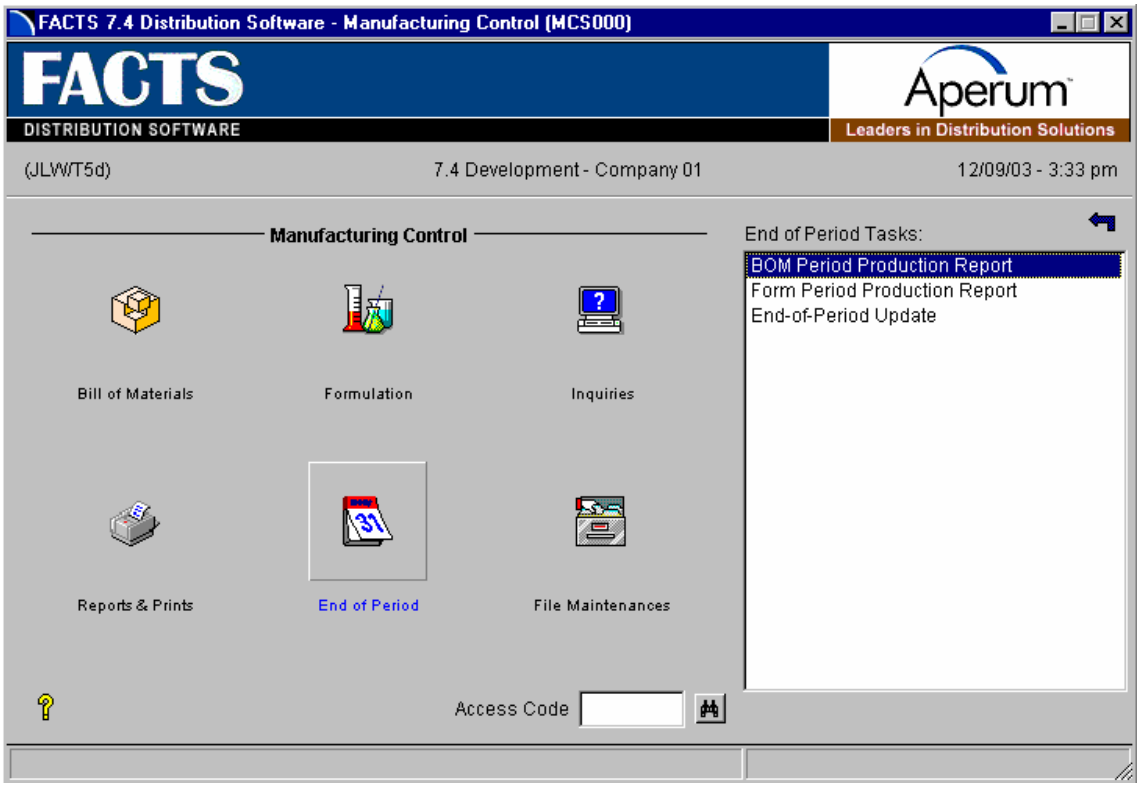
CHAPTER 6

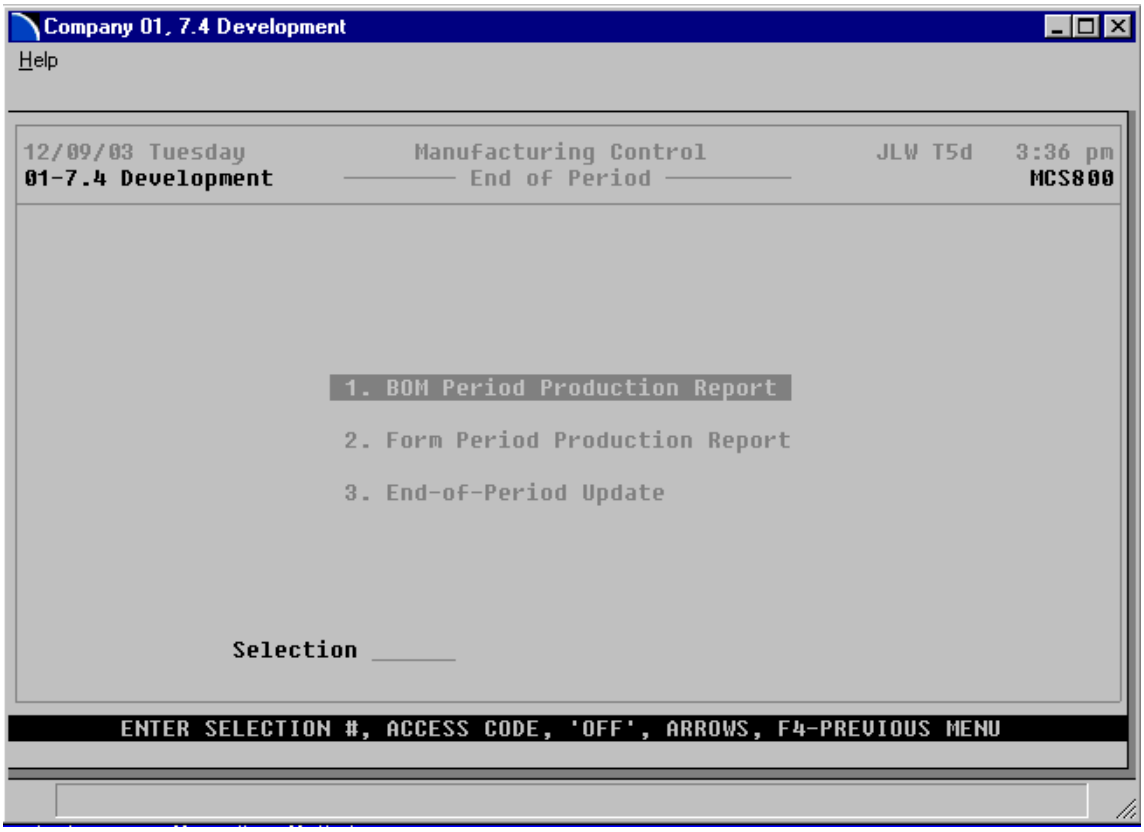
End of Period

The end-of-period menu contains programs that should be run at the end of each manufacturing control period to close it correctly. (Please refer to the normal procedures section.)

The BOM and Formulation Production Reports provide a report of all BOM and formulation tickets respectively confirmed and updated for the period.

The End-of-Period Update closes the current manufacturing period by clearing month-to-date BOM item and formula production history, rolling year-to-date BOM item and formula production history to prior year (if it is year-end) and rolling the current period forward.





BOM Period Production Report (MCR810)

Function

This program allows the user of the FACTS system to print a report of all BOM production tickets confirmed and updated for the period. Tickets are updated to this report by the BOM Production Register update.

It is suggested that the report be printed and updated as part of the end-of-period procedures. To prevent file overflow, the records should be removed on a regular basis.

The user has the option to:

- Select the print order - ticket, item or date.
- Select the beginning and ending order choice.
- Select the item description(s) to print.
- Select period.
- Select warehouse(s) to print.

Report information includes the following for each ticket: ticket number, production date, warehouse, finished item number and description, units produced and stocking unit of measure. The total number of tickets printed is also included.

User Inputs

The following inputs are involved in printing the Bill of Materials Period Production Report:

1. Order

Select the order the report is to print. The options are by **T**icket, **I**tem or **D**ate order. CR defaults to T.

2. Beginning Order Choice

Select the beginning order choice to print; e.g., if ticket was selected above, the user selects the beginning ticket to print. CR defaults to FIRST.

3. Ending Order Choice

Select the ending order choice to print; e.g., if ticket was selected above, the user selects the ending ticket to print. CR defaults to LAST.

4. Item Description

Enter whether to print item description **1**, **2** or **B**oth as set in the Item F/M. CR defaults to 1.

5. Period

Enter the period to print (PPYY). CR defaults to the current period.

6. Warehouse

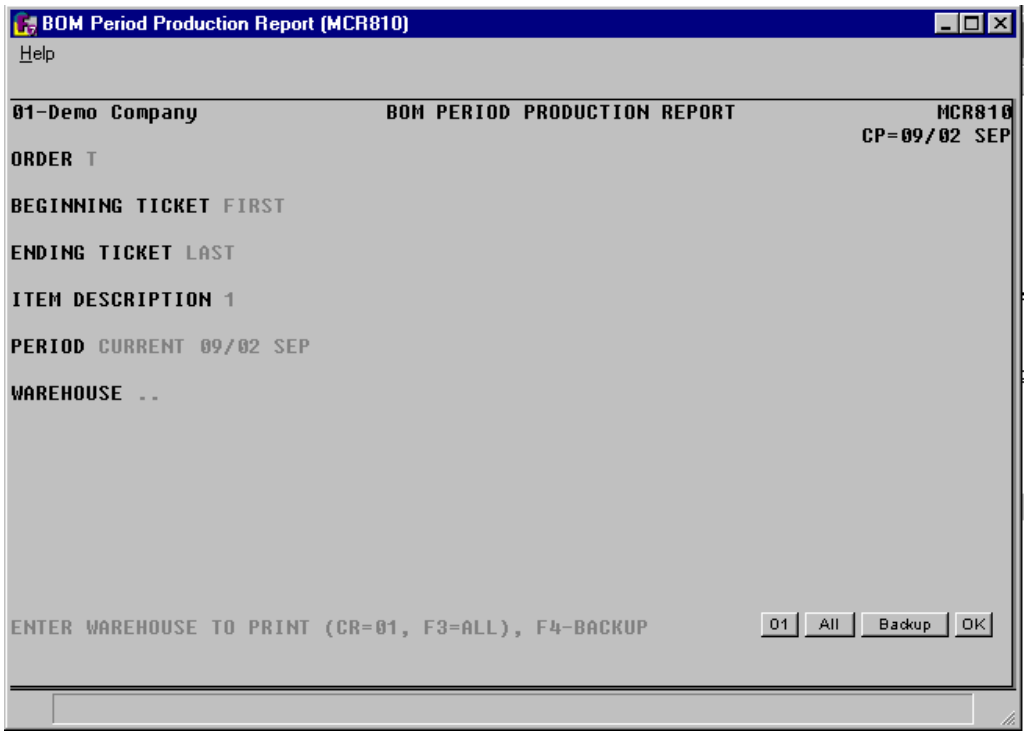
Enter the warehouse to print. The entry must be a valid warehouse code. CR defaults to the warehouse assigned to the terminal. F3 defaults to ALL.

Technical Notes

Printing proceeds by reading through the BOM period production file (MCBEOP) for records which meet criteria entered. During the optional update, records printed may be removed. Sorting is required when printing in item or date order. When sorting is required, the sort file (SMSRT?) is utilized.

FILES USED - SMCNTL, ICMAST, SMSRT?

FILES UPDATED - MCBEOP



Formulation Period Production Report (MCR820)

Function

This program allows the user of the FACTS system to print a report of all formulation production tickets confirmed and updated for the period. Tickets are updated to this report by the Formulation Production Register update.

It is suggested that the report be printed and updated as part of the end-of-period procedures. To prevent file overflow, the records should be removed on a regular basis.

The user has the option to:

- Select the print order - ticket, item or date.
- Select the beginning and ending order choice.
- Select period.
- Select warehouse(s) to print.

Report information includes the following for each ticket: ticket number, production date, warehouse, formula number and description, units produced and unit of measure. For each finished item on the ticket, finished item number and description, units produced and memo are printed. The total number of tickets printed is also included.

User Inputs

The following inputs are involved in printing the Formulation Period Production Report:

1. Order

Select the order the report is to print. The options are by **T**icket, **I**tem or **D**ate order. CR defaults to T.

2. Beginning Order Choice

Select the beginning order choice to print; e.g., if ticket was selected above, the user selects the beginning ticket to print. CR defaults to FIRST.

3. Ending Order Choice

Select the ending order choice to print; e.g., if ticket was selected above, the user selects the ending ticket to print. CR defaults to LAST.

4. Period

Enter the period to print (PPYY). CR defaults to the current period.

5. Warehouse

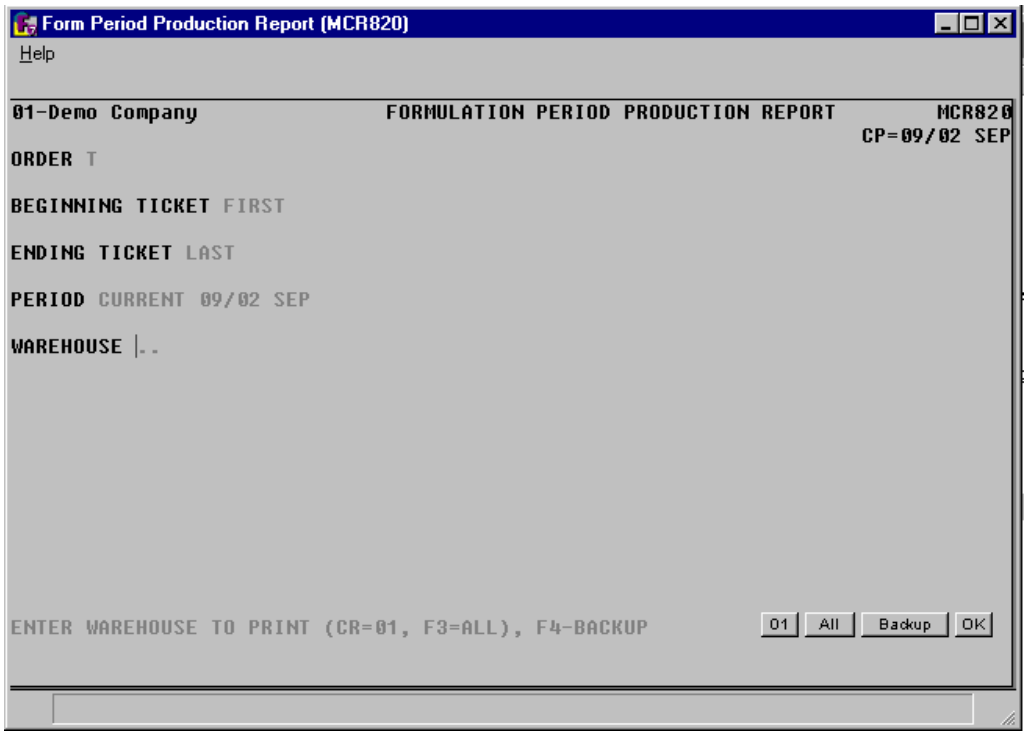
Enter the warehouse to print. The entry must be a valid warehouse code. CR defaults to the warehouse assigned to the terminal. F3 defaults to ALL.

Technical Notes

Printing proceeds by reading through the formulation period production file (MCFEOP) for records which meet criteria entered. During the optional update, records printed may be removed. Sorting is required when printing in item or date order. When sorting is required, the sort file (SMSRT?) is utilized.

FILES USED - SMCNTL, ICMAST, MCFORM, SMSRT?

FILES UPDATED - MCFEOP



End-Of-Period Update (MCU890)

Function

This program allows the user of the FACTS system to close the current manufacturing control period. The End-of-Period Update should be run at the end of each manufacturing control period.

This update allows the user to:

Close out the current period in manufacturing control.
Clear the month-to-date BOM item production history and formula production history.
Roll year-to-date BOM item and formula production history to prior year, if it is the end of the year.

Prior to running this update, the user should run the BOM and Formulation Period Production Reports (otherwise, month-to-date production history is lost).

User Inputs

The following inputs are involved in running the End-of-Period Update:

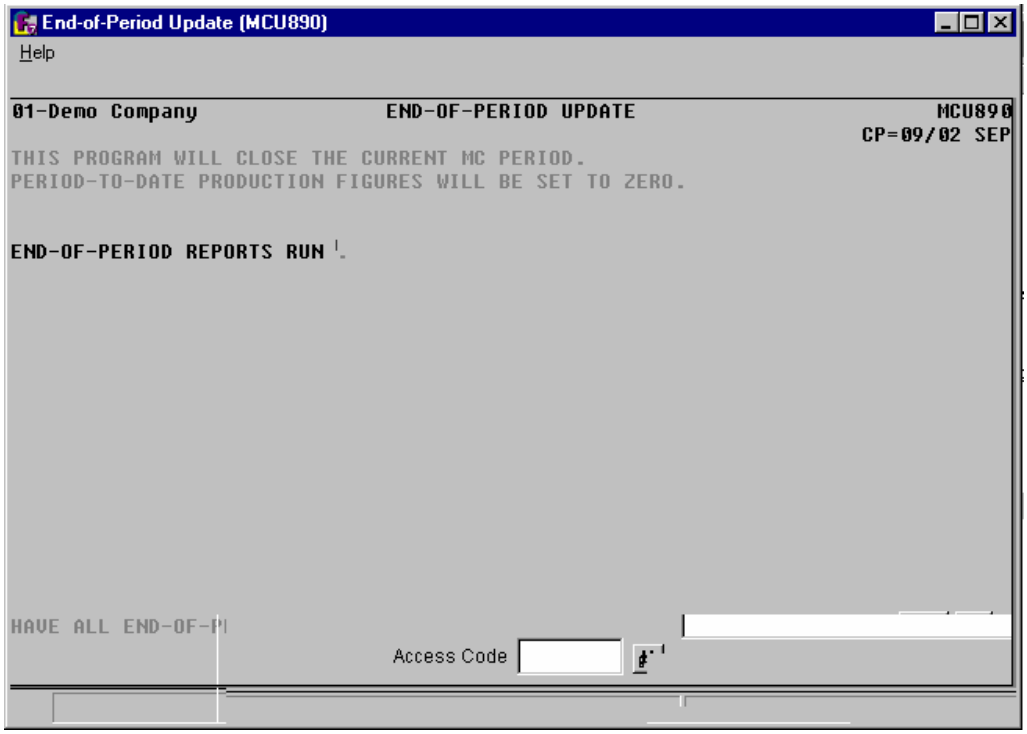
1. End-Of-Period Reports Run

Enter **Y** or **N** to indicate whether all the manufacturing end-of-period reports have been run.

Technical Notes

Updating proceeds by reading through the BOM production history file (MCBHST) and the formulation production history file (MCFHST) and clearing month-to-date totals. If it is the end of the year, year-to-date totals are rolled to prior year. The current period and date of last end-of-period update are also updated (SMCNTL).

FILES UPDATED - SMCNTL, MCBHST, MCFHST



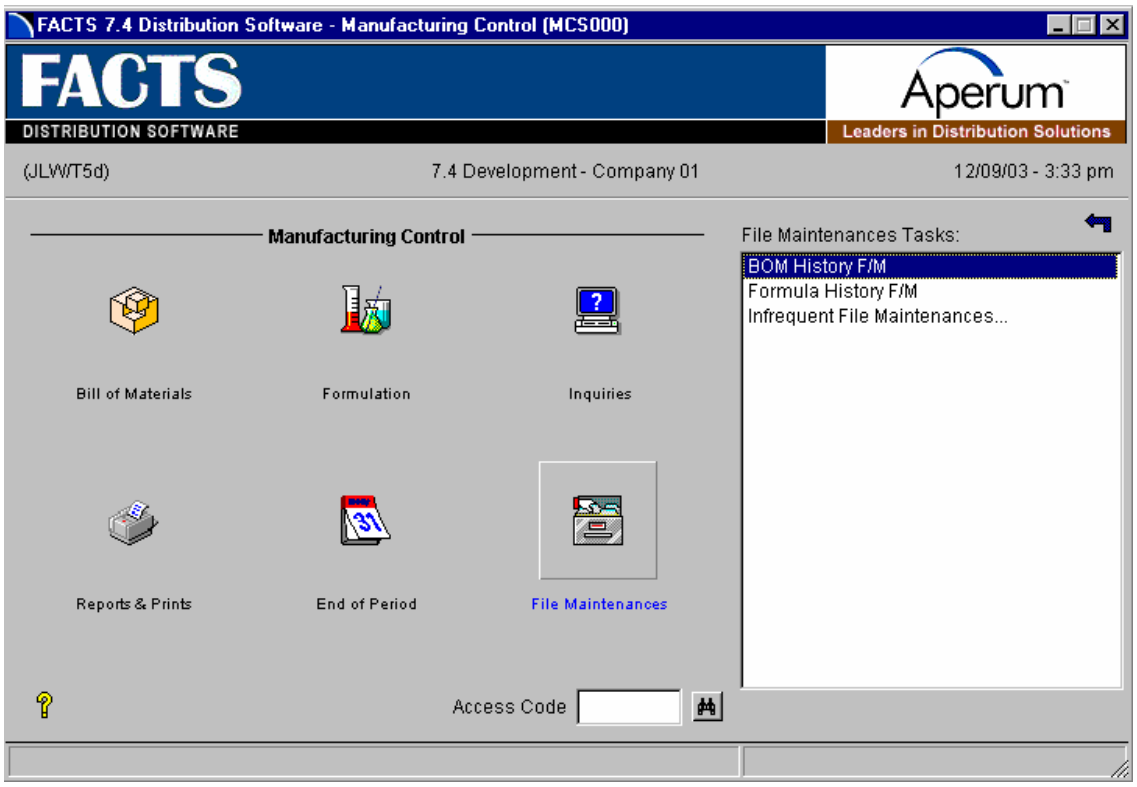
CHAPTER 7

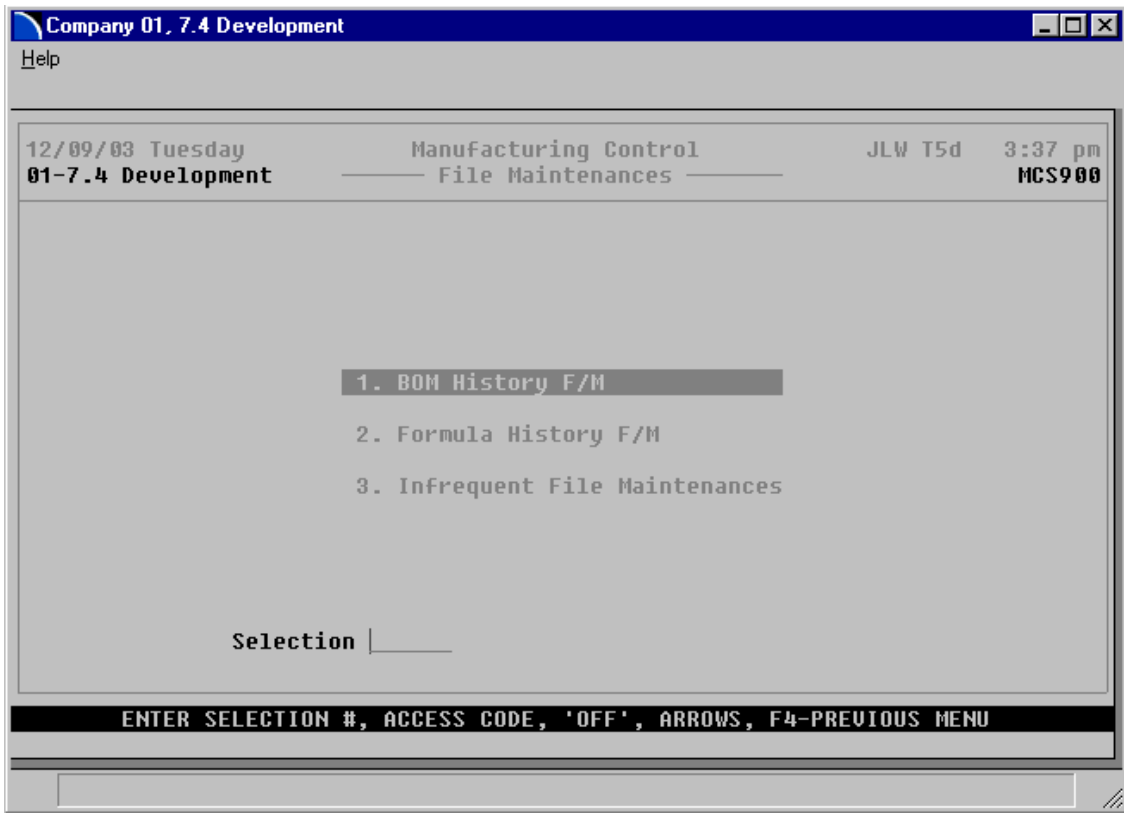
File Maintenances

File maintenance programs allow the user to enter, change and delete data. These programs are used to enter the initial data required to set up the system (refer to Installation Manual).

The user can add, change and delete the records in a file. This is called maintaining the file. Some file maintenance programs may be used often (example - none in MC) where others are used less frequently. There is an Infrequent File Maintenances menu for the latter programs; most of these are used only one time during the initial set up of the system. However, the information in the infrequent file maintenances may be updated by the system. An example would be the Nonstatic Control F/M which keeps track of the period, the register and ticket trace numbers.

All files once set up by the system are maintained and updated by the system.





BOM History F/M (MCF910)

Function

This program allows the user of the FACTS system to maintain BOM history for finished items which includes for each warehouse, month-to-date, year-to-date and prior year units produced and the last date produced.

The user may elect to gather historical information on some or all BOM finished items. If so, it may be entered here prior to actual processing; thereafter, it is updated by the Production Register update.

User Inputs

The following inputs are involved in creating BOM finished item history:

1. Finished Item

Enter the finished item number. The entry must be a valid item number. F1 allows a search. F2 allows a finished item search (ref. 11).

2. Warehouse

Enter the warehouse code. The entry must be a valid warehouse. CR initially defaults to the warehouse assigned to the terminal. F2 allows a search (ref. 11).

3. Units Produced MTD (Month-To-Date)

Enter the number of units produced month-to-date (+/-99999999999). CR initially defaults to 0.

4. Units Produced YTD (Year-To-Date)

Enter the number of units produced year-to-date)+/-99999999999). CR initially defaults to 0.

5. Units Produced PYR (Prior Year)

Enter the number of units produced prior year (+/-99999999999). CR initially defaults to 0.

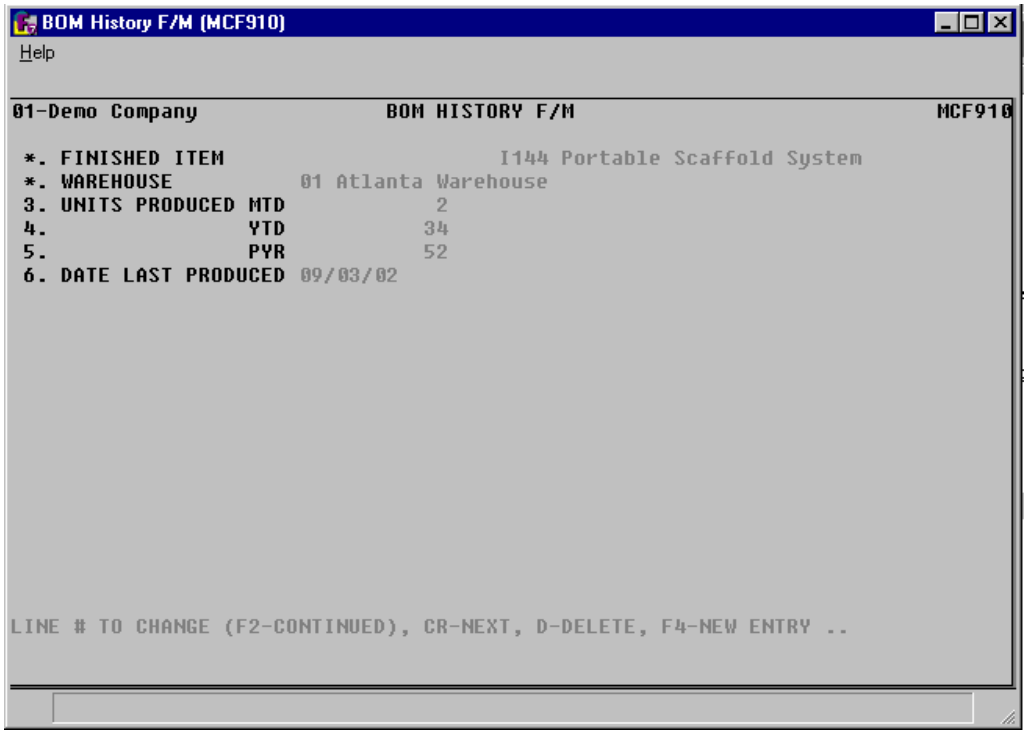
6. Date Last Produced

Enter the date of the last time this finished item was produced in this warehouse (ref. 2). CR defaults to the system date.

Technical Notes

FILES USED - SMCNTL, ICMAST, ICALPX, ICCLSX, MCBOMS, ICINTR

FILES UPDATED - MCBHST



Formula History F/M (MCF920)

Function

This program allows the user of the FACTS system to maintain formula history for formula numbers which includes for each warehouse, month-to-date, year-to-date and prior year units produced and the last date produced.

The user may elect to gather historical information on some or all formula numbers. If so, it may be entered here prior to actual processing; thereafter, it is updated by the Formulation Production Register update.

User Inputs

The following inputs are involved in creating formula number history:

1. Formula #

Enter the formula number. The entry must be a valid formula number. F2 allows a search (ref. 11).

2. Warehouse

Enter the warehouse code. The entry must be a valid warehouse. CR initially defaults to the warehouse assigned to the terminal. F2 allows a search (ref. 11).

3. Units Produced MTD (Month-To-Date)

Enter the number of units produced month-to-date (+/-99999999999). CR initially defaults to 0.

4. Units Produced YTD (Year-To-Date)

Enter the number of units produced year-to-date (+/-99999999999). CR initially defaults to 0.

5. Units Produced PYR (Prior Year)

Enter the number of units produced prior year (+/-99999999999). CR initially defaults to 0.

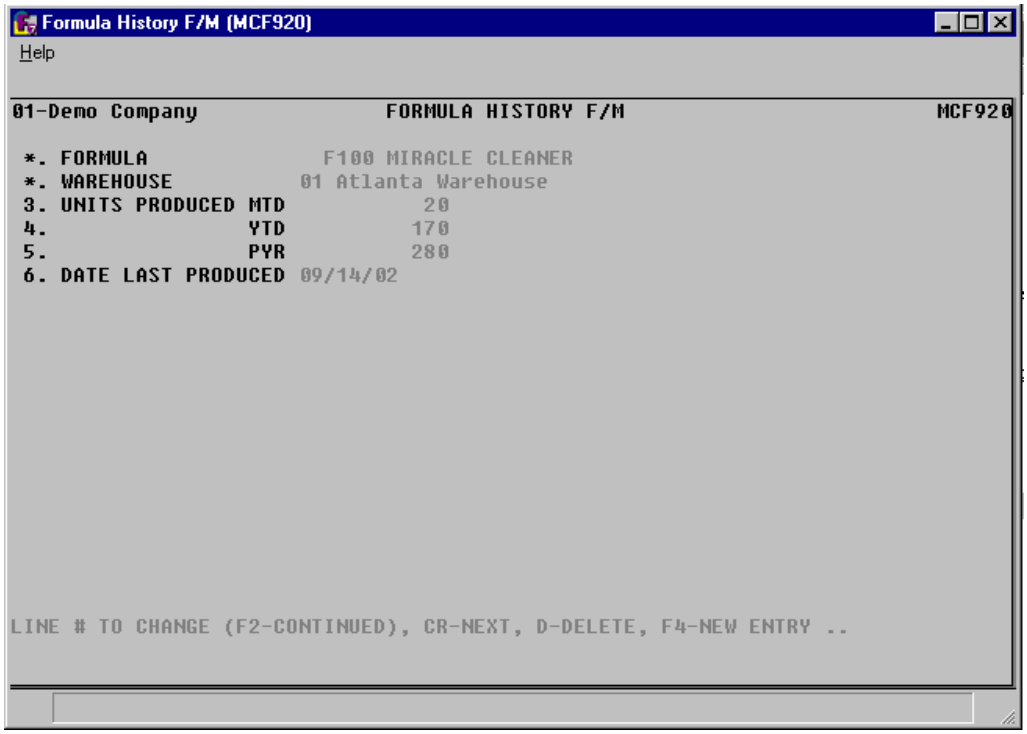
6. Date Last Produced

Enter the date of the last time this formula number was produced in this warehouse (ref. 2). CR defaults to the system date.

Technical Notes

FILES USED - SMCNTL, ICMAST, ICALPX, ICCLSX, MCFORM

FILES UPDATED - MCFHST



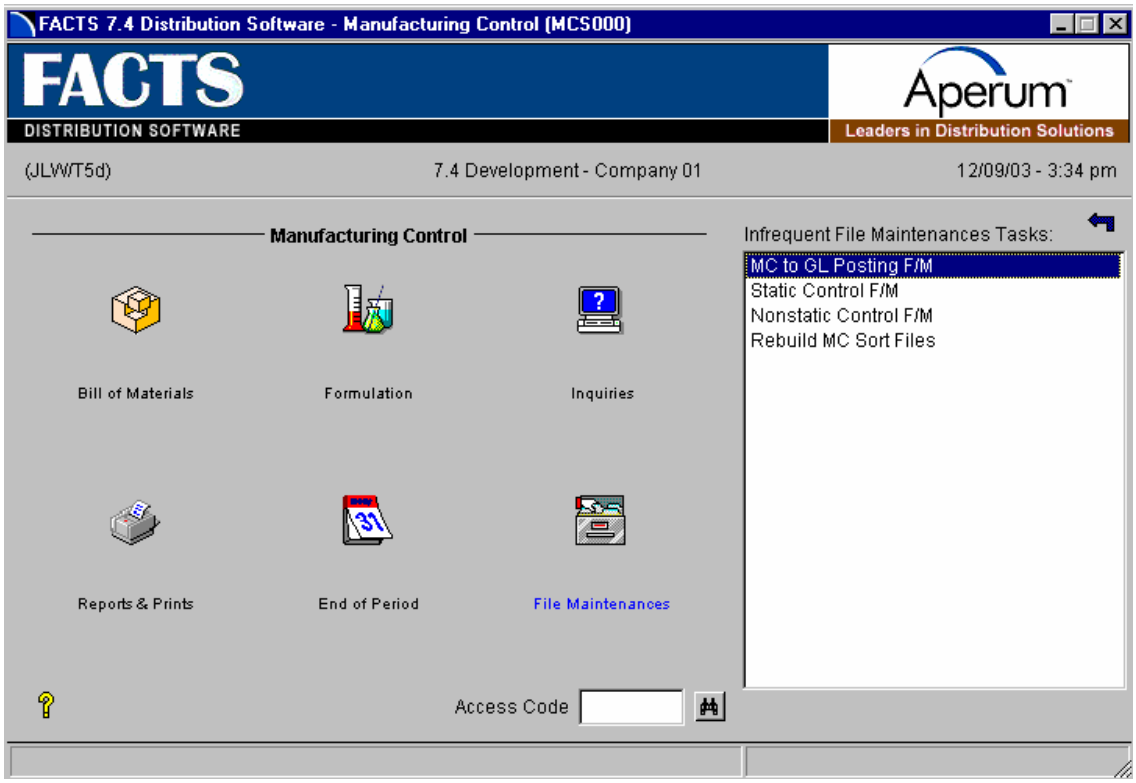
CHAPTER 8

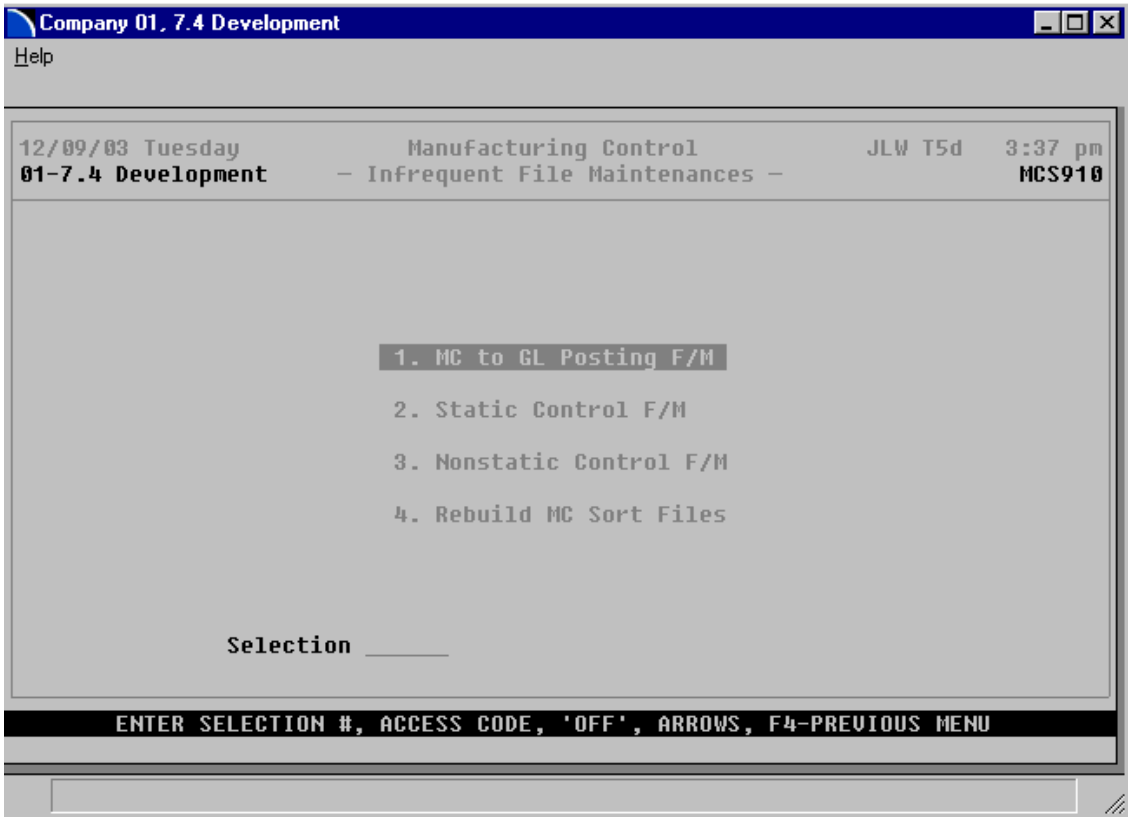
Infrequent F/M

File maintenance programs allow the user to enter, change and delete data. These programs are used to enter the initial data required to set up the system (refer to the Installation Manual).

The user can add, change and delete the records in a file. This is called maintaining the file. Some file maintenance programs may be used often where others are used less frequently. There is an Infrequent File Maintenances menu for the latter programs; most of these are used only one time during the initial set up of the system. However, the information in the infrequent file maintenances may be updated by the system. An example would be the Nonstatic Control F/M that keeps track of the sales orders period and all the register trace numbers.

All files, once set up, are maintained and updated by the system. Most file maintenances in the sales orders system do not need to be maintained by the user and it is unlikely that they will be used.





MC To GL Posting Control F/M (MCF970)

Function

This program allows the user of the FACTS system to set up how to post transactions from manufacturing into the general ledger.

The posting control record determines the following:

- Whether posting to GL occurs, and if so, in summary or detail.
- Where to post to in GL (i.e., the GL journal number to post to).
- Whether to post to GL by branch.
- What GL account numbers to post to for overhead, package and labor costs.

Other GL account numbers used when posting manufacturing transactions to GL are the inventory number, manufacturing component number and the manufacturing finished item number. These three account numbers are found in the Inventory GL Posting Tables.

User Inputs

The following steps are involved in creating the GL posting control record:

1. GL Distribution

The manufacturing control system may post to General Ledger automatically. The Bill of Materials and Formulation Production Registers may print a general ledger distribution and make a journal posting to GL during the update. Enter **0**, **1**, **2** or **3** to indicate how MC is tied in with general ledger. CR initially defaults to 0.

0-no GL distribution is printed or posted.

1-the GL distribution is printed (printing is in detail format) but not posted to GL.

2-the GL distribution is printed (printing is in detail format) and posted to GL in summary (posting includes the total amount posted to each account number).

3-the GL distribution is printed (printing is in detail format) and posted to GL in detail (posting includes each item contributing to the amount for each account number).

2. Bill Of Materials Journal

Enter the general ledger journal number to post to when posting from the Bill of Materials Production Register. The entry must be a valid journal number. F2 allows a search (ref. 11).

3. Formula Production Journal

Enter the general ledger journal number to post to when posting from the Formulation Production Register. The entry must be a valid journal number. F2 allows a search (ref. 11).

4. Post by branch

Enter **N** or **Y** to indicate whether to post to GL by branch; i.e., insert the proper branch in the GL account numbers when posting. The system inserts the branch assigned to the warehouse (in the warehouse F/M) producing the materials (manufacturing the items). See the following diagram (after Technical Notes).

5. Production Overhead G/L #

Enter the overhead G/L number. This number is posted to GL if there is an overhead cost when producing a BOM or formula. See the following diagram (after Technical Notes). The entry must be a valid GL account number. F2 allows a search (ref. 11).

6. Production Package G/L #

Enter the package G/L number. This number is posted to GL if there is a packaging cost when producing a BOM. See the following diagram (after Technical Notes). The entry must be a valid GL account number. F2 allows a search (ref. 11).

7. Production Labor G/L #

Enter the labor G/L number. This number is posted to GL if there is a labor cost when producing a BOM or formula. See the following diagram (after Technical Notes). The entry must be a valid GL account number. F2 allows a search (ref. 11).

Technical Notes

FILES USED - GLMSTR, GLALPX

FILES UPDATED - SMCNTL

Diagram - Example of how G/L numbers are used. Below is an example of how BOM and formula production is posted to general ledger.

Production Register

Component cost-item 1	25.00
Component cost-item 2	30.00
Total component cost	55.00
Overhead cost	5.00
Package cost	3.00
Labor cost	4.00
Total cost to produce finished item	67.00

GL Distribution

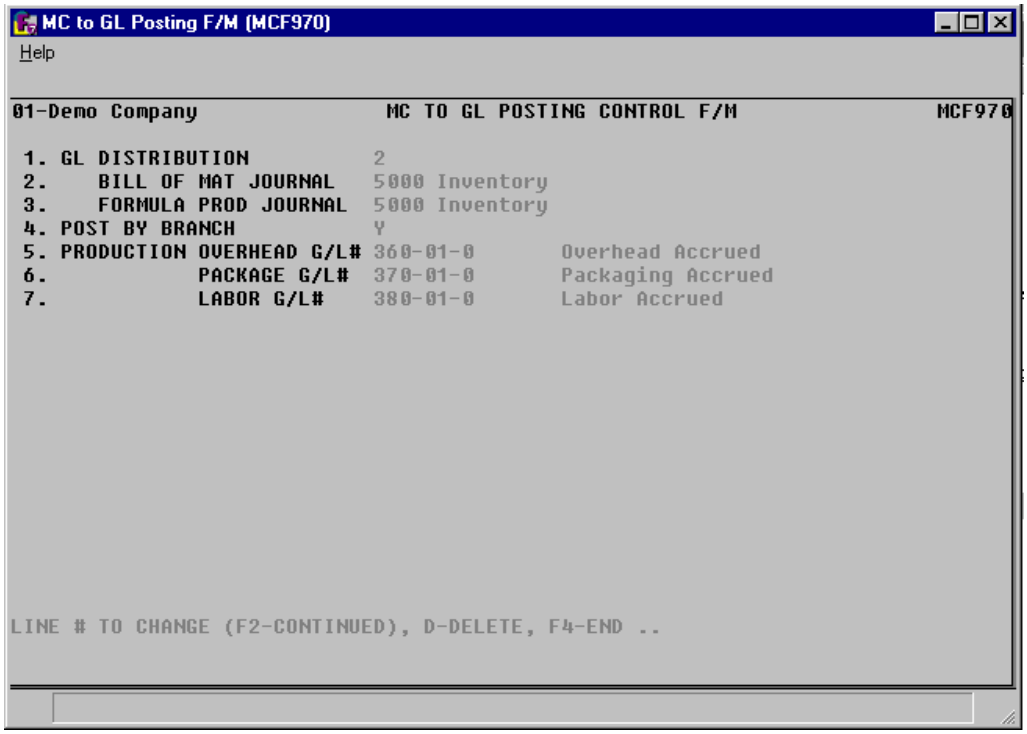
	DEBIT	CREDIT
*Inventory (Finished)	67.00	
*Inventory (Components)		55.00
Overhead		5.00

Package		3.00
Labor		4.00
*MC Finished		55.00
*MC Components	55.00	

* indicates GL number is not created n the manufacturing GL posting control record. May be created through the Inventory GL Posting Tables F/M.

Posting by branch

Example: the G/L number is 120-00 and the branch is the last two characters. If the warehouse manufacturing the items is assigned branch 02, then if posting by branch, the G/L number posted is 120-02.



Static Control F/M (MCF980)

Function

This program allows the user of the FACTS system to create and maintain the company MC static control record. The MC static control record is critical to the proper functioning of the MC system. The record contains information which the MC system references in performing various functions.

CAUTION! It is strongly advised that a password be used for this program. Changes should be made only with extreme caution and under the supervision of your affiliate.

User Inputs

The following inputs are involved in creating the company MC static control record:

1. Use Bill of Materials

Enter **Y** or **N** to indicate whether the bill of material programs will be used. CR initially defaults to Y. If N is entered, the bill of material programs are not available for use.

2. Use Formulation

Enter **Y** or **N** to indicate whether the formulation programs will be used. CR initially defaults to Y. If N is entered, the formulation programs are not available for use.

3. Use EOP Reports

Enter **Y** or **N** to indicate whether the end-of-period programs will be used. CR initially defaults to Y. If N is entered, the end-of-period reports are not available. However, the End-of-Period Update must be run.

4. Cost To Use

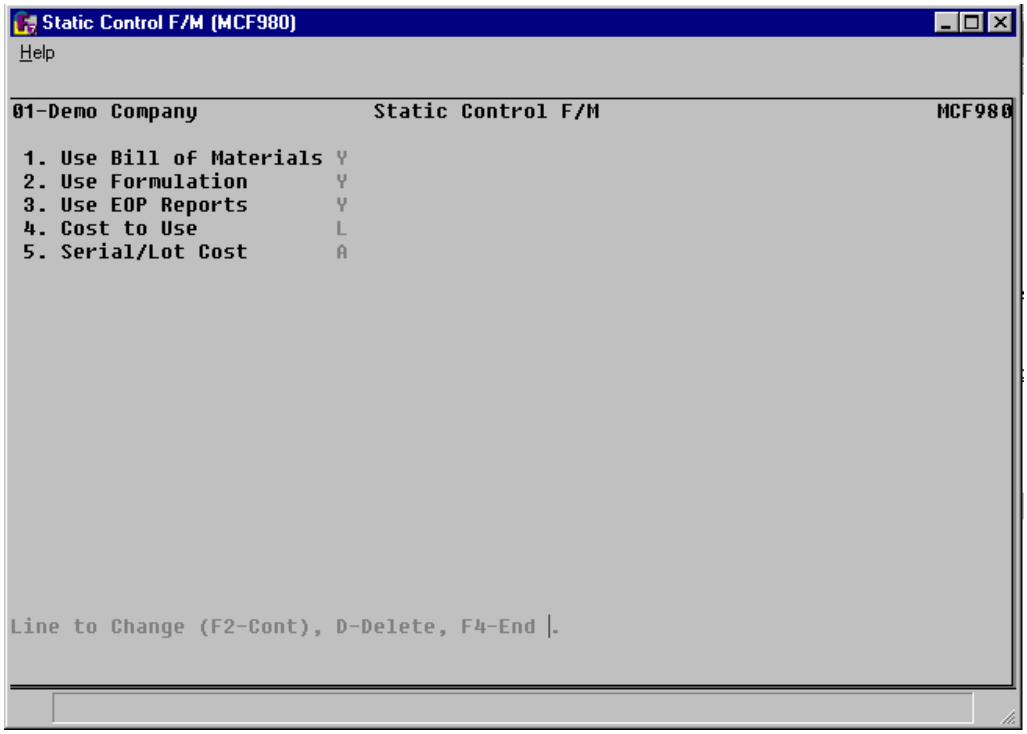
Enter whether to use **S**-standard, **A**-average, **L**-last or **M**-manual cost when making cost calculations in manufacturing. CR initially defaults to S.

5. Serial/Lot Cost

You now have the ability to cost serial and lot items by the system cost (costing method for the module). The feature provides for GAAP compliance. Enter whether to use **A**-Averaged Actual or **S**-System Cost. The default setting for each Static Control F/M is **A**-Averaged Actual. The net result of selecting **S**-System Cost is that serial/lot items will be costed like non-serial/lot items.

Technical Notes

FILES UPDATED - SMCNTL



Nonstatic Control F/M (MCF990)

Function

This program allows the user of the FACTS system to create and maintain the company MC nonstatic control record. The MC nonstatic control record is critical to the proper functioning of the MC system. The record contains information which the MC system references in performing various functions.

CAUTION! It is strongly advised that a password be used for this program. Changes should be made only with extreme caution and under the supervision of your affiliate.

User Inputs

The following inputs are involved in creating the company MC nonstatic control record:

1. Current MC Period

Enter the current MC period or period when actual processing in MC will begin (PPYY). CR defaults to the current GL period. After initial entry, this field is updated by the MC End-of-Period Update program. The period entered must be in the current or next GL period.

2. Date Last End-Of-Period Update

Enter the date of the last End-of-Period Update in manufacturing (ref. 2). CR defaults to 010100. After initial entry, this field will be updated by the End-of-Period Update program.

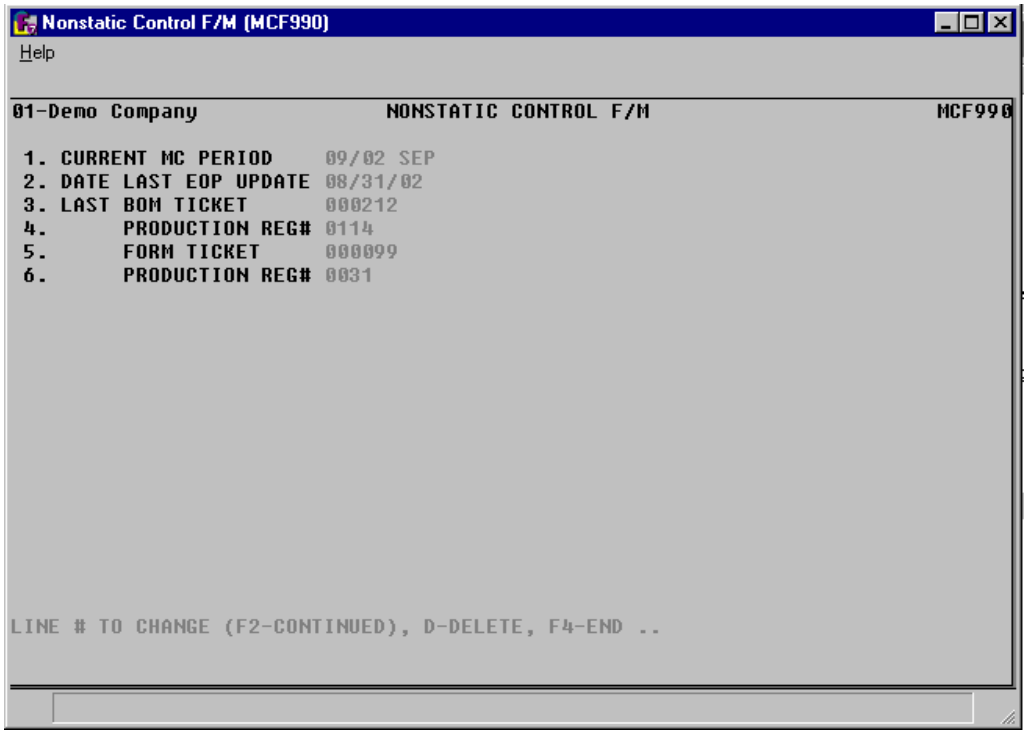
***3-6. Ticket and Register Numbers**

These numbers keep track of the last tickets and register numbers used. As a register is updated, the last number used is incremented by one. Upon installation, these fields should be set to 0. These fields are automatically updated through normal processing. CR initially defaults to 0.

* indicates that changing the field after initial installation may have serious repercussions. Please refer to your affiliate before any changes are made.

Technical Notes

FILES UPDATED - SMCNTL



Rebuild MC Sort Files (MCU990)

Function

This program allows the user of the FACTS system to rebuild sort files which may not be up to date with the rest of the system.

Sort files are used throughout the FACTS system to enable the user to report and retrieve information in an order other than the order in which the main file is stored. For example, the records of the customer file are stored in customer number order. To access this file in alphabetical order requires a sort file which is stored in customer by alpha lookup order. The corresponding record in the main file may then be accessed for the necessary information.

User Inputs

The following inputs are involved in rebuilding MC sort files:

1. MCBPIX

Enter **N** or **Y** to indicate whether to rebuild **MCBPIX**. This file is the MC ticket by item sort file to the BOM production file (MCBPRD). This sort file is used in printing reports and inquiry displays for ticket information by item.

2. MCBPLX

Enter **N** or **Y** to indicate whether to rebuild **MCBPLX**. This file is the MC BOM planned production by item sort file to the BOM planned production file (MCBPLN). This sort file is used in displaying planned production by item.

3. MCFPRX

Enter **N** or **Y** to indicate whether to rebuild **MCFPRX**. This file is the MC formulation production ticket by formula sort file to the formulation production file (MCFPRD). This sort file is used in printing reports and inquiry displays for ticket information by formula.

4. MCFPLX

Enter **N** or **Y** to indicate whether to rebuild **MCFPLX**. This file is the MC formulation planned production by formula sort file to the formulation planned production file (MCFPLN). This sort file is used in displaying planned production by formula.

5. MCITMX

Enter **N** or **Y** to indicate whether to rebuild **MCITMX**. This file is the MC items-in-process production ticket by item sort file to the BOM and formulation production files (MCBPRD, MCFPRD). This sort file is used in printing reports and inquiry displays for ticket information by warehouse and item.

6. MDFPKX

Enter **N** or **Y** to indicate whether to rebuild MCFPKX. This file is the MC finished item by formula sort file to the formulation finished item file

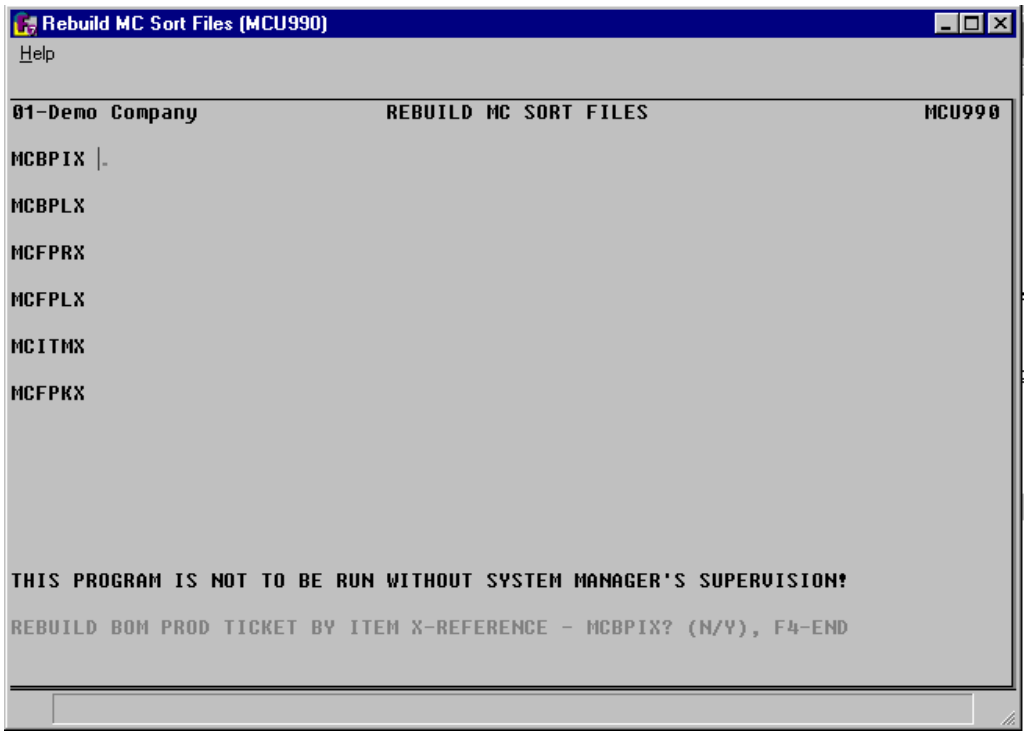
(MDFPCK). This sort file is used in printing reports and inquiry displays for finished item by formula.

Files will be built for all companies (ref. 3).

Technical Notes

FILES USED - SMCNTL, SMFILE, MCBPRD, MCBPLN, MCFPRD, MCFPLN, MCFPCK

FILES UPDATED - MCBPIX, MCBPLX, MCFPRX, MCFPLX, MCITMX, MCFPKX



APPENDIX A: References

1. **ALIGNMENT** An alignment check is often desired to ensure that forms paper is correctly aligned in the printer. Enter **Y** or **N** to indicate whether to print an alignment. CR defaults to N and no alignment check is printed. If Y is entered, the alignment check prints immediately and the program returns to this input.

2. **DATE** Dates will be displayed according to the format set in the Company Control Record. For viewing purposes, all dates will be displayed with a two-digit year. For editing purposes, all dates will allow the entry and display of a four-digit year. An entry date can be viewed in its entirety by using the left and right arrow keys or by using the HOME and END keys to scroll through the date field. The system will allow the full date or a partial date to be entered.

   Special dates that were previously displayed and stored as 01/01/00 and 12/31/99 will no longer be handled in the same manner. Tag names such as NONE, ASAP, FIRST, LAST, etc. will now be used in place of 'generic' dates. These tag names will also be accepted as the valid input dates in some data entry prompts.

   If you are upgrading from FACTS 6.05 (or earlier) to FACTS 6.06 (or later), the dates stored in your system are converted for you behind the scenes. Dates that display as **/**/** indicate that data is present for the field but the system does not know how to interpret the date. Contact your affiliate for support.

   The Rule of 50: FACTS programs uses a "rule of 50" logic to expedite date processing. If the two-digit year is greater than or equal to 50, the system will assume the date to be in the 1900s; if the two-digit year is less than 50, the system will assume the date to be in the 2000s.

   During data entry, if the system is unable to interpret the date entered, the date mask will be displayed in the prompt. If the system is able to interpret the date entered, the date will be displayed in the prompt. Dates prior to 01/01/1800 or after 12/31/2199 are not allowed during date entry.

   FACTS programs contain 8-character and 10-character date fields. The date editing/entry display varies slightly depending on whether it is an 8-character or 10-character field. When editing a date, using the right arrow or the END key, will advance the cursor to the end of the date field and using the left arrow or the HOME key, will advance the cursor to the beginning of the date field.

	8-Character Date Field	**10-Character Date Field**
When entering a date in the 1900s (as defined by the 50-rule), the date will be displayed as follows:	**ORDERED** 01/02/96<	**ORDERED** 01/02/96 <
Use the right arrow key or the END key to display the full 4-digit year:	**ORDERED** /02/1996<	**ORDERED** 01/02/1996<

A plus sign at the end of the date field indicates that the year is not in the default century.	**ORDERED** 01/02/96+	**ORDERED** 01/02/2096<

3. **END OF INPUTS** In all report and update programs, this is the last input prior to processing. This gives the user a chance to check all the information entered for accuracy. If something needs to be changed, enter **F4** to back up and change. Once everything is correct, press **CR** or type **YES** and the program continues.

4. **ORDER CHOICE NUMBER1** In various reports, the order choice may be selected. The options are by **I**-item, **A**-alpha, **V**-vendor and **C**-item class. For example, the user may want to print in item class order. CR defaults to I.

5. **BEGINNING ORDER CHOICE** Enter the beginning order choice to print; e.g., if item class was selected above, the user selects the beginning item class to print. CR defaults to FIRST (the first item class on file).

6. **ENDING ORDER CHOICE** Enter the ending order choice to print; e.g., if item class was selected above, the user selects the ending item class to print. CR defaults to LAST (the last item class on file).

7. **ORDER CHOICE NUMBER2** In various reports, the order choice may be selected. The options are by **T**-ticket and **I**-item or **F**-formula. For example, the user may want to print in ticket order. CR defaults to T.

8. **BEGINNING ORDER CHOICE** Enter the beginning order choice to print; e.g., if ticket was selected above, the user selects the beginning ticket to print. CR defaults to FIRST (the first ticket on file).

9. **ENDING ORDER CHOICE** Enter the ending order choice to print; e.g., if ticket was selected above, the user selects the ending ticket to print. CR defaults to LAST (the last ticket on file).

10. **PROMPT-SELECTION INPUT**

 # - Changes a line-item. Line-items may be changed or deleted by entering the line number to be changed. During this change routine, F1 allows the currently displayed value to remain the same.

L - Lists line-items. A limited number of line-items appear on the screen at any one time. The list function allows line-items to be redisplayed. The user selects the beginning line number to list.

A - Adds a line-item. Line-items may be added as needed.

D - Deletes the entire entry. The entire entry may be deleted at any time. All line-item records are removed. The screen is then cleared and the program returns to input #1 to await further entries.

F2 - Changes header. Certain header information in the upper portion of the screen is changed as necessary. During this change routine, F1 allows the currently displayed value to remain the same.

F3 - Accesses the ending routine. F3 proceeds to the ending routine.

11. SEARCH The search feature allows the user to search for various fields (example: item, salesperson, etc.) when little or no information is known about them. The search displays at the bottom of the screen a number of fields at a time. The user may enter a search key, continue, select the line number of one of the fields displayed or return to the program input.

12. SEARCH ON ITEM NUMBER General item information can be searched alphabetically, as well as by interchange number, item number or item class. To switch between search orders, press F2 at the selection prompt in the bottom right-hand corner of the screen and select one of the options from the popup window that appears.

Search shortcuts. Search order and restrictions are represented by bold, underlined letters. If you combine these letters at the entry prompt with first several characters of the item you are searching for, followed by F1 or F2, you can reduce the number of steps it takes to switch search orders or set restrictions. In a vendor search, for example, you can find vendors with contacts named Ellis by entering **CK.Ellis** at the entry prompt and then press F1 or F2. Following are more examples of search shortcuts.

If you want to…	Then
Switch to an Item Number search	Enter **N** *plus* **F2**
Switch to an Item Number search and begin your search at entries starting with I310	Enter **N.I310** *plus* **F2**
Switch to an Alpha search order and set a keyword restriction of ladder	Enter **AK.ladder** *plus* **F1** or **F2**

APPENDIX B: Glossary of Terms

BILL OF MATERIAL FINISHED ITEM A bill of material finished item is an item whose quantities are maintained in a warehouse and it is produced by using component items whose quantities are also maintained in the same warehouse. The bill of material finished item must be set up as a valid item in the Item F/M and the **BOM/Formula** flag must be set to B. An example of a bill of material finished item is a tool kit where the components are the tools that are used to produce the kit.

COMPONENT ITEM A component item is an item used to produce a bill of material item. Its quantities are maintained in a warehouse and it must be set up as a valid item in the Item F/M.

FORMULA A formula is made up of ingredients which are items maintained in a warehouse. A formula, however, is not an inventory item. It is used to produce a formulation finished item. For example, a formula may be set up which produces 800 ounces of cough syrup.

FORMULATION FINISHED ITEM A formulation finished item is an item whose quantities are maintained in a warehouse and it is produced by using a formula (made up of ingredients) and packaging items (ingredients and packaging items whose quantities are also maintained in the same warehouse). See example on Formulation Menu.

INGREDIENT (ITEM) An item which is used to produce a formula. It must be set up as a valid item in the Item F/M and its inventory quantities are maintained. An example is sugar as an ingredient of cough syrup.

LABOR An amount that is added to the final cost of producing a finished item. For example, if it takes one employee (paid $5.00/hr) two hours to produce a finished item, the labor cost might be $10.00.

LOT ITEM An item which is flagged as a lot item through the Item F/M is one which when received or sold must be assigned a lot number per unit. Multiple units may be assigned to the same lot. Examples of lots are reels (wire, etc.) or lots in lumberyards or brickyards.

OVERHEAD An amount that is added to the final cost of producing a finished item. For example, when producing items, there may be a cost of lighting, heat, etc. for the laborers.

PACKAGING An amount that is added to the final cost of producing a bill of material finished item. For example, if a tool kit is produced and must be packaged in a special box, the cost of the box is the packaging cost.

PACKAGING ITEM An item which is used to produce a formulation finished item. It must be set up as a valid item in the Item F/M and its inventory quantities are maintained. An example is bottles and labels are packaging items used to produce a case of cough syrup.

SERIAL ITEM An item which is flagged as a serial item through the Item F/M is one which when received or sold must be assigned a serial number per unit. For example, every copier sold must be assigned a serial number for serial tracking purposes.

WASTE % An amount which may not be exceeded when producing a formula to manufacture a formulation finished item. The number is used to ensure that the amount of formula produced does not differ from the units required by more than the percentage amount.

APPENDIX C: SAMPLE REPORTS

```
!=============================================================================!
!                              DEMO COMPANY                 TICKET 000212   !
!                            PRODUCTION TICKET                DATE 09/28/02 !
!                                                             WHSE 01       !
!                                                                           !
!Finished Item                I144 PORTABLE SCAFFOLD SYSTEM                  !
!                                                                           !
!Planned Production: Units       2 EA  Date 09/28/02                       !
!                                                                           !
!    COMPONENT ITEM DESCRIPTION               UNITS UM MEMO                 !
!=============================================================================!
!001           I139 SCAFFOLD LADDER               4 EA RED, 6FT HIGH       !
!002                FITS IN EXISTING LADDER ON BASE UNIT                     !
!003           I140 SCAFFOLD PLATFORM             2 EA ADJ ON 3"INCREMENTS !
!004                FITS BETWEEN 2 LADDERS                                   !
!005           I141 SCAFFOLD SUPPORTS FOR         4 EA SAFETY RAIL OPTIONAL!
!006                FITS ON PLATFORM, EACH LADDER SIDE                       !
!007                ATTACH WITH STAINLESS STEEL HEX BOLTS THROUGHOUT         !
!                                                                           !
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!=============================================================================!
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!                                        DATE _____________ INITIALS _______ !
!=============================================================================!
!=============================================================================!
```

DATE: 09/28/02 DEMO COMPANY MCR110 PAGE: 1
USER: SSI ToW BOM PRODUCTION REGISTER #0115 TIME: 1:42 PM

TICKET FIRST TO LAST
DATE FIRST TO LAST

LN#	ITEM	DESCRIPTION	USED	UM	COST	UM	EXTENSION
Ticket: 000167 Production Date: 09/28/02 Whse: 01 Finished Item: I144 PORTABLE SCAFFOLD SYSTEM 2'5" X 6'L X 6'H							
001	I139	SCAFFOLD LADDER	8	EA	31.17	EA	249.36
003	I140	SCAFFOLD PLATFORM	4	EA	64.63	EA	258.52
005	I141	SCAFFOLD SUPPORTS FO	8	EA	33.67	EA	269.36
							777.24
Ovrhd: 15.54 Pckg: 38.86 Labor: 62.18							
Ticket: 000168 Production Date: 09/28/02 Whse: 01 Finished Item: I145 PORTABLE SCAFFOLD SYSTEM DELUX 2'5" W X 6'L X 6 H							
001	I139	SCAFFOLD LADDER	4	EA	31.17	EA	124.68
003	I140	SCAFFOLD PLATFORM	2	EA	64.63	EA	129.26
005	I141	SCAFFOLD SUPPORTS FO	4	EA	33.67	EA	134.68
007	I142	SWIVEL CASTER	8	EA	23.57	DZ	15.71
009	I143	SAFETY RAIL ASSEMBLY	2	EA	134.67	EA	269.34
							673.67
Ovrhd: 13.47 Pckg: 33.68 Labor: 53.89							
Ticket: 000212 Production Date: 09/28/02 Whse: 01 Finished Item: I144 PORTABLE SCAFFOLD SYSTEM 2'5" X 6'L X 6'H							
001	I139	SCAFFOLD LADDER	4	EA	31.17	EA	124.68
003	I140	SCAFFOLD PLATFORM	2	EA	64.63	EA	129.26
005	I141	SCAFFOLD SUPPORTS FO	4	EA	33.67	EA	134.68
							388.62
Ovrhd: 7.77 Pckg: 19.43 Labor: 31.09							

CALC'D COST	CT UM	PRODUCED	ST UM	EXTENDED COST
223.46	EA	4	EA	893.82
387.36	EA	2	EA	774.71
223.46	EA	2	EA	446.91

CALC'D=CALCULATED, Ovrhd=OVERHEAD, Pckg=PACKAGE

TICKETS: 3 END OF REGISTER

DATE: 09/28/02 DEMO COMPANY MCR110 PAGE: 1
USER: SSI ToW MC PRODUCTION REGISTER GL DISTRIBUTION #0115 TIME: 1:42 PM

GL PERIOD 09/02 SEP

G/L#	DESCRIPTION	TICKET	ITEM	DESCRIPTION	WH	DEBIT	CREDIT	NET
175-01-0	INVENTORY	000167	I139	SCAFFOLD LADDER	01		249.36	
		000167	I140	SCAFFOLD PLATFORM	01		258.52	
		000167	I141	SCAFFOLD SUPPORTS FO	01		269.36	
		000167	I144	PORTABLE SCAFFOLD SY	01	893.82		
		000168	I139	SCAFFOLD LADDER	01		124.68	
		000168	I140	SCAFFOLD PLATFORM	01		129.26	
		000168	I141	SCAFFOLD SUPPORTS FO	01		134.68	
		000168	I142	SWIVEL CASTER	01		15.71	
		000168	I143	SAFETY RAIL ASSEMBLY	01		269.34	
		000168	I145	PORTABLE SCAFFOLD SY	01	774.71		
		000212	I139	SCAFFOLD LADDER	01		124.68	
		000212	I140	SCAFFOLD PLATFORM	01		129.26	
		000212	I141	SCAFFOLD SUPPORTS FO	01		134.68	
		000212	I144	PORTABLE SCAFFOLD SY	01	446.91		
				ACCOUNT TOTAL		2115.44	1839.53	275.91
360-01-0	OVERHEAD ACCRUED	000167	I144	PORTABLE SCAFFOLD SY	01		15.54	
		000168	I145	PORTABLE SCAFFOLD SY	01		13.47	
		000212	I144	PORTABLE SCAFFOLD SY	01		7.77	
				ACCOUNT TOTAL		.00	36.78	(36.78)
370-01-0	PACKAGING ACCRUED	000167	I144	PORTABLE SCAFFOLD SY	01		38.86	
		000168	I145	PORTABLE SCAFFOLD SY	01		33.68	
		000212	I144	PORTABLE SCAFFOLD SY	01		19.43	
				ACCOUNT TOTAL		.00	91.97	(91.97)
380-01-0	LABOR ACCRUED	000167	I144	PORTABLE SCAFFOLD SY	01		62.18	
		000168	I145	PORTABLE SCAFFOLD SY	01		53.89	
		000212	I144	PORTABLE SCAFFOLD SY	01		31.09	
				ACCOUNT TOTAL		.00	147.16	(147.16)
535-01-1	INVENTORY ADJUSTMENTS	000167	I139	SCAFFOLD LADDER	01	249.36		
		000167	I140	SCAFFOLD PLATFORM	01	258.52		
		000167	I141	SCAFFOLD SUPPORTS FO	01	269.36		
		000167	I144	PORTABLE SCAFFOLD SY	01		777.24	
		000168	I139	SCAFFOLD LADDER	01	124.68		
		000168	I140	SCAFFOLD PLATFORM	01	129.26		
		000168	I141	SCAFFOLD SUPPORTS FO	01	134.68		
		000168	I142	SWIVEL CASTER	01	15.71		
		000168	I143	SAFETY RAIL ASSEMBLY	01	269.34		
		000168	I145	PORTABLE SCAFFOLD SY	01		673.67	
		000212	I139	SCAFFOLD LADDER	01	124.68		
		000212	I140	SCAFFOLD PLATFORM	01	129.26		
		000212	I141	SCAFFOLD SUPPORTS FO	01	134.68		
		000212	I144	PORTABLE SCAFFOLD SY	01		388.62	

DATE: 09/28/02 DEMO COMPANY MCR110 PAGE: 2
USER: SSI ToW MC PRODUCTION REGISTER GL DISTRIBUTION #0115 TIME: 1:42 PM

G/L#	DESCRIPTION	TICKET	ITEM DESCRIPTION	WH	DEBIT	CREDIT	NET
				ACCOUNT TOTAL	1839.53	1839.53	.00
				REPORT TOTAL	3954.97	3954.97	.00

ACCOUNTS: 5 END OF GL DISTRIBUTION


```
!=============================================================================!
!                               DEMO COMPANY                 TICKET 000097   !
!                       FORMULATION PRODUCTION TICKET          DATE 09/28/02 !
!                                                              WHSE 01        !
!                                                                             !
!Formula   F101 DEGREASER                                                    !
!                                                                             !
!Planned Production: Quantity        10 GL  Date 09/28/02                    !
!                                                                             !
!        INGREDIENT DESCRIPTION               UNITS UM MEMO                  !
!=============================================================================!
!001           I153 HYDROFLORIC ACID SOLUT         2 GL DO NOT TOUCH!!DANGER  !
!002                EATS THRU GLASS; DO NOT TOUCH!!                          !
!003                MIX 3:1 WITH WATER.     ADD FIRST                        !
!004           I154 CHLORINE CATALYST              1 LB WEAR MASK           !
!005                MIX SLOWLY.  CREATES DANGEROUS FUMES.                    !
!006           I155 BENZENE COMPOUND               2 GL                     !
!007                ADD LAST. MIX THOROUGHLY.                                !
!008                *CAUTION* BE SURE TO WEAR BOTH MASK AND GLOVES.          !
!                                                                             !
!                                                                             !
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!=============================================================================!
!                                                                             !
!                                          DATE _____________ INITIALS _______ !
!=============================================================================!
!=============================================================================!
```

DATE: 09/28/02 DEMO COMPANY MCR210 PAGE: 1
USER: SSI ToW FORMULATION PRODUCTION REGISTER #0032 TIME: 1:43 PM

TICKET FIRST TO LAST
DATE FIRST TO LAST

LN#	ITEM	DESCRIPTION	USED	UM	COST	UM	EXTENSION	CALC'D COST	UM	PRODUCED	UM	EXTENDED COST
Ticket: 000094 Production Date: 09/28/02 Whse: 01 Formula: F100 MIRACLE CLEANER Quantity: 10 GL												
INGREDIENTS												
001	I150	BLEACH - MAXIMUM CONCENTRATION	2	GL	5.62	GL	11.24					
003	I151	BICARBONATE OF SODA	2	LB	1.88	LB	3.76					
005	I152	AMMONIA	2	GL	39.91	DM	3.99					

		Overhead: 11.00 Labor: 33.00 Ingredients: 18.99 Total Cost: 62.99										
Finished Item:	I148	MIRACLE CLEANER			Formula Quantity:		10 GL					
		LOT# ICI-ROB			Quantity:		2 EA					
PACKAGING												
001	I156	PLASTIC SPRAY BOTTLES	2	EA	67.00	CT	1.34					

Formula: 62.99		Overhead: .13 Labor: .13 Packaging: 1.34						32.30	EA	2	EA	64.59
Ticket: 000095 Production Date: 09/28/02 Whse: 01 Formula: F101 DEGREASER Quantity: 10 GL												
INGREDIENTS												
001	I153	HYDROFLORIC ACID SOLUTION	2	GL	15.59	GL	31.18					
004	I154	CHLORINE CATALYST	1	LB	12.47	LB	12.47					
006	I155	BENZENE COMPOUND	2	GL	9.35	GL	18.70					

		Overhead: 15.00 Labor: 25.00 Ingredients: 62.35 Total Cost: 102.35										
Finished Item:	I149	INDUSTRIAL STRENGTH DEGREASER			Formula Quantity:		10 GL					
		LOT# WMH-1893			Quantity:		5 EA					
PACKAGING												
001	I157	DRUM, 20 GALLON	5	EA	36.05	EA	180.25					
		LOT# WMH-180	4		36.05							
		LOT# WMH-191	1		36.07							

Formula: 102.35		Overhead: .75 Labor: 1.00 Packaging: 180.25						56.87	EA	5	EA	284.35

TICKETS: 2 END OF REGISTER

DATE: 09/28/02 DEMO COMPANY MCR210 PAGE: 1
USER: SSI ToW MC PRODUCTION REGISTER GL DISTRIBUTION #0032 TIME: 1:43 PM
GL PERIOD 09/02 SEP

G/L# DESCRIPTION	TICKET		ITEM	DESCRIPTION	WH	DEBIT	CREDIT	NET
175-01-0 INVENTORY	000094		I148	MIRACLE CLEANER	01	64.59		
	000094		I150	BLEACH - MAXIMUM CON	01		11.24	
	000094		I151	BICARBONATE OF SODA	01		3.76	
	000094		I152	AMMONIA	01		3.99	
	000094		I156	PLASTIC SPRAY BOTTLE	01		1.34	
	000095		I149	INDUSTRIAL STRENGTH	01	284.35		
	000095		I153	HYDROFLORIC ACID SOL	01		31.18	
	000095		I154	CHLORINE CATALYST	01		12.47	
	000095		I155	BENZENE COMPOUND	01		18.70	
	000095		I157	DRUM, 20 GALLON	01		180.25	
				ACCOUNT TOTAL		348.94	262.93	86.01
360-01-0 OVERHEAD ACCRUED	000094		I148	MIRACLE CLEANER	01		.13	
	000094	F100		MIRACLE CLEANER	01		11.00	
	000095		I149	INDUSTRIAL STRENGTH	01		.75	
	000095	F101		DEGREASER	01		15.00	
				ACCOUNT TOTAL		.00	26.88	(26.88)
380-01-0 LABOR ACCRUED	000094		I148	MIRACLE CLEANER	01		.13	
	000094	F100		MIRACLE CLEANER	01		33.00	
	000095		I149	INDUSTRIAL STRENGTH	01		1.00	
	000095	F101		DEGREASER	01		25.00	
				ACCOUNT TOTAL		.00	59.13	(59.13)
535-01-1 INVENTORY ADJUSTMENTS	000094		I148	MIRACLE CLEANER	01		1.34	
	000094		I150	BLEACH - MAXIMUM CON	01	11.24		
	000094		I151	BICARBONATE OF SODA	01	3.76		
	000094		I152	AMMONIA	01	3.99		
	000094		I156	PLASTIC SPRAY BOTTLE	01	1.34		
	000094	F100		MIRACLE CLEANER	01		18.99	
	000095		I149	INDUSTRIAL STRENGTH	01		180.25	
	000095		I153	HYDROFLORIC ACID SOL	01	31.18		
	000095		I154	CHLORINE CATALYST	01	12.47		
	000095		I155	BENZENE COMPOUND	01	18.70		
	000095		I157	DRUM, 20 GALLON	01	180.25		
	000095	F101		DEGREASER	01		62.35	
				ACCOUNT TOTAL		262.93	262.93	.00
				REPORT TOTAL		611.87	611.87	.00

ACCOUNTS: 4 END OF GL DISTRIBUTION
DATE: 09/28/02 DEMO COMPANY MCR710 PAGE: 1
USER: SSI ToW BILL OF MATERIALS LISTING TIME: 1:44 PM

ITEM FIRST TO LAST
VENDOR ALL
STANDARD COST CALCULATIONS WAREHOUSE 01


```
LN#       COMPONENT ITEM DESCRIPTION              UNITS UM MEMO               COST UM EXTENSION   OVERHEAD    PACKAGE      LABOR
=============================================================================================================================
Finished item:                I144 PORTABLE SCAFFOLD SYSTEM        UM: EA  UPDATE IN SO: O         2.000%     5.000%     8.000%
001                I139 SCAFFOLD LADDER              2 EA RED, 6FT HIGH     31.17 EA     62.34
002                   M FITS IN EXISTING LADDER ON BASE UNIT
003                I140 SCAFFOLD PLATFORM            1 EA ADJ ON 3"INCR     64.63 EA     64.63
004                   M FITS BETWEEN 2 LADDERS
005                I141 SCAFFOLD SUPPORTS FO         2 EA SAFETY RAIL O     33.67 EA     67.34
006                   M FITS ON PLATFORM, EACH LADDER SIDE
007                   M ATTACH WITH STAINLESS STEEL HEX BOLTS THROUGHOUT
                                                                          ---------
            Total: Overhead      3.89  Package      9.72  Labor     15.54  Components    194.31        Cost    223.46 EA
-----------------------------------------------------------------------------------------------------------------------------
Finished item:                I145 PORTABLE SCAFFOLD SYSTEM DELUX  UM: EA  UPDATE IN SO: O         2.000%     5.000%     8.000%
001                I139 SCAFFOLD LADDER              2 EA RED, 6FT HIGH     31.17 EA     62.34
002                   M FITS ON BASE UNIT W/4 CASTERS
003                I140 SCAFFOLD PLATFORM            1 EA 6FT L             64.63 EA     64.63
004                   M FITS BETWEEN 2 LADDERS
005                I141 SCAFFOLD SUPPORTS FO         2 EA                   33.67 EA     67.34
006                   M FITS ON PLATFORM ON EACH LADDER SIDE
007                I142 SWIVEL CASTER                4 EA                   23.57 DZ      7.86
008                   M GOES ON BASE LADDER UNIT
009                I143 SAFETY RAIL ASSEMBLY         1 EA OPTIONAL         134.67 EA    134.67
010                   M DOES NOT INCLUDE 2"X4" LUMBER TOE BOARDS
011                   M FITS ON PLATFORM
012                   M ATTACH WITH STAINLESS STEEL HEX BOLTS
                                                                          ---------
            Total: Overhead      6.74  Package     16.84  Labor     26.95  Components    336.84        Cost    387.37 EA
-----------------------------------------------------------------------------------------------------------------------------

UPDATE IN SO: F=UPDATE FINISHED ITEM, C=UPDATE COMPONENT ITEMS, A=AUTOMATIC COMPONENT ENTRY, O=OPERATOR SELECTION

FINISHED ITEMS: 2                                                                                          END OF REPORT
```

DATE: 09/28/02 DEMO COMPANY MCR720 PAGE: 1
USER: SSI ToW BOM OPEN PRODUCTION REPORT TIME: 1:45 PM

ITEM FIRST TO LAST
DATE FIRST TO LAST
WAREHOUSE 01 ATLANTA WAREHOUSE

TICKET	PLANNED DATE	S	WH	FINISHED ITEM	DESCRIPTION	UNITS	UM	ON HAND	ON ORDER	COMMITTED
000167	09/28/02	C	01	I144	PORTABLE SCAFFOLD SYSTEM	4	EA	1	12	0
000169	10/05/02	P	01	I144	PORTABLE SCAFFOLD SYSTEM	2	EA	1	12	0
000171	09/28/02	P	01	I144	PORTABLE SCAFFOLD SYSTEM	4	EA	1	12	0
000212	09/28/02	C	01	I144	PORTABLE SCAFFOLD SYSTEM	2	EA	1	12	0
000168	09/28/02	C	01	I145	PORTABLE SCAFFOLD SYSTEM DELUX	2	EA	2	4	0
000170	10/06/02	P	01	I145	PORTABLE SCAFFOLD SYSTEM DELUX	2	EA	2	4	0

S=STATUS (E=ENTERED, P=PRINTED, C=CONFIRMED)

TICKETS: 6 END OF REPORT

DATE: 09/28/02 DEMO COMPANY MCR730 PAGE: 1
USER: SSI ToW BOM REQUIREMENTS REPORT TIME: 1:46 PM

ITEM FIRST TO LAST
WAREHOUSE 01 ATLANTA WAREHOUSE

FINISHED ITEM	ON HAND	ON ORDER	COMMITTED	ST UM	TOTAL PLANNED	PLANNED PRODUCTION THRU 09/28	09/29-10/05	10/06-10/12	10/13-10/19	10/20-10/26
I144	1	12	0	EA	4	0	0	0	4	0
PORTABLE SCAFFOLD SYSTEM										
I145	2	4	0	EA	4	0	2	0	2	0
PORTABLE SCAFFOLD SYSTEM DELUX										

FINISHED ITEMS: 2 END OF FINISHED ITEMS

DATE: 09/28/02 DEMO COMPANY MCR730 PAGE: 2
USER: SSI ToW BOM REQUIREMENTS REPORT - COMPONENTS TIME: 1:46 PM

COMPONENT ITEM	ON HAND	ON ORDER	COMMITTED	ST UM	TOTAL PLANNED	PLANNED USAGE THRU 09/28	09/29-10/05	10/06-10/12	10/13-10/19	10/20-10/26
I139	28	0	34	EA	16	0	4	0	12	0
SCAFFOLD LADDER										
I140	22	0	21	EA	8	0	2	0	6	0
SCAFFOLD PLATFORM										
I141	28	10	34	EA	16	0	4	0	12	0
SCAFFOLD SUPPORTS FOR PLATFORM										
I142	22	0	20	EA	16	0	8	0	8	0
SWIVEL CASTER										
I143	4	0	5	EA	4	0	2	0	2	0
SAFETY RAIL ASSEMBLY										

*=AVAILABLE QUANTITY INSUFFICIENT TO MEET REQUIREMENTS
COMPONENT ITEMS: 5 END OF REPORT

DATE: 09/28/02 DEMO COMPANY MCR740 PAGE: 1
USER: SSI ToW BOM USAGE/COST CHANGE ANALYSIS TIME: 1:50 PM

FINISHED ITEM FIRST TO LAST

		-----STANDARD COST-----	
		CURRENT	NEW UM
Component Item:	I139 SCAFFOLD LADDER	31.17	33.17 EA

			--------COST---------			
FINISHED ITEM	DESCRIPTION	PRICE UM	CURRENT	NEW UM	DIFFERENCE	CHANGE
I144	PORTABLE SCAFFOLD SYSTEM	298.95 EA	223.46	228.06 EA	4.60	2.1%
I145	PORTABLE SCAFFOLD SYSTEM DELUX	642.35 EA	387.37	391.97 EA	4.60	1.2%

FINISHED ITEMS: 2 END OF REPORT


```
DATE: 09/28/02                                   DEMO COMPANY                                   MCR750 PAGE: 1
USER: SSI ToW                                  FORMULA LISTING                                  TIME:  2:39 PM

FORMULA   F100 TO   F100
MANUAL COST CALCULATIONS

                                  -----------------PER UNIT----------------- ----STANDARD PRODUCTION-----
FORMULA DESCRIPTION               INGREDIENTS   OVERHEAD      LABOR      COST UM  QUANTITY      COST WASTE
=============================================================================================================
   F100 MIRACLE CLEANER                  1.90      1.10$      3.30$      6.30 GL         5     31.50  5.0%

       LN#           INGREDIENT DESCRIPTION                       UNITS UM      COST UM EXTENSION MEMO
       001                I150 BLEACH - MAXIMUM CONCENTRATION         1 GL      5.62 GL      5.62 DANGEROUS FUMES!
       002                   M FIRST INGREDIENT
       003                I151 BICARBONATE OF SODA                    1 LB      1.88 LB      1.88 3:1 W/WATER
       004                   M MIX WITH WATER FIRST, THEN ADD TO BLEACH
       005                I152 AMMONIA                                1 GL     39.91 DM      2.00 3:1 W/WATER
       006                   M ADD LAST; MIX SLOWLY. COVER DRUM IMMEDIATELY
       007                   M WHEN COMPLETE. CAUTION: WEAR MASK

              FINISHED ITEM DESCRIPTION                  UM   FORMULA PACKAGING   OVERHEAD      LABOR      COST
                       I148 MIRACLE CLEANER              EA     31.50       .67    10.000%    10.000%     32.31

                            LN#       PACKAGING ITEM DESCRIPTION                    UNITS UM      COST UM EXTENSION MEMO
                            001                I156 PLASTIC SPRAY BOTTLES                1 EA     67.00 CT       .67 FILL'EM UP
                            002                   M DON'T FORGET PROTECTIVE SEAL

FORMULAS: 1                                                                                                 END OF REPORT
```


DATE: 09/28/02 DEMO COMPANY MCR760 PAGE: 1
USER: SSI ToW FORMULATION OPEN PRODUCTION REPORT TIME: 1:52 PM

TICKET FIRST TO LAST
DATE FIRST TO LAST
WAREHOUSE 01 ATLANTA WAREHOUSE

FINISHED ITEM	DESCRIPTION	UNITS	UM		ON HAND	ON ORDER	COMMITTED
Ticket: 000094	Planned Date: 09/28/02 Status: C	Whse: 01	Formula:	F100 MIRACLE CLEANER			
I148	MIRACLE CLEANER	2	EA		37	4	0
Ticket: 000095	Planned Date: 09/28/02 Status: C	Whse: 01	Formula:	F101 DEGREASER			
I149	INDUSTRIAL STRENGTH DEGREASER	5	EA		39	10	0
Ticket: 000096	Planned Date: 09/28/02 Status: P	Whse: 01	Formula:	F100 MIRACLE CLEANER			
I148	MIRACLE CLEANER	2	EA		37	4	0
Ticket: 000097	Planned Date: 09/28/02 Status: P	Whse: 01	Formula:	F101 DEGREASER			
I149	INDUSTRIAL STRENGTH DEGREASER	5	EA		39	10	0

STATUS: C=CONFIRMED, E=ENTERED, P=PRINTED

TICKETS: 4 END OF REPORT

DATE: 09/28/02 DEMO COMPANY MCR770 PAGE: 1
USER: SSI ToW FORMULATION REQUIREMENTS REPORT TIME: 1:52 PM

FORMULA FIRST TO LAST
WHSE 01 ATLANTA WAREHOUSE

FORMULA	DESCRIPTION	UM	TOTAL PLANNED	PLANNED PRODUCTION THRU 09/28	09/29-10/05	10/06-10/12	10/13-10/19	10/20-10/26
F100	MIRACLE CLEANER	GL	1	0	5	0	10	0
F101	DEGREASER	GL	6	0	20	0	40	0

FORMULAS: 2 END OF FORMULAS


```
DATE: 09/28/02                          DEMO COMPANY                          MCR780 PAGE: 1
USER: SSI ToW              FORMULATION USAGE/COST CHANGE ANALYSIS              TIME:  1:53 PM

                                                                    -----STANDARD COST-----
                                                                      CURRENT        NEW UM
Component Item:                I150 BLEACH - MAXIMUM CONCENTRATION       5.62       6.12 GL

                                      ---------COST---------
FORMULA DESCRIPTION                     CURRENT       NEW UM DIFFERENCE  CHANGE
================================================================================================
   F100 MIRACLE CLEANER                    6.30      6.40 GL        .10   1.59%

FORMULAS: 1                                                                  END OF REPORT
```

DATE: 09/28/02 DEMO COMPANY MCR780 PAGE: 2
USER: SSI ToW FORMULATION USAGE/COST CHANGE ANALYSIS TIME: 1:53 PM

FINISHED ITEM FIRST TO LAST

FINISHED ITEM DESCRIPTION	FORMULA DESCRIPTION	PRICE UM	COST CURRENT	COST NEW UM	COST DIFFERENCE	COST CHANGE
I148 MIRACLE CLEANER	F100 MIRACLE CLEANER	50.50 EA	32.31	32.81 EA	.50	1.55%

FINISHED ITEMS: 1 END OF REPORT

```
DATE: 09/28/02                      DEMO COMPANY                      MCR810 PAGE: 1
USER: SSI ToW              BOM PERIOD PRODUCTION REPORT               TIME:  1:54 PM

TICKET FIRST TO LAST
PERIOD 09/02 SEP
WAREHOUSE 01 ATLANTA WAREHOUSE

TICKET   DATE   WH        FINISHED ITEM DESCRIPTION                        UNITS UM
================================================================================
000165 09/03/02 01                I144 PORTABLE SCAFFOLD SYSTEM               4 EA
000166 09/03/02 01                I145 PORTABLE SCAFFOLD SYSTEM DELUX         2 EA

TICKETS:  2                                                      END OF REPORT
```



```
DATE: 09/28/02                              DEMO COMPANY                                MCR820 PAGE: 1
USER: SSI ToW                  FORMULATION PERIOD PRODUCTION REPORT                  TIME:  1:55 PM

TICKET FIRST TO LAST
PERIOD 09/02 SEP
WAREHOUSE 01 ATLANTA WAREHOUSE

LN#        FINISHED ITEM DESCRIPTION                        UNITS UM MEMO
=============================================================================================================
Ticket: 000085  Date: 08/30/02  Whse: 01  Formula:   F100 MIRACLE CLEANER              Units:        10 GL
001               I148 MIRACLE CLEANER                          2 EA

Ticket: 000086  Date: 08/30/02  Whse: 01  Formula:   F101 DEGREASER                     Units:       100 GL
001               I149 INDUSTRIAL STRENGTH DEGREASER            5 EA

Ticket: 000089  Date: 09/14/02  Whse: 01  Formula:   F100 MIRACLE CLEANER              Units:        10 GL
001               I148 MIRACLE CLEANER                          2 EA

Ticket: 000090  Date: 09/14/02  Whse: 01  Formula:   F101 DEGREASER                     Units:       100 GL
001               I149 INDUSTRIAL STRENGTH DEGREASER            5 EA

TICKETS:  4                                                                    END OF REPORT
```

