



Fitrix

*Bill of Materials
User Guide*

Version 5.40

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Fourth Generation Software Solutions

100 Galleria Parkway, Suite 1020

Atlanta, GA 30339

www.fitrix.com

Corporate: (770) 432-7623

Fax: (770) 432-3447

E-mail: sales@fitrix.com

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CHAPTER 1: INTRODUCTION TO BILL OF MATERIAL

This chapter contains basic information about Fitrix Bill of Material. It is designed to give readers a general description of the Fitrix Bill of Material system, a brief explanation of feature, and a general overview before setting up the module.

GENERAL DESCRIPTION

Bill of Material defines the material structure of a manufactured item. It does this by creating relationships, known as bills of material, between purchased and manufactured items defined in Inventory Control. This chapter is designed for readers who want to know how Bill of Material is used to define the material structure of items, and how these structures are used in other Fitrix modules. It describes the major functionality of Bill of Material and provides brief descriptions of the features that are offered in the application.

FEATURES

To produce an item, one or more component items are needed. The component items might be purchased items, raw material items, or items that are themselves manufactured. These relationships are known as bills of material. The components needed to produce a 'parent item' are known as a single-level bill of material. And since some components are also manufactured items, the relationship of an item which is manufactured and sold, to the items that are purchased, is known as a multi-level (or indented) bill of material. The Bill of Material module is used to define these relationships. Multiple Fitrix modules to plan and produce items use the information defined here.

The following features are included in Bill of Material:

Centralized, Reusable Bills of Material

Bills of material are entered into one table that is accessible to other Fitrix applications when needed. Indented bills of material can be defined. Components can be entered in a user-defined sequence, for total control of presentation format

User-Defined Control Tables

Each item in the item master table can be associated with one or more control tables, to facilitate user-oriented queries and reports for item status, movement, sales activity, purchase history, production statistics, etc. The user-defined control tables to which items can be linked are as follows:

- **Accounting Code** – Easy cross-reference to G/L account numbers
- **Product Code** - User controlled definitions
- **Group Code** - User controlled definitions

- **Planner Code** - User controlled definitions

Standard Routing Integration

BEFORE YOU BEGIN

Before you can use Bill of Material, you must first complete “setup” of the module. Setup is the process by which you enter all of the information required to begin entering bills of material into the system. Setup includes entry of basic “control” information that the programs need to run, and entry of user-defined control table information.

SETUP

There are two aspects of setup: Company Setup and Bill of Material setup.

Company setup includes entering basic control information that the programs need to run, such as company information, and administrative information. This basic setup information is covered in the ***Getting Started with Fitrx User Guide***. Because the menu options used for company and administration pertain to the company as a whole, the menu options used to do this initial company setup are located under the General/Administrative menu on the Company Setup menu. You only need to perform this setup procedure once for the system.

Module-specific setup, on the other hand is required for each module you have installed. The following option, accessed from the Bill of Material/File Maintenance menu, is used for module setup:

Setup Bill of Material (2-2-1-h)

In addition, you can use the following options, accessed from the Bill of Material File Maintenance menu, to enter reference information that will be used during Bill of Material Maintenance

Accounting Codes (2-2-1-b)

Product Codes (2-2-1-d)

Group Codes (2-2-1-e)

Planner Code (2-2-1-f)

These options allow you to set up (and update) special codes and definitions, which are referenced on a regular basis when entering bills of material. These steps are described in detail later in this manual.

ITEM SUBSTITUTIONS

Use this option (2-2-1-c) to enter one or more substitutions for component items in the Inventory Information table. These substitutions can then be accessed when entering production work orders and one or more components are not available.

UPDATE INVENTORY INFORMATION

Items are created in the Inventory Control module, using Update Inventory Information (option 2-1-1-a). An additional window exists to enter manufacturing-related information. This window allows the user to identify, for example:

- The item is manufactured or purchased
- The item's product, group, planner, and accounting codes
- If the item is a phantom
- The item's default accounting, bill of material and routing codes

BILL OF MATERIAL MAINTENANCE

Use this option (2-2-1-a) to maintain single-level bills of material. You can define multiple bills of material for a single item. The 'Default Bill of Material' code in the Inventory Information master indicates the bill that will be used by other modules for planning and execution.

PROCESSING

Processing options support file maintenance functions, which require additional time to complete. They perform reviews and updates to multiple entries at the same time, and are typically referred to as a batch process. The processing options are:

Set Low Level Codes (2-2-2-a) - low level code is automatically assigned to every item, by determining its lowest level in any indented bill of material. An item not used as a component in ANY bill of material is assigned a low level code of 0. The MRP Generation in Material Planning, and the Cost Rollup in Standard Costing use these codes.

CMLT Calculator (2-2-2-b) – Each item that has a bill of material is analyzed to determine the Cumulative Material Lead-time (CMLT). This is the total time in days it would take to produce an item, assuming there is NO material available at all levels in the bill of material. It includes:

The lead time to produce the item itself based on the lead time to produce manufactured components

The lead-time to procure purchased items

EOQ Calculator (2-2-2-c) – Calculates the Economic Order Quantity for items. The Material Planning application can be configured to plan production or purchase of items based on their EOQ values.

INQUIRIES

Inquiries are used to review an item's bill of material and component usage in a screen format.

Single Level Bill (2-2-3-a)

Indented Bill (2-2-3-b)

Component Where-Used – Single Level (2-2-3-c)

Component Where-Used – Indented (2-2-3-d)

Item Availability (2-2-3-e)

REPORTING

Inquiries are used to review an item's bill of material and component usage in a printed format.

Indented Bill (2-2-4-a)

Single-Level Bill (2-2-4-b)

Item List (2-2-4-c)

Component Where-Used – Single-Level (2-2-4-d)

Component Where-Used – End Item (2-2-4-e)

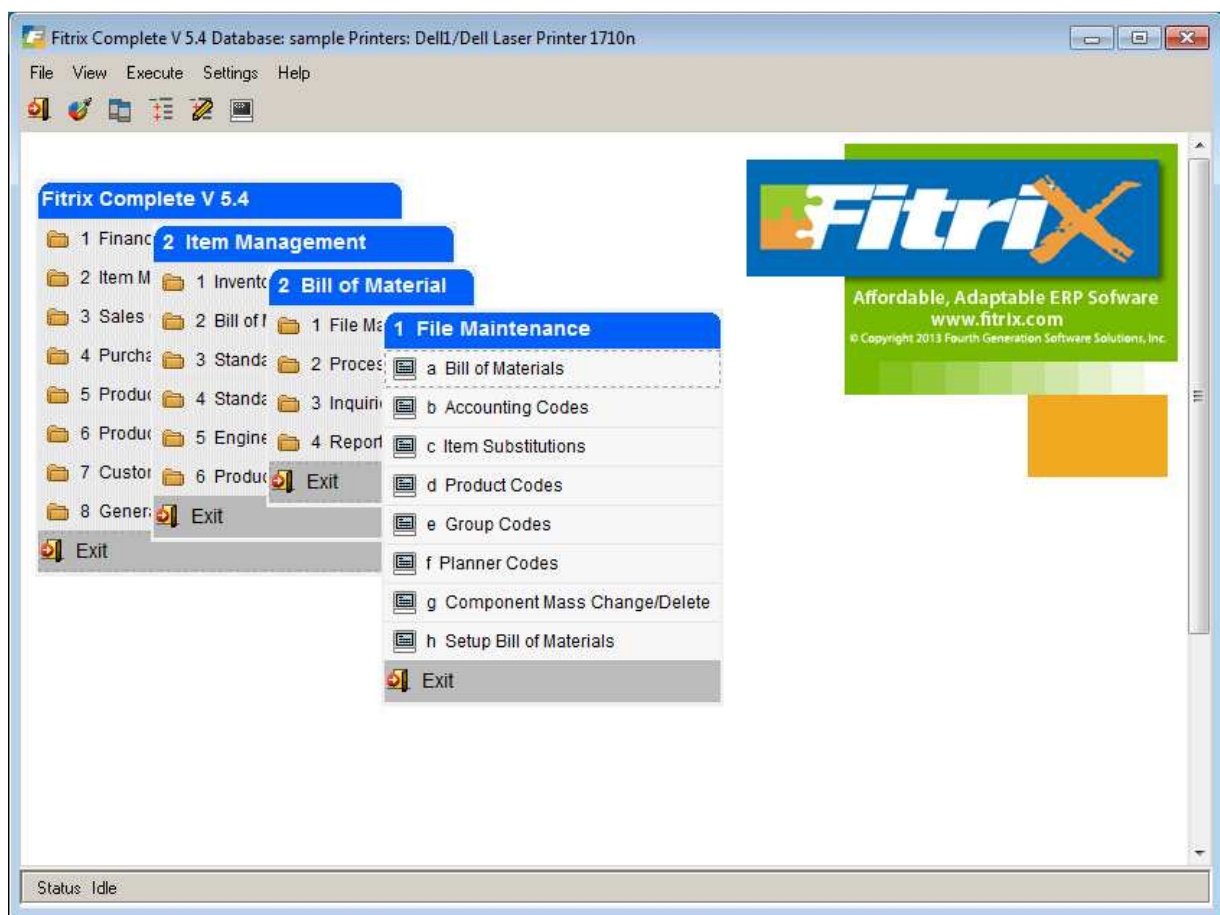
Component Effectvitiy (2-2-4-f)

CHAPTER 2: SETUP BILL OF MATERIAL

This chapter covers the options, screens, and fields you use to set up the Bill of Material module. It is assumed that if you are reading this chapter for setup reference, you have already done the basic Company setup that is required before you can set up any Fitrix module. For a more complete discussion of the Company setup, see *Getting Started with Fitrix*.

FILE MAINTENANCE MENU

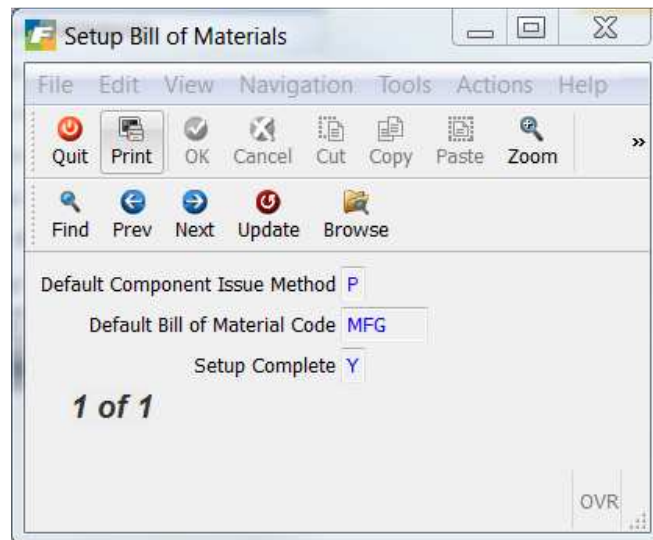
This menu provides options for setting up the module, and entering reference and default information.



The Bill of Material File Maintenance Menu provides options for updating module defaults, and creating entries in reference tables used during Order and Transaction Processing. The options should be accessed in the following order, except where noted.

SETUP BILL OF MATERIAL

This menu option (2 2 1-h) allows you to setup default values for the module. The following screen displays:



When you enter item information and bills of material, the system automatically assigns default values to some of the information fields. The default values may come from a number of different places, depending on the type of data. By automatically filling fields with default data the system saves the user from having to enter information for each transaction. You can overwrite most default values by simply entering the desired value.

The data in the Setup Bill of Material screen is unique to each company's database. Notice that the screen contains only one entry (the screen displays (1 of 1) at the bottom of the screen). Therefore, the commands on the command prompt are disabled, with the exception of Update and Quit. For example, you cannot Use Find because there is only one entry to find and it shows up automatically.

If your system is setup to run more than one company, you must enter defaults for each company.

The screen contains the following fields:

Default Component Issue Method – When adding components to a bill of material, this value will automatically be filled in. The possible values are:

P – Issue components at the same time as a Production Receipt transaction.

C – Issue components with the Component Issue transaction.

Default Bill of Material Code – When you access the 'Mfg – Base' screen from Update Inventory Information, this value will automatically fill in

Setup Complete – Enter Y (yes) or N (no)

ACCOUNTING CODES

This menu option is used to setup and maintain the Accounting information. Accounting codes provide a cross reference between manufacturing transactions and the General Ledger account that they affect and you enter an accounting code in the production work order entry program. Rather than define G/L account numbers directly in the production module tables, you use accounting codes. The accounting code entries define the actual account numbers to be used for a variety of production related transactions such as which work in process account numbers should be debited and credited when components are issued and production receipts for the finished goods are processed.

The following screen is displayed:

The Accounting Codes screen contains the following fields:

Accounting Code – Enter a unique identifier

Account Type - Select the account type from one of the predefined types: Material, Non-Stock Material, WIP Receipt, Labor, Overhead, or Outside Process.

Description - You enter a description for the account type selected (up to 25 characters) in this field.

Account Number – Enter the G/L account number associated with this account type.

Date Added – The system will automatically record the date this row was added.

Date Last Changed –The system will automatically record the date this row was last changed.

ITEM SUBSTITUTIONS

This menu option is used to setup and maintain items that can be used as substitutes for other items. For example, in cases where an item is needed in a production process, if it is not available in inventory, you may want to check inventory for a substitute item which could be used in its place.

The screenshot shows the 'Item Substitutions' window. At the top, there is a menu bar with File, Edit, View, Navigation, Tools, Actions, and Help. Below the menu bar is a toolbar with icons for Quit, Print, OK, Cancel, Cut, Copy, Paste, Zoom, Notes, Attachments, U Fields, To Do, View Detail, Next Page, and Previous Page. Below the toolbar is a search bar with Find, Prev, Next, Update, and Browse buttons. The main area contains a table with the following data:

| Seq | Substitute Item | Description | Qty Per Unit | Comment |
|-----|-----------------|--------------------------|--------------|---------|
| 1 | 12104 | SCM A SERIES MULSTRIKE | 1.000 | |
| 2 | 12120 | SCM A SERIES LIFT-OFF | 1.000 | |
| 3 | 12112 | SCM A SERIES CVR-UP TAPE | 1.000 | |

At the bottom of the window, there is a status bar showing '1 of 2' and a 'View Detail' button. The window title is 'Item Substitutions'.

The following fields are available:

Item – enter the item code for which substitutes will be added

Desc (Description) – the description for the item is displayed

Type – M for manufactured, P for purchased

Substitute Items – enter one or more substitute items

Seq (Sequence) – the sequence in which the substitute should be displayed

Substitute Item – The item code for the substituting item

Description – The description for the substituting item

Qty Per Unit (Quantity per Unit) – when this substitute is used, enter the relationship between its quantity and the original item. If you must use a multiple or fraction of the the item being substituted, enter that quantity here. For example, if the original part is

an item that is 12 inches long and the substitute part has a length of 6 inches, but is an acceptable substitute; enter quantity of 2 for item being substituted.

Comment – Enter a user-defined comment

PRODUCT CODES

Product codes allow you to enter and maintain a property and description that can be assigned to items on the Mfg-Base screen program accessible in the Update Inventory Information program. These codes can then be used to group items for external reporting.

When a product code is selected in Update Inventory Information, it is validated against this table.

The screenshot shows a window titled "Product Codes" with a menu bar (File, Edit, View, Navigation, Tools, Actions, Help) and a toolbar with icons for Quit, Print, OK, Cancel, Cut, Copy, Paste, Zoom, Find, Prev, Next, Add, Update, Delete, and Browse. The main area contains a table with one row of data:

| | |
|-------------------|------------|
| Product Code | WND |
| Description | WINDOWS |
| Date Added | 02/29/2012 |
| Date Last Changed | 02/29/2012 |

Below the table, it says "1 of 1". In the bottom right corner, there is a label "OVR" and a small icon.

Product Code – Enter a unique identifier, up to 3 characters

Description – Enter descriptive text for the hold code.

Date Added – The system will automatically record the date this row was added.

Date Last Changed –The system will automatically record the date this row was last changed.

GROUP CODES

Group codes allow you to enter and maintain a property and description that can be assigned to items on the Mfg-Base screen program accessible in the Update Inventory Information program. These codes can then be used to group items for external reporting.

When a group code is selected in Update Inventory Information, it is validated against this table.

The screenshot shows a window titled "Group Codes" with a menu bar (File, Edit, View, Navigation, Tools, Actions, Help) and a toolbar with icons for Quit, Print, OK, Cancel, Cut, Copy, Paste, Zoom, and Notes. Below the toolbar is a second row of icons for Find, Prev, Next, Add, Update, Delete, and Browse. The main area contains a form with the following fields:

| | |
|-------------------|------------|
| Group Code | PMP |
| Description | PUMPS |
| Date Added | 08/31/2011 |
| Date Last Changed | 08/31/2011 |

Below the form, it says "1 of 1". In the bottom right corner, there is a button labeled "OVR".

Group Code – Enter a unique identifier, up to 3 characters

Description – Enter descriptive text for the reason code.

Date Added– The system will automatically record the date this row was added.

Date Last Changed –The system will automatically record the date this row was last changed.

PLANNER CODES

Planner codes allow you to enter and maintain a property and description that can be assigned to items on the Mfg-Base screen program accessible in the Update Inventory Information program. Reports in MRP can be run by planner code.

When a planner code is selected in Update Inventory Information, it is validated against this table.

The screenshot shows a window titled "Planner Codes" with a menu bar (File, Edit, View, Navigation, Tools, Actions, Help) and a toolbar with icons for Quit, Print, OK, Cancel, Cut, Copy, Paste, Zoom, Notes, and Attachments. Below the toolbar is another set of icons: Find, Prev, Next, Add, Update, Delete, and Browse. The main area contains the following fields:

| | |
|----------------------|-------------|
| Planner Code | JDH |
| Description | JOHN HOLMES |
| Manufacture/Purchase | M |
| Date Added | 02/29/2012 |
| Date Last Changed | 02/29/2012 |

Below the fields, it says "1 of 1". In the bottom right corner, there is a button labeled "OVR".

Planner Code – Enter a unique identifier, up to 5 characters

Description – Enter descriptive text for the reason code.

Manufacture/Purchase – Enter M if the planner code is normally associated with manufactured items, or P if for purchased items.

Date Added– The system will automatically record the date this row was added.

Date Last Changed –The system will automatically record the date this row was last changed.

CHAPTER 3: BILL OF MATERIAL MAINTENANCE

This chapter contains reference information about the different menu options used to maintain bills of material (option 1-a) and component mass changes and deletions (option1-g), and the screens and fields associated with these options.

For each menu option we briefly describe what the menu option does, show an example of the screen or report associated with the option, and describe each field on the data-entry screens.

BILL OF MATERIAL MAINTENANCE

Use this option (1-a) to enter or modify bills of material. The option consists of 3 primary screens:

- Bill of Material Header
- Additional Header Detail
- Component Detail

Additional screens in bill of material maintenance are:

- Copy Bill
- Routing
- Notes

BILL OF MATERIALS – HEADER SCREEN

When you select Bill of Material menu option, the following screen displays:

| Sequence | Component | Rv Lvl | Description | Quantity per Unit | U/M | Op Used |
|----------|-----------|--------|-------------|-------------------|-----|---------|
| 1 | C-MON | | 24" MONITOR | 1.0000000 | EA | 2 |
| 2 | C-KEY | | KEYBOARD | 1.0000000 | EA | 2 |
| 3 | C-MOUSE | | MOUSE | 1.0000000 | EA | 2 |
| 4 | C-DISK | | HARD DISK | 1.0000000 | EA | 1 |

1 of 1

View Detail

OVR

Item Code – Enter the item code for the parent item in this bill of material. Zoom for a list of valid item codes.

Description – The entered item's description displays automatically, for verification.

Type– This will display M for manufactured or P for purchased, however the item has been set up in the item master.

U/M – The default unit of measure as defined in the item master for the item is displayed.

Bill of Material – Enter a code to uniquely identify this bill of material for this parent item. The default from Setup Bill of Material will automatically be loaded, but you can change it.

NOTE: The first bill of material entered for each item should use the default Bill of Material Code. Additional bills may be entered for the item, using alternative bill of material codes.

Revision Level – Enter an optional engineering revision level associated with this bill of material.

Eng Change (Engineering Change) – Enter an optional engineering change number, which generated this revision level.

Enter one or more component item codes

Sequence (required) – Enter the sequence number value for the component. When components are displayed or printed, they will typically be sorted by their sequence, then item code. This field also lets you place a component in the bill of material multiple times, with different sequence numbers. When used together with Standard Routing, this field also lets you associate a component with the routing step that uses it.

Component – Enter an item code for the component. Zoom for a list of valid item codes.

NOTE 1: You cannot enter a component item code that is the same as the parent item code. If it is, an error message will display.

NOTE 2: The system will verify that the component item code you enter is not used as a parent at any higher level in a bill of material. If it is, an error message will display.

Rv Lvl (Revision Level) – The component item's engineering revision level will automatically display

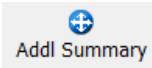
Description – The component item's description will automatically display

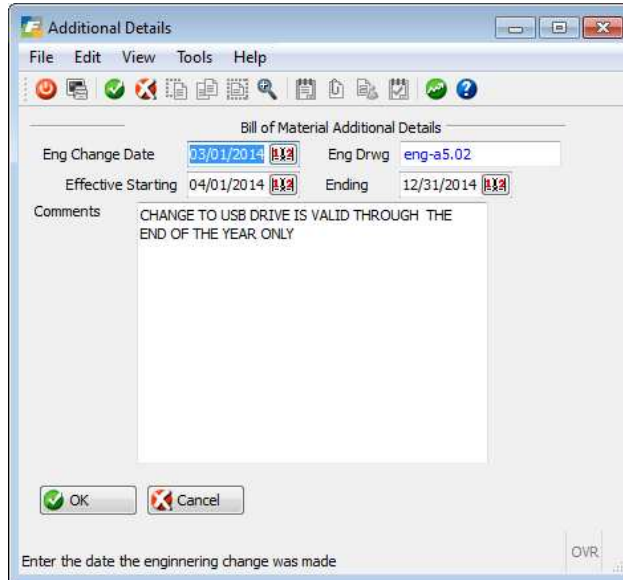
Quantity per Unit – Enter the component item's quantity needed to produce one unit of the parent item. This number can be entered in a format of up to 9999999.9999999.

U/M - Unit of measure for component item is displayed

Op Used (Operation Where-Used) – Enter an optional routing step where this component is used.

ADDITIONAL HEADER DETAIL SCREEN

This screen displays when you click the  button.



Additional Details

File Edit View Tools Help

Bill of Material Additional Details

Eng Change Date 03/01/2014 Eng Drwg eng-a5.02

Effective Starting 04/01/2014 Ending 12/31/2014

Comments CHANGE TO USB DRIVE IS VALID THROUGH THE END OF THE YEAR ONLY

OK Cancel

Enter the date the engineering change was made

Eng Change Date (Engineering Change Date) – Enter an optional date when the last engineering change was implemented.


Eng Drwg (Engineering Drawing Number) – Enter an optional current engineering drawing number.

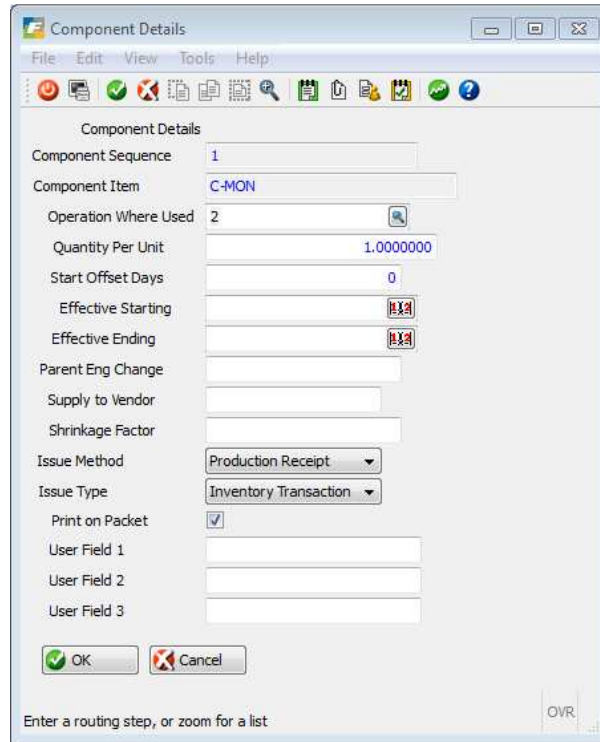
Effective Starting (Date) – Enter an optional date when this bill of material is effective.

Ending (Effective Ending Date) – Enter an optional effective ending date.

Comments – Enter optional additional text related to this bill of material.

COMPONENT DETAIL SCREEN

This screen displays when you are in the detail section of the screen and you click the  button.



Operation Where Used – Enter an optional routing step where this component is used (Optional).

Quantity per Unit – Enter the component item’s quantity needed to produce one unit of the parent item. This number can be entered in a format of up to 9999999.9999999 (Required).

Start Offset Days – The number of workdays after the parent item’s lead-time start that this component is needed. This offset can be used to generate a component requirement date that is some number of days after the start of a production order (Optional).

Effective Starting – The date when this component should be used on its parent item bill of material. Leave this value blank if you do not wish to use component effective dates (Optional).

Effective Ending – The date after which this component will no longer be used on its parent item bill of material. Leave this value blank if you do not wish to use component effective date (Optional).

Parent Eng Change (Parent Engineering Change) – The parent engineering change number that added this component to the bill of material.

Supply to Vendor – This field is reserved for future use.

Shrinkage Factor – Enter a factor to allow for planned loss of component material. This factor should be entered as a decimal value, and reflects the usable portion of a component requirement.

Example: if the planned loss of a component material is 10%, this factor should be entered as 0.900

Issue Method – enter a code to indicate how this component should be issued from inventory when being used on a production order. The possible values are:

C – the component will be issued from stock with the Component Issue transaction. This is typical when the production process involves a relatively long lead-time (such as a week or more).

P – the component will be issued when the end item is received into inventory via the Production Receipt transaction. This is typical when the production process involves a short lead-time (such as less than one week).

O – the component will be issued from stock with the Issue by Operation transaction. Each component which has an 'Operation Used' equal to the Operation being issued will be issued from inventory.

N – the component will not be issued. This is typical of items that are sent to work in process in bulk, or for items that are needed in the production process, but are not stocked items (engineering drawings, tooling, etc).

V - reserved for future use to handle components issued to vendors for outside processes.

Issue Type – the possible values are:

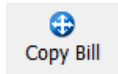
T (transaction) – component is issued from inventory, and its associated cost per unit is used with the quantity to create a transaction for G/L.

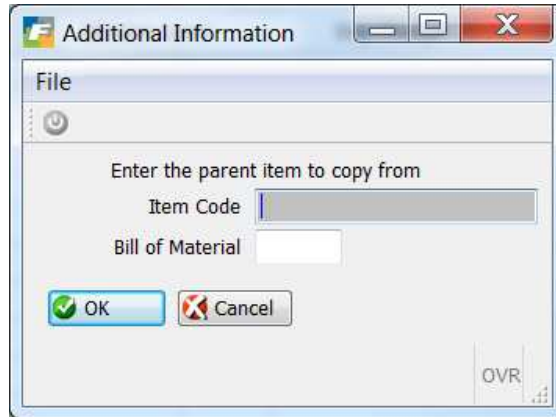
C (cost only) – component is not issued from inventory, but its cost per unit is used with the quantity to create a transaction for G/L.

Print on Packet – Y will print the component on the Production Packet document. N will not print the component on the Production Packet.

User Fields 1, 2 and 3 – enter optional additional information

COPY BILL SCREEN

This screen displays when you are in add mode and click the  button.



Additional Information

File

Enter the parent item to copy from

Item Code

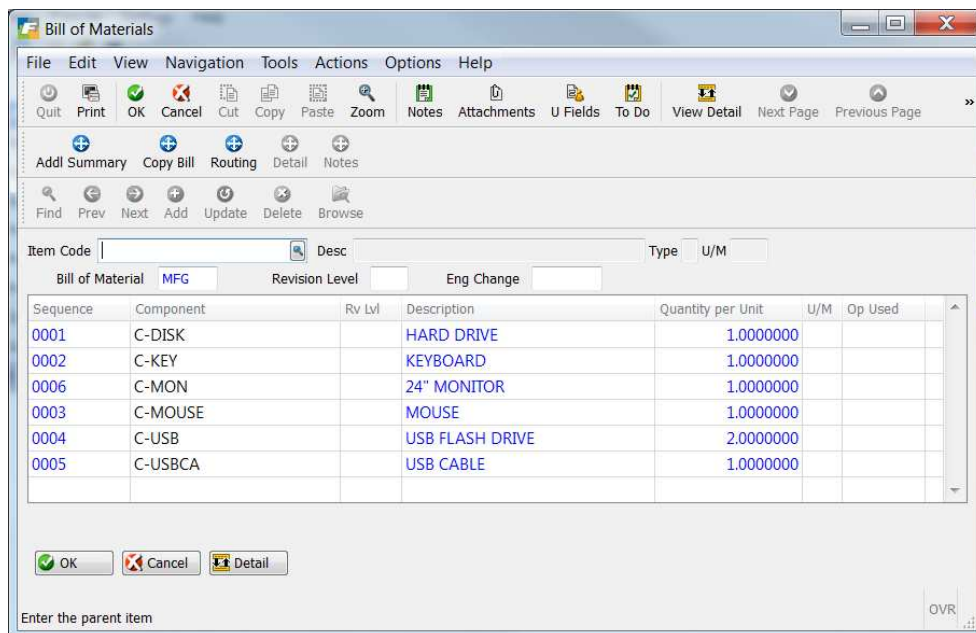
Bill of Material

OVR

Item Code – Enter the item code for the parent item you want to copy.

Bill of Material – Enter valid bill of material code for the item, which is defined in Inventory Maintenance – Update Inventory Information.

After entry of above information the following screen displays. Enter item code of new bill of material and edit components as necessary.



Bill of Materials

File Edit View Navigation Tools Actions Options Help

Quit Print OK Cancel Cut Copy Paste Zoom Notes Attachments U Fields To Do View Detail Next Page Previous Page

Add Summary Copy Bill Routing Detail Notes

Find Prev Next Add Update Delete Browse

Item Code Desc Type U/M

Bill of Material Revision Level Eng Change

| Sequence | Component | Rv Lvl | Description | Quantity per Unit | U/M | Op Used |
|----------|-----------|--------|-----------------|-------------------|-----|---------|
| 0001 | C-DISK | | HARD DRIVE | 1.0000000 | | |
| 0002 | C-KEY | | KEYBOARD | 1.0000000 | | |
| 0006 | C-MON | | 24" MONITOR | 1.0000000 | | |
| 0003 | C-MOUSE | | MOUSE | 1.0000000 | | |
| 0004 | C-USB | | USB FLASH DRIVE | 2.0000000 | | |
| 0005 | C-USBCA | | USB CABLE | 1.0000000 | | |

Enter the parent item

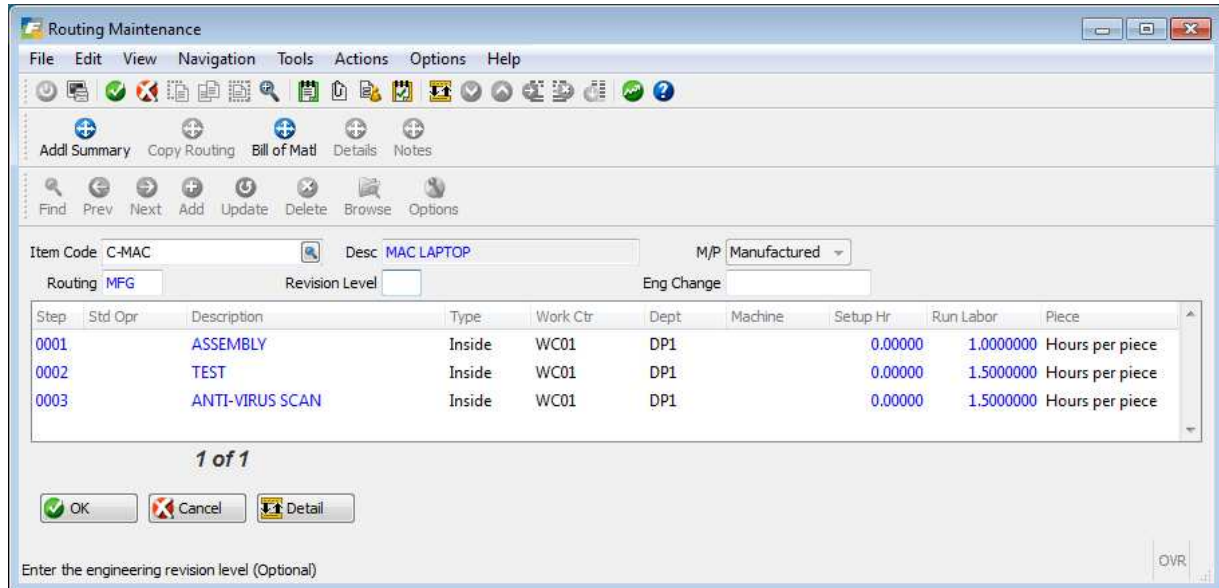
OVR

ROUTING SCREEN

Bill of Material User Guide



This screen displays when you are in update mode and click the  button.



The Routing Maintenance window displays the following data:

| Step | Std Opr | Description | Type | Work Ctr | Dept | Machine | Setup Hr | Run Labor | Piece |
|------|---------|-----------------|--------|----------|------|---------|----------|-----------|-----------------|
| 0001 | | ASSEMBLY | Inside | WC01 | DP1 | | 0.00000 | 1.0000000 | Hours per piece |
| 0002 | | TEST | Inside | WC01 | DP1 | | 0.00000 | 1.5000000 | Hours per piece |
| 0003 | | ANTI-VIRUS SCAN | Inside | WC01 | DP1 | | 0.00000 | 1.5000000 | Hours per piece |

1 of 1

Buttons: OK, Cancel, Detail

Enter the engineering revision level (Optional)


Bottom right: OVR

This screen will only display if the bill of material you are updating has an associated routing. See the *Fitrix Standard Routing User Guide* for further explanation. If there is no routing step attached to the bill of material you will receive this message:



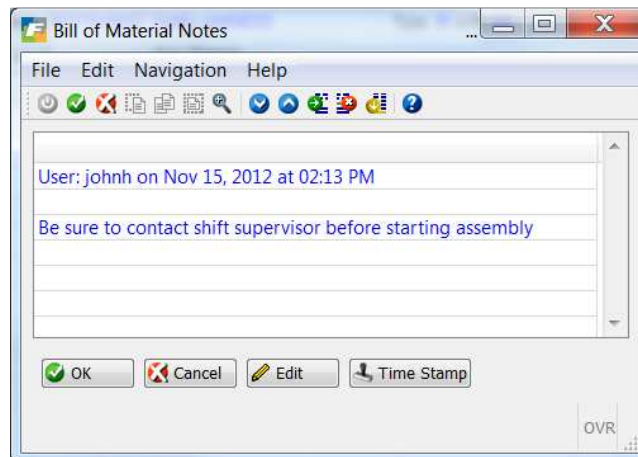
BILL OF MATERIAL NOTES



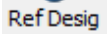
This screen displays when you are in update mode and click the  button.

Add notes as necessary to bill of material. When component notes exist, they are copied to the production work order and will then print on the production packet.

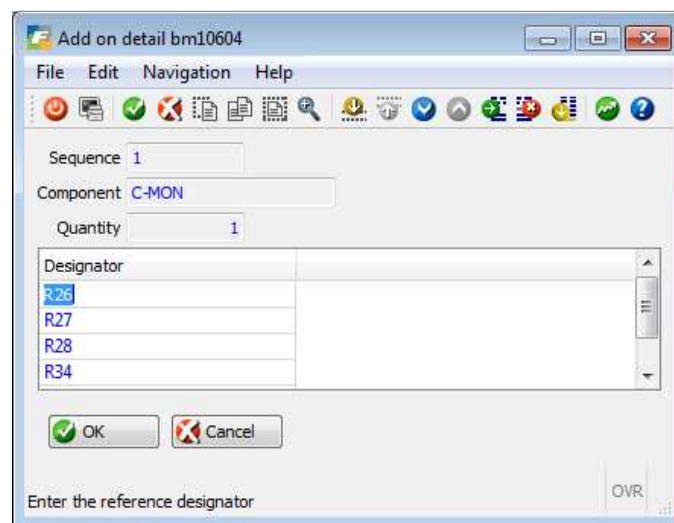
For further explanation of using notes reference the Getting Starting with Fitrix manual.



BILL OF MATERIAL REFERENCE DESIGNATORS

This screen displays when you are in update mode and click the  button.

Reference designators provide a clear indication of component placement on an electrical schematic or a printed circuit board. They are usually identified by a combination of a single letter and a 1 or 2-digit number. They are especially useful when multiple usages of a component are called for.



COMPONENT MASS CHANGE/DELETE

Use this menu option (option 1-g) to change or delete a component that is used in multiple parent items. The main screen allows you to review the parent items the component item is used in and then change the component to another component, or delete it in one or more parent items.

The following screen displays:

| Sel | Seq | Parent | Bill | Rev Lvl | Description | M/P | Phantom | Quantity per Unit | Oper |
|-------------------------------------|------|--------|------|---------|-------------------|-----|---------|-------------------|------|
| <input checked="" type="checkbox"/> | 0002 | 10000 | MFG | | PERSONAL COMPUTER | P | 0 | 1.0000000 | |
| <input checked="" type="checkbox"/> | 0002 | C-MAC | MFG | | MAC LAPTOP | M | 0 | 1.0000000 | |


You must first click the Find button, and then enter the Component Item to be maintained. Click OK to see the list of parent items using the component. Click update to change the parent to use another component or delete it from a parent item.

Action – The possible choices are:

Replace – Replace the current component with the 'Replace With' component for the Parent Items where the column 'Sel' is checked

Delete – Remove the component from the Parent Items where the column 'Sel' is checked

Replace With – Enter the replacing component item. Click the zoom button to see a list.

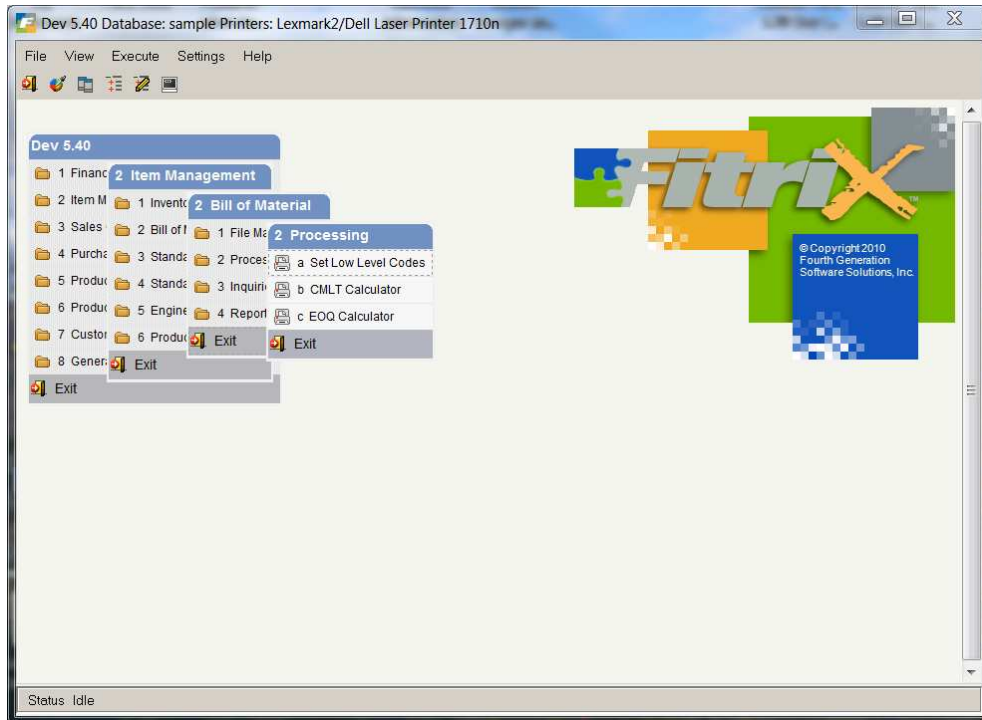
The Parent Items are listed on the bottom section of the screen. Each item will be checked by default. If there are specific parents you ignore for a change or delete, click the  Detail button, and uncheck the parents to be ignored.

CHAPTER 4: PROCESSING

This chapter contains reference information about the different menu options used to make changes to items related to bills of material. These options perform updates to multiple items and generate reports that print the results of the updates.

PROCESSING MENU

This menu provides options for mass changing item properties related to bills of material.



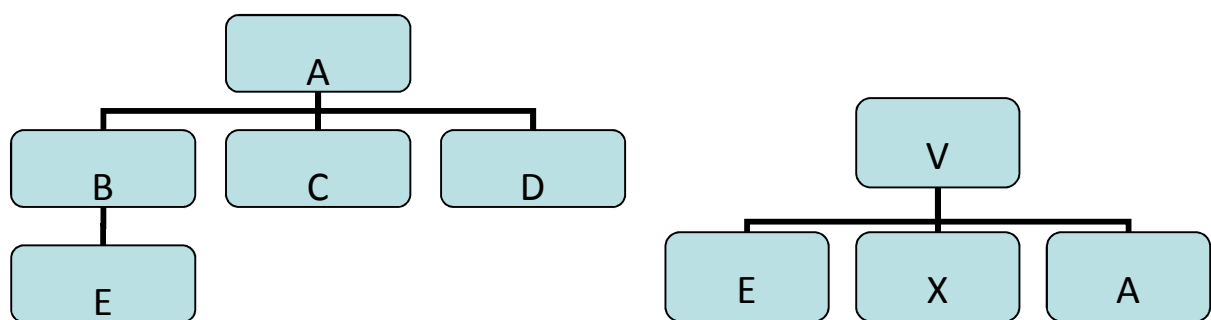
SET LOW-LEVEL CODES

You use this menu option (2-a) to update the low-level code for each item in the Inventory Information Master. This program should be run after heavy maintenance has been done on your bills of material.

For each item, the low-level code is a number representing the lowest level the item is found in ANY indented bill of material.

The following illustration shows how low level codes are calculated:

Example



In the example above:

| ITEM | Low Level Code |
|------|----------------|
| A | 1 |
| B | 2 |
| C | 2 |
| D | 2 |
| E | 3 |
| V | 0 |
| X | 1 |

An item not used as a component in ANY bill of material is assigned Low Level Code of 0. So, Item V in this example is level 0.

Item A is a parent with its own bill of material, but it is also a component under Parent Item V, so its level is 1.

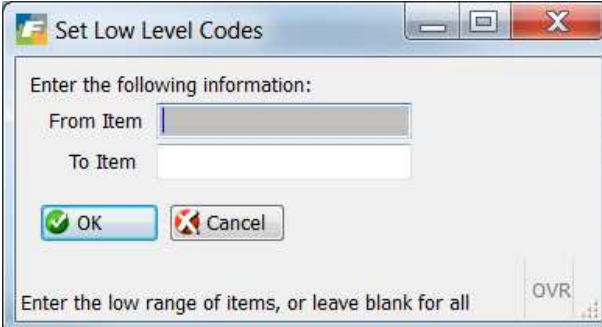
Item E is used in 2 bills of material, but since Item A is a component of Item V, Item E's lowest level in any indented bill of material is 3.

Low Level Codes are used by:

Material Planning – When planning production or purchases for items, it is important to consolidate requirements at ALL levels in the bill of material for an item, before planned orders. For this reason, the MRP Generation will sort items by the Low Level Code, in ASCENDING sequence, before processing begins.

Product Costing – When determining the cost to produce an item, it must be ensured that all the costs for lower level items are complete before attempting to consolidate the costs at the next level up in a bill of material. For this reason, a full Cost Rollup sorts by Low Level Code, in DESCENDING sequence, to cost from the bottom up when an indented cost rollup is requested.

When you select this menu option, you must first indicate the destination of the report on the 'Select Printer' window. Once you make your print destination, the following screen displays:



From Item – Enter the low item in a range of items, or leave blank to process all items

To Item – Enter the high item in a range of items, or leave blank to process all items

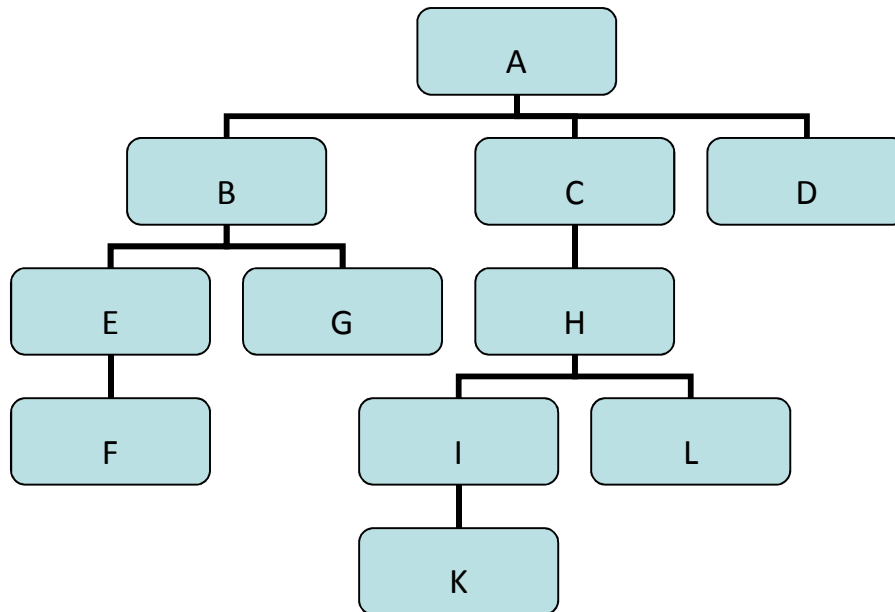
After entering the selection information, click OK to process the report.

The report lists each item where the low level code was changed.

CMLT CALCULATOR

Use this menu option (2-b) to calculate **cumulative material lead-times** for items with bills of material. CMLT is the sum of the material lead-times in an indented bill of material. This program should be run after heavy maintenance has been done on your bills of material, especially multi-level bills of material.

Example



In the above example, items D, F, G, K and L are purchased. The example days are days required to order and receive from the vendor. The remaining items are manufactured, and the example days are the days required to produce, assuming the component items are available when production begins. CMLT is calculated on the assumption that NO inventory is in stock, and NO material is on order from vendors.

For each level in a bill of material, the parent lead-time is the production lead-time, PLUS the longest lead-time component.

Therefore, the CMLT for each item is as follows:

| Item | CMLT in Days |
|------|--------------|
| A | 16.5 |
| B | 6.5 |
| C | 14.5 |
| D | 4 |
| E | 6 |
| F | 5 |
| G | 3 |
| H | 12.5 |
| I | 10.5 |
| K | 10 |
| L | 2 |

When you select this menu option, you must first indicate the destination of the report on the 'Select Printer' window. No additional prompts display.

Bill of Material User Guide

The report lists each item where the cumulative material lead-time was changed.

| Cumulative Lead Time Calculator | | | | Page: 8 | | |
|---------------------------------|-----------------------|-----------|---------------|------------|----------|----------|
| 11/15/2012 14:24:06 | | | | Page: 9 | | |
| User: kathyh | | | | Pgm: bm204 | | |
| ABC DISTRIBUTION | | | | | | |
| Cumulative Lead Time Calculator | | | | | | |
| Item | Description | Low Group | M/P Lead Time | Old CMLT | New CMLT | |
| SWITCH | SWITH | 0 | P | .00000 | .00000 | .00000 |
| SWP22BIKE | SMITH & WESSON PATROL | 0 | M | 12.00000 | 12.00000 | 12.00000 |
| SWP22BIKEKH | SMITH & WESSON PATROL | 0 | M | 5.00000 | 5.00000 | 5.00000 |
| SWP22BIKEKH2 | SMITH & WESSON PATROL | 0 | M | 3.00000 | 3.00000 | 3.00000 |

EOQ CALCULATOR

You use this menu option (2-c) to calculate Economic Order Quantities for items. The EOQ for an item is calculated from the following formula:

$$EOQ = \sqrt{\frac{2AS}{iC}}$$

Where:

A = Annual usage in units

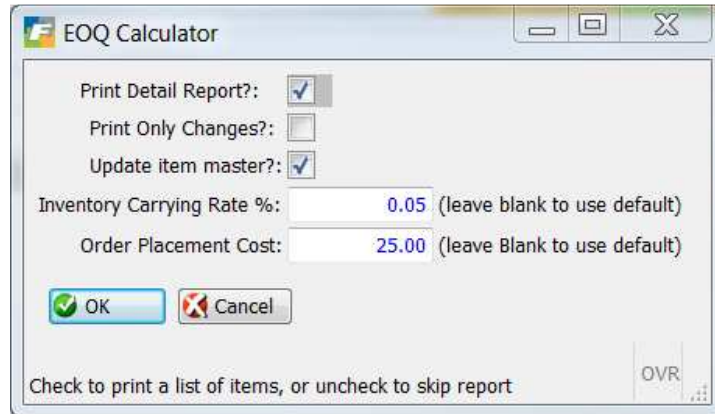
S = Cost of Placing an Order

i = Annual Carrying Cost (%)

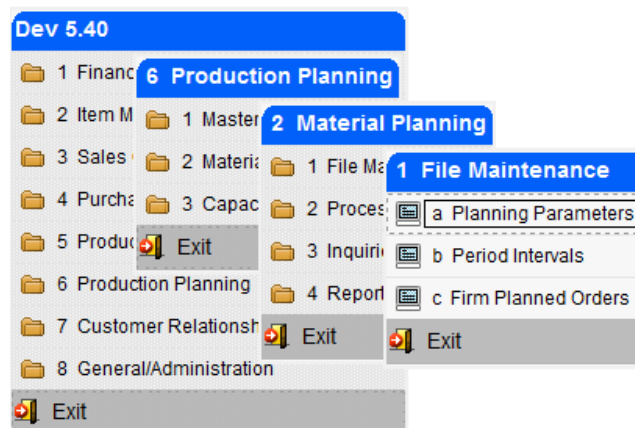
C = Item's Unit Cost

Economic Order Quantities can be used in Material Planning to generate planned orders for Production and Purchase. If items are being ordered in MRP by EOQ, this program should be run once per week or once per month to retrieve the latest usage activity.

When you select this menu option, you must first indicate the destination of the report on the 'Select Printer' window. The following screen will then display:



If no criteria is entered, the defaults found in the Planning Parameters program located on this submenu will be used.



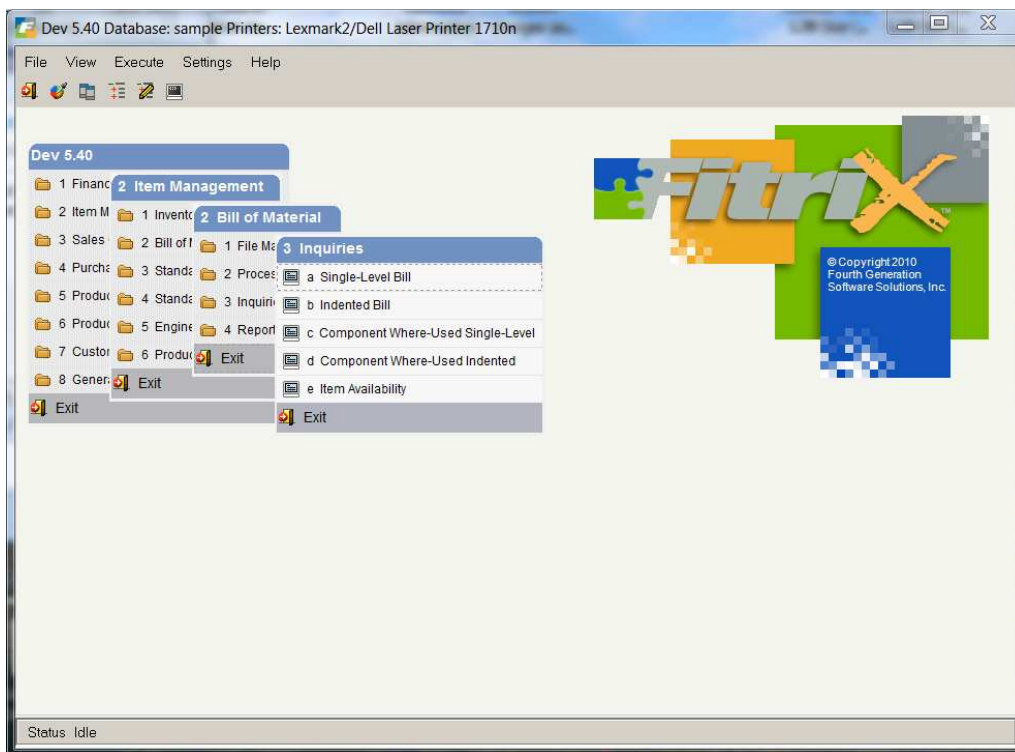
The report lists each item where the economic order quantity was changed.

CHAPTER 5: INQUIRIES

This chapter contains reference information about the different menu options on the Inquiries menu (option 3), and the screens and fields associated with these options. The information is organized by menu option.

THE INQUIRIES MENU

Use the options on this menu to view information related to bills of material. The screens on these menus are similar to the maintenance programs that work with the same data, but inquiries support access to the data without the possibility of making changes.



This menu contains the following options:

Single-Level Bill - Use this option to review the components associated with a parent item.

Indented Bill - Use this option to review multiple levels of an item's bill of material.

Component Where-Used Single-Level - Use this option to review a single level list of parents using a common component.

Component Where-Used Indented - Use this option to review a component's usage through multiple levels in the bill of material.

Item Availability - Use this option to review a single-level or indented bill of material, to determine the ability to manufacture an item from available inventory.

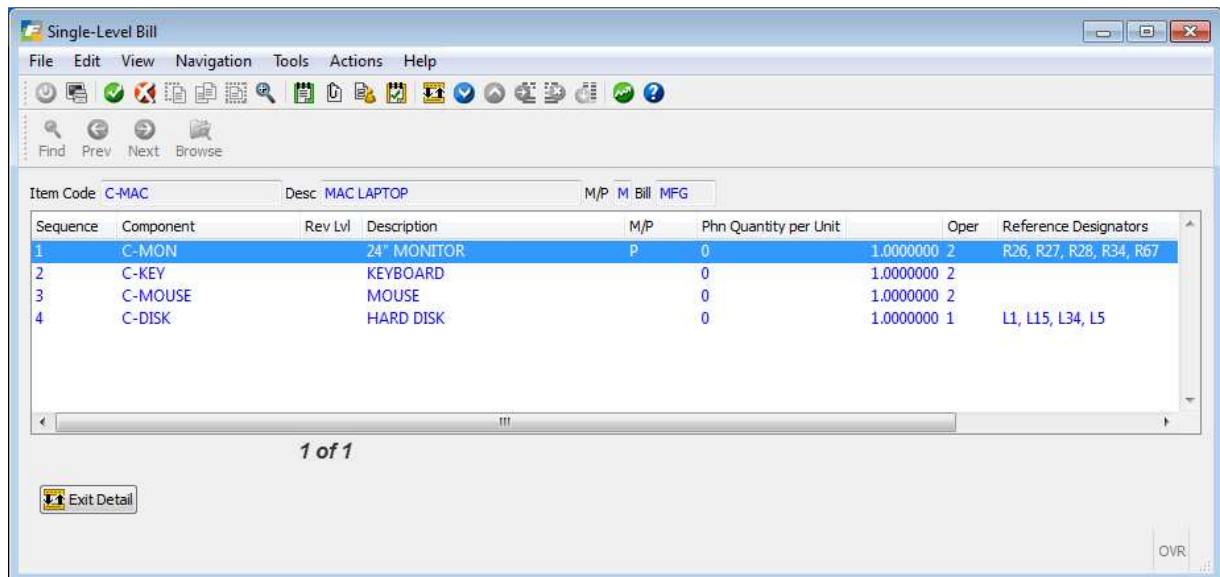
SINGLE-LEVEL BILL

Use this menu option (option 3-a) to view bill of material summary information, as well as the component list.

SINGLE LEVEL BILL SCREEN

When you select this menu option, the Single Level Bill screen displays. You can view one or more bills of material for a single item by clicking the 'Find' option, then entering the parent item to review. If more than one bill of material is display, you can click the 'Browse' button to see the list.

The following screen displays:



The following fields are available:

Item Code – The parent item for the bill of material to review

Desc (Description) – The item's description displays automatically

M/P – displays:

M – indicates the item is normally manufactured

P – indicates the item is normally purchased

Bill – The code for the specific bill of material to be reviewed.

A list of one or more components for the current parent item is displayed.

Sequence – The sequential order assigned to the component

Component – The component item code

Rev Lvl (Revision Level) – The component item's current engineering revision level in the Inventory Information Master

Description – The component item's description

M/P – displays:

M – indicates the component item is normally manufactured

P – indicates the component item is normally purchased

Ph (Phantom)– displays:

0 – indicates the component item is not a phantom

1 – indicates the component item is a phantom

Quantity Per Unit – the component quantity needed to produce one unit of the parent item.

Oper (Operation) – the first operation in the routing where this component is used.

Reference Designators – displays where component used

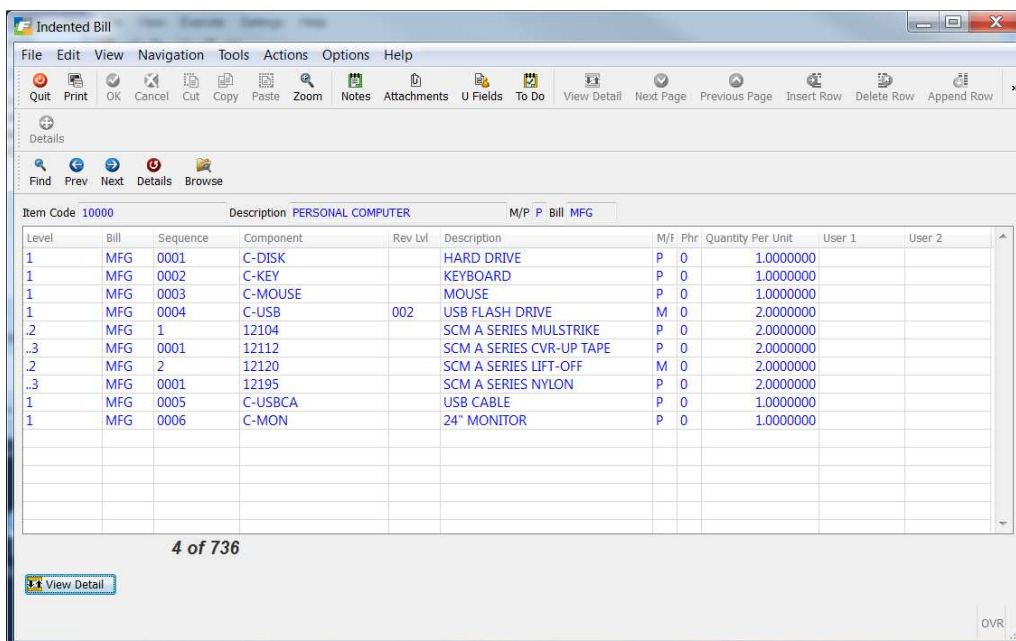
INDENTED BILL

Use this menu option (option 3-b) to view bill of material summary information, as well as the multiple levels of components for a parent item.

INDENTED BILL SCREEN

When you select this menu option, the Indented Bill screen displays. You can view one or more bills of material for a single item by clicking the 'Find' option, then entering the parent item to review. If more than one bill of material is display, you can click the 'Browse' button to see the list.

The following screen displays:



| Level | Bill | Sequence | Component | Rev Lvl | Description | M/P | Phr | Quantity | Per Unit | User 1 | User 2 |
|-------|------|----------|-----------|---------|--------------------------|-----|-----|-----------|----------|--------|--------|
| 1 | MFG | 0001 | C-DISK | | HARD DRIVE | P | 0 | 1.0000000 | | | |
| 1 | MFG | 0002 | C-KEY | | KEYBOARD | P | 0 | 1.0000000 | | | |
| 1 | MFG | 0003 | C-MOUSE | | MOUSE | P | 0 | 1.0000000 | | | |
| 1 | MFG | 0004 | C-USB | 002 | USB FLASH DRIVE | M | 0 | 2.0000000 | | | |
| 2 | MFG | 1 | 12104 | | SCM A SERIES MULSTRIKE | P | 0 | 2.0000000 | | | |
| 3 | MFG | 0001 | 12112 | | SCM A SERIES CVR-UP TAPE | P | 0 | 2.0000000 | | | |
| 2 | MFG | 2 | 12120 | | SCM A SERIES LIFT-OFF | M | 0 | 2.0000000 | | | |
| 3 | MFG | 0001 | 12195 | | SCM A SERIES NYLON | P | 0 | 2.0000000 | | | |
| 1 | MFG | 0005 | C-USBCA | | USB CABLE | P | 0 | 1.0000000 | | | |
| 1 | MFG | 0006 | C-MON | | 24" MONITOR | P | 0 | 1.0000000 | | | |

The following fields are available:

Item Code – The parent item for the bill of material to review

Description – The item's description displays automatically

M/P – displays:

M – indicates the item is normally manufactured

P – indicates the item is normally purchased

Bill – The code for the specific bill of material to be reviewed.

A list of one or more components for the current parent item is displayed.

Level – The level of the component relative to the parent item

Bill – The code for the component's bill of material being reviewed.

Seq (Sequence) – The sequential order assigned to the component

Component – The component item code

Rev Lvl (Revision Level) – The component item's current engineering revision level in the Inventory Information Master

Description– The component item's description

M/P– displays:

M – indicates the component item is normally manufactured



P – indicates the component item is normally purchased

Ph (Phantom)– displays:

0 – indicates the component item is not a phantom


1 – indicates the component item is a phantom

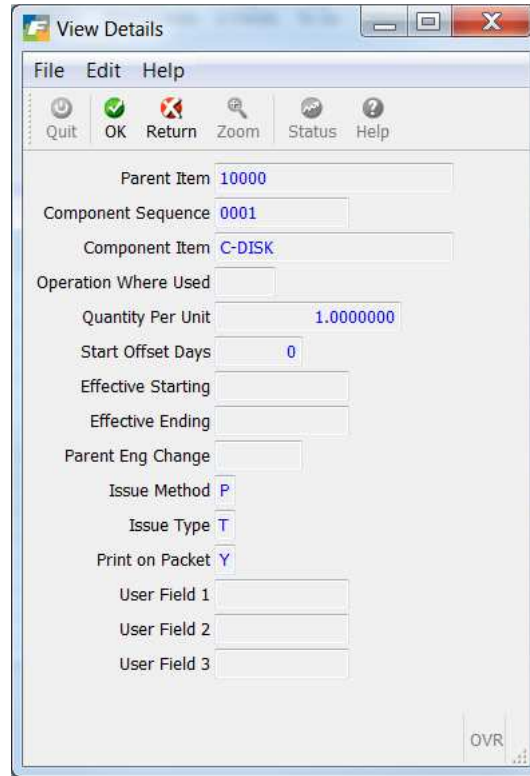
Quantity Per Unit – the component quantity needed to produce one unit of the parent item.

You may also click the  button to navigate to the component list. If you move the cursor to a specific component, you can then click the  button to see the Component Detail screen.

COMPONENT DETAIL SCREEN



This screen displays when you click the  button from the Indented Bill screen:

A screenshot of a software window titled "View Details". The window has a menu bar with "File", "Edit", and "Help". Below the menu bar is a toolbar with icons for "Quit", "OK", "Return", "Zoom", "Status", and "Help". The main area of the window contains several input fields with labels: "Parent Item" (value: 10000), "Component Sequence" (value: 0001), "Component Item" (value: C-DISK), "Operation Where Used" (empty), "Quantity Per Unit" (value: 1.0000000), "Start Offset Days" (value: 0), "Effective Starting" (empty), "Effective Ending" (empty), "Parent Eng Change" (empty), "Issue Method" (value: P), "Issue Type" (value: T), "Print on Packet" (value: Y), "User Field 1" (empty), "User Field 2" (empty), and "User Field 3" (empty). In the bottom right corner, there is a label "OVR" and a small icon.

The following fields are displayed:

Parent Item – for the selected component, displays its immediate parent.

Component Sequence – the component's sequential value for this parent item

Component Item – the component item code

Operation Where Used – the parent item's first routing step where this component is used.

Quantity per Unit – the component quantity needed to produce one unit of the immediate parent item.

Start Offset Days – The number of workdays after the parent item's lead-time start that this component is needed. This offset can be used to generate a component requirement date that is some number of days after the start of a production order

Effective Starting – The date when this component should be used on its parent item bill of material. Leave this value blank if you do not wish to use component effective dates (Optional).

Effective Ending – The date after which this component will no longer be used on its parent item bill of material. Leave this value blank if you do not wish to use component effective date (Optional).

Parent Eng Change (Parent Engineering Change) – The parent engineering change number that added this component to the bill of material.

Issue Method – Indicates how this component should be issued from inventory when being used on a production order. The possible values are:

C – the component will be issued from stock with the Component Issue transaction. This is typical when the production process involves a relatively long lead-time (such as a week or more).

R – the component will be issued when the end item is received into inventory via the Production Receipt transaction. This is typical when the production process involves a short lead-time (such as less than one week).

O – the component will be issued from stock with the Issue by Operation transaction. Each component which has an 'Operation Used' equal to the Operation being issued will be issued from inventory.

N – the component will not be issued. This is typical of items that are sent to work in process in bulk, or for items that are needed in the production process, but are not stocked items (engineering drawings, tooling, etc).

Issue Type – the possible values are:

T – component is issued from inventory, and its associated cost per unit is used with the quantity to create a transaction for G/L.

C – component is not issued from inventory, but its cost per unit is used with the quantity to create a transaction for G/L.

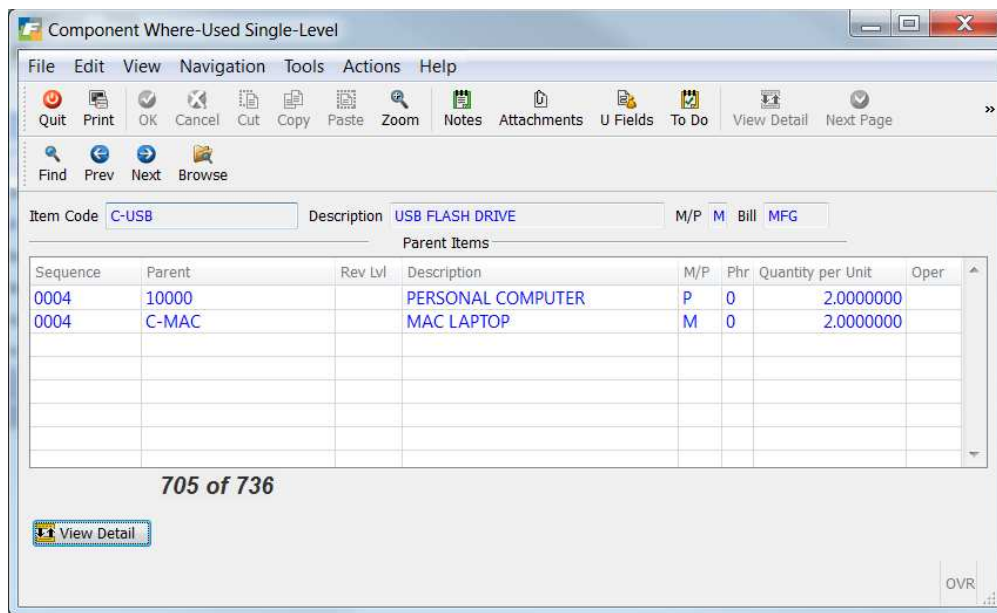
Print on Packet – Y will print the component on the Production Packet document. N will not print the component on the Production Packet.

User Fields 1, 2 and 3 – enter optional additional information

COMPONENT WHERE-USED – SINGLE-LEVEL

Use this menu option (option 3-c) to view a list of parent items using a specific component item. The list displays only parents that have a direct usage.

The following screen displays:



The following fields are available:

Item Code – enter the component item to review

Description – display the description for the component item

M/P – P – displays:

M – indicates the component item is normally manufactured

P – indicates the component item is normally purchased

Bill – The code for the component’s bill of material being reviewed.

One or more parent items will be displayed which use the selected component.

Sequence – The sequential order assigned to the component for the parent

Parent – The parent item using this component

Rev Lvl (Revision Level) – The current engineering revision level for the parent in the Inventory Information Master.

Description – the parent item description

M/P – P – displays:

M – indicates the parent item is normally manufactured

P – indicates the parent item is normally purchased

Ph (Phantom) – displays:

0 – indicates the parent item is not a phantom

1 – indicates the parent item is a phantom

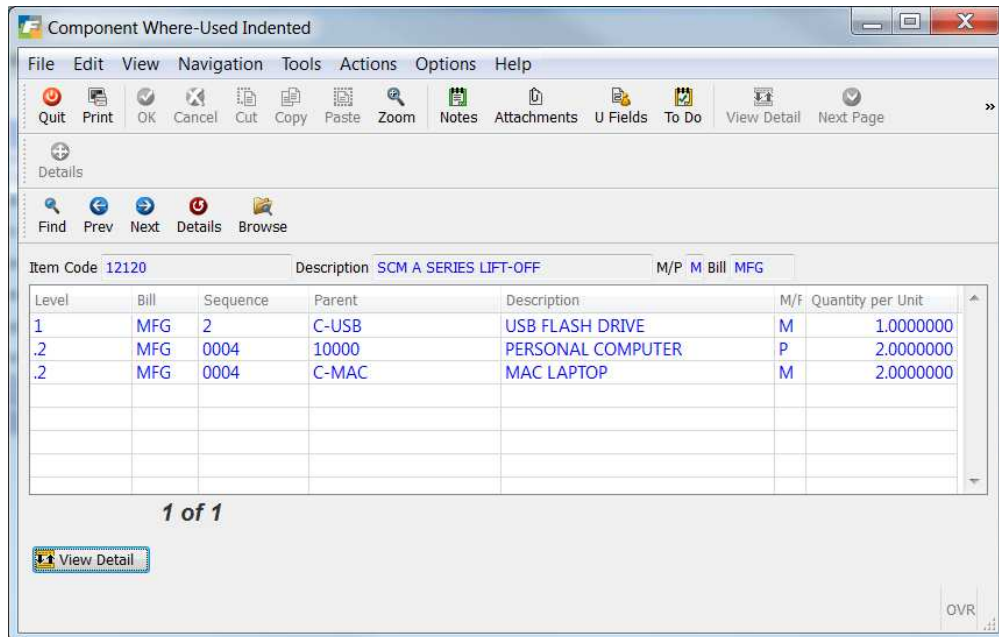
Quantity Per Unit – the component quantity needed to produce one unit of the parent item.

Oper (Operation Where Used) – the parent item's first routing step where this component is used.

COMPONENT WHERE-USED – INDENTED

Use this menu option (option 3-d) to view a multiple level list of parent items using a specific component item. The list displays a component's parent items, as well as higher level parent items. The intent is to show ALL parent items using the component, whether direct or indirect.

The following screen displays:



The following fields are available:

Item Code – enter the component item to review

Description – display the description for the component item

M/P – P – displays:

M – indicates the component item is normally manufactured

P – indicates the component item is normally purchased

Bill – The code for the component's bill of material being reviewed.

One or more parent items will be displayed which use the selected component.

Level – The level of the component relative to the parent item

Bill – The code for the component's bill of material being reviewed.

Sequence – The sequential order assigned to the component for the parent

Parent – The parent item using this component



Description – the parent item description

M/P – P – displays:

M – indicates the parent item is normally manufactured

P – indicates the parent item is normally purchased

Quantity Per Unit – the component quantity needed to produce one unit of the parent item.

You may also click the  button navigate to the parent list. If you move the cursor to a specific parent, you can then click the  button to see the Parent Detail screen.

PARENT DETAIL SCREEN



This screen displays when you click the button from the Indented Bill screen:

A screenshot of a software window titled "View Details". The window has a standard Windows-style title bar with minimize, maximize, and close buttons. Below the title bar is a menu bar with "File", "Edit", and "Help". Underneath the menu bar is a toolbar with icons for "Quit" (a red power button), "OK" (a green checkmark), "Return" (a red X), "Zoom" (a magnifying glass), "Status" (a status icon), and "Help" (a question mark). The main area of the window is titled "Parent Details" and contains several input fields with labels to their left. The fields and their values are: "Component Item" with "12120", "Component Sequence" with "2", "Parent Item" with "C-USB", "Operation Where Used" (empty), "Quantity Per Unit" with "1.0000000", "Start Offset Days" with "0", "Effective Starting" (empty), "Effective Ending" (empty), "Parent Eng Change" (empty), "Issue Method" with "P", "Issue Type" with "T", "Print on Packet" with "Y", "User Field 1" (empty), "User Field 2" (empty), and "User Field 3" (empty). In the bottom right corner of the window, there is a small box containing the text "OVR" and a small icon.

The following fields are displayed:

Component Item— the component item code

Component Sequence – the component’s sequential value for this parent item

Parent Item – for the selected component, displays its immediate parent.

Operation Where Used – the parent item’s first routing step where this component is used.

Quantity per Unit – the component quantity needed to produce one unit of the immediate parent item.

Start Offset Days – The number of workdays after the parent item’s lead-time start that this component is needed. This offset can be used to generate a component requirement date that is some number of days after the start of a production order

Effective Starting – The date when this component should be used on its parent item bill of material. Leave this value blank if you do not wish to use component effective dates (Optional).

Effective Ending – The date after which this component will no longer be used on its parent item bill of material. Leave this value blank if you do not wish to use component effective date (Optional).

Parent Eng Change (Parent Engineering Change) – The parent engineering change number that added this component to the bill of material.

Issue Method – Indicates how this component should be issued from inventory when being used on a production order. The possible values are:

C – the component will be issued from stock with the Component Issue transaction. This is typical when the production process involves a relatively long lead-time (such as a week or more).

R – the component will be issued when the end item is received into inventory via the Production Receipt transaction. This is typical when the production process involves a short lead-time (such as less than one week).

O – the component will be issued from stock with the Issue by Operation transaction. Each component which has an 'Operation Used' equal to the Operation being issued will be issued from inventory.

N – the component will not be issued. This is typical of items that are sent to work in process in bulk, or for items that are needed in the production process, but are not stocked items (engineering drawings, tooling, etc).

Issue Type – the possible values are:

T – component is issued from inventory, and its associated cost per unit is used with the quantity to create a transaction for G/L.

C – component is not issued from inventory, but its cost per unit is used with the quantity to create a transaction for G/L.

Print on Packet – Y will print the component on the Production Packet document. N will not print the component on the Production Packet.

User Fields 1, 2 and 3 – enter optional additional information

ITEM AVAILABILITY INQUIRY

Use this menu option (option 3-e) to simulate the ability to satisfy a requirement for a manufactured item, for a given warehouse, quantity, and due date. You must select Find and enter an item number and select OK, or select OK to see all items with allocations.

The following screen will display:

| Level | Component | Description | On Hand | Allocated | On PO's | Available | Required | T | U/M | Shortage(*)/Recommendation |
|-------|-----------|-----------------|---------|-----------|---------|-----------|----------|---|-----|----------------------------------|
| 1 | C-USB | USB FLASH DRIVE | .000 | .000 | .000 | .000 | 162.000 | M | EA | * Create new orders/requisitions |

The header information displayed is:

Item – selected item number

Description – the selected item's description displays

Warehouse – the warehouse associated with this item's allocation

U/M – the stocking unit of measure for the component

Need Qty- the quantity of the parent item needed

Need Date- the date the parent quantity is needed by

Effective Date - Bill of Material component Effectivity Date

I/S – Enter ' I ' to display components for the Indented BOM and ' S ' to display components on Single Level of BOM.

On Hand - the current on hand balance for the parent in the warehouse selected

Make Qty - The difference between the Need Qty and the Available quantity.

Include Phantom - Enter Y or N to include requirements for phantom components

Available – Then sum of: On Hand – Allocated + On PO's

Available Date-

Short Only - Enter Y to display short components only or N to display all components

Fixed LT- Fixed lead-time for item

Variable LT – Variable lead-time for item

Review LT – Review lead-time for item

Please reference the Planning applications User Guides for further explanation of lead-times.

The detail information displayed is:

Level – relative level in the bill of material. If the entered 'I/S' value above is S, all components will display '1' here.

Component – the component item code

Description – the description of the component item

On Hand – the current on hand balance for the component in the Warehouse selected.

Allocated – the quantity allocated to open sales orders or production orders.

On PO's – the quantity on order for open purchase and production orders.

Available – Then sum of: On Hand – Allocated + On PO's

NOTE: The Allocated, On PO's, and Available are determined by the above-mentioned orders, where their due date or required date is on or before the 'Need Date'. Any orders whose applicable dates are beyond the 'Need Date' are ignored.

Required – The total quantity needed for the component to satisfy the 'Need Quantity' of the simulated item.

Type – Displays:

M – indicates the component item is normally manufactured

P – indicates the component item is normally purchased

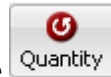
U/M – the stocking unit of measure for the component

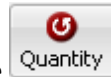
(*) – displays a '*' if the component's 'Required Qty' is less than the 'Available Qty'

Shortage(*)/Recommendations – displays:

Create new orders/requisitions – if short

CHECKING AVAILABILITY FOR A SPECIFIC ITEM



To check availability for a specific quantity select the  icon and enter the Need Qty. The following screen displays and you can enter the quantity needed of the parent item. Once entered, specific information is displayed for all the component items.

You can also move the cursor to a specific component, and click on one or more buttons to access more information, as described below.

ADDITIONAL DETAIL SCREEN



This screen displays when you click the **Add Detail** button from the main screen. It displays additional details for the current component

The screenshot shows a software window titled "View" with a menu bar (File, Edit, Help) and a toolbar. The main area contains the following fields and sections:


- Parent Item:** C-MAC
- Component Sequence:** 0004
- Component Item:** C-USB (with a sub-label "USB FLASH DRIVE")
- Oper Where Used:** (empty)
- Quantity Per Unit:** 2.000000
- Effective Dates:** (empty)
- Start Offset Days:** 0
- Production Lead Times:**
 - Review: 0.000000
 - Fixed: 3.000000
 - Variable: 0.000000
- Purchase Lead Times:**
 - Average: (empty)
 - Last: (empty)
 - Default: (empty)
- Planning Quantities:**
 - Standard Order: 0.000
 - Maximum: 1.000
 - Economic Order: 1.000
 - Multiple: 1.000
 - Minimum: 1.000
 - Safety: 0.000
- MRP Interval:** A
- Inv/Non-Inv:** S
- Phantom:** 0
- Order Policy:** 1
- Days Supply:** 0
- Planner:** (empty)
- Vendor:** 123457
- Buyer:** (empty)

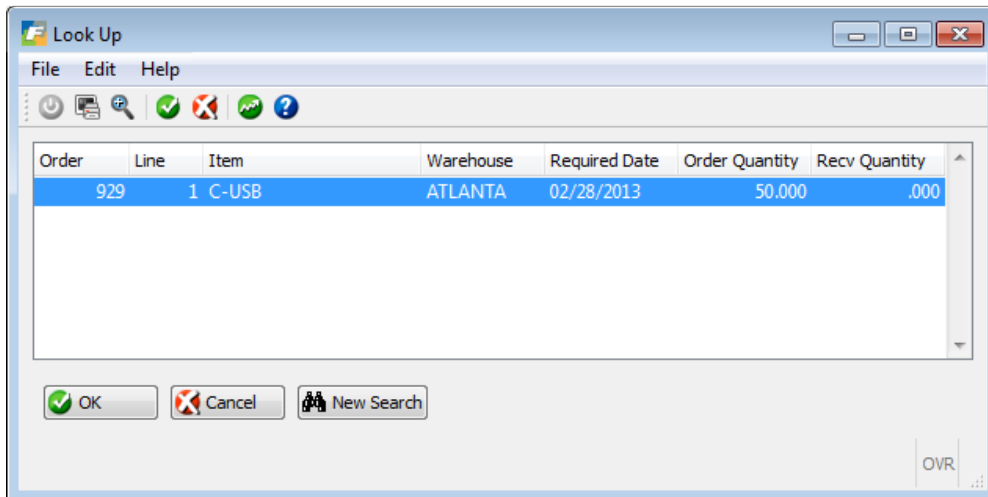
At the bottom, there is a toolbar with buttons: Quit, Hot keys, ac_udf, ac_nav, Header/Detail, ac_notes, ac_atth, ac_todo, About Application Program, About, ac_featu, ac_font, ac_colors, ac_undo, ac_redo. A "Return to the main menu" link is at the bottom left, and an "OVR" button is at the bottom right.

Fields on this display have already been described in other sections of this manual

RECEIPTS




This screen displays when you click the  button from the main screen. It displays a list of open purchase orders for the current component:

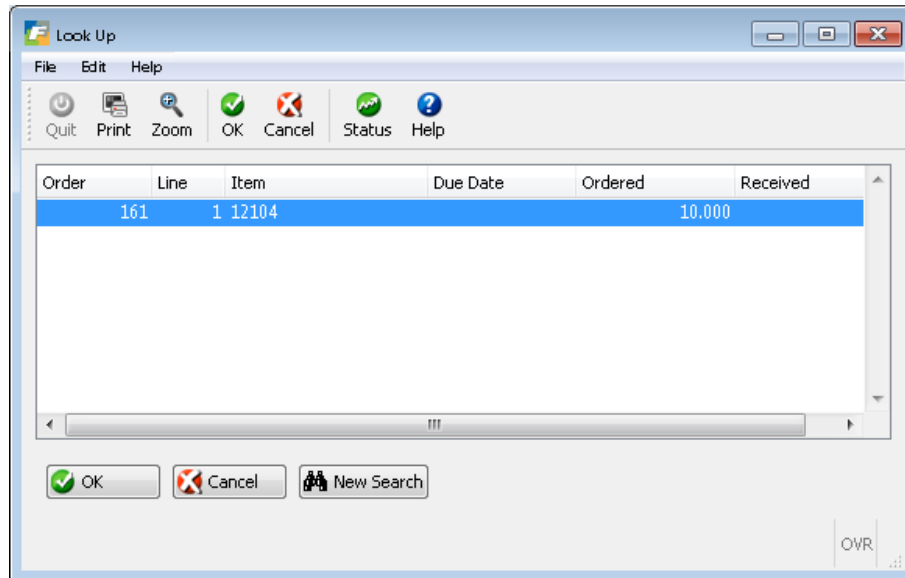


The following fields are displayed:

- Order** – The purchase order's document number
- Line** – The item's line number on the purchase order
- Item** – The component item number on the order
- Warehouse** – The warehouse for the purchase order
- Required Date** – The date the line item is needed to be in inventory
- Order Quantity** – The item's quantity on the purchase order
- Recv Quantity (Received Quantity)** – The quantity already received on the order.

REQUISITIONS SCREEN

This screen displays when you click the  button from the main screen. It displays a list of open purchase requisitions for the current component:




The following fields are displayed:

- Order** – The purchase requisitions's document number
- Line** – The item's line number on the requisition
- Item** – The component item number on the requisition
- Warehouse** – The warehouse for the requisition
- Due Date** – The date the line item is needed to be in inventory
- Ordered** – The item's quantity on the requisition

PRODUCTION RECEIPTS SCREEN



This screen displays when you click the  button from the main screen. It displays a list of open production orders for the current component:

 A screenshot of a software window titled "Look Up". The window has a menu bar with "File", "Edit", and "Help". Below the menu bar is a toolbar with icons for "Quit", "Print", "Zoom", "OK", "Cancel", "Status", and "Help". The main area of the window contains a table with the following data:

| Order | Lot | Item | Warehouse | Due Date | Order Quantity | Open Quantity |
|-------|-----|-------------------|-----------|------------|----------------|---------------|
| 446 | 000 | C-MAC | MIAMI | 07/25/2012 | 1.000 | 1.000 |
| 447 | 000 | C-MAC | MIAMI | 08/01/2012 | 2.000 | 2.000 |
| 448 | 000 | XLT2000 | WICHITA | 08/14/2012 | 1.000 | 1.000 |
| 449 | 000 | 12104 | SEATTLE | 08/23/2012 | 1.000 | 1.000 |
| 450 | 000 | INSTALL | SEATTLE | 08/23/2012 | 1.000 | 1.000 |
| 451 | 000 | INSTALL | SEATTLE | 08/23/2012 | 1.000 | 1.000 |
| 452 | 000 | INSTALL | SEATTLE | 08/23/2012 | 1.000 | 1.000 |
| 456 | 000 | 12104 | SEATTLE | 08/30/2012 | 1.000 | 1.000 |
| 457 | 000 | C-MAC | SEATTLE | 09/21/2012 | 1.000 | 0.000 |
| 459 | 000 | C-MAC | SEATTLE | 09/24/2012 | 1.000 | 1.000 |
| 458 | 000 | C-MAC | SEATTLE | 09/24/2012 | 1.000 | 0.000 |
| 460 | 000 | C-MAC | SEATTLE | 09/25/2012 | 1.000 | 0.000 |
| 465 | 000 | 100100 | HOLLAND | 10/09/2012 | 10.000 | 10.000 |
| 466 | 000 | SB-HERITAGE 227BB | MAIN | 10/09/2012 | 1.000 | 1.000 |

 At the bottom of the window, there are three buttons: "OK", "Cancel", and "New Search". In the bottom right corner, there is a label "OVR" and a small icon.

The following fields are displayed:

Order – The production order number

Lot – The production order's lot number

Item – The item being produced

Warehouse – The warehouse for the production order

Due Date – The date the production order is due to be completed

Order Quantity – The item's quantity on the production order

Recvd Quantity (Received Quantity) – The quantity already received on the order.

PRODUCTION ALLOCATIONS SCREEN



This screen displays when you click the **Prod Alloc** button from the main screen. It displays a list of open production orders that have an open requirement for the current component.

| Order | Lot | Component | Required Date | Quantity |
|-------|-----|--------------|---------------|----------|
| 396 | 000 | 030336-COMP | 03/29/2012 | 1.000 |
| 397 | 000 | 030336-COMP | 03/29/2012 | 2.000 |
| 378 | 000 | 1001 | 02/03/2012 | 660.000 |
| 465 | 000 | 100180 | 10/09/2012 | 10.000 |
| 378 | 000 | 1002 | 02/03/2012 | 660.000 |
| 378 | 000 | 1003 | 02/03/2012 | 10.313 |
| 465 | 000 | 100306-29 | 10/09/2012 | 10.000 |
| 465 | 000 | 100306-38 | 10/09/2012 | 10.000 |
| 465 | 000 | 100397-168 | 10/09/2012 | 10.000 |
| 378 | 000 | 1004 | 02/03/2012 | 10.313 |
| 378 | 000 | 1005 | 02/03/2012 | 6.188 |
| 378 | 000 | 1006 | 02/03/2012 | 10.313 |
| 465 | 000 | 100678-03-AL | 10/09/2012 | 40.000 |
| 465 | 000 | 100690-29 | 10/09/2012 | 10.000 |

The following fields are displayed:

Order – The production order number

Lot – The production order's lot number

Item – The component on the order

Warehouse - The warehouse for the order

Due Date – The date the component is due on the production order

Order Quantity – The item's required quantity on the production order

Open Quantity – The open quantity of the specific production order

SALES ALLOCATIONS SCREEN



This screen displays when you click the **Sales Alloc** button from the main screen. It displays a list of open sales orders that have an open requirement for the current component.

| Order | Line | Item | Warehouse | Required | Allocated |
|-------|------|----------------|-----------|----------|-----------|
| 3287 | 1 | 030336-003 | MIAMI | | 0.00 |
| 3286 | 1 | 030336-003 | MIAMI | | 1.00 |
| 719 | 1 | 030336-003 | MIAMI | | 1.00 |
| 3300 | 1 | 04102012 | ATLANTA | | 9.00 |
| 3299 | 1 | 04102012 | ATLANTA | | 1.00 |
| 3301 | 1 | 04102012 | ATLANTA | | 25.00 |
| 3301 | 1 | 04102012 | ATLANTA | | 5.00 |
| 3300 | 1 | 04102012 | ATLANTA | | 1.00 |
| 3303 | 1 | 04102012A | ATLANTA | | 5.00 |
| 3302 | 1 | 04102012A | ATLANTA | | 0.00 |
| 3305 | 1 | 04112012 | ATLANTA | | 10.00 |
| 3307 | 1 | 04112012 | ATLANTA | | 10.00 |
| 3306 | 1 | 04112012 | ATLANTA | | 0.00 |
| 2741 | 1 | 075-1312/312TB | ATLANTA | | 0.00 |

The following fields are displayed:

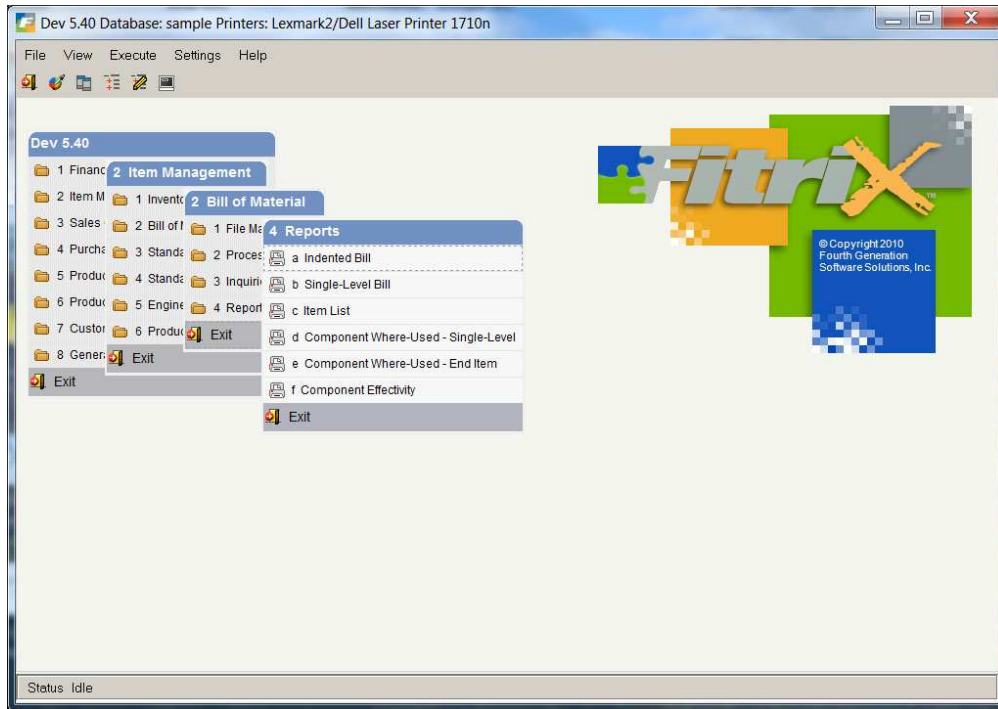
- Order** – The sales order document number
- Line** – The sales order line number for the item
- Item** – The item on the order
- Warehouse** – The warehouse for the sales order
- Required Date** – The projected ship date for the sales order
- Allocated** – The quantity of the item allocated to the sales order

CHAPTER 6: REPORTS

This chapter contains reference information about the different menu options on the Reports menu (option 4), and the screens and fields associated with these options. The information is organized by menu option.

REPORTS MENU

Use the options on this menu to review reports related to bills of material



This menu contains the following options:

Indented Bill - Use this option to print an indented bill of material list for one or more items

Single-Level Bill - Use this option to print a single level bill of material list for one or more items

Item List - Use this option to print the manufacturing-related fields for one or more items

Component Where-Used – Single-Level- Use this option to print a list of component usages for one or more items

Component Where-Used – End item - Use this option to print a list of top-level items using specific component items

Component Effectivity - Use this option to print a list of components with effectivity dates defined

INDENTED BILL

This menu option (4-a) prints an indented bill of material list for one or more items.

When you select this menu option, you must first indicate the destination of the report on the 'Select Printer' window.

The following screen is displayed:

Indented Bill of Material Report

From Item: (leave blank for all)

To Item: (leave blank for all)

Bill: (leave blank for default bill)

Effective Date: (leave blank for all components)

OK Cancel

Enter the starting item, or leave blank to start at beginning

OVR

Enter report selection information in the following fields:

From Item – Enter the low range of items to print, or leave blank to start at the beginning of the items table

To Item – Enter the high range of items to print, or leave blank to print to the end of the items table.

Bill – Enter the Bill of Material code for the desired bill, or leave blank for all bills of material

Effective Date – Enter an effective date to include/exclude components that have effective dates outside this date

Click OK to process the report, or Cancel to cancel the request

An example of the report follows:

| | | | | | | | | | | |
|---------------------------|------|--------------------------------|----------------|--------------------------|-----|------------|-------------------|-------------|-----------------------|-----|
| 11/15/2012 15:11:22 | | ABC DISTRIBUTION | | | | Page: 4 | | | | |
| User: Kathyh | | Bill of Material - Indented | | | | Pgm: Bm404 | | | | |
| ----- | | | | | | | | | | |
| Parent Item: 10000 | | Description: PERSONAL COMPUTER | | | | | | | | |
| ----- | | | | | | | | | | |
| Level | Bill | Sequence | Component Item | Description | M/P | First Oper | Quantity Per Unit | Offset Days | Effective Dates Start | End |
| ----- | | | | | | | | | | |
| 1 | MFG | 0001 | C-DISK | HARD DRIVE | P | | 1.0000000 | 0 | | |
| 1 | MFG | 0002 | C-KEY | KEYBOARD | P | | 1.0000000 | 0 | | |
| 1 | MFG | 0003 | C-MOUSE | MOUSE | P | | 1.0000000 | 0 | | |
| 1 | MFG | 0004 | C-USB | USB FLASH DRIVE | M | | 2.0000000 | 0 | | |
| ..2 | MFG | 1 | 12104 | SCM A SERIES MULSTRIKE | P | | 2.0000000 | 0 | | |
| ..3 | MFG | 0001 | 12112 | SCM A SERIES CVR-UP TAPE | P | | 2.0000000 | 0 | | |
| ..2 | MFG | 2 | 12120 | SCM A SERIES LIFT-OFF | M | | 2.0000000 | 0 | | |
| ..3 | MFG | 0001 | 12195 | SCM A SERIES NYLON | P | | 2.0000000 | 0 | | |
| 1 | MFG | 0005 | C-USBCA | USB CABLE | P | | 1.0000000 | 0 | | |
| 1 | MFG | 0006 | C-MON | 24" MONITOR | P | | 1.0000000 | 0 | | |
| ----- | | | | | | | | | | |
| Total Indented Components | | | 10 | | | | | | | |

SINGLE-LEVEL BILL

This menu option (4-b) prints a single-level bill of material list for one or more items.

When you select this menu option, you must first indicate the destination of the report on the 'Select Printer' window.

The following screen is displayed:

Enter report selection information in the following fields:

From Item – Enter the low range of items to print, or leave blank to start at the beginning of the items table

To Item – Enter the high range of items to print, or leave blank to print to the end of the items table.

Bill – Enter the Bill of Material code for the desired bill, or leave blank for all bills of material

Effective Date – Enter an effective date to include/exclude components that have effective dates outside this date

Click OK to process the report, or Cancel to cancel the request

An example of the report follows:

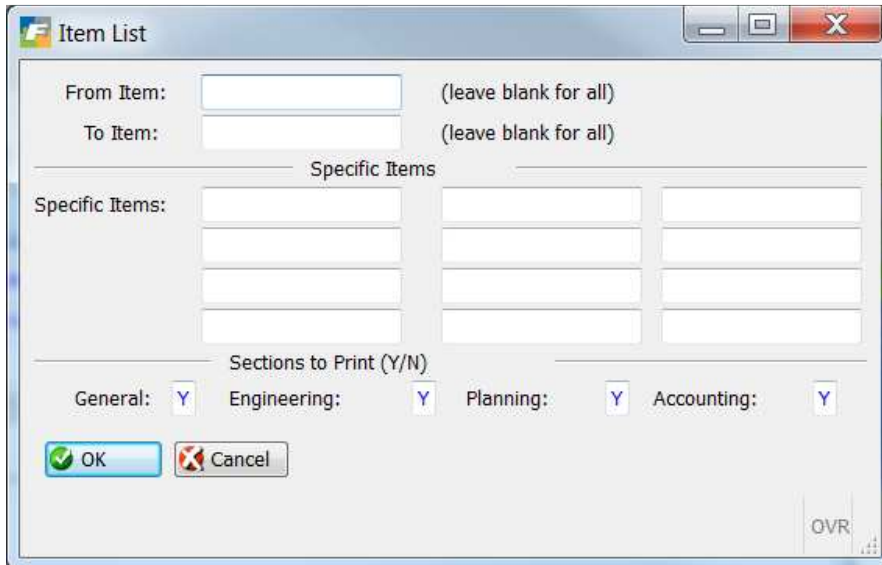
| 11/15/2012 15:09:57 | | ABC DISTRIBUTION | | | | Page: 4 | |
|---------------------|----------|---------------------------------|-----------------|----------------|-------------------|-------------|---------------------------|
| User: kathyh | | Bill of Material - Single Level | | | | Pgm: bm406 | |
| Parent Item: 10000 | | Description: PERSONAL COMPUTER | | | | | |
| Bill | Sequence | Component Item | Description | First M/P Oper | Quantity Per Unit | Offset Days | Effective Dates Start End |
| MFG | 0001 | C-DISK | HARD DRIVE | P | 1.00000000 | 0 | |
| MFG | 0002 | C-KEY | KEYBOARD | P | 1.00000000 | 0 | |
| MFG | 0003 | C-MOUSE | MOUSE | P | 1.00000000 | 0 | |
| MFG | 0004 | C-USB | USB FLASH DRIVE | M | 2.00000000 | 0 | |
| MFG | 0005 | C-USBCA | USB CABLE | P | 1.00000000 | 0 | |
| MFG | 0006 | C-MON | 24" MONITOR | P | 1.00000000 | 0 | |
| Total Components | | 6 | | | | | |

ITEM LIST

This menu option (4-c) prints the manufacturing-related fields for one or more items.

When you select this menu option, you must first indicate the destination of the report on the 'Select Printer' window.

The following screen is displayed:



Enter report selection information in the following fields:

From Item – Enter the low range of items to print, or leave blank to start at the beginning of the items table

To Item – Enter the high range of items to print, or leave blank to print to the end of the items table.

Specific Items – Enter one or more specific items to print

Sectons to Print – Select one or more specific groups of related fields to print on the report

General – print general information, applicable to all ares

Engineering – print engineering related fields

Planning – print planning-related fields

Accounting – print accounting-related fields

Click OK to process the report, or Cancel to cancel the request

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An example of the report follows:

11/15/2012 15:13:08

User: kathyh

ABC DISTRIBUTION

Item List

Page: 6

Pgm: bm408

Item Code 10000

Description PERSONAL COMPUTER

--- General Information ---

Manufacture/Purchase P

Stock UOM EA

Group

Production Type S

Product

Commodity

Unit Weight

Phantom (1=yes,2=no) 0

Comp Issue Method CUR

--- Engineering Information ---

Revision Level

Engineering Drawing

Low Level Code

Eng Change Number

Engineering Change Date

Last Routing Change

Last BOM Change

--- Planning Information ---

Planner

MRP Interval Code

MRP Order Policy 1

Minimum Order Qty 0.000

Multiple Order Qty 0.000

Planned Shrinkage 0.00

Number of Days Supply 0

Economic Order Quantity 1.000

Maximum Order Quantity 0.000

Safety Stock 0.000

Production Lead Times

Review 0.000000

Fixed 0.000000

Variable 0.000000

--- Cost Information ---

Cur Std Order Qty 1.000

Date Last Cost Roll

Costing Method CUR

Standard Cost

Item Code 10000000

Description WINDOW ASSEMBLY

LN:8.000 WD:4.000 HG:8.0001

--- General Information ---

Manufacture/Purchase M

Stock UOM EA

Group

Production Type S

Product WND

Commodity 6061-T43

Unit Weight 2.500

Phantom (1=yes,2=no) 1

Comp Issue Method ROL

--- Engineering Information ---

Revision Level 02

Engineering Drawing AX-100000

Low Level Code 0

Eng Change Number

Engineering Change Date

Last Routing Change

Last BOM Change

--- Planning Information ---

Planner JDH

MRP Interval Code A

MRP Order Policy 1

Minimum Order Qty 1.000

Multiple Order Qty 1.000

Planned Shrinkage 0.00

Number of Days Supply 0

Economic Order Quantity 1.000

Maximum Order Quantity 1.000

Safety Stock 0.000

Production Lead Times

Review 0.000000

Fixed 0.000000

Variable 0.000000

--- Cost Information ---

Cur Std Order Qty 2.000

Date Last Cost Roll

Costing Method ROL

Standard Cost

COMPONENT WHERE-USED - SINGLE-LEVEL

This menu option (4-d) prints a list of component usages for one or more items

When you select this menu option, you must first indicate the destination of the report on the 'Select Printer' window.

The following screen is displayed:

Component Where-Used - Single Level Report

From Item: (leave blank for all)

To Item: (leave blank for all)

Effective Date: (leave blank for all components)

Enter the starting item, or leave blank to start at beginning

OVR

Enter report selection information in the following fields:

From Item – Enter the low range of items to print, or leave blank to start at the beginning of the items table

To Item – Enter the high range of items to print, or leave blank to print to the end of the items table.

Effective Date – Enter an effective date to include/exclude components that have effective dates outside this date

Click OK to process the report, or Cancel to cancel the request

An example of the report follows:

| | | | | | | | | | |
|-----------------------|-------------------------------------|------------|----------|-----|------------|-------------------|-------------|-----------------------|-----|
| 11/15/2012 15:16:15 | ABC DISTRIBUTION | Page: 47 | | | | | | | |
| User: kathyh | Component Where-Used - Single Level | Pgm: bm410 | | | | | | | |
| ===== | | | | | | | | | |
| Component Item: 12120 | Description: SCM A SERIES LIPT-OFF | | | | | | | | |
| ===== | | | | | | | | | |
| Parent Item | Description | Bill | Sequence | M/P | First Oper | Quantity Per Unit | Offset Days | Effective Dates Start | End |
| ----- | | | | | | | | | |
| C-USB | USB PLASH DRIVE | MFG | 2 | | M | 1.0000000 | 0 | | |
| Total Parents 1 | | | | | | | | | |

COMPONENT WHERE-USED - END ITEM

This menu option (4-e) prints a list of top-level items using specific component items

When you select this menu option, you must first indicate the destination of the report on the 'Select Printer' window.

The following screen is displayed:

Enter report selection information in the following fields:

From Item – Enter the low range of items to print, or leave blank to start at the beginning of the items table

Bill of Material User Guide

To Item – Enter the high range of items to print, or leave blank to print to the end of the items table.

Click OK to process the report, or Cancel to cancel the request

An example of the report follows:

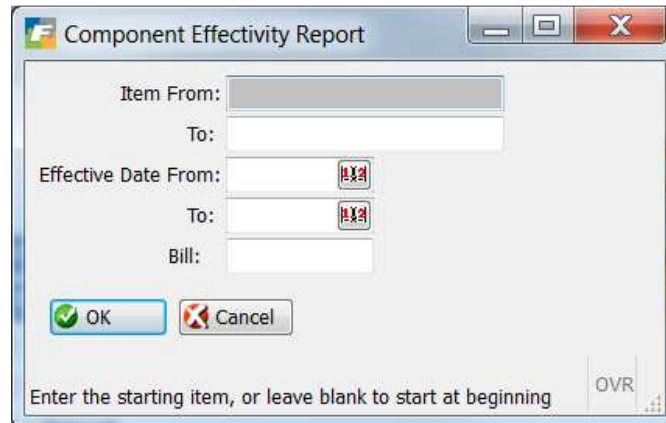
| | | | | | | | |
|--------------------------------|------------|--|--------------|-----|--------------------|------------|--|
| 11/15/2012 15:18:32 | | ABC DISTRIBUTION | | | | Page: 2 | |
| User: kathyh | | Component Where-Used - End Item | | | | Pgm: bm412 | |
| ----- | | | | | | | |
| Component Item: | | 1244 | Description: | | | | |
| ----- | | | | | | | |
| Lowest Level | End Item | Description | Bill | M/P | Total Qty per Unit | Usages | |
| ----- | | | | | | | |
| Total Usages | | 0 | | | | | |
| Component Item: 030336-003 | | Description: TEST FOR MULTIPLE PROD ORDERS | | | | | |
| Lowest Level | End Item | Description | Bill | M/P | Total Qty per Unit | Usages | |
| ----- | | | | | | | |
| Total Usages | | 0 | | | | | |
| Component Item: 030336-COMP | | Description: TEST FOR MULTI-PROD ORDERS | | | | | |
| Lowest Level | End Item | Description | Bill | M/P | Total Qty per Unit | Usages | |
| ----- | | | | | | | |
| 1 | 030336-003 | TEST FOR MULTIPLE PROD ORDERS | MFG | | 1.0000000 | 1 | |
| Total Usages | | 1 | | | | | |
| Component Item: 04102012 | | Description: NEW ITEM | | | | | |
| Lowest Level | End Item | Description | Bill | M/P | Total Qty per Unit | Usages | |
| ----- | | | | | | | |
| Total Usages | | 0 | | | | | |
| Component Item: 04102012A | | Description: BKO TEST | | | | | |
| Lowest Level | End Item | Description | Bill | M/P | Total Qty per Unit | Usages | |
| ----- | | | | | | | |
| Total Usages | | 0 | | | | | |
| Component Item: 04112012 | | Description: BKO TESTING | | | | | |
| Lowest Level | End Item | Description | Bill | M/P | Total Qty per Unit | Usages | |
| ----- | | | | | | | |
| Total Usages | | 0 | | | | | |
| Component Item: 075-1312/312TB | | Description: SEAL, P/S PUMP FRONT SEAL | | | | | |
| Lowest Level | End Item | Description | Bill | M/P | Total Qty per Unit | Usages | |
| ----- | | | | | | | |
| 1 | EAC-3167/R | PUMP,\R P/S (METRIC) | MFG | | 1.0000000 | 1 | |
| Total Usages | | 1 | | | | | |

COMPONENT EFFECTIVITY

This menu option (4-f) prints a a list of components with effectivity dates defined

When you select this menu option, you must first indicate the destination of the report on the 'Select Printer' window.

The following screen is displayed:



Enter report selection information in the following fields:

Item From – Enter the low range of items to print, or leave blank to start at the beginning of the items table

To (Item) – Enter the high range of items to print, or leave blank to print to the end of the items table.

Effective Date From– Enter the low range of effective dates to include/exclude components.

To (Effective Date)- Enter an effective date to include/exclude components that have effective dates outside this date

NOTE: For a component to be included on this report, it must have an Effective From Date which is in between the two entered dates, OR and Effective To date that is in between the two entered dates.

Click OK to process the report, or Cancel to cancel the request

An example of the report follows:

Bill of Material User Guide

11/15/2012 15:21:02

User: Kathyh

ABC DISTRIBUTION

Component Effectivity Report

Page: 4

Pgm: hm414

Parent Item: 10000

Description: PERSONAL COMPUTER

| Bill | Sequence | Component Item | Description | M/P | First Oper | Quantity Per Unit | Offset Days | Effective Dates | |
|------------------|----------|----------------|-----------------|-----|------------|-------------------|-------------|-----------------|-----|
| | | | | | | | | Start | End |
| MFG | 0001 | C-DISK | HARD DRIVE | P | | 1.0000000 | 0 | | |
| MFG | 0002 | C-KEY | KEYBOARD | P | | 1.0000000 | 0 | | |
| MFG | 0003 | C-MOUSE | MOUSE | P | | 1.0000000 | 0 | | |
| MFG | 0004 | C-USB | USB FLASH DRIVE | M | | 2.0000000 | 0 | | |
| MFG | 0005 | C-USBCA | USB CABLE | P | | 1.0000000 | 0 | | |
| MFG | 0006 | C-MON | 24" MONITOR | P | | 1.0000000 | 0 | | |
| Total Components | | 6 | | | | | | | |

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