FOURTH GENERATION SOFTWARE SOLUTIONS

Fitrix™ Bill of Material ◆ User Guide

Version 5.30

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Fourth Generation Software Solutions
700 Galleria Parkway, Suite 480
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 meant to give you a general picture of what the module can do and how it is used. The sections that address this are as follows:

- General description of the Fitrix Bill of Material system
- Features of Fitrix Bill of Material
- Overview of Bill of Material

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 which are purchased, is known as a muli-level (or indented) bill of material. The Bill of Material module is used to define these

relationships. The information defined here is used by multiple Fitrix modules to plan and produce items.

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

- Standard routings are entered for items already defined in the item table.
- Components in a bill of material can be linked to standard routing steps through the operation-where-used feature.

Standard Costing Integration

- Cost elements for items (material, labor, overhead) are calculated and placed in the item table.
- Single-level and indented bills of material are used during the cost rollup.
- Standard costs in the item table can be transferred to create other costs (i.e. historical or simulated) in Standard Costing.

Material Planning Integration

- Planning information in the item table (order policy, standard quantity, days supply, lead times) is used to calculate planned order quantities and due dates.

- Bills of material are analyzed to determine requirements for components of a planned item.

Inventory Control Integration

- Inventory balances are tracked for each item in the item table, as well as for each warehouse in which an item is stocked.
- Any inventory movement recorded in Inventory Control updates on-hand balances in the item table.

Production Order Processing Integration

- Standard bills of material are used when entering production orders. The bill of material is copied to create a 'soft bill' for each production order.
- Reporting of component usage and production receipts updates balances in the item table.

Sales Order Integration

- Orders for assemble-to-order items use the standard bill of material for picking.

Overview

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 Chapter 2, Company Setup, in this manual.

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 (option 7), 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 Production Orders/File Maintenance menu, to enter reference information which 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 each of the items in the Inventory Information table. These substitutions can then be accessed in other modules, whenever an issue is encountered with availability, obsolescence, damage, etc.

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 use as a component in ANY bill of material is assigned a low level code of 0. These codes are used by the MRP Generation in Material Planning, and the Cost Rollup in Standard Costing.
- **CMLT Calculator** (2-2-2-b) – Each item which 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 produced the item itself
    - 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

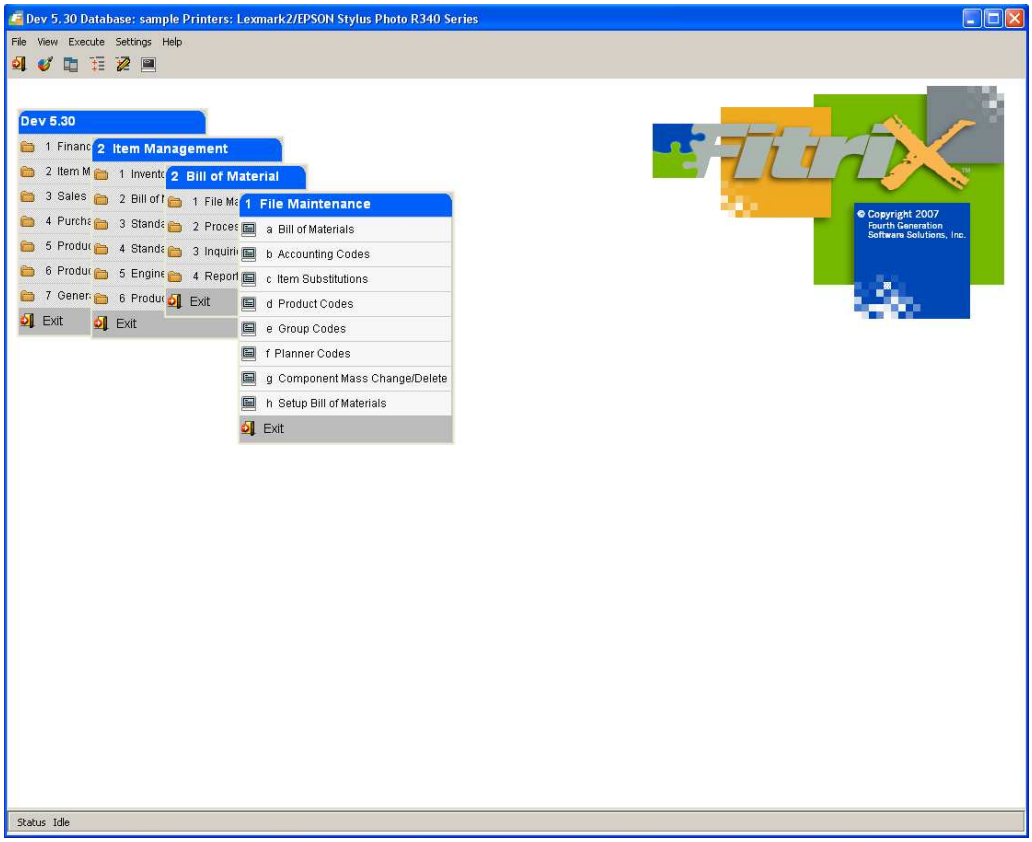
2

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 (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.

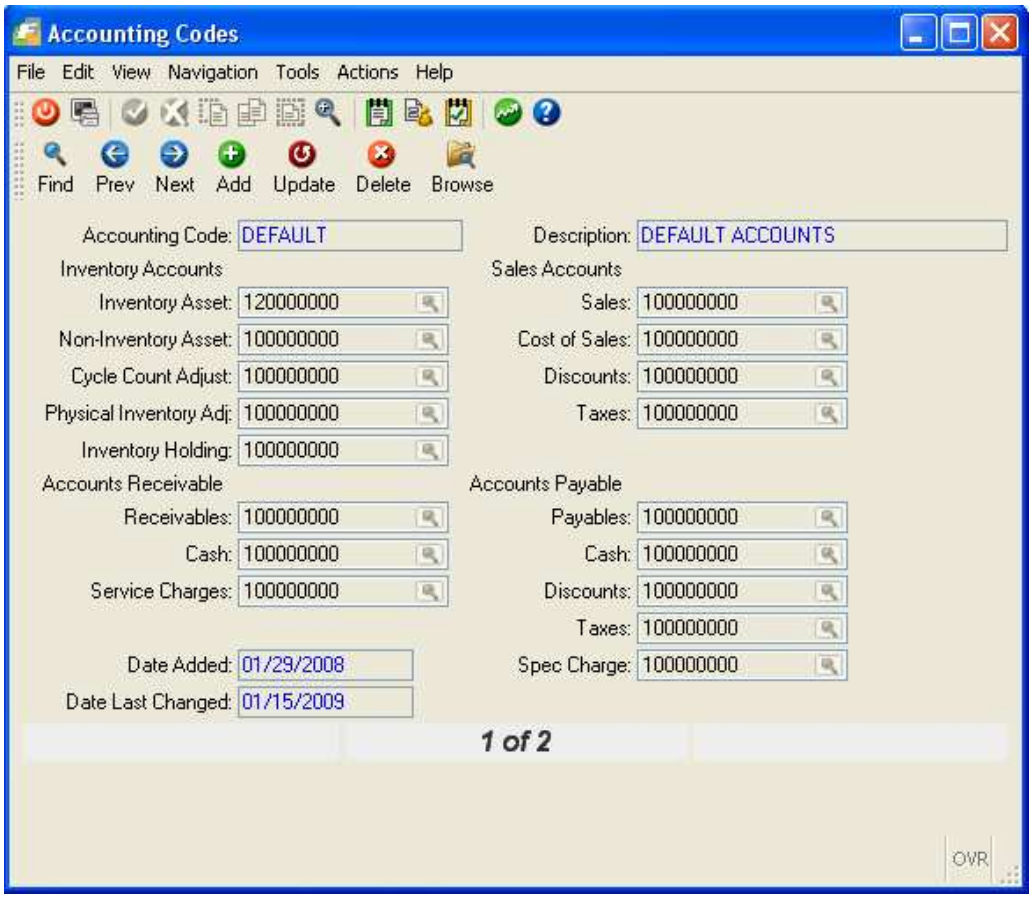
    - **C** – Issue components with the Component Issue transaction.

- **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. 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.

The following screen is displayed:

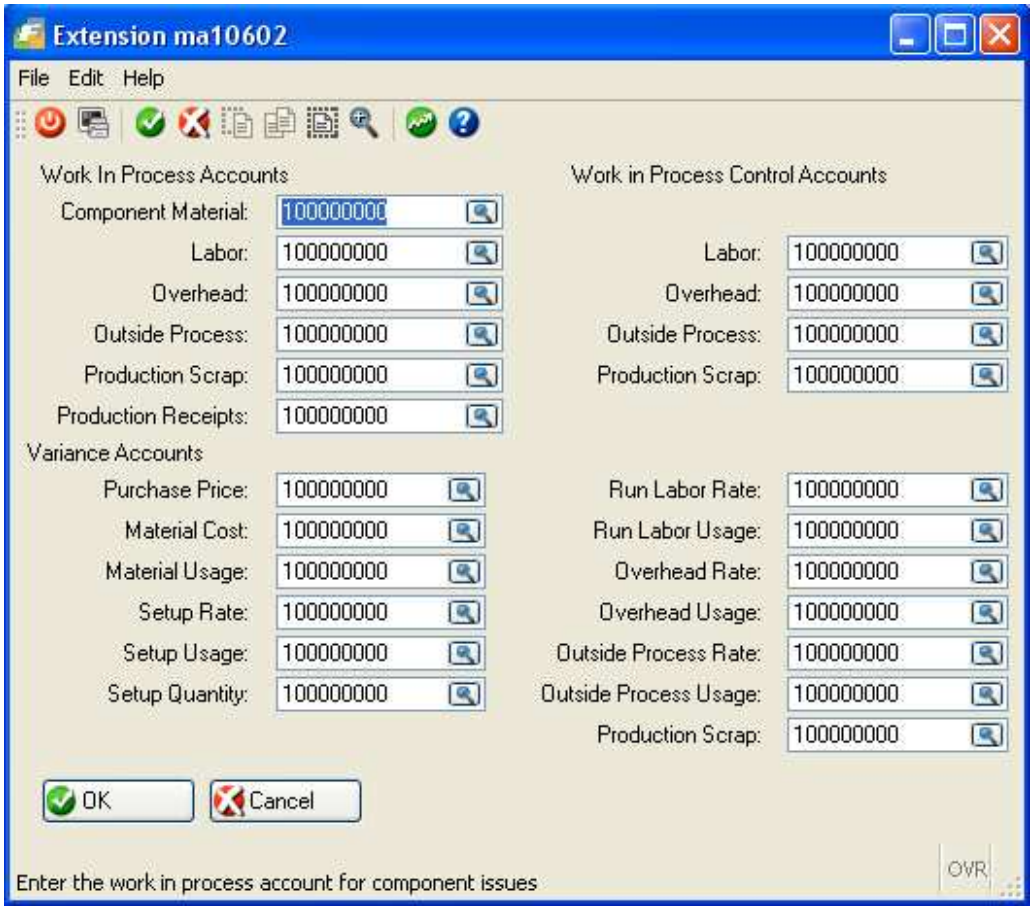


The Accounting Codes screen contains the following fields:

- **Accounting Code** – Enter a unique identifier
- **Description** - You enter a description of this accounting code (up to 30 characters) in this field.
- **Inventory Accounts** – These accounts are reserved for future use
- **Sales Accounts** – These accounts are reserved for future use

- **Accounts Receivable** – These accounts are reserved for future use
- **Accounts Payable** – These accounts are reserved for future use
- **Add Date** – The system will automatically record the date this row was added.
- **Change Date** –The system will automatically record the date this row was last changed.

Click OK to advance to the next screen:



This screen includes the following fields:

- **Work in Process Accounts** – These accounts are used when posting inventory transactions from Production Order Processing
    - **Component Material** – this account will be debited when a Component Issue transactions is posted (CI).
    - **Labor** – this field is reserved for future use

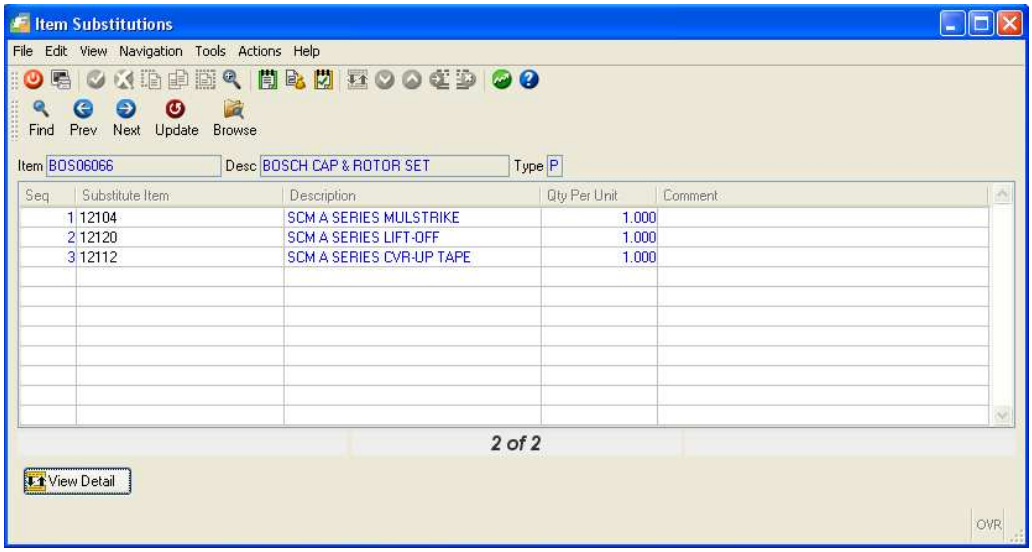
- **Overhead** – this field is reserved for future use
- **Outside Process** – this field is reserved for future use
- **Production Scrap** – this field is reserved for future use
- **Production Receipts** – this account will be credited when a Production Receipt transaction is posted (PR).

- **Work in Process Control Accounts** – these fields are reserved for future use
- **Variance Accounts** – these fields are reserved for future use

Item Substitutions

This menu option is used to setup and maintain items which 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 used in its place.

The following screen is displayed:



The following fields are available:

- **Item** – enter the item code for which substitutes will be added
- **Desc (Description)** – the description for the item
- **Type** – M for manufactured, P for purchased
- **Substitute Items** – enter one or more substitute items
    - **Seq (Sequence)** – the sequence ni which the substitute should be displayed
    - **Substitute Item** – The item code for the substituting item
    - **Description** – the desctription for the substituting item
    - **Qty Per Unit (Quantity per Unit)** – when this substitute is used, enter the relationship between ist quantity and the base item
    - **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 in the Update Inventory Information. When a product code is selected in Update Inventory Information, it is validated against this table.

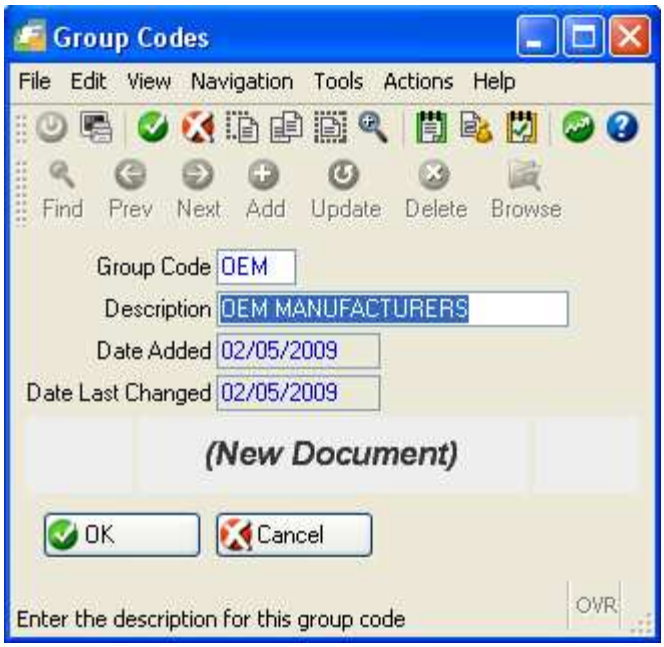
The following screen displays:

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

The following screen displays:

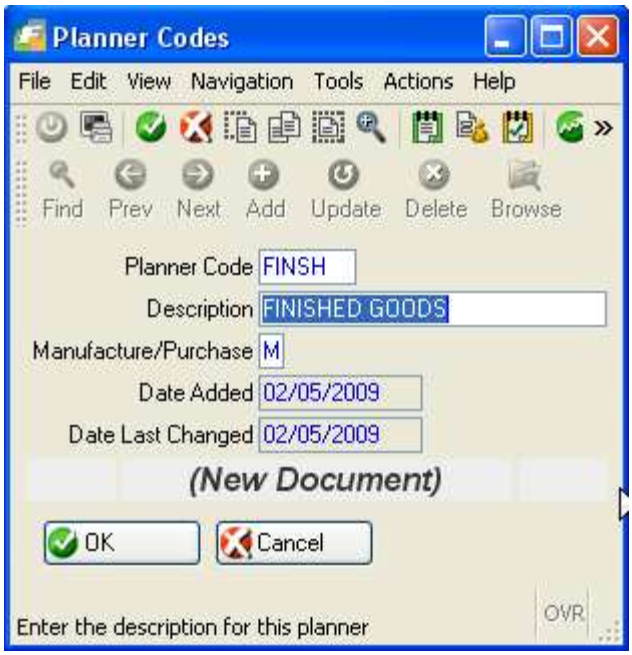


- **Group Code** – Enter a unique identifier, up to 3 characters
- **Description** – Enter descriptive text for the reason code.
- **Date Added**– The system will automatically record the date this row was added.
- **Date Last Changed** –The system will automatically record the date this row was last changed.

Planner Codes

Planner codes allow you to enter and maintain a property and description that can be assigned to items in the Update Inventory Information. When a planner code is selected in Update Inventory Information, it is validated against this table.

The following screen displays:



- **Planner Code** – Enter a unique identifier, up to 5 characters
- **Description** – Enter descriptive text for the reason code.
- **Manufacture/Purchase** – Enter M is 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 where-used (option 1-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.

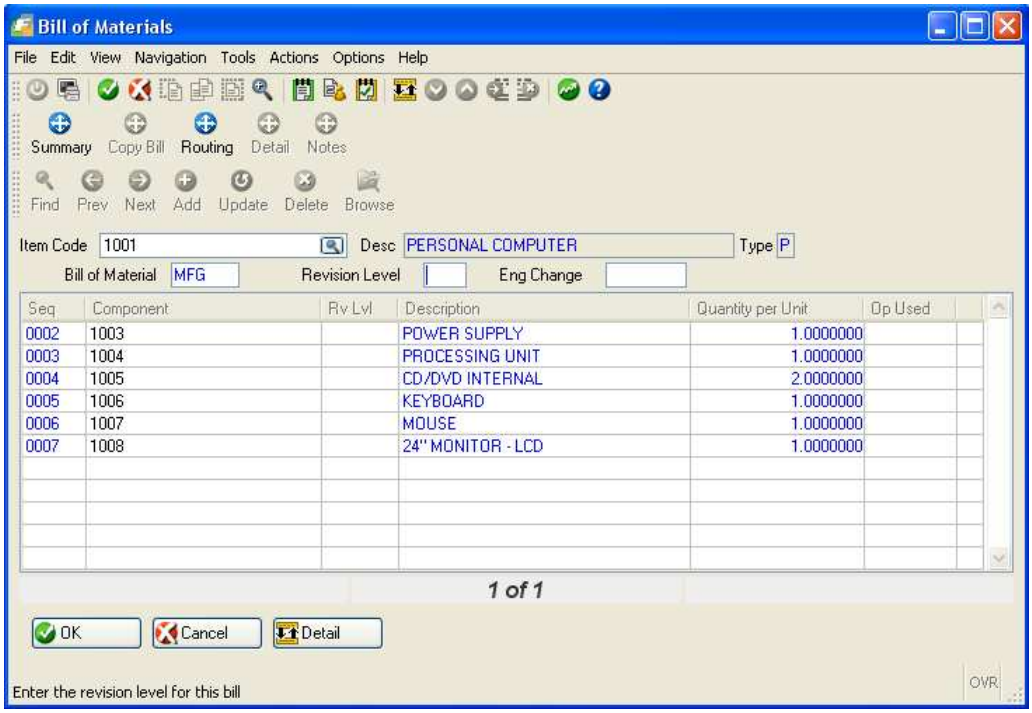
Bill of Material Maintenance

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

- Bill of Material Summary
- Summary Additional Detail
- Component Additional Detail

Bill of Materials – Summary screen

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



The following fields are available:

- **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 automatically, M for manufactured, P for purchased.
- **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, 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

- **Seq (Sequence)** – Enter a sequential value for this 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 at which is is used.
- **Component** – Enter an item code for the component. Zoom for a list of valid item codes.

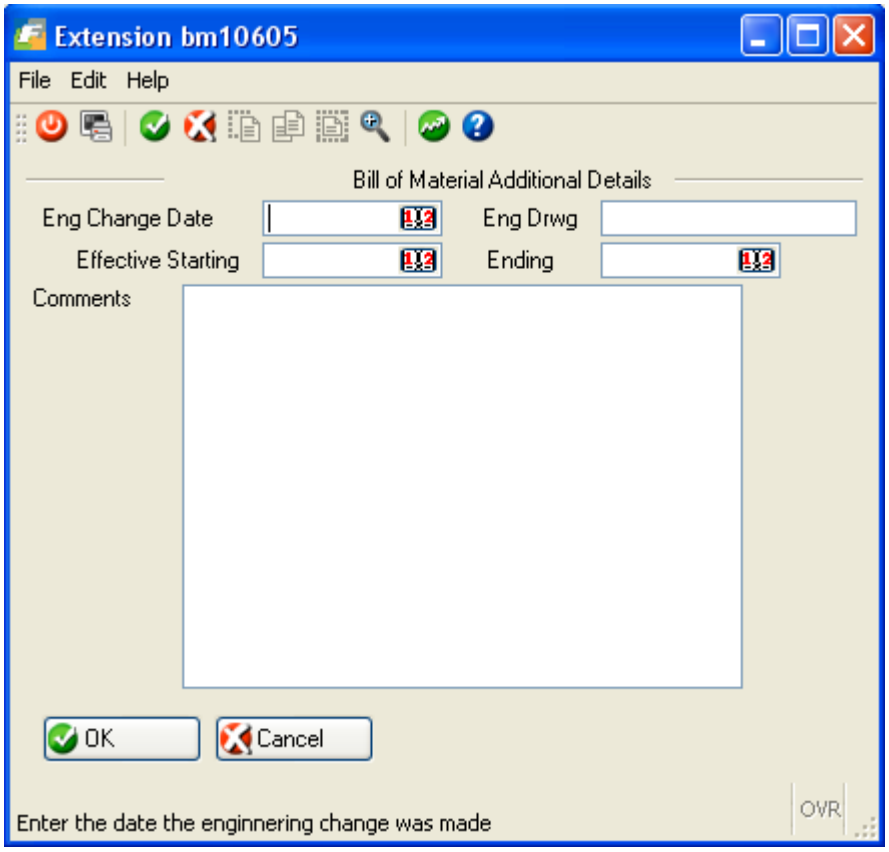
NOTE 1: You cannot enter a component item code which is the same as the parent item code. If it is, an error message will display.

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.

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

Summary Additional Detail screen

This screen displays when you click the Summary button



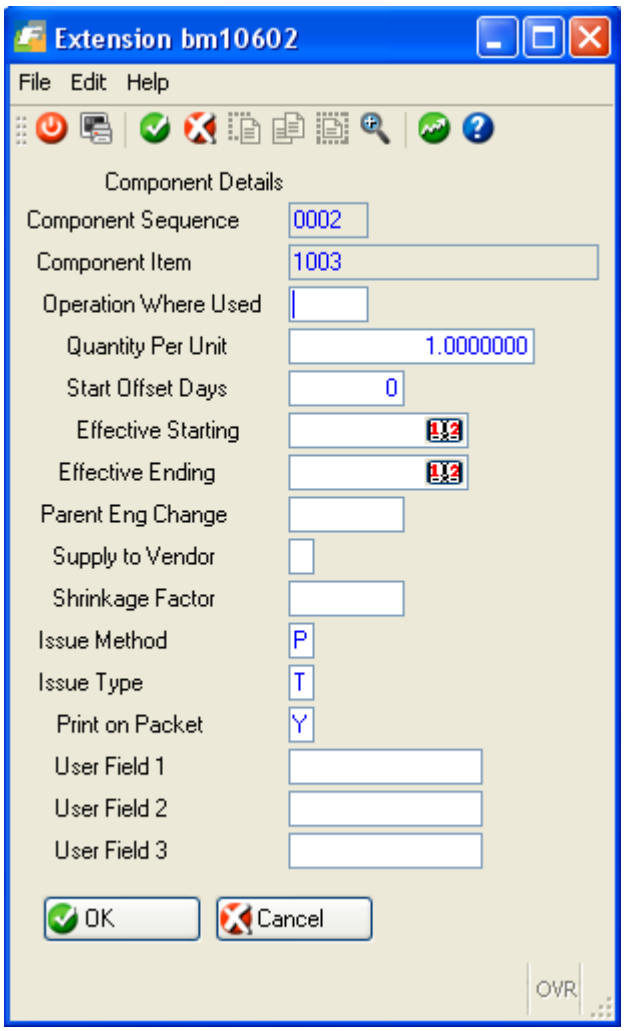
The following fields are available:

- **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 Additional Detail screen

This screen displays when you click the 

button



All fields for a component can be maintained on this screen

- **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 work days 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).

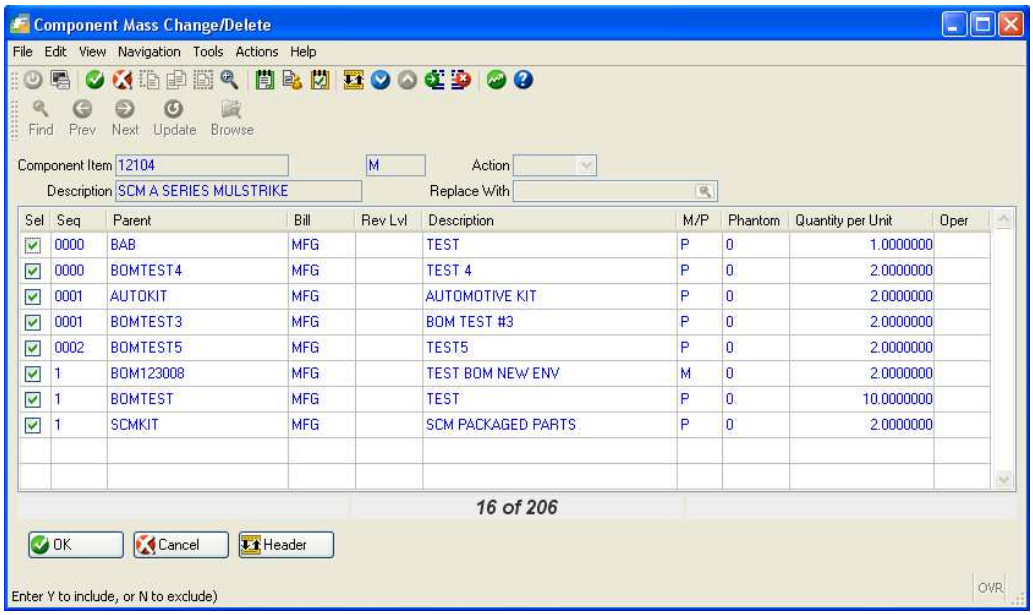
- **Effective Starting** – The date when this component should be used on it's parent item bill of material. Leave this value blank if you do not wish to use component effective dates (Optional).
- **Effective Ending** – The date after which this component will no longer used on it's parent item bill 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 eingineering change number which added this component to the bill of material.
- **Supply to Vendor** –This field is reserved for future use (Optional)
- **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).
    - **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 which are sent to work in processs in bulk, or for items which 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 it's associated cost per unit is used with the quantity to create a transaction for G/L.
- **C –** component is not issued from inventory, but it's 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 Mass Change/Delete

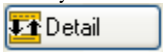
Use this menu option (option 1-g) to change or delete a component that is used in multiple parent items. The main screen allows you to review the usages of a specific component, then change its usage to another component, or delete it in one or more parent items.

The following screen displays:



You must first click the Find button, then enter the Component Item to be maintained. Click OK to see the list of parent items using the component. Click update to change or delete its usage.

- **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 Item usages 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 

button, and uncheck the parents to be ignored.

Chapter

4

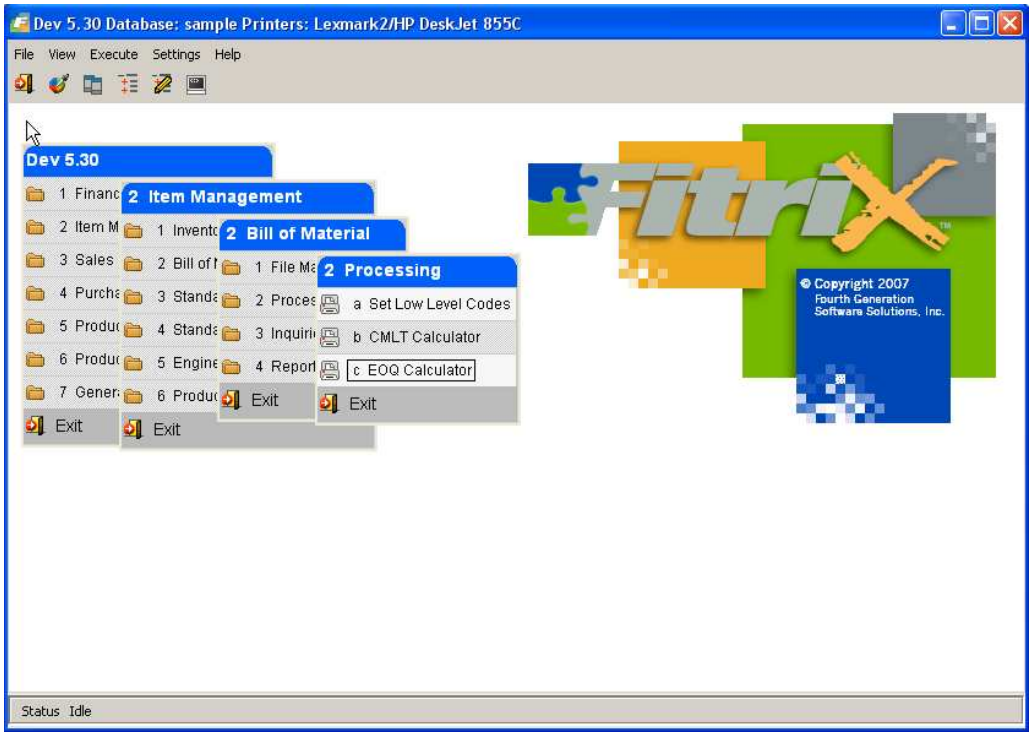
Processing

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

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 the related fields.

Processing Menu

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



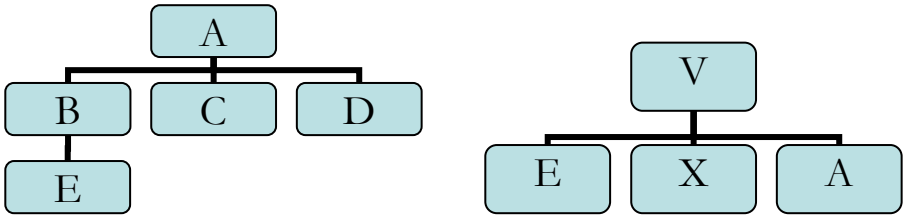
Set Low-Level Codes

You use this menu option (2-a) to update the low-level code for each item in the Inventory Information Master.

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 sorts items by the ir Low Level Code before processing begins
- **Product Costing** – When determining the cost to produce an item, it must be ensured the 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 in an

When you select this menu option, you must first indicate the destination of the report on the 'Select Printer' window (see the Getting Started with Fitrix manual). The following screen will then display:

- **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

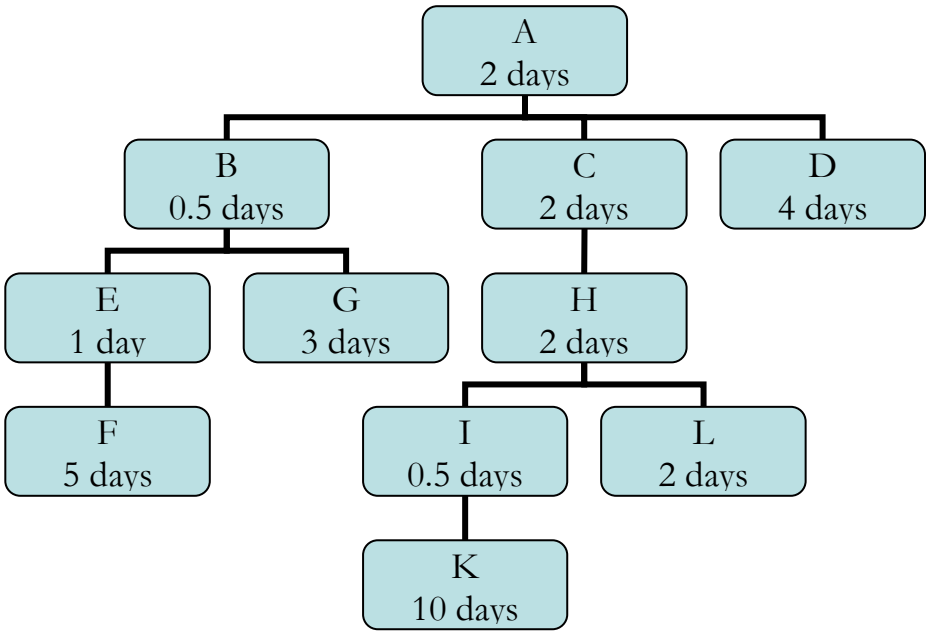
After entering the selection information, click OK to process the report.

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

CMLT Calculator

You 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.

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 (see the Getting Started with Fitrix manual).

No additional prompts display.

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

EOQ Calculator

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

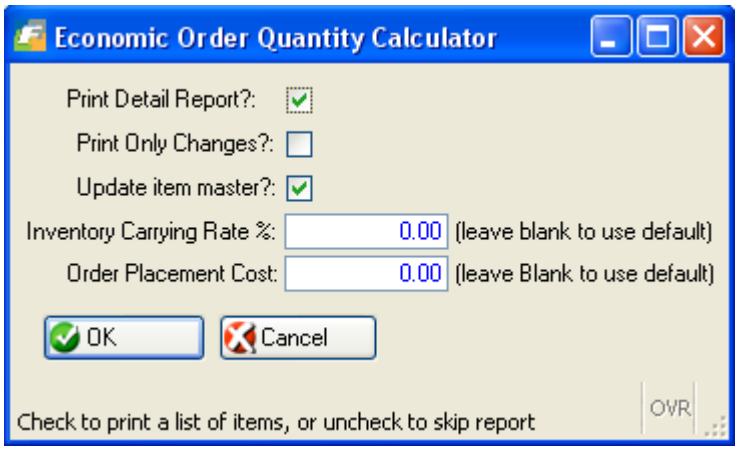
$$EOQ = \sqrt{\frac{2AS}{iC}}$$

Where:

- **A** = Annual usage in units
- **S** = Cost of Placing an Order
- **i** = Annual Carrying Cost (%)
- **C** = Item's Unit Cost

Economic Order Quantites can be used in Material Planning to generate planned orders for Production and Purchase.

When you select this menu option, you must first indicate the destination of the report on the 'Select Printer' window (see the Getting *Started with Fitrix* manual). The following screen will then display:



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

Chapter

5

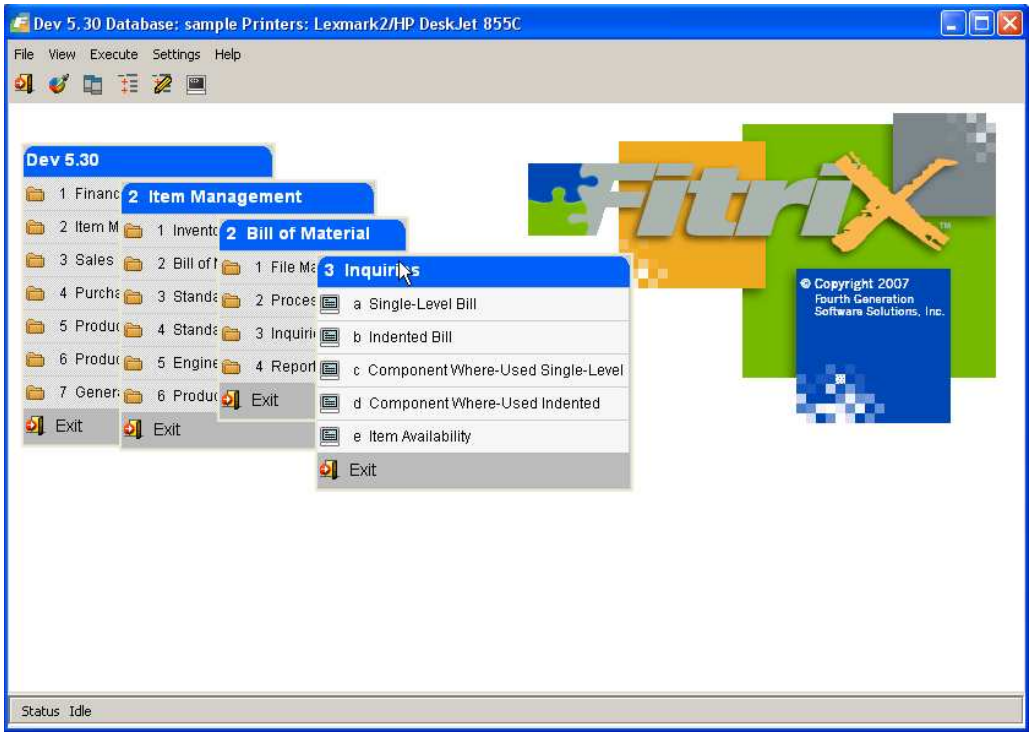
Inquiries

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. .

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

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 which 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 items bill 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 an single-level or indented bill of material, to determine the ability to manufacture an item from available inventory.

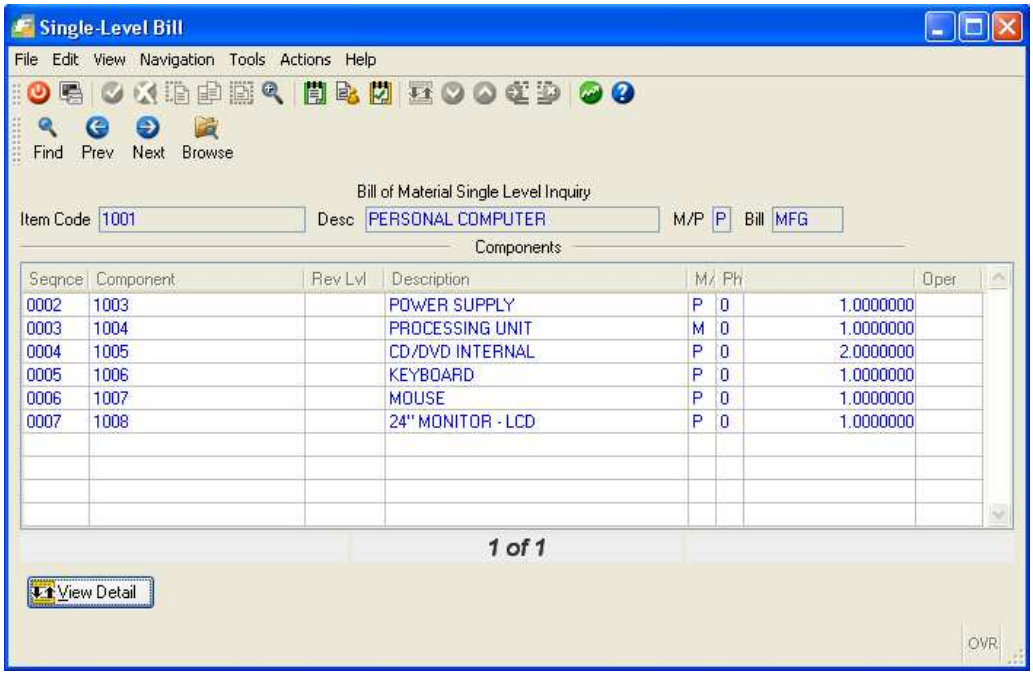
Single-Level Bill

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 the 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.

- **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 a 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.

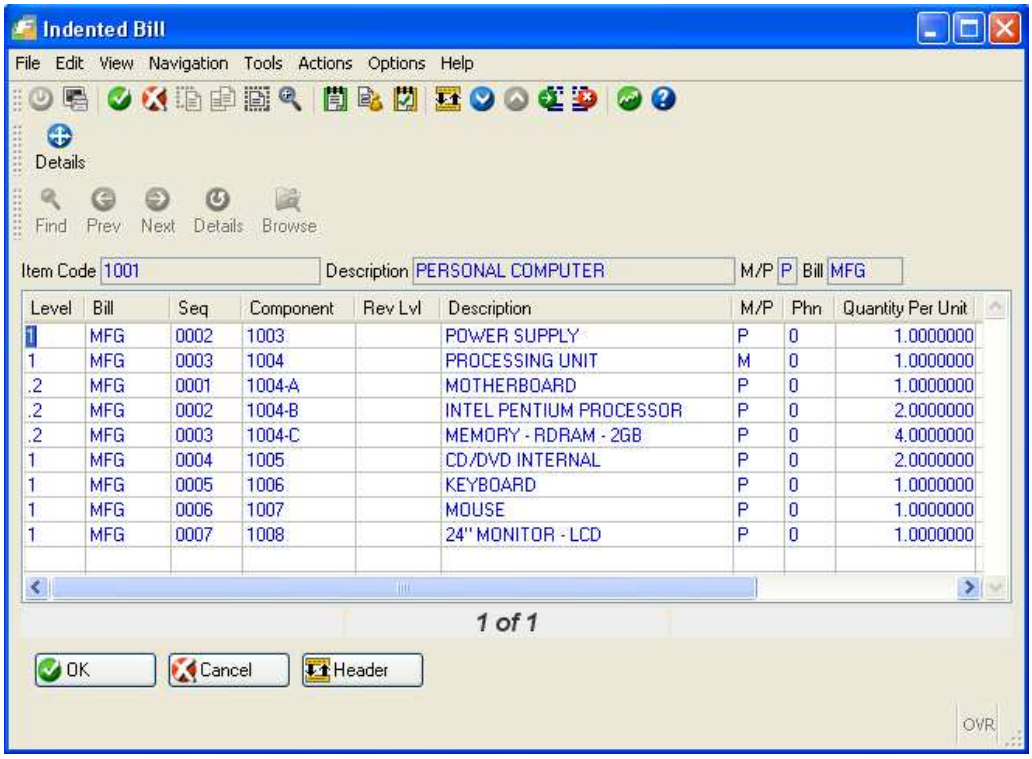
Indented Bill

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 the 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:



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 a 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.

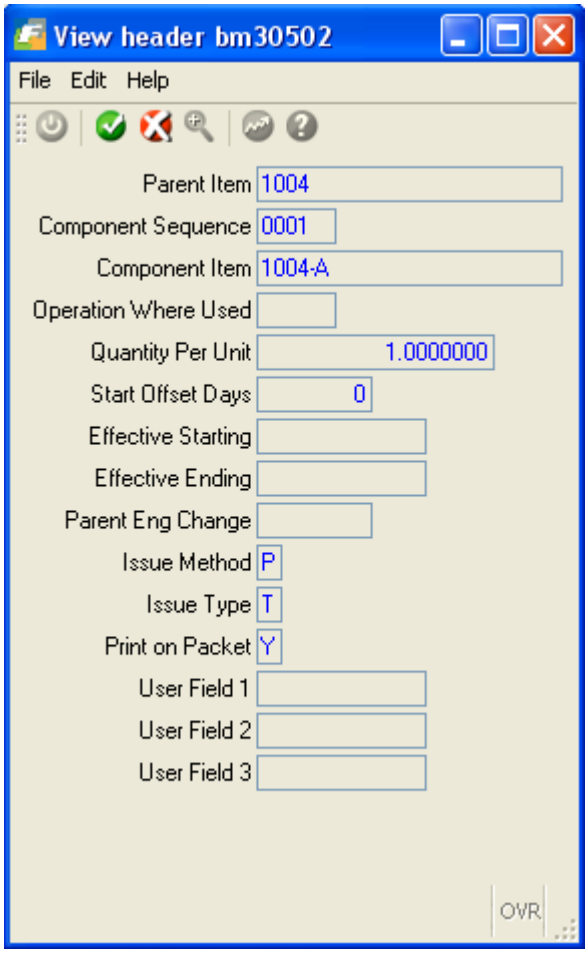
You may also click the 

button 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 Details button from the Indented Bill screen:



The following fields are displayed:

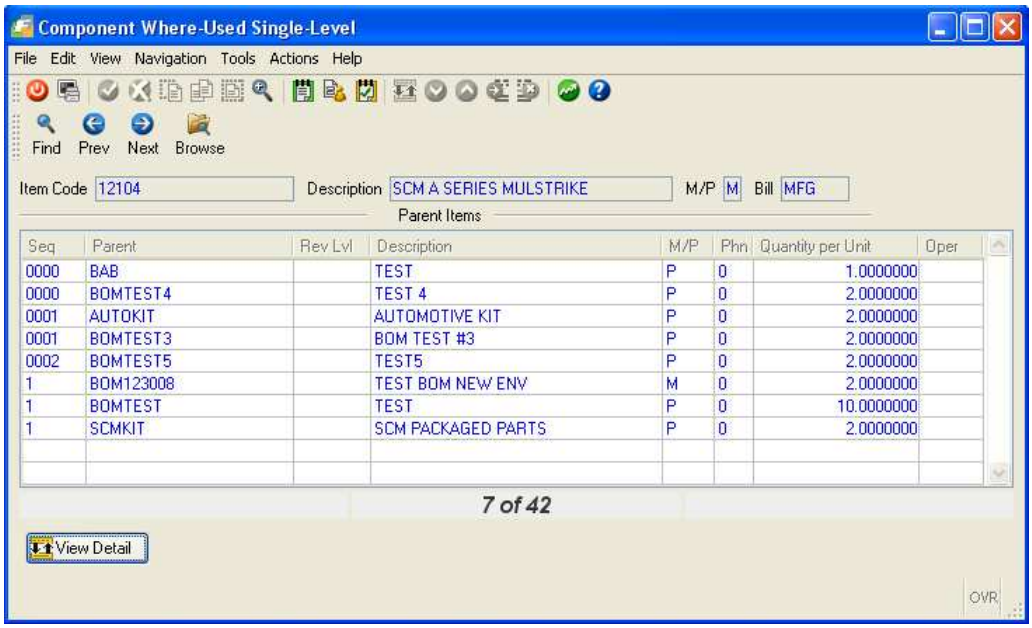
- **Parent Item** – for the selected component, displays its immediate parent.
- **Component Sequence** – the component's sequential value for this parent item
- **Component Item**– the component item code
- **Operation Where Used** – the parent item's first routing step where this component is used.
- **Quantity per Unit** – the component quantity needed to produce one unit of the immedtiate parent item.

- **Start Offset Days** – The number of work days 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 it's 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 used on it's 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 eingineering change number which 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 which are sent to work in processs in bulk, or for items which 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 it's associated cost per unit is used with the quantity to create a transaction for G/L.
    - **C –** component is not issued from inventory, but it's 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 which 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.

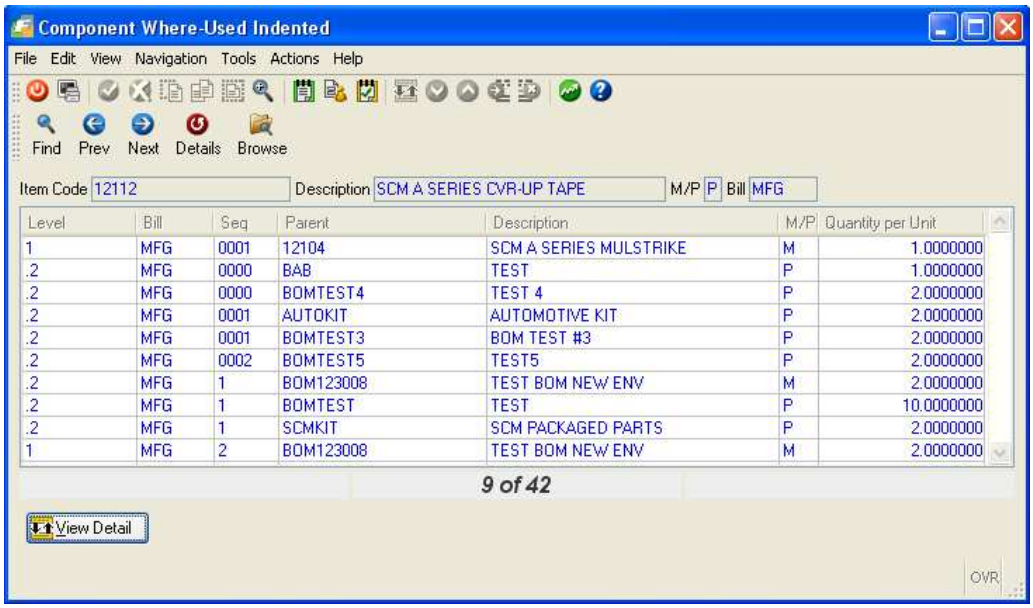
- **Seq (Sequence)** – The sequential order assigned to the component for the parent
- **Parent** – The parent item using this component

- **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 a 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 compnent'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.

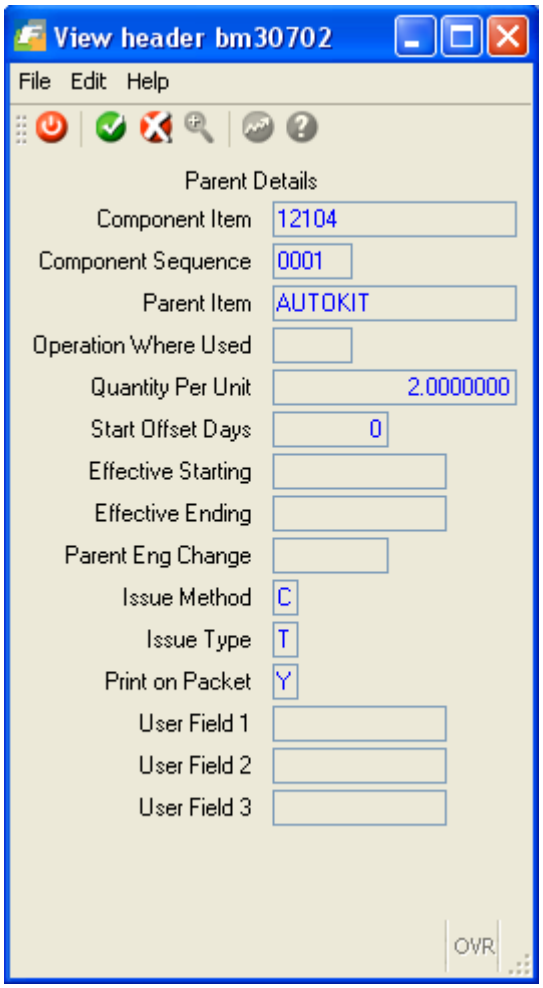
- **Level** – The level of the component relative to the parent item
- **Bill** – The code for the component's bill of material being reviewed.

- **Seq (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:



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 immedtiate parent item.
- **Start Offset Days** – The number of work days after the parent item's lead time start that this component is needed. This offset can be used to generate a

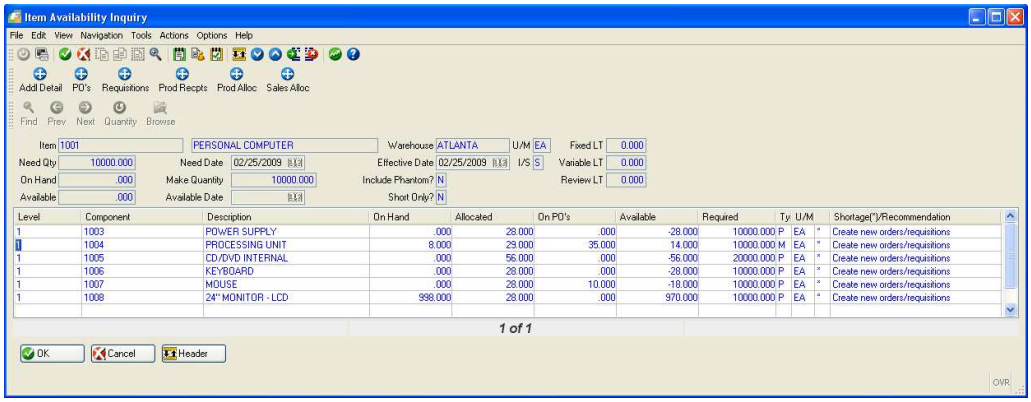
component requirement date that is some number of days after the start of a production order

- **Effective Starting** – The date when this component should be used on it's 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 used on it's 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 eingineering change number which 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 which are sent to work in processs in bulk, or for items which 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 it's associated cost per unit is used with the quantity to create a transaction for G/L.
    - **C –** component is not issued from inventory, but it's 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

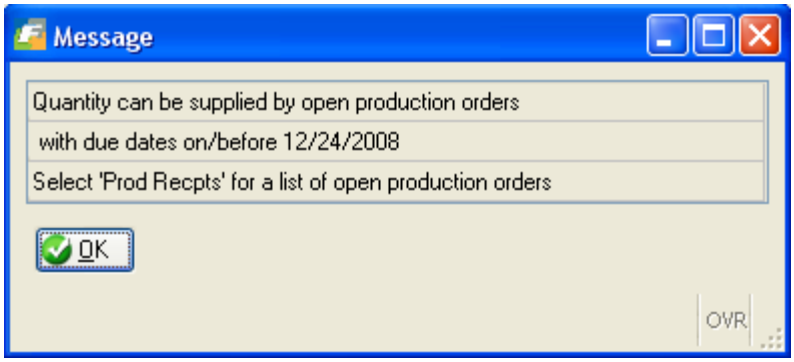
Use this menu option (option 3-e) to simulate the ability to satisfy a requirement for a manufactured item, for a given warehouse, quantity, and due date.

The following screen will display:



When the screen first displays:

- Click the 'Find' button
- Enter an item code and warehouse to simulate
- Click OK
- Review the on hand balance to determine if the simulated quantity can be satisfied from stock
- If not, click the 'Quantity' button, then enter:
    - **Need quantity** – quantity to be simulated
    - **Need date** – date to be available
- If sufficient quantity exists on hand, or if open production orders can satisfy the Neeed Quantity, the following window displays:



- Press tab through the remaining fields, and change as indicated below
- Tab through 'Short Only' field to see a list of components, with their availability.

The following fields are also available:

- **Effective Date** – this date can be used to include or exclude components in the standard bill of material, based on their effective start and end dates.
- **I/S** – Enter of of two values:
    - **I** – Review the required item's indented bill of material
    - **S** – Review the required item's single level bill of material
- **Include Phantom** – Enter Y to display phantom items also. Enter N to ignore phantoms.
- **Short Only?** – Enter Y to display only short components. Enter Y to display all component items.

The component list displays on the bottom portion of the screen:

- **Level** – relative leve 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.

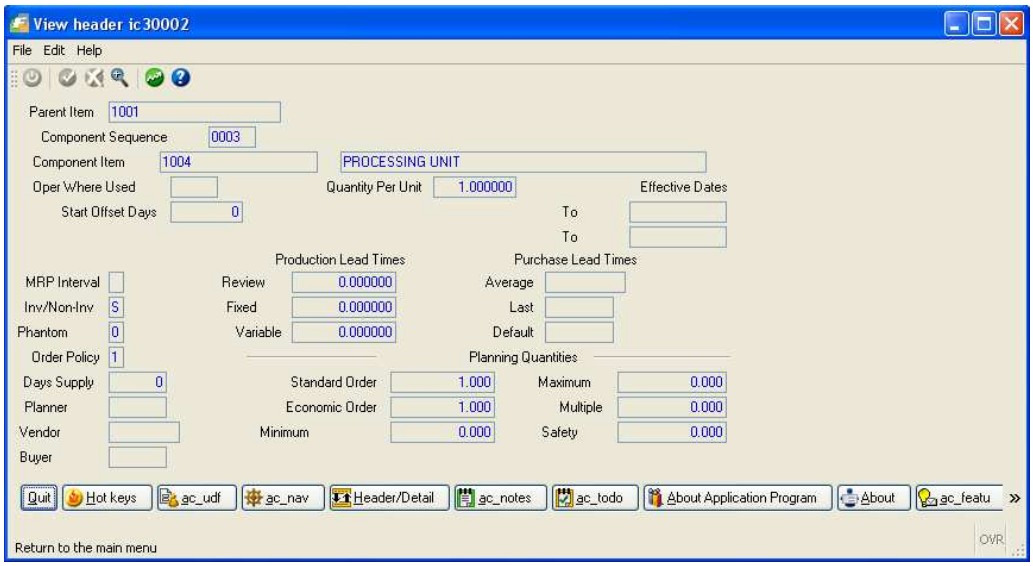
- **Required** – The total quantity needed for the component to satisfy the 'Need Quanttiy' of the simulated item.
- **Type** – Displays:
    - **M** – indicates the component item is normally manufactured
    - **P** – indicates the component item is normally purchased
- **U/M** – the stocking unit 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

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

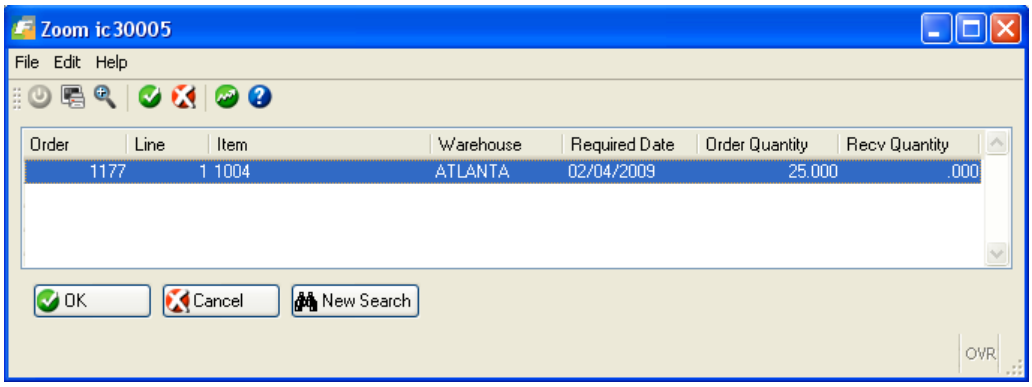
This screen displays when you click the Addl Detail button from the main screen. It displays additional details for the current component



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

On PO's screen

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



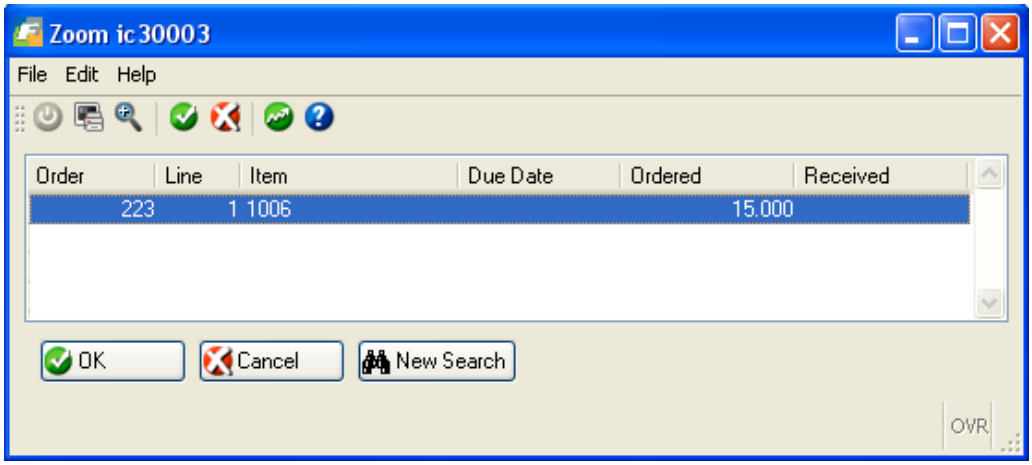
The following fields are displayed:

- **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:



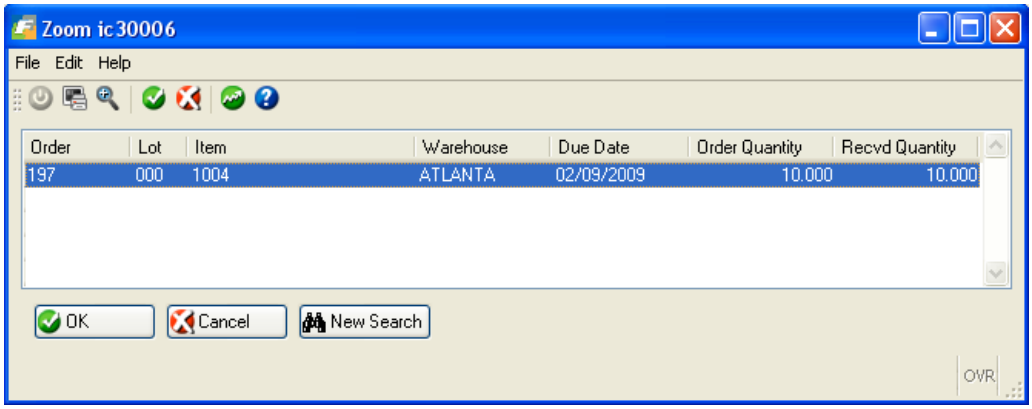
The following fields are displayed:

- **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:

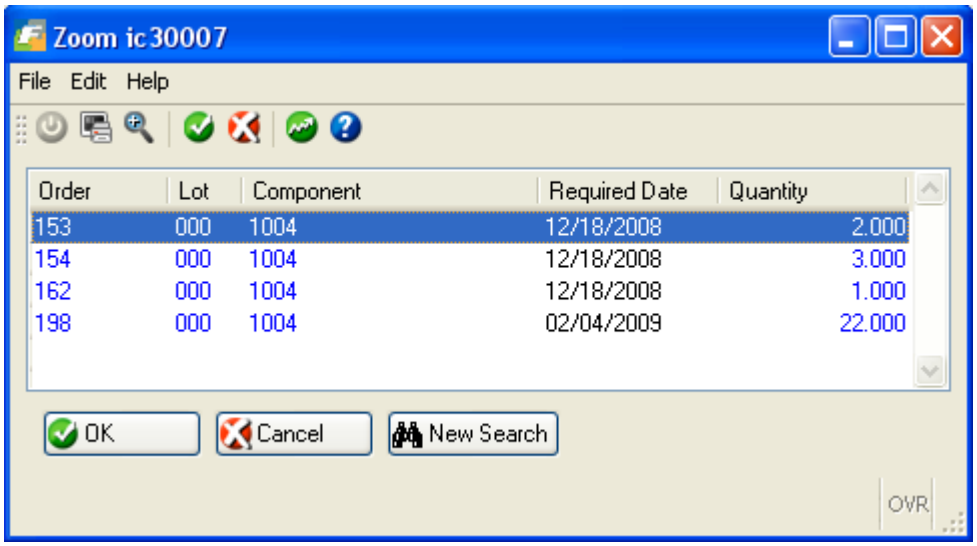


The following fields are displayed:

- **Order** – The production order number
- **Lot** – The production order's lot number
- **Item** – The item being producred
- **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 which have an open requirement for the current component.

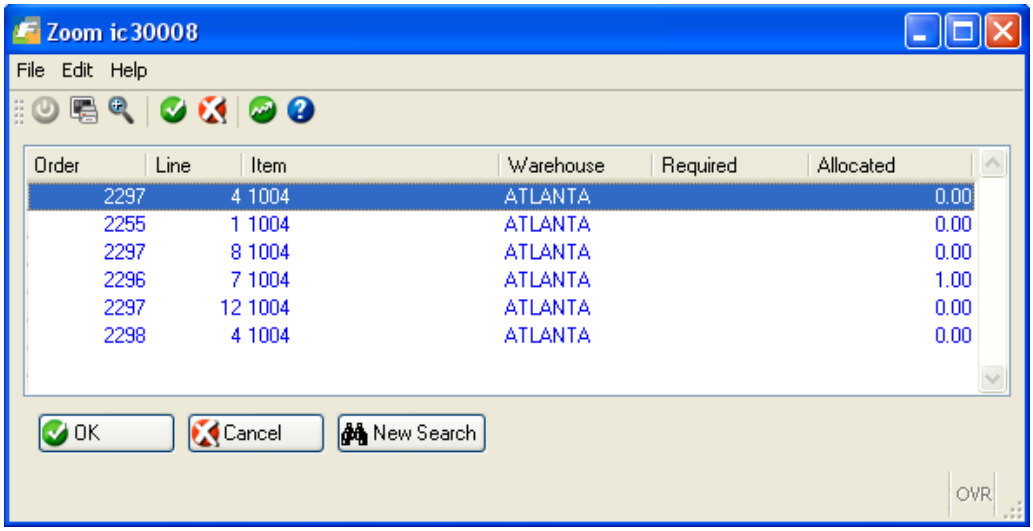


The following fields are displayed:

- **Order** – The production order number
- **Lot** – The production order's lot number
- **Item** – The component on the order
- **Required Date** – The date the component is required on the production order
- **Quantity** – The component item's required quantity on the 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 which have an open requirement for the current component.



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

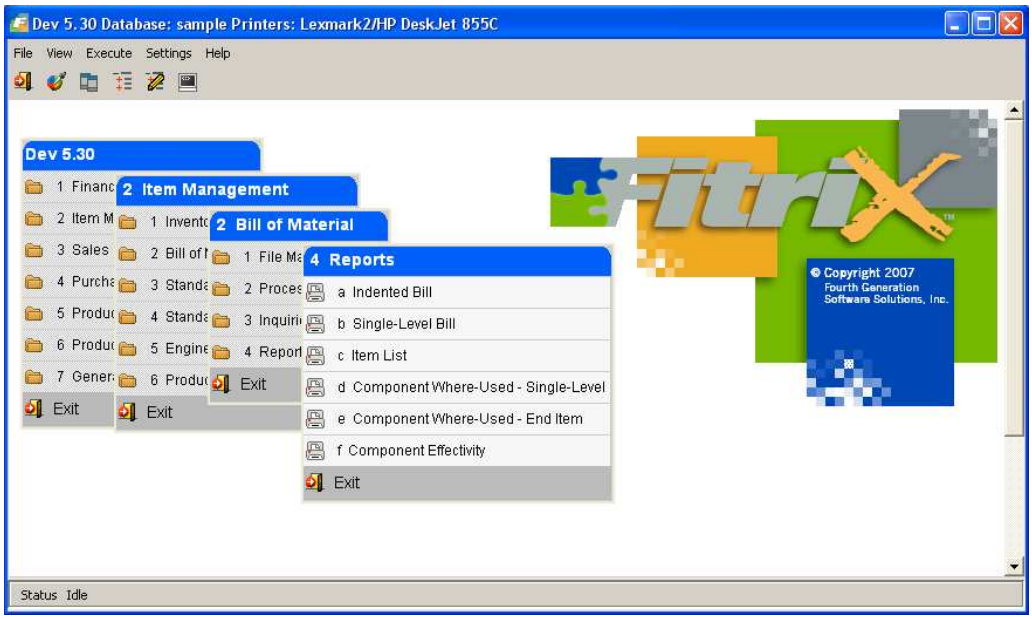
Reports

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. .

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.

Reports Menu

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



This menu contains the following options:

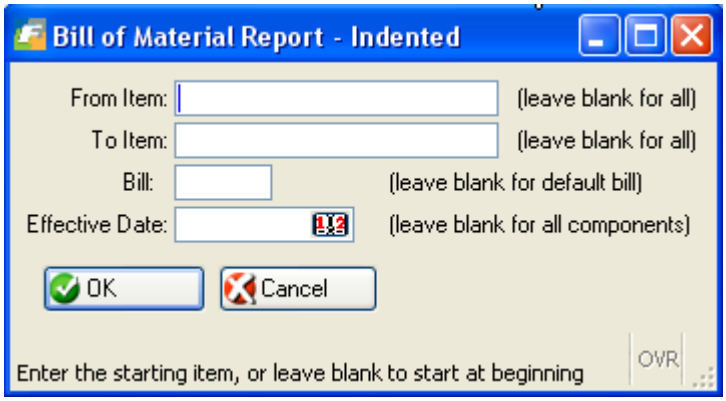
- **Indented Bill** - Use this option to print an indented bill of material list for one or more items
- **Single-Level Bill** - Use this option to print a single level bill of material list for one or more items
- **Item List** - Use this option to print the manufacturing-related fields for one or more 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 opyion (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 (see the Getting Started with Fitrix manual).

The following screen is displayed:

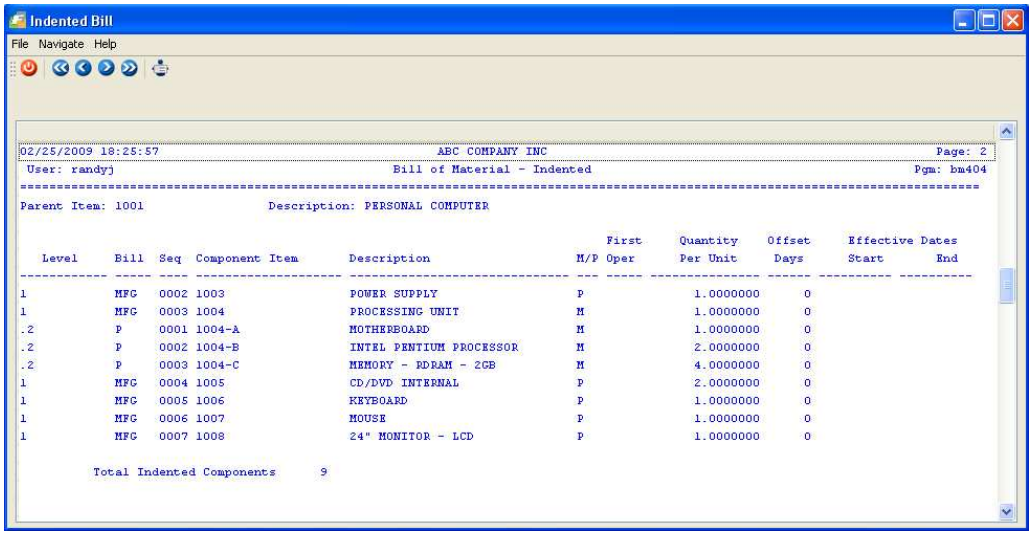


Enter report selection information in the following fields:

- **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 which have effective dates outside this date

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

An example of the report follows:



Single-Level Bill

This menu opyion (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 (see the Getting Started with Fitrix manual).

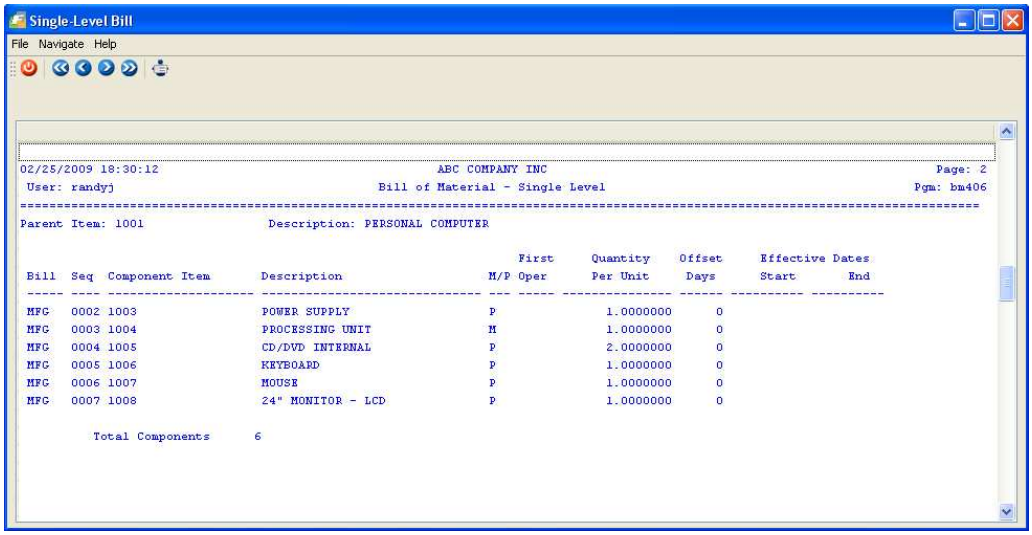
The following screen is displayed:

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 which have effective dates outside this date

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

An example of the report follows:

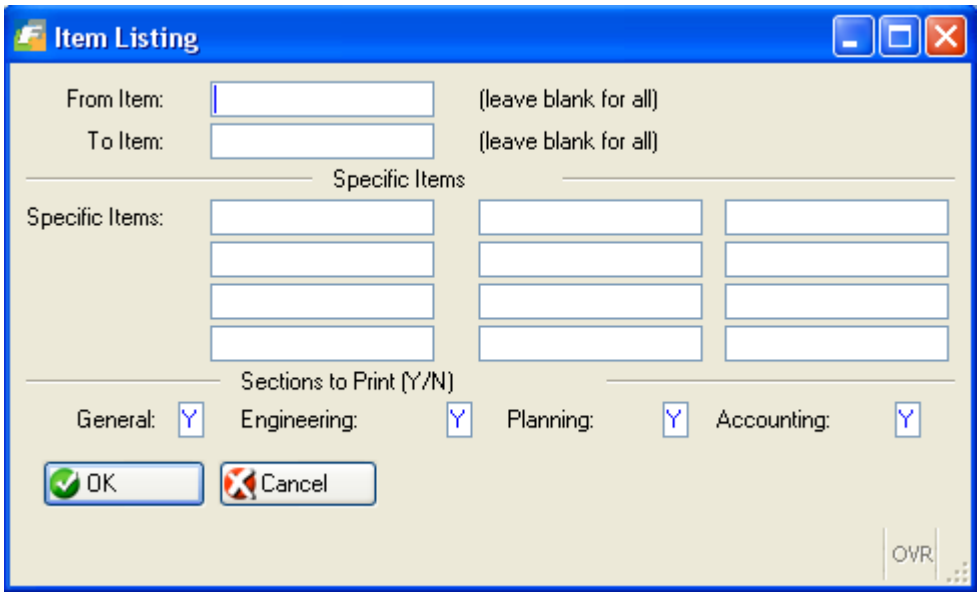


Item List

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 (see the Getting Started with Fitrix manual).

The following screen is displayed:

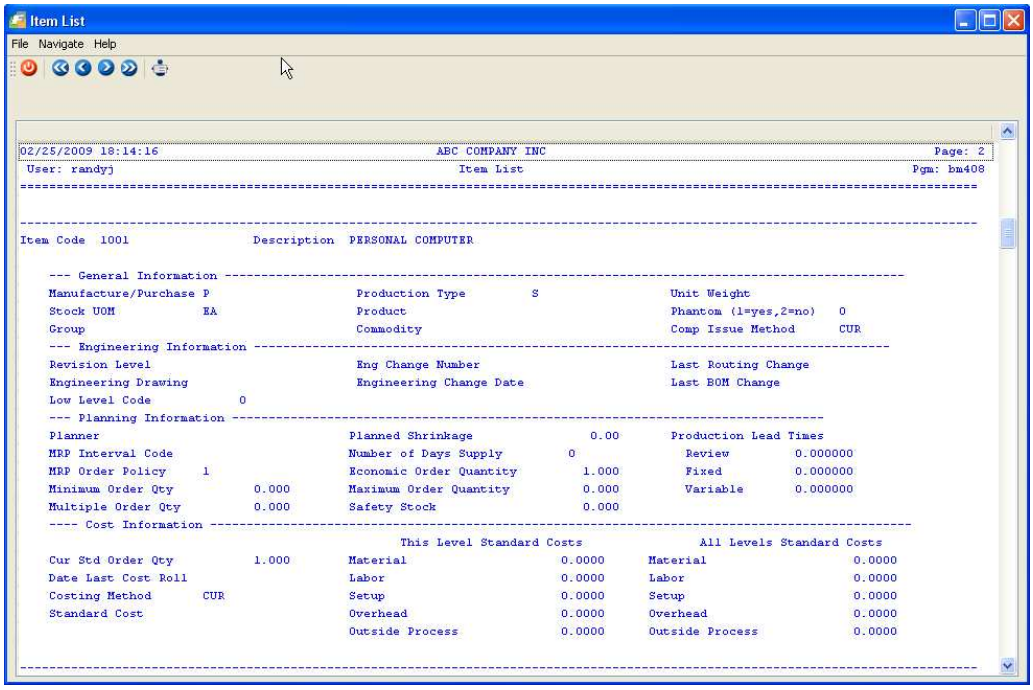


Enter report selection information in the following fields:

- **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

An example of the report follows:



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 (see the Getting Started with Fitrix manual).

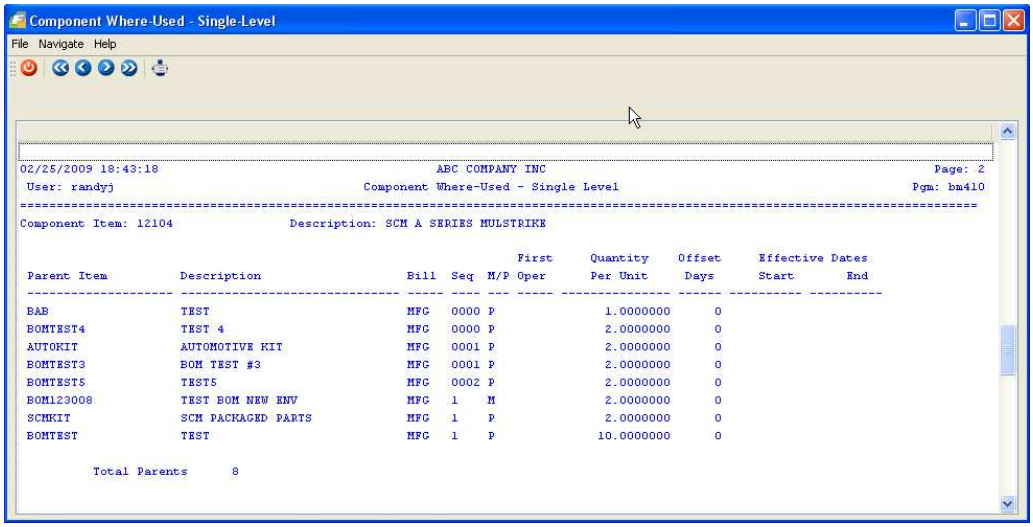
The following screen is displayed:

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.
- **Effective Date** – Enter an effective date to include/exclude components which have effective dates outside this date

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

An example of the report follows:

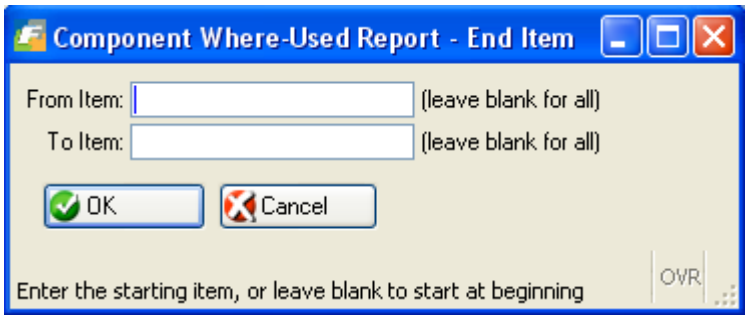


Component Where-Used – End Item

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 (see the Getting Started with Fitrix manual).

The following screen is displayed:

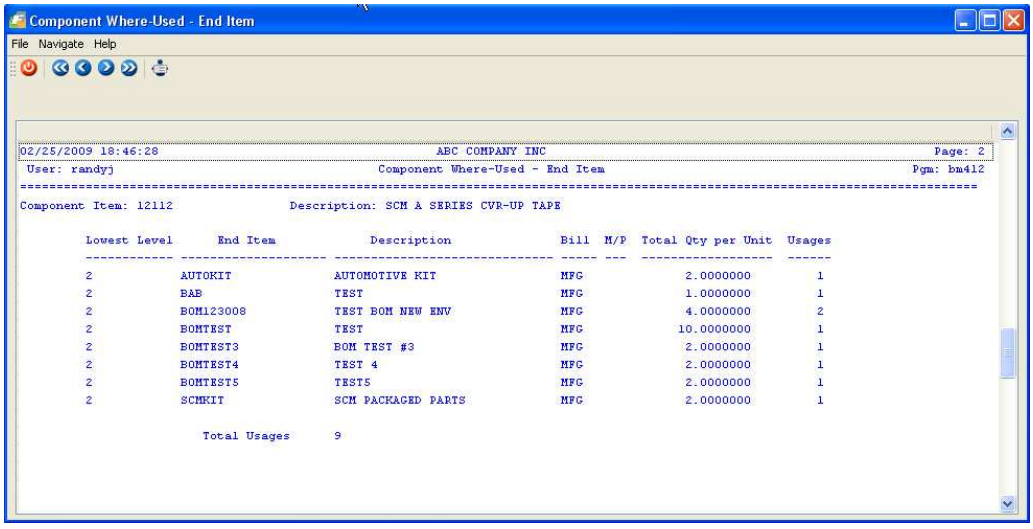


Enter report selection information in the following fields:

- **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.

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

An example of the report follows:

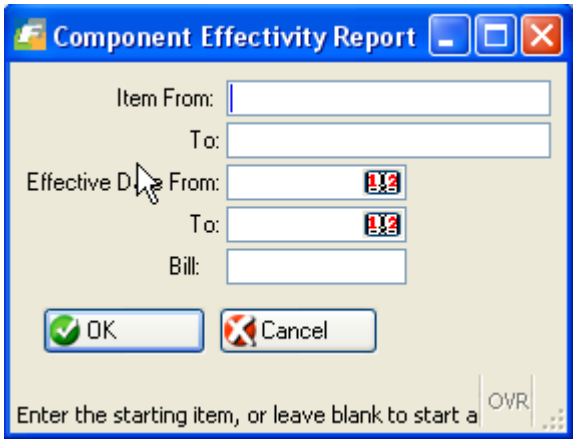


Component Effectivity

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 (see the Getting Started with Fitrix manual).

The following screen is displayed:



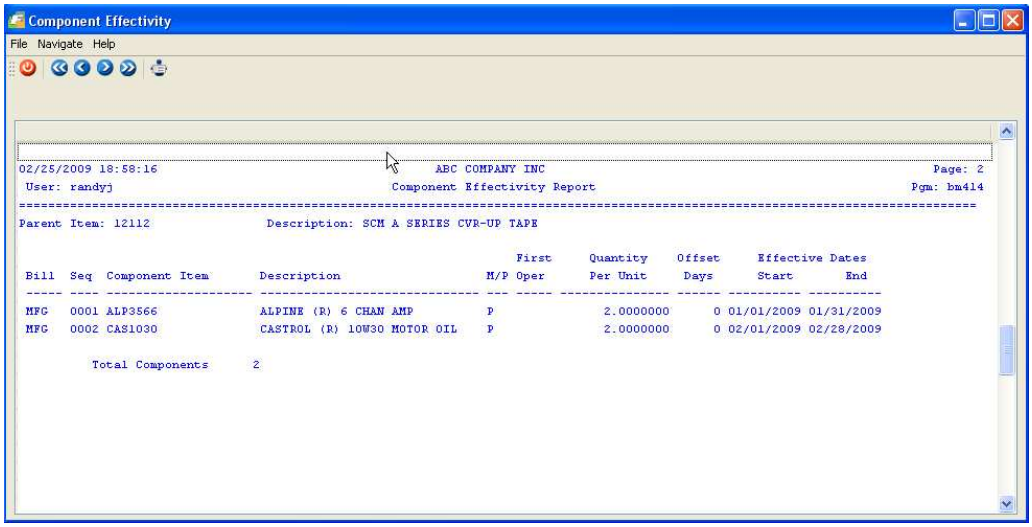
Enter report selection information in the following fields:

- **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 which 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:



Appendix

B

Glossary

Account – An account is a classifying or summarizing device. It represents a category of transactions that a business entity has decided to track. All transactions recorded in a journal are subsequently posted to two or more accounts. A transaction is posted as a debit or credit entry to an account. The difference between the total of all debit entries and the total of all credit entries posted to a single account is referred to as the account's "balance." Depending on the type of account, an account's balance is either increased or decreased by a debit or credit entry (see Debits and Credits).

Account Number – Each account in the Chart of Accounts is identified by a unique number, up to nine digits long. Accounts of a given type usually are grouped by account number. For example, all asset accounts might begin with a "1" followed by up to eight numbers.

Example: a basic Chart of Accounts

A Basic Chart of Accounts

Number	Account Description	Type
100000000	CASH ACCOUNT	ASSET
200000000	ACCOUNTS PAYABLE	LIABILITY
300000000	EQUITY	CAPITAL
400000000	PRODUCT SALES	INCOME
500000000	COST OF GOODS	EXPENSE
600000000	GENERAL EXPENSE	EXPENSE

Account Types – There are three basic types of accounts: asset, liability, and capital. Capital is also referred to as owners' equity. Income and expense accounts are a subset of retained earnings, which is a capital account.

Accounting Periods (General Ledger Periods) – Each business transaction is time-sensitive. In this system, a new accounting period is created every time you close out the existing period. You are not limited to any given number of periods during the course of a year. A transaction that takes place in the current year falls into one of these possible periods.

Accrual Method – A method of accounting which records revenues and expenses in the period in which they are earned or incurred and not in the period in which they are received or paid. Compared to the cash method of accounting, the accrual method of accounting is more accurate, but tends to be more complex.

Adding a Row – Adding a row means creating a new row and adding it to the table. For example, when you add a new account to the account table, you are adding a row to that table.

Adjusting Entries – Entries that adjust the balances of ledger accounts. Adjusting entries are usually made for one of two reasons. One reason is to record unrecorded events such as revenue earned but not received. The other reason is to correct accounting errors.

Age – The number of days between the date on a particular document and the "aging date." When processing an aging report, the system prompts for the aging date; the user determines which date to use as an aging date. (See Customer Aging. See also Vendor Aging.)

Alphanumeric field – An alphanumeric field is a field whose entries can consist of any combination of letters and numbers.

Asset Account – Assets are things of value possessed by a business. Cash in a bank account is an asset, as is accounts receivable (the money owed a business by its customers). Assets need not be paid for to be considered assets. Asset accounts are increased by a debit and decreased by a credit.

Audit Trail – The ability to verify and track accounting transactions or ledger balances.

Automatic Reorder – The process of generating purchase orders for inventory items whose quantity falls below the reorder point.

Average Cost – Average cost is a method of calculating the cost of inventory items by averaging the per unit cost of all items currently in stock.

Backorder – If items are out of stock, these items can be put on back order. When the item comes in, it is usually shipped. The backorder document is a modified version of

the original sales order and represents an agreement to ship the item as soon as the item becomes available.

Backup – In computer terms, backup refers to the process of copying computer files. These copies are usually made to diskette or tape. File backups are insurance against system failure.

Balance – The balance of an account is equal to the sum of the debit and credit postings to the account. Accounts are in balance if the total debits are equal to the total credits.

Balance Forward Customers – Statements for "balance forward" customers show only the transactions that affect the current period. For balance forward customers, payments are applied to the oldest invoices first. In contrast, "open item" statements show each outstanding invoice, and payments may be applied to a particular invoice.

Balance Sheet – The balance sheet shows the current financial condition of a company. The balance sheet lists assets, liabilities, and capital. It is usually totaled in two main sections. The first section totals assets. The second totals liabilities and capital. Assets must always equal liabilities plus capital.

Blanket Order – This is a large order that is split into more than one shipment, possibly to different locations.

Blanket Release – A blanket release is a document that is a subset of a larger blanket order. It represents a single shipment for an order that comprises multiple shipments.

Capital Accounts – (Also called owners' equity accounts.) These accounts record the difference between what is owned (assets) and what is owed (liabilities). They are also called proprietorship or net worth. Capital accounts are increased by a credit and decreased by a debit.

Cash Method – A method of accounting which records revenues and expenses in the period in which they are received or paid and not in the period in which they are earned or incurred. Compared to the accrual method of accounting, the cash method is less complex and often used by smaller businesses.

Cash Receipt – Money received as payment for goods or services. An A/R cash receipt is a payment that applies to an outstanding invoice. A non-A/R cash receipt is a payment that does not apply to an outstanding invoice. A non-A/R receipt may not even apply to a customer's account.

Cash Receipts Journal – The cash receipts journal is the journal into which all cash receipts activity is recorded, thus affecting the balances of accounts in the receivable ledger.

Chart of Accounts – A "chart" is a list of accounts. A chart of accounts includes all the different accounts used in summarizing the transactions and current condition of a business.

Check Journal/Cash Disbursement Journal – This is the journal into which all cash disbursements activity is recorded, thus affecting the balances of accounts in the payable ledger.

Column – A column is a category slot into which you enter information in a table. For example, if the computer puts "Enter Company:" on the form, the space following the colon is the "column" into which information is entered. This is the "Company" column.

Cost of Goods (COG) Accounts – These are expense accounts; they track the cost of the same products whose revenues are recorded in sales accounts. In other words, these accounts record the cost of those products which the company sells. This cost is recorded at the time of sale. The balance of these accounts is increased with a debit and decreased with a credit.

Count Adjustment Account – This is a balancing account that is posted to when the inventory quantity-on-hand is adjusted—in this case there is no corresponding sale or purchase of inventory.

Count Sheet – This is a list of items and their physical locations in a warehouse(s) to be used by personnel counting inventory.

Credit – The term credit can refer to two different things depending on its usage. If used in reference to ledger accounts, credit refers to an entry that increases or decreases a ledger account. Some accounts are increased by a credit while others are decreased by a credit. How a credit or debit affects the balance of an account depends on the type of account involved. If used in reference to customer accounts, a credit refers to an acknowledgment of payment. When a customer pays you, you credit that customer's account. When you pay a vendor, that vendor credits your account.

Credit Memo – If referring to customer accounts, a credit memo refers to a document notifying a customer that his account has been credited (reduced). When dealing with vendor accounts you enter a credit memo to increase the amount you owe the vendor.

Creditor – A person or company to whom you owe money. Your vendors are creditors when you owe them money.

Current Accounting Period or General Ledger Period – This is the accounting period for which you are currently posting transactions.

Current Assets – Current assets are assets that are normally used up during the operating cycle of a business (usually one year). Cash and inventory are typical examples of current assets.

Customer Accounts – Though not an account in the general ledger sense, a customer account is used to summarize what a given customer owes or is owed at a particular point in time. A customer's account is summarized by a statement.

Customer Activity – Activity refers to any transaction that affects the balance of a customer or ledger account. A summary of activity shows all transactions affecting those balances in the current period.

Customer Aging – The customer aging shows how long any open items have been on the books and how much of a customer's debt falls into various aging categories. Those aging categories reflect progressively more serious levels of overdue payment.

Customer Balance – The customer balance is the amount owed by or owed to a customer. If the customer owes you money, he is said to have a debit balance. If you owe him money, he is said to have a credit balance. A customer balance is the total of his current open items.

Customer Terms – Customer terms are the conditions under which you expect payment from the customer. Customer terms typically include the period of time within which you expect to be paid, any discounts allowed for early payment, and the time frame within which such discounts are allowed.

Database – A database is all the related information within a computer system to which you have access in one form or another.

Debit – The term debit can refer to two different things depending on its usage. If used in reference to ledger accounts, a debit refers to an entry that increases or decreases a ledger account. Some accounts are increased by debits while others are decreased by debits. How a credit or debit affects the balance of an account depends on the type of account involved. If used in reference to customer accounts, when a customer purchases goods from you, you debit that customer's account. When you purchase goods from a vendor, the vendor debits your account.

Debit Memo – If used in reference to a customer account, a debit memo refers to a document notifying the customer that his account has been debited (increased).

Debits and Credits – Each transaction entered into a journal, and eventually posted to the subsidiary and general ledgers, consists of debit and credit entries to two or more accounts. A ledger account balance is the difference between all debit postings to that account and all credit postings. Whether a debit or credit posting to an account increases or decreases the account balance depends on the type of account.

The basic accounting equation is: assets = liabilities + capital. Accounts (assets) on the left side of the accounting equation are increased with a debit. Those on the right side (liabilities and capital) are increased with a credit. Retained earnings is a type of capital account; revenue and expense ac-counts are a subset of retained earnings. Revenues increase retained earnings, and because capital accounts are increased with a credit,

revenue accounts are increased with a credit. Similarly, ex-pense accounts decrease retained earnings and capital accounts are decreased with a debit. There-fore, expense accounts are increased with a debit.

Deleting a Row – Deleting a row is the process of removing it from the computer database after it has been added or updated.

Department Code – A three-character department code identifies which "profit center" an account belongs to. If you are not using profit centers, the default department code is "000." Refer to the entry for Profit Centers for an example of the use of department codes to set up profit centers within a company.

Document – Transactions entered in the Fourth Generation Business system are referred to as "documents." Different journals (accounts receivable, accounts payable, for example) may be used to record different types of documents. Documents consist of debit and credit entries to two or more ledger accounts. In order to save a document, that document must be in balance; that is, the total of all debit entries must equal the total of all credit entries.

Drop Ship Order – This is an order that is shipped directly to your customer. The items ordered never enter your warehouse. The items go directly from your vendor to your customer.

Employee Code – Each employee in the Payroll system is identified by a unique six-character code. Although an employee's name and social security number can be used to sort and view data on an employee, the employee code is the key used throughout the Payroll system to uniquely identify an employee.

Employee Type – Each employee in the Payroll system can be associated with an employee type which is identified by a unique six-character code. The employee type provides access to default setup values for the employee, and provides a means for grouping employees.

Expense Accounts – Expense accounts are used to track the cost of doing business. They are a subset of retained earnings (a capital account). At the end of a period of time (usually a year) the difference between the total of all income account balances and the total of all expense account balances is calculated and that balance is transferred to retained earnings. After transferring this figure to retained earnings, the balance of each income and expense account is set to zero. Capital accounts are decreased with a debit. Because expenses decrease capital, expense accounts are increased with a debit.

Field – A field is a data-entry or display area on a form. A field may or may not correspond to what is actually stored in a table in the database.

FIFO – First-In First-Out"—One of several methods of determining the value of inventory and calculating the cost of goods sold. Using the FIFO method, it is

assumed that the "first inventory items in" (the oldest inventory items) are the "first inventory items out" (the first items to be shipped).

Finance Charges – Finance charges are charges made by a vendor against you, or made by you against a customer, for non-payment of an amount due. Finance charges are new charges made against the account because the payment was not made according to the established terms.

Flat Rate – A value applied on a per-payment basis. Unlike a percentage rate, which calculates a specified proportion of an amount, a flat rate ignores the exact value of the amount, treating it as a single payment to which a single unit of the "rate" value is applied. Thus the "calculated" value due to a flat rate is the same each time it is applied.

FOB – FOB stands for "free on board" or "freight on board." The FOB point determines when the title to a product changes hands; that is, it determines at what point the buyer assumes ownership of a product. FOB sometimes—but does not necessarily—affects who pays the freight charges for shipping a product. In some businesses the seller pays freight up to the FOB point and the buyer pays from the FOB point. Similarly, in some businesses the FOB point determines who pays insurance on the shipment.

Form – A form is the template into which information is entered. A form may combine information from several different tables, usually lines of information from a "header" table at the top of the form and several rows from a "detail" table at the bottom.

General Journal – The most basic type of journal in an accounting system is the general journal. It may be the only journal. Transactions which consist of a debit to at least one account and a credit to at least one (different) account are entered in such a journal. Ultimately each transaction is posted from the general journal to a general ledger account.

General Ledger – The general ledger includes each account listed in the chart of accounts, along with debit and credit transaction entries that add up to the account balance.

Income Accounts – These accounts are used to track revenues. Sales accounts, for example, are a type of income account. They are a subset of retained earnings (a capital account). At the end of a period of time (usually a year) the difference between the total of all income account balances and the total of all expense account balances is calculated and that balance is transferred to retained earnings. After transferring this figure to retained earnings, the balance of each income and expense account is set to zero. Capital accounts are increased with a credit and decreased with a debit. Because revenue increases capital, income accounts are increased with a credit.

Income/Deduction/Obligation Codes – Each type of income, deduction, and incurred employer obligation is identified by a unique six-character code. When the income,

deduction, or obligation is used in a payroll entry it is referred to by this code. The code provides access to default values and basic information required to calculate the income, deduction, or obligation amount.

Income Statement – The income statement (also referred to as a "profit and loss" statement) records the changes in equity associated with business operations for a specified period of time. This statement lists the revenues and expenses and the difference between them for a period of time. The difference between revenues and expenses is referred to as a net profit or a net loss.

Inventory Account – This is the current assets account that represents the value of the goods in stock.

Inventory Adjustment Account – This is the ledger account that balances changes made to the inventory account balance that do not result from sales, returns, or purchases.

Inventory Control (I/C) – This is the system for tracking goods stored for sale to customers, including calculation of costs and prices.

Inventory Item – This is a single unit of merchandise from inventory.

Item Code – An item code is a unique alphanumeric string identifying a type of inventory item.

Journal – Journals are used to sequentially record business transactions. Each transaction consists of a debit to at least one account and a credit to at least one (different) account. Journal entries are posted to ledger accounts; therefore, every entry made in a journal ultimately has an effect on the balance of two or more ledger accounts. An accounting system may include multiple journals, each used to record a specific type of transaction. The most basic type of journal is the general journal. In addition there may be an accounts receivable journal, an accounts payable journal, and so on.

Ledger – A ledger consists of a group of accounts and debit and credit entries representing transactions that affect the account balance. A group of accounts is called a ledger. The general ledger includes all accounts listed in the chart of accounts. Subsidiary ledgers comprise subsets of the chart of accounts. The accounts receivable ledger, for example, comprises all customer accounts. The total of all customer account balances equals the balance in the accounts receivable ledger account.

Liability Accounts – Liabilities are debts or anything that is owed. Liability accounts are increased by a credit and decreased by a debit.

LIFO – "Last-In First-Out" is one of several methods of calculating the cost of inventory items. With the LIFO method those inventory items "last in" (most recently purchased) are considered the "first out" (first to be sold).

Open Item Customers – Statements for open item customers show each outstanding invoice and payments are applied to a specific invoice. In contrast, balance forward statements show only the transactions that affect the current period. For balance forward customers, payments are applied to the oldest invoices first.

Open Items – Open items are posted invoices that contain outstanding balances representing amounts owed by customers or due to vendors. A document is considered an open item until that balance is zero.

Order Acknowledgment – An order acknowledgment is a hardcopy version of a sales order. Order acknowledgments may be sent to customers so that they have a record of the sales transaction.

Payable Document – There are four common types of payable documents: a vendor invoice, a cash disbursement, a vendor credit, and a vendor debit.

Payable Ledger – A payable ledger is the ledger that includes all the accounts affected by accounts payable transactions—invoices, cash disbursements, and vendor credits and debits.

Payroll Deduction – A payroll deduction is any amount withheld from an employee's check. For every deduction there is typically an employer liability incurred.

Payroll Document – A payroll document is the complete record of a payroll disbursement. This document includes an employee's gross income, deductions, net income, and employer obligations, as well as the related accounting data for the document.

Payroll Income – Payroll income comprises wages, reimbursements, and cash outlays recorded as part of a payroll entry. Payroll income normally is an operating expense.

Payroll Journal – The payroll journal is the journal into which all payroll activity—paychecks, income, deductions, and employer obligations—is recorded. When posted, this activity affects the balance of accounts in the payroll ledger.

Payroll Ledger – A payroll ledger is the ledger that includes all the accounts affected by posted payroll transactions—paychecks, income, withholding, and incurred obligations.

Payroll Obligation – An employer liability resulting from a payroll transaction, such as withholding federal taxes from an employee's paycheck.

Posting – Posting is the process of transferring transactions (documents) from the journal to the ledger.

Posting Sequence Numbers – All processes which "post" entered data into a storage area for completed documents have reports that feature a posting sequence number. These numbers are used to keep track of reports that should be permanently stored in your records. Each of these reports has its own sequence of posting numbers.

Prepaid Asset – This is an asset that you have paid for, but not yet received.

Profit Center – A "profit center" identifies a part of a company for which profits can be calculated separately. Sales and expenses for that division are designated with a "Department" number.

Simple Account Chart with Two Profit Centers

Number	Dept	Account Description	Type
100000000		CASH IN BANK	ASET
200000000		ACCOUNTS PAYABLE	LIABILITY
300000000		EQUITY	CAPITAL
400000000	100	PRODUCT SALES	INCOME
400000000	200	PRODUCT SALES	INCOME
450000000	100	SERVICE SALES	INCOME
450000000	200	SERVICE SALES	INCOME
500000000	100	COST OF GOODS	EXPENSE
500000000	200	COST OF GOODS	EXPENSE
600000000	100	GENERAL EXPENSE	EXPENSE
600000000	200	GENREXPENSE	EXPENSE

Purchase Order – A purchase order represents the purchase of merchandise from a vendor.

Purchasing – The purchasing system is one of several Fitrix modules. It provides an automated method for tracking purchases, tracking receiving, and projecting cash requirements.

Receivable Documents – There are four common types of receivable documents: a customer invoice, a customer cash receipt, a customer credit, and a customer debit.

Receivable Journal – The receivable journal is the journal into which all accounts receivable transactions—invoicing, credits, and debits—are recorded. When posted, these transactions affect the balance of accounts in the receivable ledger.

Receivable Ledger – A receivable ledger is the ledger that includes all the accounts affected by accounts receivable transactions—invoices, cash receipts, and customer credits and debits.

Retained Earnings – Retained earnings is the increase in equity that has resulted from profitable operations; net income to date minus dividends to date.

Row – A row is one set of specific information within a table. For example, an account table contains all the information about a single account in an account row. An account table contains as many rows as there are different accounts.

Statement – The customer statement shows the current activity for a given customer. The statement shows outstanding invoices, recent payments, credits, and debits to the customer's account.

Store or Record – Recording or storing a row is the process of saving it in the computer database after it has been added or updated.

Table – A table is where information is stored in a computer. A given table contains only a specific type of information. For example, an account table contains the different sales and expense accounts used by the system.

Transaction – A transaction is an event that is recorded in the accounting records. Typically, such an event involves the transfer of money, product, or services. Each transaction entered in the Business system is referred to as a "document."

Trial Balance – This is a work sheet used as a preliminary step to generating a Balance Sheet. The trial balance is a listing of every ledger account, along with its debit and credit balance. The total of all debit balances should equal the total of all credit balances.

Update – Updating a table is the process of changing rows within it. Whenever you change a description in the account table, for example, you are updating a row within that table.

Vendor Accounts – Though not an "account" in the general ledger sense, a vendor account is used to summarize what a vendor is owed at a particular point in time. A vendor's account is summarized by an aging statement.

Vendor Activity – Activity refers to any transaction involving a vendor that affects the balance of a vendor or ledger account. A summary of activity shows all transactions affecting those balances over a specified period of time.

Vendor Aging – A vendor aging report lists outstanding vendor invoices categorized by number of days from the vendor invoice date or due date.

Vendor aging reports can be setup to "age" in two different ways. In the first, an aging report can put outstanding vendor invoices into categories, ranging from those

currently due to those past due. With this method, the aging categories reflect ever more serious levels of overdue payment.

In the second, an aging report can arrange outstanding vendor invoices into categories, ranging from those currently due to those that will be due in the future. This report is a projection of cash requirements. In this case, the aging categories reflect amounts due farther in the future.

Vendor Balance – The vendor balance is the amount owed to or owed by a vendor. If you owe a vendor money, the vendor's account has a credit balance. If the vendor owes you money, the vendor's account has a debit balance. A vendor's balance is the sum of all open items pertaining to that vendor.

Vendor Terms – Vendor "terms" are the conditions under which the vendor expects payment from you. Vendor terms typically include the period of time within which you expect to pay that vendor's invoices, any discounts allowed for early payment, and the time frame within which such discounts are allowed.

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