



Affordable, Adaptable ERP Software



*Manufacturing  
Execution  
Training Guide*

Version 6.00

Fitrix™

***Manufacturing Execution ♦ Training Guide***  
***Version 6.00***  
***Revised 07/31/2015***

## ***Fitrix Manufacturing Execution Course Workbook***

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# **Chapter 1 – Production Order Processing**

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## **Learning Objectives**

To learn the type of information and tasks that are maintained and completed in Production Order Processing.

To learn the relationships of Production Order Processing to other modules in the Fitrix Accounting and Distribution System.

To learn the steps involved in setting up the module.

To learn the steps necessary to process a Production Order

To learn about transaction processing

To understand inquiries and reports in the module

## Overview of Production Order Processing

### What type of information is maintained in Production Order Processing?

Production Order processing stores the system information for processing orders to produce and consume inventory, including:

Reference codes for filling orders including

Order types and hold codes

Orders for items to be produced

Component materials to be consumed in the production process

End items being produced from orders

Due dates and quantities to be produced and consumed

### What tasks or activities are performed in Production Order Processing?

Setting up the production order processing module

Entering and maintaining production orders

Issuing component materials to orders

Receiving items produced from orders

Checking status of orders via inquiries and reports

Closing orders and optionally archiving them to history

### What relation does order entry have to other Fitrix Modules?

Production Order Processing is one of three manufacturing execution applications and is tightly integrated with four other Fitrix modules: General Ledger, Order Entry, Inventory Control and Purchasing.

Ledger information posts to the **General Ledger** activity table to update ledger account balances components issued and items produced.

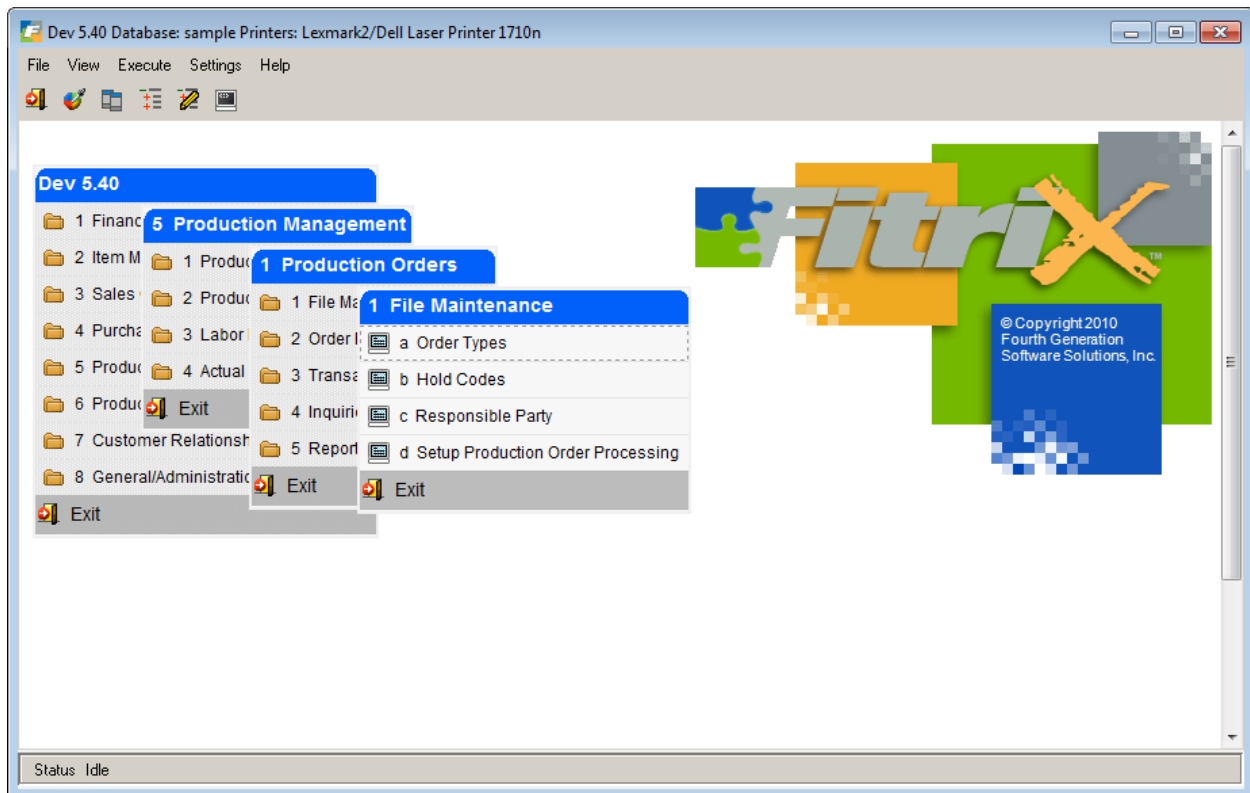
**Order Entry** has the ability to directly create production orders for orders with line type of MTO (make-to-order). Item quantity availability is expressed as the net of any commitments from Production Orders OR sales orders.

**Inventory Control** feeds the Production Order Processing system information about item availability.

**Purchasing** reports show components requirements from Production Orders for items received on Purchase Orders.

## File Maintenance Menu

Options on the File Maintenance menu allow you to set up a number of reference files for production orders. To view this menu from the main menu select **Production Management > Production Orders > File Maintenance (option 1)**.



The following options are available on this menu.

**Order Types** – Used to enter one or more types that control how the order is to be processed after it has been entered into the system.

**Hold Codes** – Used to define one or more hold codes that are used whenever a production order is placed on hold. It allows you to define multiple business reasons for holding an order (for example, material shortage, quality, scrap disposition, etc.).

**Responsible Party** - Used to define persons responsible for work orders.

**Setup Production Order Processing** – Used to enter the initial setup options for the module, as well as indicating that the module is ready for use.

## Setup Production Order Processing

Use this option to set up the default values used by other programs in the module.

Select Setup Production Order Processing, from the File Maintenance menu (**option d**). The following window displays:

Setup Production Order Processing

File Edit View Navigation Tools Actions Help

Update Browse

Default Order Type: ST

Default Department: 000

Order History Support: ☒

Automatic Order Numbers: ☒

Next Order Number: 524

Automatic Pick Number Type: Unique per Order

Next Pick Number: 297

Reason Code Required: ☐

Next G/L Post Document: 162

Next G/L Post Sequence: 1

Setup Complete: Y

Work in Process Account Defaults

Material	130000000	Production Scrap	100000000
Labor	130000000	Scrap Expense	100000000
Overhead	100000000	Receipts	100000000
Outside Process	100000000		

1 of 1

OVR

Select 'Update' to enter or change the defaults.

The following fields can be maintained:

Field	Description
Default Order Type	Each production order must be assigned an order type. This type is validated against the Order Types reference table. The order type can be automatically filled in with the value entered here. The user can still change it to another valid order type.
Default Department	Each order has a department code used to send transactions to Fitrix General Ledger. The value entered here will automatically fill in during Order Entry.

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Field	Description
Order History Support	When production orders are closed, they can be archived to history files for later review via inquiries and reports. Check this box if you want orders to be archived when they are purged in the Order Closeout menu. If this box is unchecked, closed orders are removed when they are purged, and not copied to history.
Automatic Order Number	Check this box if you want to automatically assign production order numbers during Order Entry. You can still override the generated number if you wish.
Next Order Number	The next order number to be assigned, if you use Automatic Order Numbers
Automatic Pick Number Type	This option has two choices: <ul style="list-style-type: none"> <li>Unique per Order – The first pick list for a new order will be assigned number '1'. Reprints will increment from 1, to indicate the number of times a pick list has been printed for an order.</li> <li>Sequential – Each pick list will be assigned a unique number, assigned from the entry in this setup screen</li> </ul>
Next Pick Number	The next pick number to be assigned, when the Sequential option is selected for Automatic Pick Number Type
Reason Code Required	Check this box to require the entry of a reason code when an item is scrapped via the Production Scrap transaction
Next GL Post Document	The next document number to be assigned to transactions posted to Fitrix General Ledger
Next GL Post Sequence	The next posting sequence number to be assigned to transactions posted to Fitrix General Ledger
Setup Complete	Set this value to Y when you are ready to begin using production order processing.
WIP Default Account – Material	If accounting codes are not used for a Production Order, enter the account number to be debited when an item is issued to a production order with the Component Issue transaction
WIP Default Account – Labor	If accounting codes are not used for a Production Order, enter the account number to be debited when a labor transaction is posted to production order with the Labor Reporting transaction
WIP Default Account – Overhead	If accounting codes are not used for a Production Order, enter the account number to be debited when overhead for a labor transactions is posted to a production order with the Labor Reporting transaction
WIP Default Account – Outside Process	If accounting codes are not used for a Production Order, enter the account number to be debited when a transaction is posted to a production order for an Outside Process routing step, with the Labor Reporting transaction
WIP Default Account – Production Scrap	If accounting codes are not used for a Production Order, enter the account number to be credited when an end item is scrapped on a production order with the Production Scrap transaction.
WIP Default Account – Scrap Expense	If accounting codes are not used for a Production Order, enter the account number to be debited when an end item is scrapped on a production order with the Production Scrap transaction

Field	Description
WIP Default Account – Receipts	If accounting codes are not used for a Production Order, enter the account number to be credited when an end item is received to inventory on a production order with the Production Receipt transaction

## Order Types

Order types must be entered before you can use them on a production order. In addition, at least one order type must be entered here before it can be selected as the default order type in the 'Setup Production Order Processing' menu option.

Select Order Types (**option a**). The following window displays:

Field	Description
Order Type	Enter a unique 3-character identifier.
Description	Enter a description of the order type
Accounting Code	Enter a valid accounting code. This code will automatically fill in during Order Entry, when you select this order type.
G/L Department	Enter a valid Fitrix General Ledger Department. This code will automatically fill in during Order Entry, when you select this order type.



Field	Description
Type of Bill of Material	<p>This value controls how a parent item's bill of material is processed during Production Order Entry. Select one of the following values:</p> <ul style="list-style-type: none"> <li>• <b>Standard No Changes</b> – The manufactured item's standard bill of material is to be copied into the order's list of components when the order is saved and no changes are allowed.</li> <li>• <b>Standard with Changes</b> - The manufactured item's standard bill of material is to be copied into the order's list of components, and the components will be displayed, to allow for changes, before the order is saved.</li> <li>• <b>Manual Entry</b>– No standard bill of material will be copied into the order's list of components, but the component list screen will be displayed, to allow the user to enter a custom list of components, before the order is saved.</li> </ul>
Type of Routing	<p>This value controls how a parent item's standard routing is processed during Production Order Entry. Select one of the following values:</p> <ul style="list-style-type: none"> <li>• S – Use the standard routing for the parent item entered, and DO NOT automatically display the routing window</li> <li>• C - Use the standard routing for the parent item entered, and automatically display the routing window before the order is saved</li> <li>• M – Do not use the standard routing for the parent item entered, but automatically display the routing window before the order is saved</li> </ul>
Type of Purchase Order	Zoom to select what PO type should be created for purchase orders issued for short components.
Price Calculation Method	When generating the customer invoice if the production order for the line types MTO/MTN has a price calculation method of Actual units and hours then recalculate item price based on actual material and labor posted to the prod order rather than the estimated/expected units and hours.
Add Date	Maintained by the program
Change Date	Maintained by the program

## Hold Codes

When you change the status of an active production order to 'H' (for hold), and hold code must also be entered to indicate a reason for the hold. This hold code is then used to control which types of transactions may or may not be processed while the order is held.

To view this screen, select Hold Codes (**option b**). The following window displays:

Below is a description of the fields which can be entered in the Hold Codes window

Field	Description
Hold Code	Enter a unique 3-character identifier.
Description	Enter a description of the hold code
Component Allocations	Select one of the following options: <ul style="list-style-type: none"> <li>Not allowed – the user will not be allowed to use this menu option for the held order</li> <li>Allowed with warning – the user will be allowed to use this menu option, but a warning window will display reminding the user of the held status</li> <li>Allowed – the user is allowed to use this menu option</li> </ul>

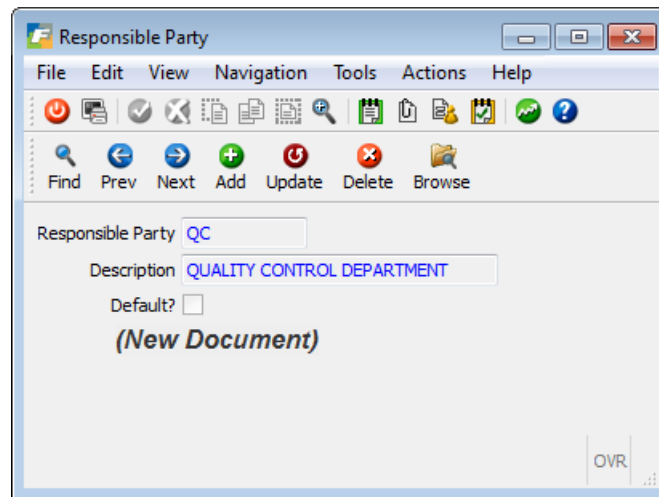
Field	Description
Component Issue	Select one of the following options: <ul style="list-style-type: none"><li>• Not allowed – the user will not be allowed to use this menu option for the held order</li><li>• Allowed with warning – the user will be allowed to use this menu option, but a warning window will display reminding the user of the held status</li><li>• Allowed – the user is allowed to use this menu option</li></ul>
Production Packet Print	Select one of the following options: <ul style="list-style-type: none"><li>• Not allowed – the user will not be allowed to use this menu option for the held order</li><li>• Allowed with warning – the user will be allowed to use this menu option, but a warning window will display reminding the user of the held status</li><li>• Allowed – the user is allowed to use this menu option</li></ul>
Production Receipts	Select one of the following options: <ul style="list-style-type: none"><li>• Not allowed – the user will not be allowed to use this menu option for the held order</li><li>• Allowed with warning – the user will be allowed to use this menu option, but a warning window will display reminding the user of the held status</li><li>• Allowed – the user is allowed to use this menu option</li></ul>
Production Scrap	Select one of the following options: <ul style="list-style-type: none"><li>• Not allowed – the user will not be allowed to use this menu option for the held order</li><li>• Allowed with warning – the user will be allowed to use this menu option, but a warning window will display reminding the user of the held status</li><li>• Allowed – the user is allowed to use this menu option</li></ul>
Order Closeout	Select one of the following options: <ul style="list-style-type: none"><li>• Not allowed – the user will not be allowed to use this menu option for the held order</li><li>• Allowed with warning – the user will be allowed to use this menu option, but a warning window will display reminding the user of the held status</li><li>• Allowed – the user is allowed to use this menu option</li></ul>

## ***Responsible Party***

Use this option to enter one or more persons responsible for the work orders.

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To view this screen, select Reason Codes **(option c)**. The following window displays:



Field	Description
Responsible Party	Enter a unique 10-character identifier.
Description	Enter a description of the reason code
Default	Check if this code should be the default code used on production work orders

## Scrap Reason Codes

Use this screen to set up reason codes that are then assigned to scrap transactions when entered

To view this screen, select Reason Codes **(option e)**. The following window displays:

Scrap Reason Codes

File Edit View Navigation Tools Actions Help

Find Prev Next Add Update Delete Browse

Reason Code

Description

Accounting Code

Add Date

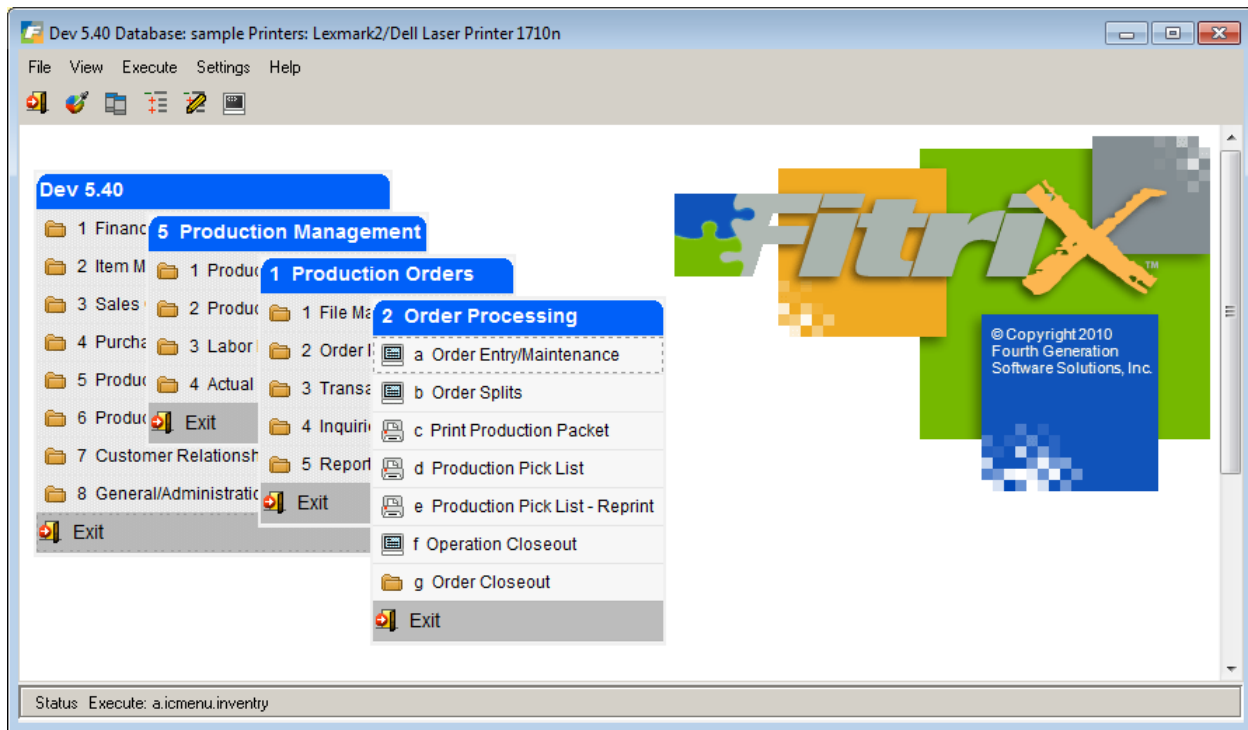
Change Date

1 of 1

OVR

## Order Processing Menu

Options on the Order Processing menu allow you to create and maintain production orders, print documents for the orders, and closeout the orders. To view this menu from the main menu select **Production Management > Production Orders > Order Processing (option 2)**.



The following options are available on this menu.

**Order Entry/Maintenance** – Used to create or change production orders.

**Order Splits** – Used to split a base order into multiple releases.

**Print Production Packet** – Used to print a packet for the order, intended to be kept with the items being produced.

**Production Pick List** – Used to print a list of components to be picked from inventory for the production order.

**Production Pick List - Reprint** – Used to re-print a list of components to be picked from inventory for the production order.

**Operation Closeout** – Used to select routing step operations for closeout.

**Order Closeout** - Use this option to access submenu and close out a specific production order, close out a range of orders based on date, run a closed orders report, re-open a closed order, or purge closed orders from the system.

## Order Entry/Maintenance

This menu option (a) is used to enter or change Production Orders. The following screen displays:

The following fields can be entered:

Field	Description
Order	The unique number assigned to this production order.
Release	The number of the release for this production order. This column is used when splitting orders. The value defaults to '000' for new orders. Values other than 000 indicate a split order (described later).
Warehouse	The identifier for the warehouse in which the item will be produced. Zoom for a list of valid warehouses.  <i>The item and warehouse entered must already exist in the Update Inventory Information option in Inventory Control.</i>
Order Quantity	The number of units of the item being produced.
Start Date	The date this order is to be started. If the date is not a valid working day, a warning message will display. Zoom to display a calendar.

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Field	Description
Due Date	The date the order is scheduled to be complete. If the date is not a valid working day, a warning message will display. Zoom to display a calendar.
Order Type	Enter a valid order type. The default is automatically assigned from the Setup window, but you can change it.
Order Status	This column can have one of the following values: <ul style="list-style-type: none"> <li>• A – Active. This is the default value for a new order</li> <li>• H – Held. This indicates that the order is to be held from further processing</li> </ul>
Hold Code	Enter a valid hold code. A hold code should only be entered if the status is changed to 'H'. Zoom for a list of valid hold codes.
Priority	Enter a user-defined priority, up to 4 characters, A-Z or 1-9.
Sales Order/Line	Enter an optional sales order and line item for the associated demand for this production order.
Assembly Line	This field is reserved for future use
Accounting Code	This field will be assigned automatically from the order type. You may change this to a different accounting code, if needed. Zoom to display a list of valid codes.
G/L Department	This field will be assigned automatically from the order type. You may change this to a different department, if needed. Zoom to display a list of valid departments.
Job	Enter an optional job identifier
Project	Enter an optional project identifier
Revision Level	Enter an optional engineering revision level for the item
Bill of Material Effectivity Date	Enter an optional date to determine which components are to be used on this order. Components can have an effective start and end date in a bill of material. The date entered here is used to exclude components which have effective dates before or after the entered date. If no date is entered, component effective dates will be compared to the order start date, to determine if they should be used.
User Field 1	Enter optional additional information
User Field 2	Enter optional additional information
User Field 3	Enter optional additional information
Bill of Material	The item's default bill of material code (from Update Inventory Information) will be assigned automatically. You may change this code to another valid bill of material for the produced item. Zoom to display a list of valid bill of material codes for the item being produced.
Standard Routing	The item's default routing code (from Update Inventory Information) will be assigned automatically. You may change this code to another valid routing for the produced item. Zoom to display a list of valid standard routing codes for the item being produced.



Field	Description
Type of Bill of Material	<p>This field will be assigned automatically from the order type. It controls how an item's component list is to be processed when a new production order is entered. The allowed values are:</p> <ul style="list-style-type: none"><li>• S – The manufactured item's standard bill of material is to be copied into the order's list of components, when the order is saved</li><li>• C - The manufactured item's standard bill of material is to be copied into the order's list of components, and the components will be displayed, to allow for changes, before the order is saved.</li><li>• M – No standard bill of material will be copied into the order's list of components, but the component list screen will be displayed</li></ul>
Type of Routing	<p>This field will be assigned automatically from the order type. It controls how an item's routing list is to be processed when a new production order is entered. The allowed values are:</p> <ul style="list-style-type: none"><li>• S – The manufactured item's standard routing is to be copied into the order's routing list, when the order is saved</li><li>• C - The manufactured item's standard routing is to be copied into the order's routing list, and the list will be displayed, to allow for changes, before the order is saved.</li><li>• M – No standard routing will be copied into the order's routing list, but the routing list screen will be displayed, to allow the user to enter a custom routing list, before the order is saved.</li></ul>

## ***Component List screen***

This screen displays when you take one of the following actions:

- If a value of C or M is entered in the Type of Bill of Material



- If the  icon is clicked on the summary screen

The component list displays the standard components from the produced item's bill of material (if Bill of Material Type C or S was selected), or an empty list (if Bill of Material Type M was selected).

The following screen displays:

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Sequence	Item	Warehouse	Description	N/S	Phn	Issue Method	Req'd Quantity	Req'd Date	On Hand	Available	PO	Non-Stock Cost	Unit Price	Ind	Pkt	Ack	Quo	Inv
0001	C-DISK	MACON		Stock	<input type="checkbox"/>	Production Receipt	7.000	12/31/2012	.000	.000	S...			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
0002	C-KEY	MACON		Stock	<input type="checkbox"/>	Production Receipt	7.000	12/31/2012	.000	.000	S...			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
0003	C-MOUSE	MACON		Stock	<input type="checkbox"/>	Production Receipt	7.000	12/31/2012	.000	.000	S...			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
0004	C-USB	MACON		Stock	<input type="checkbox"/>	Production Receipt	14.000	12/31/2012	.000	.000	S...			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
0005	C-USBCA	MACON		Stock	<input type="checkbox"/>	Production Receipt	7.000	12/31/2012	.000	.000	S...			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
0006	C-MON	MACON		Stock	<input type="checkbox"/>	Production Receipt	7.000	12/31/2012	.000	.000	S...			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
0007	LABOR	MACON		Non-s...	<input type="checkbox"/>	Production Receipt	56.000	12/31/2012						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Review the list of components displayed. You may change the list by adding new components, changing existing components, or deleting components. The following fields can be entered for each component:

Field	Description
Seq	Enter a sequential identifier for the component. Components are sorted for display and print based on this sequence.
Item	Enter a valid item code for the component to be used. The combination of the 'Seq' and 'Item' must be unique for the line. Zoom to display a list of valid items.
Warehouse	Enter a valid warehouse from which this component will be used. Zoom to display a list of valid warehouses..  <b>NOTE:</b> The item and warehouse entered must already exist in the Update Inventory Information option in Inventory Control.
Description	The description for the component item displays automatically. It cannot be changed.
Phn (Phantom)	This field is assigned automatically from the item's master information. The possible values are: <ul style="list-style-type: none"> <li>1 (Yes) – this item is a phantom. It is NOT used from inventory, but it's components ARE used from inventory. The phantom code is a convenient way to configure multiple items under a common item code. Then, wherever this common item code is referenced, the phantom value of 1 indicates that the components for the common item code should be used, NOT the common item itself.</li> <li>0 (No) – this item is NOT a phantom. It will be used from inventory directly.</li> </ul>
Req'd Quantity (Required Quantity)	The total units of the component item required to produce the number of units of the produced item.  This value is typically computed from the quantity per unit in the standard bill of material, extended by the number of units of the produced item.
Req'd Date (Required Date)	The date when this component item is expected to be issued from inventory.

Field	Description
On Hand	The current on hand balance in inventory for the item. This is displayed as a reference to allow the user to determine if a sufficient quantity exists to be used on this order
Available	<p>The current on hand balance, minus allocations to sales orders or other production orders. This is displayed as a reference to allow the user to determine if a sufficient quantity exists to be used on this order.</p> <hr/> <p><i>While the quantity on hand may indicate a sufficient balance exists to be used, the available quantity gives more information about additional requirements from other orders for this same component.</i></p> <hr/>
PO	The purchase order created for this component requirement if there was a shortage of availability.
Non stock Cost	enter the cost for non-stock items.
Unit Price	For job shop orders enter the price the customer should be charged. See the chapter on Job Shop in this user guide for more information.
Check Boxes	<p>Check which documents you want the components to print on. Choices are:</p> <ul style="list-style-type: none"> <li>○ Pkt – production packet</li> <li>○ Ack- customer order acknowledgement</li> <li>○ Quo – customer quotation</li> <li>○ Inv – customer invoice</li> </ul>

## **Component Details screen**

This screen displays when the cursor is positioned on a specific component on the Component List screen, and you click the  button. It lets you review and/or enter additional detail for the selected component. Most of the values are loaded automatically from either the bill of material components table, or the Item Inventory Information table.

The following screen displays:

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View Component Detail

File Edit View Tools Help

Production Order Entry/Maintenance - Component Detail

Order 492 Release 000

Component Seq 0001

Component Item C-DISK

Revision Level

Operation Used

Operation Consumed

Inventory/Non-Inv Stock

Issue Method Component Issue

Issue Type Transaction

Start Offset Days 0

Date Required 12/31/2012

User Field 1

User Field 2

User Field 3

Description

Desc 1 HARD DRIVE

Desc 2

Extended Desc

Quantities

Per Unit 1.0000000

Total Required 7.000

Issued .000

Scrapped .000


OK Cancel

OVR

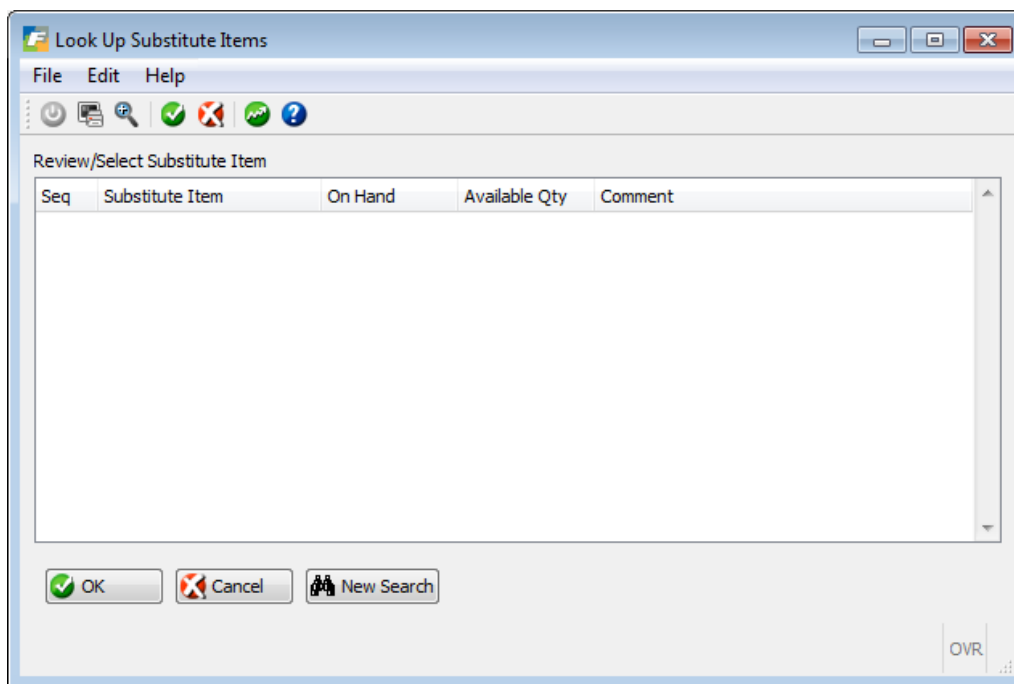
Field	Description
Revision Level	The current revision level of the item from the Item Inventory Information
Operation Used	The first step in the routing where this component item is used from inventory.
Operation Consumed	This field is reserved for future use.
Inventory/Non-Inventory	<p>The possible values are:</p> <ul style="list-style-type: none"> <li>S (stock) – this component is to be issued from stock</li> <li>N (non-stock) – this component will not be issued from stock.</li> </ul>

Field	Description
Issue Method	<p>The possible values are:</p> <ul style="list-style-type: none"> <li>• 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).</li> <li>• 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).</li> <li>• – 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.</li> <li>• N – the component will not be issued. This is typical of items which are sent to work in process in bulk, or for items which are needed in the production process, but are not stocked items (engineering drawings, tooling, etc).</li> </ul>
Issue Type	<p>The possible values are:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> </ul>
Start Offset Days	The number of days after the order starts when this component needed. This offset if used to component the actual required date for the component.
Date Required	The date when this component is to be issued from inventory. The default value is the order date. If the component has a 'Start Offset Days' defined, this will be added to the order start date to computer a required date.
User Field 1	Enter optional additional information
User Field 2	Enter optional additional information
User Field 3	Enter optional additional information
Quantities – Per Unit	The number of units of the component to produce one unit of the end item.
Quantities – Total Required	The total number of units of the component needed to produce the total quantity of the end item.
Quantities – Issued	The total number of units already issued for the component
Quantities – Scrapped	The total number of units of this component already consumed by Production Scrap transactions

## Substitutions screen

This screen displays when the cursor is positioned on a specific component on the Component List screen, and you click the  button. It allows you to review and/or select a substitute item for the current component. This function is typically used when the component has an insufficient quantity of inventory for the order.

The following screen displays:



The following fields are displayed:

Field	Description
Seq	The sequential order for the component. Typically, the substitutes with lower sequence values are preferred over higher sequence values
Substitute Item	the item code for the substituting item
Available Qty	the on-hand balance, minus existing allocations, for the substitute.
Comment	a user-defined comment for how the substitute should be used.

To select a substitute, move the cursor the desired item, then click OK. The substitute item will be returned to the Components List window, and will replace the component.

## Routing List screen

This screen will display when the user takes one of the following actions:

- If a value of C or M is entered in the Type of Routing



- If the Routing icon is clicked on the summary screen

The routing list displays the routing from the produced item's standard routing (if Routing Type C or S was selected), or an empty list (if Routing Type M was selected).

The following screen is displayed:

One or more routing steps may be entered for the production order. For each routing step, the following fields can be entered:


Field	Description
Seq	Enter a sequential identifier for the routing step. Steps are sorted for display and print based on this sequence.
Oper (Operation)	Enter an optional standard operation. Standard Operations can be defined in the Standard Routing module. Selecting an operation here can automatically fill in many of the remaining columns for the step (ie Work Center, Machine, Department, Tool List, Setup Hrs, Labor Hrs)
Description	a free-form description of the routing step
L/M – (Labor/Machine Constrained)	Indicate whether this routing step should be scheduled based on labor hours or machine hours
I/O (Inside/Outside Process)	Indicate if this step is performed within the company's production facilities, or if it is performed by an outside entity (such as a service provider).
Work Center	Enter a required work center at which this step will be performed. If a Work Center is selected, it's labor and overhead hourly rates are used to compute labor and overhead costs for the order
Mach (Machine)	Enter an optional machine at which this step will be performed
Dept (Department)	Enter an optional department at which this step will be performed.

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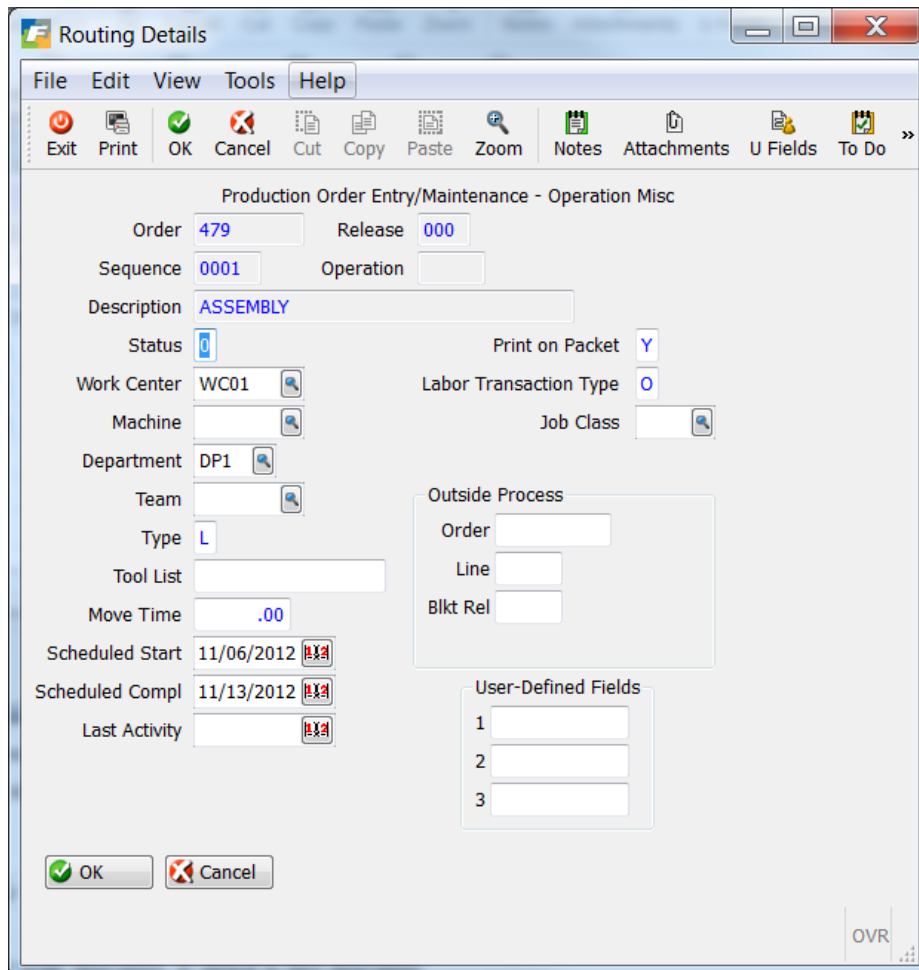
Field	Description
Tool List	Enter an optional tooling identifier or list of tools required to be used at this step
Setup Hrs (Setup Hours)	Enter the number of hours required to prepare this step for the production process. If there is no setup time needed, enter 0.
Run Labor Hrs (Run Labor Hours)	<p>Enter the number of hours associated with completing this step for the produced item. This field is used together with the basis code below.</p> <hr/> <p><i>If the labor time is less than 1 hour, the time must be entered as the decimal equivalent of an hour. For example, a run time of 5 minutes per piece must be entered as 0.0833333, or 5/60 of an hour.</i></p>
Basis	<p>Enter one of the following values:</p> <p>H (Hours per piece) – the run labor hours above are expressed as the 'hours required to produce one unit of the end item'</p> <p>P (Pieces per hour) – the run labor hours above are expressed as the 'pieces completed within one hour'</p>
Mach Labor Hours	Enter the number of machine hours required to complete this step.
Basis	<p>Enter one of the following values:</p> <p>H (Hours per piece) – the run labor hours above are expressed as the 'hours required to produce one unit of the end item'</p> <p>P (Pieces per hour) – the run labor hours above are expressed as the 'pieces completed within one hour'</p>
Unit price	For job shop orders enter the price the customer should be charged. See the Job Shop chapter in this Guide for more information.
Check Boxes	<p>Check which documents you want the routing steps to print on. Choices are:</p> <ul style="list-style-type: none"> <li>○ <b>Pkt</b> – production packet</li> <li>○ <b>Ack-</b> customer order acknowledgement</li> <li>○ <b>Quo</b> – customer quotation</li> <li>○ <b>Inv</b> – customer invoice</li> </ul>




## Routing Detail screen

This screen displays when the cursor is positioned on a specific routing step on the Routing List screen, and you click the  Details button.

The following screen displays:



The screenshot shows the 'Routing Details' window with the following fields and values:

Production Order Entry/Maintenance - Operation Misc	
Order	479
Release	000
Sequence	0001
Operation	
Description	ASSEMBLY
Status	
Work Center	WC01
Machine	
Department	DP1
Team	
Type	L
Tool List	
Move Time	.00
Scheduled Start	11/06/2012
Scheduled Compl	11/13/2012
Last Activity	
Print on Packet	Y
Labor Transaction Type	O
Job Class	
Outside Process	
Order	
Line	
Blkt Rel	
User-Defined Fields	
1	
2	
3	

Buttons: OK, Cancel

Bottom right: OVR

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The following fields can be entered:

Field	Description
Status	Possible values are: <ul style="list-style-type: none"><li>• 0 – the packet has not yet been printed</li><li>• 1 – no activity on this operation, and no activity on previous operation</li><li>• 2 – no activity on this operation, and the previous operation has started</li><li>• 3 – no activity on this operation, and the previous operation has been completed</li><li>• 4 – some activity has been reported for this operation</li><li>• 5 – this operation is completed</li><li>• 7 – this operation is closed</li></ul>
Work Center	The required work center at which this operation is being performed. Zoom for a list of valid work centers
Machine	The optional machine at which this operation is being performed. Zoom for a list of valid machines.
Department	The optional production department in which this operation is being performed.
Team	The optional team performing the work at this operation
Type	Possible values are: <ul style="list-style-type: none"><li>• L – this operation is to be scheduled based on labor hours remaining</li><li>• M – this operation is to be scheduled base on machine hours remaining</li></ul>
Tool List	The optional tooling list identifier for one more special tools required for this operation
Move Time	The optional move time in days after this operation is completed. The default value is zero.
Scheduled Start Date	The date this operation is scheduled to be started
Scheduled Compl (Schedule Completion Date)	The date this operation is scheduled to be completed.
Last Activity	The last date any labor activity was reported for this operation
Print on Packet	Y for yes, N for no

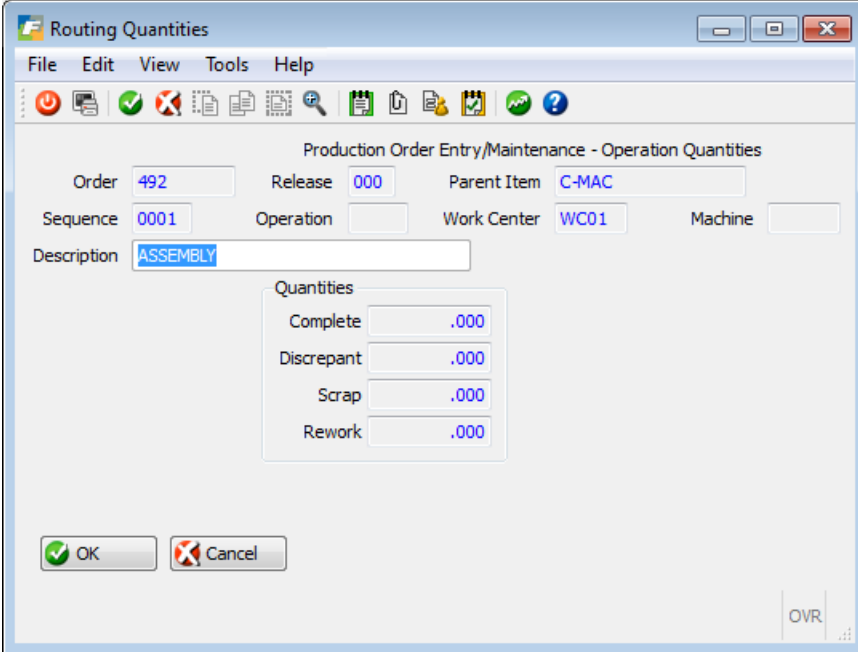
**Fitrix Manufacturing Execution Course Workbook**

Field	Description
Labor Transaction Type	This field is reserved for future use
Job Class	The optional default Job Class for this operation. Job classes can be used to set standard labor rates per hour which may override the Work Center standard labor rate.
Outside Process – Order	The purchase order number associated with this operation, if the Inside/Outside Process type is O.
Outside Process – Line	The purchase order line item
Outside Process – Blkt Rel (Blanket Release)	Field is reserved for future use.
User-Defined Field 1	Enter additional user-defined information
User-Defined Field 2	Enter additional user-defined information
User-Defined Field 2	Enter additional user-defined information

## Routing Quantities screen

This screen displays when the cursor is positioned on a specific routing step on the Routing List screen, and you click the  Quantities button.

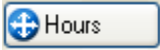
The following screen displays:

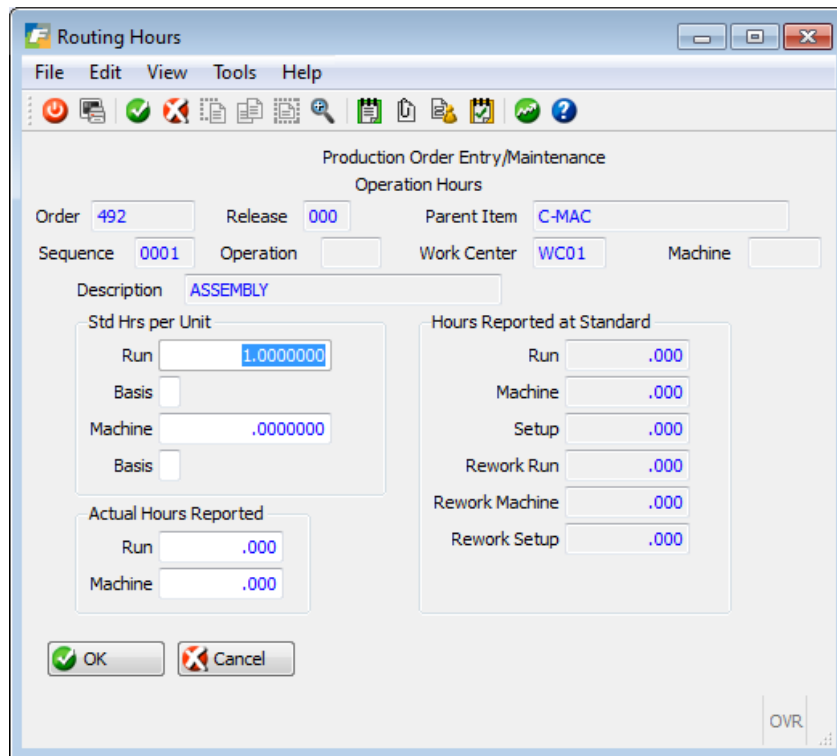


The following fields are displayed:

Field	Description
Quantities – Complete	The number of units completed through this operation
Quantity – Discrepant	This field is reserved for future use
Quantity – Scrap	The number of pieces reported scrapped at this operation
Quantity – Rework	This field is reserved for future use

## Routing Hours screen

This screen displays when the cursor is positioned on a specific routing step on the Routing List screen, and you click the  button.



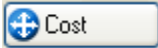
The following fields are displayed:

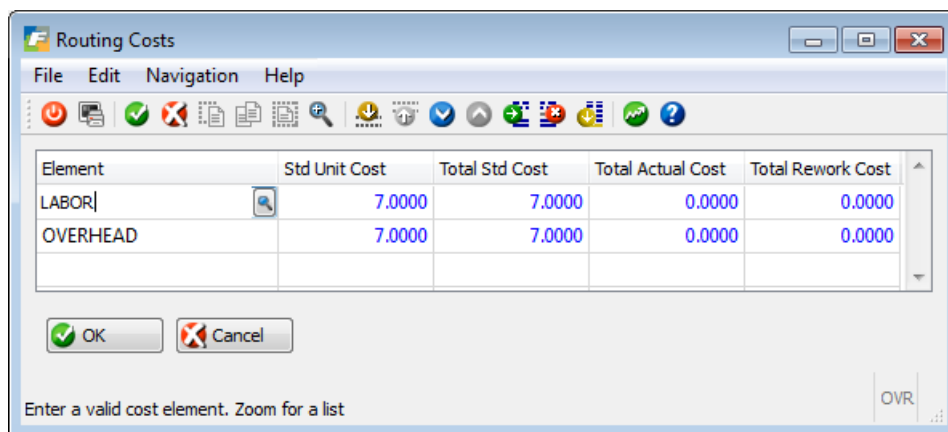
Field	Description
Std Hrs per Unit – Run	The number of labor hours required to complete the end item.
Std Hrs per Unit – Basis	Possible values are: H – Run hours are entered as 'Hours required to produce one unit' P – Run hours are entered as 'Number of units completed in one clock hour'
Std Hrs per Unit – Machine	The number of machine hours required to complete the end item.
Std Hrs per Unit – Basis	Possible values are: H – Machine hours are entered as 'Hours required to produce one unit' P – Machine hours are entered as 'Number of units completed in one clock hour'

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Field	Description
Actual Hours Reported – Run	The number of labor hours reported to date for this operation
Actual Hours Reported – Machine	The number of machine hours reported to-date for this operation.
Hours Reported at Standard – Run	The number of units completed at this operated, times the Run Labor hours per unit
Hours Reported at Standard – Machine	The number of units completed at this operated, times the Machine Labor hours per unit
Hours Reported at Standard – Setup	If the operation has started the standard setup hours for this operation displays. If the operation has not started, zero will display here.
Hours Report at Standard – Rework Run	Field is reserved for future use.
Hours Reported at Standard – Rework Machine	Field is reserved for future use.
Hours Reported at Standard – Rework Setup	Field is reserved for future use.

### ***Routing Cost screen***

This screen displays when the cursor is positioned on a specific routing step on the Routing List screen, and you click the  button.



The screenshot shows the 'Routing Costs' window. It has a menu bar with 'File', 'Edit', 'Navigation', and 'Help'. Below the menu is a toolbar with various icons. The main area contains a table with the following data:

Element	Std Unit Cost	Total Std Cost	Total Actual Cost	Total Rework Cost
LABOR	7.0000	7.0000	0.0000	0.0000
OVERHEAD	7.0000	7.0000	0.0000	0.0000

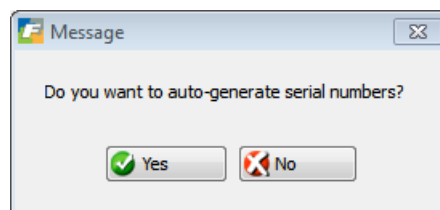
At the bottom of the window, there are 'OK' and 'Cancel' buttons. Below the buttons, it says 'Enter a valid cost element. Zoom for a list'. In the bottom right corner, there is a label 'OVR'.

Field	Description
Element	Predefined cost elements associated with this order
Std Unit Cost	The standard unit cost for the element associated with this order.
Total Std Cost	The total standard cost of the element associated with this order
Total Actual Cost	The total actual cost of the element associated with this order.
Total Rework Cost	The total rework cost of the element associated with this order.

## **Serial/Lot Screen**

If you are producing more than one of an item and the item being produced is serial and/or lot # controlled and has one or more components that are serial/lot # controlled use this screen to assign parent serial/lot #s to end items. Then when either Component Issue or Production Receipt is run you can assign the component serial/lot #s to the parent serial/lots# thereby having full traceability as to which parts went into each end item.

If auto serialization is turned on in the IC defaults table you will receive this prompt when you click on the Serial/Lot screen button



If you answer Y this screen displays with the serial numbers populated:

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Lot	Serial	Quantity
	ABC3903	1.000
	ABC3904	1.000
	ABC3905	1.000
	ABC3906	1.000

If auto serialization is not turned on this screen will still display but you will need o manually assign serial and/or lots numbers.



## ***Multiple Inventory Items on the Same Work Order***

Example:

You want a single work order that consumes one or more components and produces (to stock):

1 unit of an item A  
2 units of an item B  
2 units of an item C

To accomplish this:

1. Set up a production order for 1 unit of item A.
2. Add components for all the material needed to produce items A, B and C.
3. Add item B as a component with a total qty required of -2, and an issue method of P(production receipt).
4. Add item C as a component with a total qty required of -2, and an issue method of P(production receipt).
5. Issue the components from step 2.
6. Enter a Production Receipt for item A. Items B and C will pop up at the bottom of the screen, with negative quantities displayed in the 'This Issue' column.
7. When you click OK to save, it will put:
  - 1 unit of item A into inventory
  - 2 units of item B into inventory
  - 2 units of item C into inventory

## Order Splits

This menu option is used to separate a base production order into multiple releases. This is useful when material or resource shortages exist on a base order, but enough material or resources exist to produce a smaller quantity. The production quantity can be 'split' from the base order into a new order that refers to the base order, but has its own release number.

Select the Order Splits option (b) from the Order Processing menu. The following window displays:

You must first click the Find button, then enter the Order Number and Release for the base order you wish to split, and click OK. After verifying the base order information, click the Update button to create a split order.

Field	Description
Split Order Release	Enter a new release number for the split order. The split order will retain the Order Number, but must have a unique release number
Quantity	Enter the quantity to be split into the new release

Field	Description
Due Date	Enter the due date for the new release
Description	Enter text describing the reason for the split.

After entering the split order information, click OK to create the split order. The base order will remain as an active order, with the same due date, and a quantity which is the difference between the base order quantity and the split order quantity.

## ***Print Production Packet***

This menu option (c) is used to print or reprint production packets for orders entered through the Order Entry/Maintenance option. The Production Packet prints summary information about the order, such as item produced and warehouse, quantity and due date, and reference information and notes. In addition:

- Component List – the component items and descriptions, along with their required quantities and dates
- Routing List – the routing steps required to product the end item. Each step prints with description, setup and labor hour, and department, work center, machine and teams used to produce.

When you select this menu option, you must first indicate the destination of the report on the 'Select Printer' window (see Chapter 1). The following window then displays:

The screenshot shows a Windows-style dialog box titled "Production Packet Print". It features a "Print" section on the left with five checkboxes: "All Unprinted Orders?", "Range of Orders?", "Range of Items?", "Range of Due Dates?", and "Specific Orders?". To the right of these are "From" and "To" date fields, each with a calendar icon. Below the "Print" section is a "Sections to Print" section with three checked checkboxes: "Component List?", "Operation List?", and "Print Images?". At the bottom left are "OK" and "Cancel" buttons. A small "OVR" label is located in the bottom right corner of the dialog area.

Enter the following fields to indicate which specific packets should print:

Field	Description
All Unprinted Orders?	If you select Y, all production orders which have not yet printed a Packet, will print.
Range of Orders?	If you select Y, you must also enter a range of order numbers
Range of Items?	If you select Y, you must also enter a range of item numbers
Range of Due Dates?	If you select Y, you must also enter a range of order due dates.
Specific Orders?	If you select Y, you must also enter individual order numbers (up to eight orders).
Print Component List	If you want the component list to print on the packet, select Y
Print Routing List	If you want the routing list to print on the packet, select Y

---

NOTE: You can only select Y for one of the 5 five choices in the 'Print' section above.

---

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

### ***Production Pick List / Production Pick List – Reprint***

These menu options (d and e) are used to print or reprint component material pick lists for orders entered through the Order Entry/Maintenance option. The Production Pick List prints the inventoried components which are to be picked to begin the production process. For each component, the item and description are printed, along with the quantity required and required date. In addition, if the component(s) are either serialized or lot controlled (see the *Inventory Control User Guide*), the serial or lot information is printed below the description.

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 window then displays:

**Production Pick List Re-Print**

Warehouse:

Range: From  To

Order:

Release:

Request Date:

Specific Orders:

Orders/Releases:

Line Item Sort Sequence:

OVR

Enter the following fields to indicate which specific pick lists should print:

Field	Description
Warehouse	Enter the warehouse for the order(s) to be printed. If a production order requires components from multiple warehouses, a separate pick list must be printed from each warehouse.
All Unprinted Orders?	<p>If you select Y, all production orders which have not yet printed a Pick List, will print.</p> <p>NOTE: if you select Y here, you cannot also select a Range, or Specific items</p>
Range?	If you select Y, you must also enter a range of order numbers
Specific Orders?	<p>If you select Y, you must also enter individual order numbers (up to eight orders).</p> <p>NOTE: you may enter a range, AND specific order numbers.</p>
Line Item Sort Sequence	<p>possible values are:</p> <ul style="list-style-type: none"> <li>• I – Sort by item number</li> <li>• L – sort by component sequence number</li> <li>• D – sort by default stock location</li> </ul>

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

## Operation Closeout

Use this menu option (2-f) to set the status of open operations on a production order to completed. Closing open operations removes them from the order scheduling functions in the *Production Scheduling* module.

Seq	Description	Work Ctr	Mach	Sts	Start	Complete	Scrap	Close
0001	ASSEMBLY	WC01		3		.000	.000	.000
0002	TEST	WC01		1		.000	.000	.000
0003	ANTI-VIRUS SCAN	WC01		1		.000	.000	.000

Field	Description
Responsible Party	If necessary (optional)
Close All Operations?	Check this box to close all operations

When you press tab, you may see the following popup window:

Click Yes to continue (all operations will display as checked), or No to return to the screen. If you select Yes, the cursor will move to the checkbox for the first operation.

## Order Closeout

Use these menu options (2-g) to move completed production orders to the history inquiry tables, re-open as needed, and also purge from the database.

### Closeout by Order

Use this option to close a specific Production Order. The following window displays:

Closeout by Order

File Edit View Navigation Tools Actions Help

Find Prev Next Update Browse

Order 525 Release 000 Close Order? ☐

Item C-MAC MAC LAPTOP

Warehouse MIAMI

Completed .000

Scrapped .000

Start Date 03/05/2013

Order Quantity 1.000

Due Date 03/06/2013

Order Type ST

Status A Hold Code

Job

Project

Priority

Sales Order Line

Component Issue Status Complete

Labor Reporting Status None

Variance Reporting Status Not posted

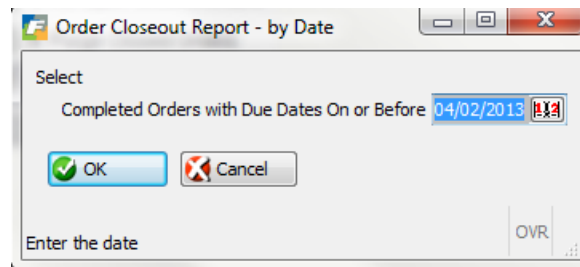
1 of 1

OVR

Use the Find option to enter the order to be closed. Then select Update, and the 'Close Order' checkbox will automatically be checked. Click OK with the checkbox checked, and the order status will be changed to Closed.

## Order Closeout by Date

Use this option to close orders based on their due dates. The following selection window displays:



An order is eligible to be closed, if its due date is on or before the selected due, and:

- All components have been completely issued
- All labor has been reported in the Labor Processing module
- All variances have been posted from the Actual Costing module.

The selected Active orders will have their status changed to Closed. A report lists the Production Orders which were Closed.

## Closed Orders Report

Use this option to print a list of Production Orders that are closed. No selection window is displayed. The report lists one line per closed order, with due date, closed date and quantities.

## Re-Open Closed Orders

Use this option to re-open previously closed orders. It is common to re-open closed orders when:

- Additional, or previously missed, component materials are to be issued
- Additional labor is to be issued.

The following windows displays:



Re-Open Closed Orders

File Edit View Navigation Tools Actions Help

Find Prev Next Update Browse

Order 522 Release 000 Re-Open Order? (Y/N) ☐

Item COMPUTER COMPUTER REFURBISH

Warehouse SEATTLE

Completed 1.000

Scrapped .000

Start Date 03/04/2013

Order Type MTI

Status C Hold Code Close Date 03/04/2013

Job

Project

Priority

Sales Order 4144 Line 1

Component Issue Status Complete

Labor Reporting Status Partial

Variance Reporting Status Not posted

72 of 93

OVR

Use the Find option to enter the order to be re-opened. Then click Update, and the 'Re-Open Order' checkbox will be automatically checked. Click OK to re-open.

## Purge Closed Orders

Use this option to remove closed orders from the Production Order tables, and optionally archive them in the Production Order History tables. The following window displays:

Purge Closed Orders Report

Select

Warehouse SEATTLE

Item C-MAC

Orders Closed between 03/01/2013 and 03/31/2013

OK Cancel

Enter the warehouse for closed orders

OVR

**Warehouse** – enter the warehouse for orders to be purged. If you do not enter a warehouse, orders for all warehouses will be considered.

**Item** – enter the end item for orders to be purged. If you do not enter an item, orders for all items will be considered.

**Orders Closed between MM/DD/YYYY and MM/DD/YYYY** – Enter a range of closed dates. If you do not enter a range, order with all close dates will be considered.

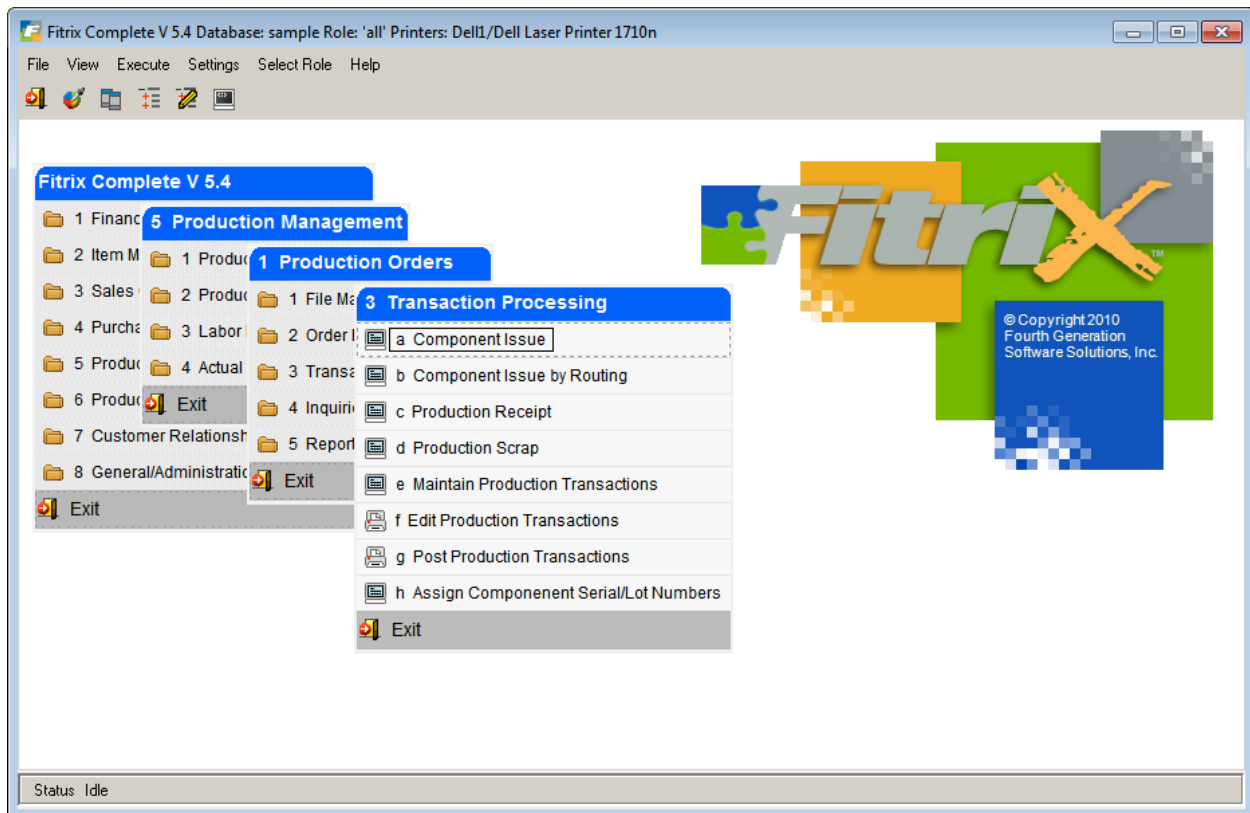
**NOTE 1:** If you do not enter ANY selection criteria, ALL closed orders will be removed and optionally archived to Production Order History.

**NOTE 2:** If you want purged orders to be archived, you must select 'Yes' to the 'Order History Support' option in Setup Production Order Processing.

A report will list the orders removed.

## Transaction Processing Menu

Options on the Transaction Processing menu allow you to enter and process inventory and cost transactions related to production orders. To view this menu from the main menu select **Production Management > Production Orders > Transaction Processing (option 3)**.



The following options are available on this menu.

**Component Issue** - Use this option to move component items from inventory to work in process via production orders

**Component Issue by Routing** - Use this option to move component items from inventory to work in process via production orders, for components used at a specific labor routing step.

**Production Receipts** - Use this option to move component items from inventory to work in process, and to move completed items from work in process to finished inventory.

**Production Scrap** - Use this option to move component items from inventory to work in process and to report units of end item scrapped from production to a scrap expense account.

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**Maintain Production Transactions** - Use this option to process inventory movement transactions in the General Ledger module, if they were not updated immediately during entry.

**Edit Production Transactions** - Use this option to print a validation report for transactions to be posted to General Ledger.

**Post Production Transactions** - Use this option to print a posting report for transactions being posted to General Ledger.

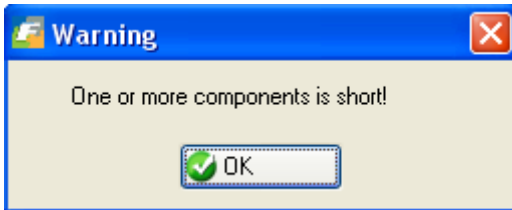
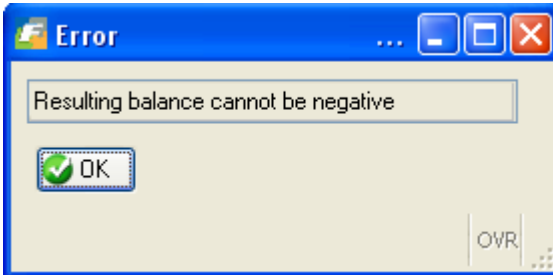
### Component Issue

This menu option (a) is used to issue component inventory from stock, and add it to a production order's component material usage. This option is useful when a production order has a lead time that is long enough to require tracking of the value of work in process on a periodic basis. For example, of a production order requires a 2-week lead-time to complete, and if the material is needed at the start of the order, it is possible that the order might still be in progress at the end of an accounting period. If accounting practices specify that the value of any work-in-process be quantifiable at month-end, Component Issue supports this requirement.

When you select the menu option, the Component Issue window displays. To enter an issue transaction, click the Add button. The first time you select Add, the Session Default screen displays (see below). After you review/change the session defaults, enter the transaction information into the following screen:

Field	Description
Order	Enter the production order number for this transaction. Zoom for a list of valid production orders

Field	Description
Release	<p>Enter the production order release number for this transaction.</p> <hr/> <p><i>When you press tab after entering the Release, other fields related to the order are automatically displayed</i></p>
Pick Number	If you want to issue from a specific pick list number, enter it here. If you leave this field blank, all components which are eligible to be issued will be included.
Due Date	date product should be completed by.
Item	Finished good item.
Warehouse	The warehouse the finished good will be put in.
Issue Date	Enter the date to be recorded with the issue. The default is the Session Default Transaction Date.
Update Inventory Now?	Check if you wish to update the inventory immediately, or uncheck if to update later, via the Post Production Transactions menu option.
Unissued Only?	You can issue components over multiple sessions. Each time you start a session this flag determines what components display in the detail section of the screen. The options are Unissued only, Active Only, All Components.


Field	Description
Default Quantities?	<p>Check to automatically fill in the issue quantities with the expected issue quantities (you can still make changes if needed). Uncheck to fill in the quantities manually.</p> <hr/> <p><i>When you press tab after selecting the Default Quantities choice, the list of components which can be issued display automatically.</i></p> <p><i>Only components with an Issue Method of 'C' will be displayed.</i></p> <p><i>If one or more components has insufficient inventory for the issue, a warning window will display:</i></p>  <hr/>
This Issue	<p>Enter or verify the quantity issued for each component. To reverse a previous component receipt set the Unissued Only flag to All Components and enter a negative quantity.</p> <hr/> <p><i>If you press tab while the cursor is in the 'This Issue' column, AND the 'Detail' column is highlighted as 'Needed', the Serial and Lot Selection screen will display automatically (See 'Detail' description below)</i></p> <p><i>If you press tab while the cursor is in the 'This Issue' column, and the on-hand balance is less than the issue quantity, the following error displays:</i></p>  <hr/> <p><i>You must correct the inventory balance before you can issue the component.</i></p> <hr/>
GL Document	Document number assigned by the program when the issue is posted.

Field	Description
Sales Order Reference	If there is a sales order tied to the work order, its information displays here.
Sts (Status)	<p>Possible choices are:</p> <p>Close – Change the issue status of this component to Closed. No further issues can be entered.</p> <p>Leave Open – The issue status will remain Open. Further issues can be entered later.</p> <p>Re-Open – For a component which was previously closed, change the issue status back to open.</p> <hr/> <p><i>The Status will be automatically set to Close, if the total quantity issued is equal to or greater than the quantity required, OR to Leave Open, if the total quantity issued is less than the quantity required</i></p>
Detail	<p>The possible values are:</p> <p>Needed - If the component is serialized OR lot-controlled, this button will be turned on. This indicates that an additional window will display for you to select the serial numbers or lots to be selected.</p> <p>Supplied – If the component is serialized OR lot-controlled, and the serial or lots have been successfully selected, this button will be turned on.</p> <p>NONE – If the component is NOT serialized and NOT lot controlled, neither button will be turned on, and the serial or lot selection window will not display.</p>
'Short'	This label will display automatically for any component with an on-hand balance less than the required quantity.
Comment	Enter an optional comment for the component being issued

## **Session Defaults Window**

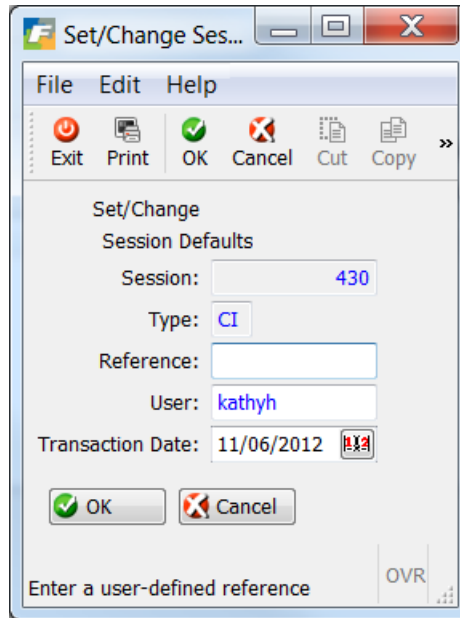
This screen displays:

1. The first time you click the Add button

2. When you click the  button

You typically review or change these session defaults one time, then begin entering transactions.

The following screen displays:




The following fields can be entered:

Field	Description
Reference	Enter a user-defined general reference to be saved with the transactions
User	Enter the user associated with this transaction
Transaction Date	Enter the date the transactions physically took place.

Click OK when finished

## ***Serial and Lot Selection Screen***

This screen displays when:

- You tab past 'This Issue', for a component where the Detail column was highlighted as 'Needed'.
- You click the  button when the cursor is positioned on a component where the 'Detail' column is highlighted as 'Needed' or 'Supplied'

You must select serial numbers or lots with a total quantity that matches the issue quantity.

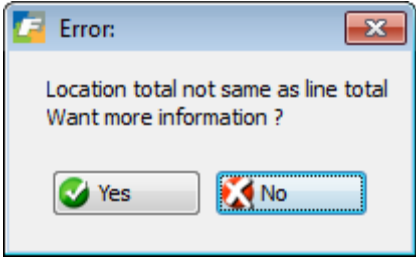
The following screen displays:



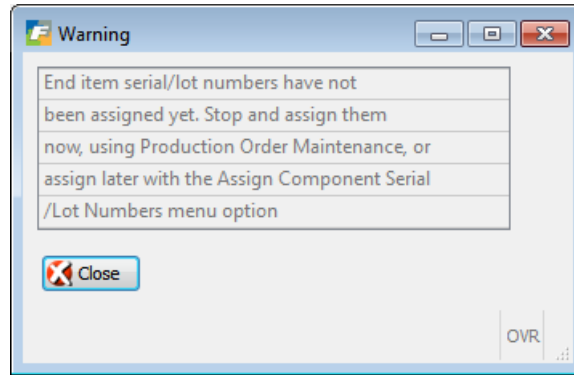
## Fitrix Manufacturing Execution Course Workbook

Location	Lot	Serial	Expire Date	On Hand	Issued	This Issue	Parent Serial	Parent Lot
A1		ABC2256		1.000		1.000		
A1		ABC2257		1.000		1.000		
A1		ABC2258		1.000		1.000		
A1		ABC2259		1.000		1.000		
A1		ABC2260		1.000		.000		
A1		ABC2261		1.000		.000		
A1		ABC2262		1.000		.000		
A1		ABC2263		1.000		.000		
A1		ABC2264		1.000		.000		
A1		ABC2265		1.000		.000		
A1		ABC2266		1.000		.000		

The following fields can be entered:

Field	Description
This Issue	<p>Enter a quantity of the serial number or lot issued</p> <p><i>The issue quantity for each selected serial or lot is summed and compared to the issue quantity for the component. If the sum does not match, an error is displayed:</i></p> 

If you assigned serial/lot #s to the end item being produced you can zoom from the Parent Serial or Parent Lot # fields to associate component serial/lots #s with the parent item they will be a part of. If you have not you will received this error.



The same will hold true in the Production Receipt screen if that is the issue method used.

---

### ***Component Issue by Routing***

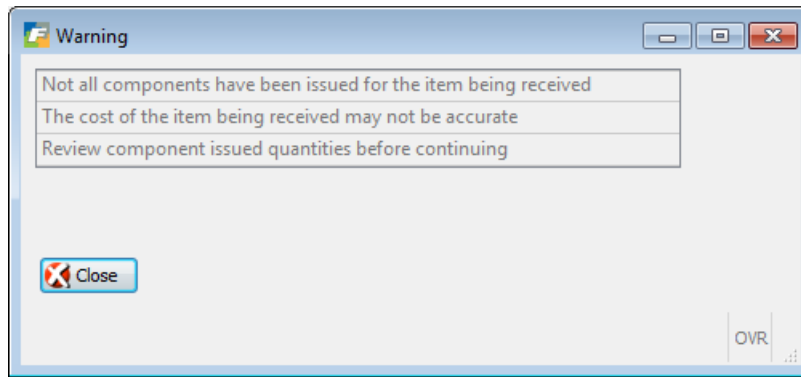
Use this menu option (option 3-b) to issue component inventory from stock, and add it to a production order's component material usage, for components used at a specific labor routing. This option is very similar to the Component Issue transaction, but in cases where material usage is closely aligned to labor routing steps and associated reporting, it more accurately reflects exactly WHEN components are issued. As with Component Issue, if accounting practices specify that the value of any work-in-process be quantifiable at month-end, Component Issue supports this requirement.

### ***Production Receipt***

This menu option (b) is used to complete the production order cycle. The end item defined on a production order is received into finished inventory. Optionally, for components defined with a Component Issue Method of 'P', quantities are issued from inventory and added to the usage quantities. It is useful to define components with this issue method when there is a relatively short lead time. In these cases, this function can save keystrokes, and offer a higher level of accuracy, as both component issue and production receipt happen simultaneously.

Please note that if you try to run the production receipt for a work order that has an issues method of component issue and not all components have been issued you will receive this error and not be allowed to continue.

## Fitrix Manufacturing Execution Course Workbook



When you select the menu option, the Production Receipt window displays. To enter a receipt transaction, click the Add button. The first time you select Add, the Session Default window displays (see below). After you review/change the session defaults, enter the transaction information into the following screen:

The Production Receipt window contains the following fields and sections:

- Order:** 10
- Release:** 000
- Receipt Number:** 1
- Receipt Date:** 09/30/2013
- Unit Cost:** \$100.0000
- Item:** C-MAC
- Due Date:** 04/16/2015
- This Receipt:** 1.000
- Complete:** Close
- Warehouse:** MIAMI
- Ordered:** 1.000
- Detail:** ☒ Needed ☐ Supplied
- Update Inventory Now:** ☒
- Total Received:** .000
- GL Document No:**
- Sales Order Reference:**
  - Description: MAC LAPTOP
  - Sales Order: 12-0654-01
  - Line: 1
  - Customer: 15
  - OLYMPIC AUTO WAREHOUSE INC

Sequence	Warehouse	Item	Description	Qty On Hand	Qty Available	Required	Total Issued	Serial/Lot	This Issue	Sts	Detail	Comment
											<input type="radio"/> Needed <input type="radio"/> Supplied <input type="radio"/> Needed <input type="radio"/> Supplied <input type="radio"/> Needed <input type="radio"/> Supplied	

Buttons: OK, Cancel, Header

Footer: Enter a single serial/lot or zoom to enter more than one

The following fields can be entered:

Field	Description
Order	Enter the production order number for this transaction. Zoom for a list of valid production orders
Release	Enter the production order release number for this transaction.  <i>When you press tab after entering the Release, other fields related to the order are automatically displayed</i>

## Fitrix Manufacturing Execution Course Workbook

Field	Description
Receipt Number	This number is automatically generated, to indicate the number of receipt transactions entered for the current production order.
Receipt Date	Enter the date to be recorded with the receipt. The default is the Session Default Transaction Date.
This Receipt	<p>Enter the quantity to receive. To reverse a previous production receipt enter a negative quantity.</p> <hr/> <p><i>If the end item is either serial or lot controlled, the Enter Serial/Lot Numbers screen will display when you click tab from the Receipt Quantity (see below)</i></p> <p><i>When you click tab, if any associated components have an on-hand balance which is less than the required quantity, the following window displays:</i></p> <div data-bbox="725 781 1235 989" data-label="Image"> <p>A screenshot of a Windows-style warning dialog box. The title bar is blue with the word 'Warning' in white. The main area is light yellow and contains the text 'One or more components is short!'. At the bottom is a green 'OK' button with a checkmark icon.</p> </div> <p><i>When you click tab after entering the receipt quantity, the list of components which can be issued displays automatically. Only components with a Component Issue Method of 'P' will display.</i></p> <hr/>
Unit Cost	<p>The unit cost for the end item will be automatically calculated, from the costs associated with the components issued. You can change this value.</p> <hr/> <p><b>WARNING:</b> <i>If you change the calculated unit cost, you may cause the work in process balance for this order to be incorrect.</i></p> <hr/>

Field	Description
Complete	<p>The possible values are:</p> <p>Leave Open – Do not set the order status to Closed</p> <p>Close – Set the order status to close. Further receipts will not be allowed.</p> <p>This value will be automatically computed based on the Receipt Quantity entered. If the total received quantity equals or exceeds the order quantity, it will be set to Close. If less, it will be set to 'Leave Open'.</p> <p>If you do enter a short quantity received but you want the receipt quantity to be costed as if all the components had been used, manually change the Complete value to Closed. This is handy when you did use all components but some of the end items produced had to be scrapped. You want what was produced to be the cost of all components used and the work order to be closed.</p>
Update Inventory Now?	<p>Check if you wish to update the inventory immediately, or uncheck if to update later, via the Post Production Transactions menu option.</p> <hr/> <p><i>When you click tab after selecting the Update Inventory Now choice, the cursor will move to the first component. If no components display, click OK to complete the receipt.</i></p> <hr/>
This Issue	<p>Enter or verify the quantity issued for each component.</p> <hr/> <p><i>If you press tab while the cursor is in the 'This Issue' column, AND the 'Detail' column is highlighted as 'Needed', the Serial and Lot Selection screen will display automatically (See 'Detail' description below)</i></p> <p><i>If you press tab while the cursor is in the 'This Issue' column, and the on-hand balance is less than the issue quantity, the following error displays:</i></p> <hr/>
Status	<p>Possible choices are:</p> <p>Close – Change the issue status of this component to Closed. No further issues can be entered.</p> <p>Leave Open – The issue status will remain Open. Further issues can be entered later.</p> <p>Re-Open – For a component which was previously closed, change the issue status back to open.</p> <hr/> <p><i>The Status will be automatically set to Close, if the total quantity issued is equal to or greater than the quantity required, OR to Leave Open, if the total quantity issued is less than the quantity required</i></p> <hr/>
Ordered	Total quantity on the work order

## Fitrix Manufacturing Execution Course Workbook

Field	Description
Total Received	Total received to date
GL Document No	Document number assigned by posting routine
Sales Order Reference	If the production work order is tied to a sales order the sales order information will display in these fields
Detail	<p>Possible values are:</p> <p>Needed - If the component is serialized OR lot-controlled, this button will be turned on. This indicates that an additional window will display for you to select the serial numbers or lots to be selected.</p> <p>Supplied – If the component is serialized OR lot-controlled, and the serial or lots have been successfully selected, this button will be turned on.</p> <p>NONE – If the component is NOT serialized and NOT lot controlled, neither button will be turned on, and the serial or lot selection window will not display.</p>
'Short'	This label will display automatically for any component with an on-hand balance less than the required quantity.
Comment	Enter an optional comment for the component being issued

## Enter Serial/Lot Numbers screen

This screen displays when the end item is either serialized or lot controlled (See the *Inventory Control User Guide*). You must enter the required information to receive the item into inventory.

The following screen is displayed:

Location	Lot	Serial	Expire Date	On Hand	Issued	This Issue
A -1 -AA		NGC4218		.000		
A -1 -AA		NGC4219		.000		
A -1 -AA		NGC4227		1.000		1.000
A -1 -AA		NGC4228		1.000		
A -1 -AA		NGC4229		1.000		
A -1 -AA		NGC4230		1.000		
A -1 -AA		NGC4231		1.000		
A -1 -AA		NGC4232		1.000		
A -1 -AA		NGC4233		1.000		
A -1 -AA		NGC4234		1.000		

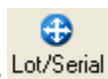
Field	Description
Lot Number	Can only enter into this field if the item is Lot Controlled (the serialized value for the item must be L or B)
Quantity	Enter the total quantity to be received

## Serial/Lot Number Verification screen

This screen displays:

- After you finish entering the required information on the 'Enter Serial/Lot Numbers' screen.



- You click the  button, when the cursor is located on the Header portion of the screen.

The following screen displays:

## Session Defaults screen

This screen displays:

- The first time you click the Add button



- When you click the Session button

You typically review or change these session defaults one time, then begin entering transactions.

The following screen displays:

The following fields can be entered:

Field	Description
Reference	Enter a user-defined general reference to be saved with the transactions
User	Enter the user associated with this transaction



Field	Description
Transaction Date	Enter the date the transactions physically took place.


Click OK when finished

## ***Serial and Lot Selection screen***

This screen displays when:

- You tab past 'This Issue', for a component where the Detail column was highlighted as 'Needed'.



- You click the  button when the cursor is positioned on a component where the 'Detail' column is highlighted as 'Needed' or 'Supplied'

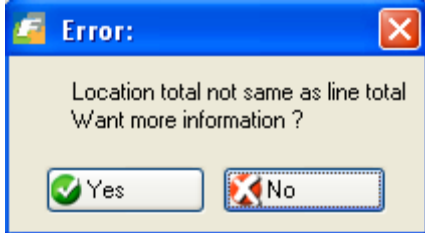
You must select serial numbers or lots with a total quantity that matches the issue quantity.

The following window displays:

The screenshot shows a software window titled "Add on detail sc20403". It has a menu bar with "File", "Edit", "Navigation", and "Help". Below the menu bar is a toolbar with various icons. The main area contains a form with three input fields: "Component Item" with the value "1008", "Warehouse" with the value "ATLANTA", and "Issue Quantity" with the value "1.00". Below these fields is a table with the following columns: "Location", "Lot", "Serial", "Expire Date", "On Hand", "Issued", and "This Issue". The table contains 10 rows of data, each with a location of "A -1 -A", a lot of "A", and a serial number ranging from "AA1001BBB" to "AA1012BBB". The "On Hand" column shows a value of "1.000" for each row. The "Issued" and "This Issue" columns are empty. At the bottom of the window, there are "OK" and "Cancel" buttons. In the bottom right corner, there is a small "OVR" label.

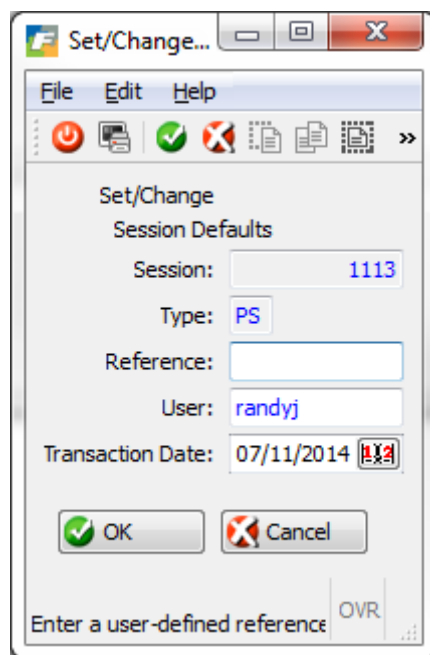
Location	Lot	Serial	Expire Date	On Hand	Issued	This Issue
A -1 -A	A	AA1001BBB		1.000		
A -1 -A	A	AA1004BBB		1.000		
A -1 -A	A	AA1005BBB		1.000		
A -1 -A	A	AA1006BBB		1.000		
A -1 -A	A	AA1007BBB		1.000		
A -1 -A	A	AA1008BBB		1.000		
A -1 -A	A	AA1009BBB		1.000		
A -1 -A	A	AA1010BBB		1.000		
A -1 -A	A	AA1011BBB		1.000		
A -1 -A	A	AA1012BBB		1.000		

The following fields can be entered:

Field	Description
This Issue	<p>Enter a quantity of the serial number or lot issued</p> <p><i>The issue quantity for each selected serial or lot is summed and compared to the issue quantity for the component. If the sum does not match, an error is displayed:</i></p> 

## Production Scrap

When you select this menu option, the Production Scrap screen displays. To enter a scrap transaction, click the Add button. The first time you select Add, the Session Default screen displays



The image shows a 'Set/Change...' dialog box with a menu bar (File, Edit, Help) and a toolbar. The main area is titled 'Set/Change Session Defaults' and contains the following fields:

- Session: 1113
- Type: PS
- Reference: (empty text box)
- User: randyj
- Transaction Date: 07/11/2014 (with a calendar icon)

At the bottom, there are 'OK' and 'Cancel' buttons. Below the buttons is a label 'Enter a user-defined reference' followed by a text box containing 'OVR' and a small icon.

After you review/change the session defaults, enter the transaction information into the following screen:

Production Scrap Entry

Order 480 Release 000 Scrap Number 12 Ordered 20.000 Scrap at Sequence 1 This Scrap 1.000 Update Now? ☒

Item C-MAC Warehouse MIAMI Total Received 1.000 Scrap Date 07/11/2014 Reason DEF

Total Scrapped 3.000 GL Document Unit Cost 130.00

Seq	Warehouse	Item	On Hand	Required	Total Issued	Serial/Lot	This Issue	Sts	Detail	Comment
4	MIAMI	C-DISK	3997.000	20.000	1.000					

OK Cancel Detail

Enter the unit cost for this receipt

OVR

The following fields are available:

**Order** – Enter the production order number for this transaction. Zoom for a list of valid production orders

**Release** – Enter the production order release number for this transaction.

---

**NOTE:**

when you press tab after entering the Release, other fields related to the order are automatically displayed

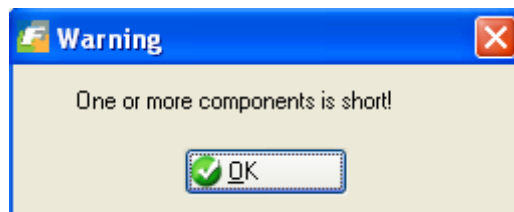
---

**Scrap Number** – This number is automatically generated, to indicate the number of scrap transactions entered for the current production order.

**Scrap Date** – enter the date to be recorded with the scrap. The default is the Session Default Transaction Date.

**Scrap Quantity** – enter the quantity to be scrapped.

**NOTE1:** When you click tab, if any associated components have an on-hand balance which is less than the required quantity, the following window displays:



**NOTE2:** When you click tab after entering the receipt quantity, the list of components which can be issued displays automatically. Only components with a Component Issue Method of 'P' will display.

---

**Unit Cost** – The unit cost for the scrapped item(s) will be automatically calculated, as noted above. You can change this value.

### WARNING:

If you change the calculated unit cost, you may cause the work in process balance for this order to be incorrect.

---

**Complete** –The possible values are:

- **Leave Open** – Do not set the order status to Closed
- **Close** – Set the order status to close. Further receipts will not be allowed.  
This value will be automatically computed based on the Receipt Quantity entered. If the total received quantity equals or exceeds the order quantity, it will be set to Close. If less, it will be set to 'Leave Open'.

**Update Inventory Now?** – check if you wish to update the inventory immediately, or uncheck if to update later, via the Post Production Transactions menu option.

---

### NOTE:

When you click tab after selecting the Update Inventory Now choice, the cursor will move to the first component. If no components display, click OK to complete the receipt.

---

The following component fields are available:

**This Issue** – Enter or verify the quantity issued for each component.

---

### NOTES

**NOTE 1:** If you press tab while the cursor is in the 'This Issue' column, AND the 'Detail' column is highlighted as 'Needed', the Serial and Lot Selection screen will display automatically (See 'Detail' description below)

**NOTE 2:** If you press tab while the cursor is in the 'This Issue' column, and the on-hand balance is less than the issue quantity, the following error displays:

Resulting Balance cannot be negative. You will not be allowed to continue unless you change the quantity to less than or equal to the on hand

---

**Sts (Status)** – the possible choices are:

- **Close** – Change the issue status of this component to Closed. No further issues can be entered.
- **Leave Open** – The issue status will remain Open. Further issues can be entered later.
- **Re-Open** – For a component which was previously closed, change the issue status back to open.

NOTE:

The Status will be automatically set to Close, if the total quantity issued is equal to or greater than the quantity required, OR to Leave Open, if the total quantity issued is less than the quantity required

**Detail**– The possible values are:

- **Needed** - If the component is serialized OR lot-controlled, this button will be turned on. This indicates that an additional window will display for you to select the serial numbers or lots to be selected.
- **Supplied** – If the component is serialized OR lot-controlled, and the serial or lots have been successfully selected, this button will be turned on.
- **NONE** – If the component is NOT serialized and NOT lot controlled, neither button will be turned on, and the serial or lot selection window will not display.

**‘Short’** – This label will display automatically for any component with an on-hand balance less than the required quantity.

**Comment** – Enter an optional comment for the component being issued.

**Enter Serial/Lot Numbers screen**

This screen displays when the end item is either serialized or lot controlled (See the Inventory Control User Guide). You must enter the required information to place the item into inventory.

The following screen is displayed:

Loc/Lot/Serial Detail

File Edit Navigation Help

Component Item C-MON Warehouse SEATTLE Issue Quantity 1.00

Location	Lot	Serial	Expire Date	On Hand	Issued	This Issue
A -1 -AA		NGC4218		.000		
A -1 -AA		NGC4219		.000		
A -1 -AA		NGC4227		1.000		1.000
A -1 -AA		NGC4228		1.000		
A -1 -AA		NGC4229		1.000		
A -1 -AA		NGC4230		1.000		
A -1 -AA		NGC4231		1.000		
A -1 -AA		NGC4232		1.000		
A -1 -AA		NGC4233		1.000		
A -1 -AA		NGC4234		1.000		

OK Cancel

OVR

The window displays a list of components, with their bin locations, lot numbers, serial numbers (if applicable) and On Hand balances. You can enter into the following columns::

## Fitrix Manufacturing Execution Course Workbook

**This Issue** – enter the total quantity to be issued.

**NOTE:** If the component is serialized, you should only enter a quantity of 1, for each unit to be used.

### Maintain Production Transactions

This menu option (c) is used to work with production inventory transactions which were NOT processed with the 'Update Inventory Now' choice. You can make changes to the Transaction Date, and Account Numbers/Departments, before posting them to Inventory Control and General Ledger.

The following window displays:

The screenshot shows the 'Maintain Production Transactions' window. The title bar includes standard window controls. The menu bar contains 'File', 'Edit', 'View', 'Navigation', 'Tools', 'Actions', and 'Help'. Below the menu bar is a toolbar with icons for 'Find', 'Prev', 'Next', 'Update', and 'Browse'. The main content area is titled 'Change Transaction Details' and contains the following fields:

- Transaction Type: ☐
- Item:
- Warehouse:
- Session:
- Reference:
- User:
- Order:
- Recpt/Ship Number:
- Release:
- Entry Date:
- Line:
- Entry Time:
- Blkt Rel:
- Amount:
- Transaction Date:  (with a calendar icon)
- Debit Account/Dept:  (with a magnifying glass icon)
- Credit Account/Dept:  (with a magnifying glass icon)
- OK to Post(Y/N): ☐

At the bottom of the window, it says '(No Documents Selected)' and there is an 'OVR' button in the bottom right corner.

Enter into the following fields:

Field	Description
Transaction Date	The date to be recorded in the General Ledger
Debit Account/Dept	Enter the user associated with this transaction
Credit Account/Dept	Enter the date of the transactions
OK to Post (Y/N)	Enter Y to allow posting to Inventory Control and General Ledger or N to prevent posting.

## ***Edit Production Transactions***

Use this menu option (d) to print an edit listing of production inventory transactions which were NOT processed with the 'Update Inventory Now' choice.

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 window will then display:

The screenshot shows a window titled 'ma.ma126.ma12601' with a 'Process' section. It contains a table with two columns, 'From' and 'To', and several rows for different fields. The 'Production Order' row has a greyed-out 'From' field. The 'Transaction Date' and 'Entry Date' rows have calendar icons next to their 'To' fields. At the bottom, there are 'OK' and 'Cancel' buttons, and a label 'Enter the transaction type from' followed by a dropdown menu showing 'OVR'.

	From	To
Production Order		
Warehouse		
Session		
Transaction Date		
User		
Entry Date		
Reference		

Enter the transaction type from OVR

Enter From- and To- ranges for any of the available fields, then Click OK to process the edit listing.

## Post Production Transactions

Use this menu option (e) to print a posting list of production inventory transactions which were NOT processed with the 'Update Inventory Now' choice. The posting updates inventory on hand balances, and posts accounting entries to the General Ledger transaction tables.

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 window will then display:

The screenshot shows a Windows-style dialog box titled 'ma.ma126.ma12601'. It has a 'Process' section with a table of fields. The table has two columns, 'From' and 'To', and several rows for different data types. The 'Transaction Date' and 'Entry Date' rows have small red 'X' icons in the 'To' column. At the bottom, there are 'OK' and 'Cancel' buttons, and a label 'Enter the transaction type from' followed by a small 'OVR' button.

	From	To
Production Order		
Warehouse		
Session		
Transaction Date		
User		
Entry Date		
Reference		

OK Cancel

Enter the transaction type from OVR

Enter From- and To- ranges for any of the available fields, then Click OK to process the posting list.

## Assign Component Serial/Lot Numbers

Use this program to assign component serial/lot #s to parent items if you have not already done so during either Component Issue or Production Receipt.

Find the production work. Components that have not been assigned to a parent will display in the detail. Go into update mode and then zoom to find the serial/lot # the component went into.



## Fitrix Manufacturing Execution Course Workbook

Assign Component Serial/Lot Numbers

File Edit View Navigation Tools Actions Help

Find Prev Next Update Browse

Order 533 Item C-MAC Order Quantity 5.000  
Rel 000 Desc MAC LAPTOP NEW VERSION Due Date 08/19/2014

Comp Sequence	Component	Serial Number	Lot	Issued Quantity	Parent Serial	Parent Lot
1	C-MON	ABC2059		1.000	ABC2878	
1	C-MON	ABC2159		1.000	ABC2879	
1	C-MON	ABC2113		1.000		
1	C-MON	ABC2160		1.000		
1	C-MON	ABC2114		1.000		
5	C-MEMORY		20140818A	10.000		

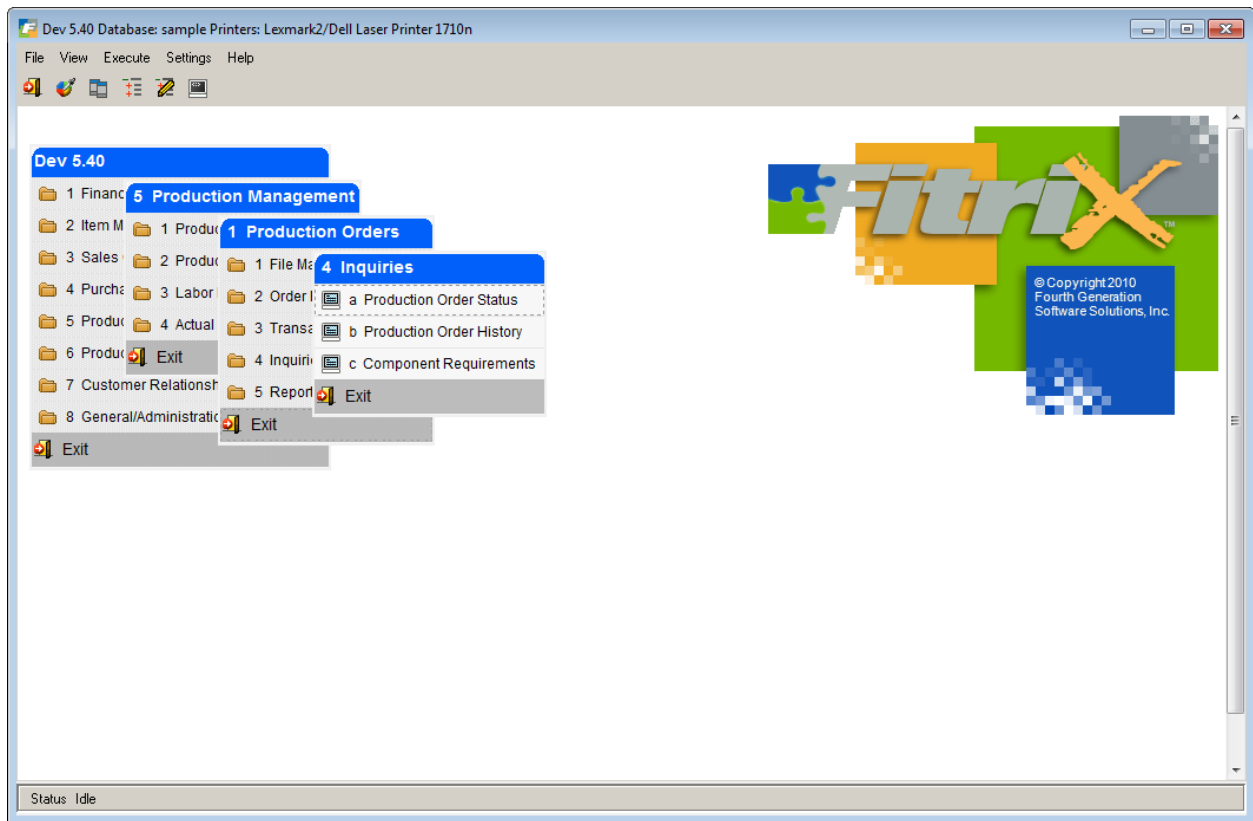
94 of 138

OK Cancel Header

OVR

## Inquiries

The options on the Inquires submenu allow you to view information about the production work orders.



### ***Production Order Status***

Use this menu option (option 4-a) to display the current status of an open production order. Information is presented as an at-a-glance summary, showing status relative to quantities produced, due dates, and current operation statistics. You can also review component and routing step details.

#### **Production Order Status screen**

When you select the menu option, the following screen displays:

**Production Order Status**

File Edit View Navigation Tools Actions Options Help

Cost Elements Components Routing Order History Notes Misc Costs

Find Prev Next Details Browse

Order: 527 Item: C-MAC Warehouse: SEATTLE  
 Release: 000 Description: MAC LAPTOP U/M: EA  
 Order Type: ST Job: Customer:   
 Order Status: C Project: Order:   
 Hold Code: Priority: Line:   
 Packet Prints:

**Quantities**

Original Order	1.000
Current Order	1.000
Total Complete	1.000
Total Scrapped	.000
Remaining	.000

**Dates**

Start	03/14/2013
Original Due	03/21/2013
Current Due	03/21/2013
Completed	03/14/2013
Created	03/14/2013
Closed	03/14/2013

**Processing Status**

Component Issue	Complete
Labor Reporting	Partial
Variance Posting	Not posted
Hours Remain	

**Current**

Oper	0001	ASSEMBLY
Work Ctr	WC01	Mach: Dept: DP1
Responsible		

1 of 1

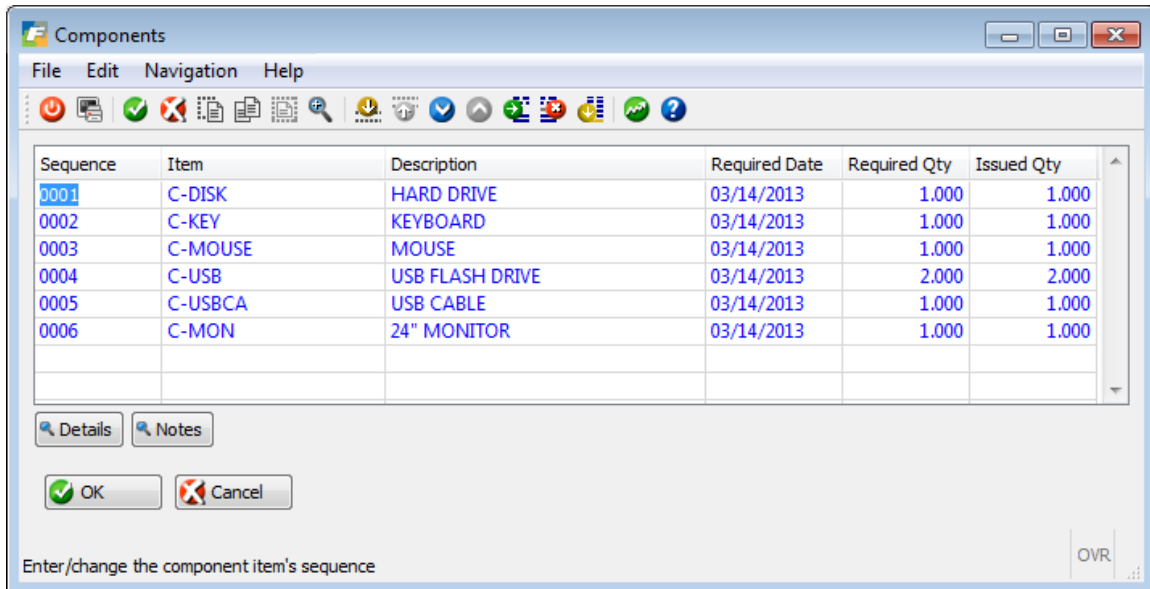
OVR

Click the Find button to search for the order. You can then click the Details button to access more options

### Component List screen

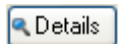


This screen displays when you click the **Components** button from the Status screen:

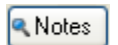
A screenshot of the 'Components' window. It has a menu bar with 'File', 'Edit', 'Navigation', and 'Help'. Below the menu is a toolbar with various icons. The main area contains a table with 6 columns: 'Sequence', 'Item', 'Description', 'Required Date', 'Required Qty', and 'Issued Qty'. The table lists 6 components. Below the table are buttons for 'Details' and 'Notes', and 'OK' and 'Cancel' buttons. At the bottom, there is a text field for 'Enter/change the component item's sequence' and an 'OVR' button.

Sequence	Item	Description	Required Date	Required Qty	Issued Qty
0001	C-DISK	HARD DRIVE	03/14/2013	1.000	1.000
0002	C-KEY	KEYBOARD	03/14/2013	1.000	1.000
0003	C-MOUSE	MOUSE	03/14/2013	1.000	1.000
0004	C-USB	USB FLASH DRIVE	03/14/2013	2.000	2.000
0005	C-USBCA	USB CABLE	03/14/2013	1.000	1.000
0006	C-MON	24" MONITOR	03/14/2013	1.000	1.000

The following additional information is available, by clicking the appropriate button:



View additional details for the current component

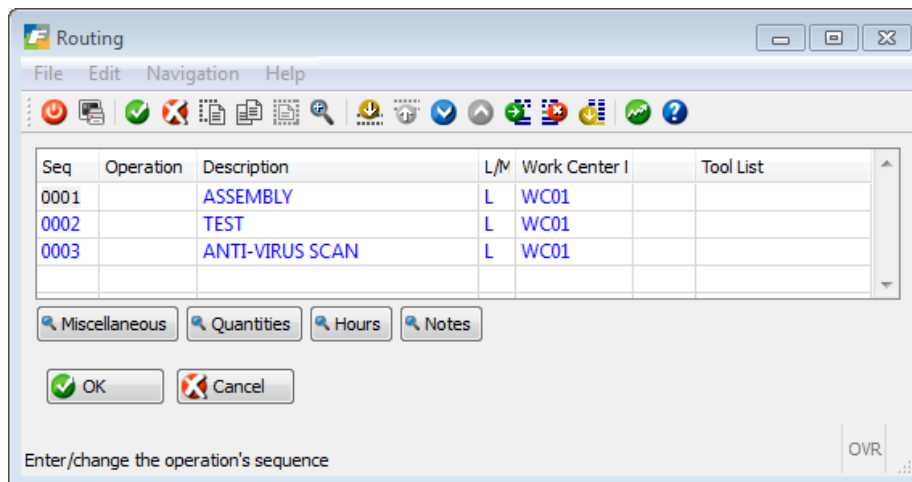


View user-defined notes for the current component

## Routing List screen



This screen displays when you click the  button from the Status screen:

A screenshot of the 'Routing' application window. The window has a title bar 'Routing' and a menu bar with 'File', 'Edit', 'Navigation', and 'Help'. Below the menu bar is a toolbar with various icons. The main area contains a table with columns: Seq, Operation, Description, L/M, Work Center I, and Tool List. The table has three rows of data. Below the table are four buttons: 'Miscellaneous', 'Quantities', 'Hours', and 'Notes'. At the bottom left are 'OK' and 'Cancel' buttons. At the bottom right is a label 'OVR' and a small icon. The text 'Enter/change the operation's sequence' is at the bottom left of the main area.

Seq	Operation	Description	L/M	Work Center I	Tool List
0001		ASSEMBLY	L	WC01	
0002		TEST	L	WC01	
0003		ANTI-VIRUS SCAN	L	WC01	

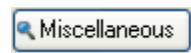
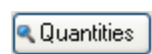
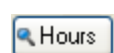
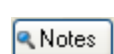
Miscellaneous Quantities Hours Notes

OK Cancel

Enter/change the operation's sequence

OVR

The following additional information is available, by clicking the appropriate button:

-  View additional descriptive information for the current routing step
-  View quantity-related information for the current routing step
-  View hours-related information for the current routing step
-  View user-defined notes entered for the current routing step

## Fitrix Manufacturing Execution Course Workbook

### Order History screen



This screen displays when you click the **Order History** button from the Status screen. It displays the Production Receipts which have been processed for the current order.

The screenshot shows a software window titled 'Look Up Inventory Transaction History List'. It features a menu bar with 'File', 'Edit', 'Navigation', and 'Help'. Below the menu is a toolbar with various icons. The main area contains a table with the following data:

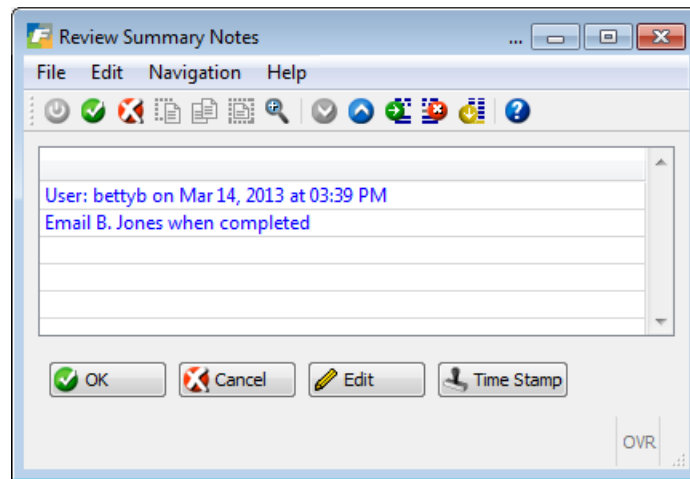
Item	Sequence	Date	Type	Warehouse	Location	Quantity	Serial	Lot
C-MAC		03/14/2013	PR	SEATTLE	A -1 -AA	1.000	FGS4647	
C-DISK	0001	03/14/2013	CI	SEATTLE		1.000		
C-KEY	0002	03/14/2013	CI	SEATTLE		1.000		
C-MOUSE	0003	03/14/2013	CI	SEATTLE		1.000		
C-USB	0004	03/14/2013	CI	SEATTLE		2.000		
C-USBCA	0005	03/14/2013	CI	SEATTLE		1.000		
C-MON	0006	03/14/2013	CI	SEATTLE	A -1 -AA	1.000	NGC4227	

At the bottom of the window, there are 'OK' and 'Cancel' buttons. The 'OK' button has a green checkmark icon, and the 'Cancel' button has a red X icon. In the bottom right corner, there is a label 'OVR'.

**Order Notes screen**



This screen displays when you click the **Notes** button from the Status screen. It displays any user-defined notes entered for the current order.



## Production Order History

Use this menu option (option 4-b) to display the summary and details for orders which have been purged to history using the purge program on the Order Processing submenu. Information is presented as an at-a-glance summary, showing status relative to quantities produced, due dates, and last operation statistics. You can also review component and routing step details.

### Production Order History screen

When you select the menu option, the following screen displays:

The screenshot shows the 'Production Order History' window with the following data:

Order	Item	Warehouse
131	TESTJOB	SEATTLE

Release	Description	U/M
000	TEST FOR JOB TO PRODUCE	EA

Order Type	Job
MTI	

Order Status	Project
C	

Hold Code	Priority

Packet Prints	Demand Order	Line
	49	1

Quantities	
Original Order	1.000
Current Order	1.000
Total Complete	1.000
Total Scrapped	.000
Remaining	.000

Dates	
Start	12/13/2012
Original Due	12/13/2012
Current Due	12/13/2012
Completed	12/20/2012
Created	12/13/2012
Closed	12/20/2012
Purged	03/14/2013

Processing Status	
Component Issue	None
Labor Reporting	None
Variance Posting	Posted
Hours Remain	0.000

Current	
Oper	Work Ctr
Mach	Dept

1 of 1

OVR

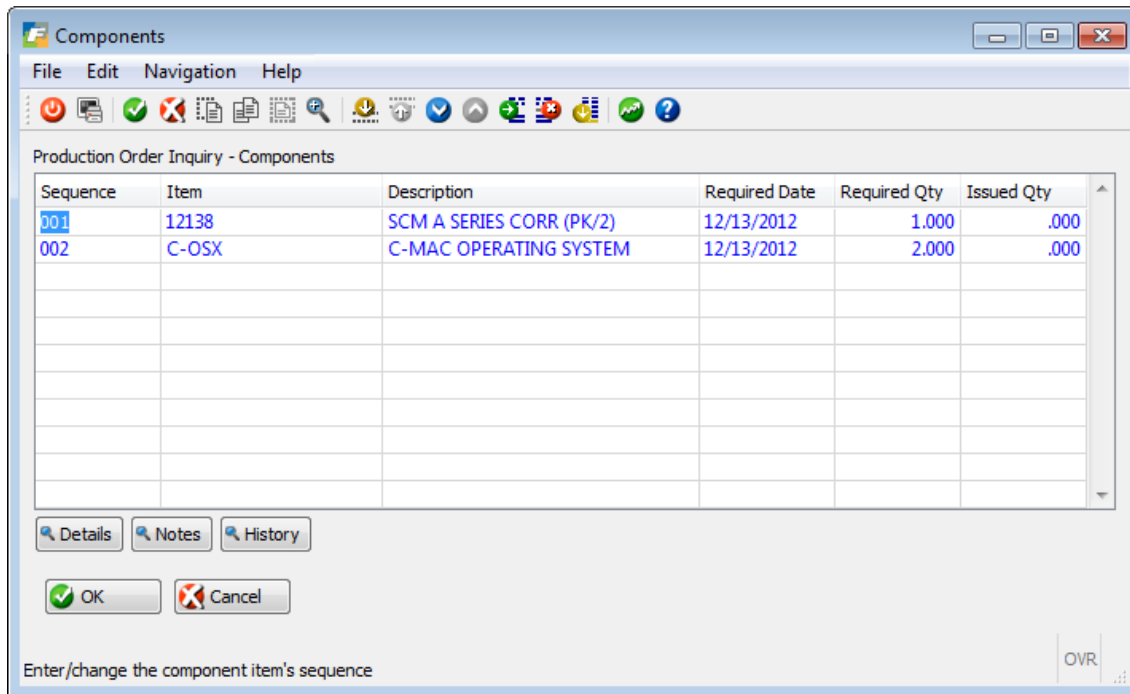
Click the Find button to search for the order. You can then click the Details button to access more options



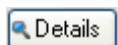
## Component List screen



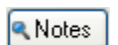
This screen displays when you click the **Components** button from the Status screen:

A screenshot of the 'Components' window. The window has a title bar 'Components' and a menu bar 'File Edit Navigation Help'. Below the menu bar is a toolbar with various icons. The main area is titled 'Production Order Inquiry - Components' and contains a table with columns: Sequence, Item, Description, Required Date, Required Qty, and Issued Qty. The table has two rows of data. Below the table are buttons for 'Details', 'Notes', and 'History'. At the bottom are 'OK' and 'Cancel' buttons. A status bar at the very bottom says 'Enter/change the component item's sequence' and 'OVR'.

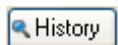
The following additional information is available, by clicking the appropriate button:



View additional details for the current component



View user-defined notes for the current component

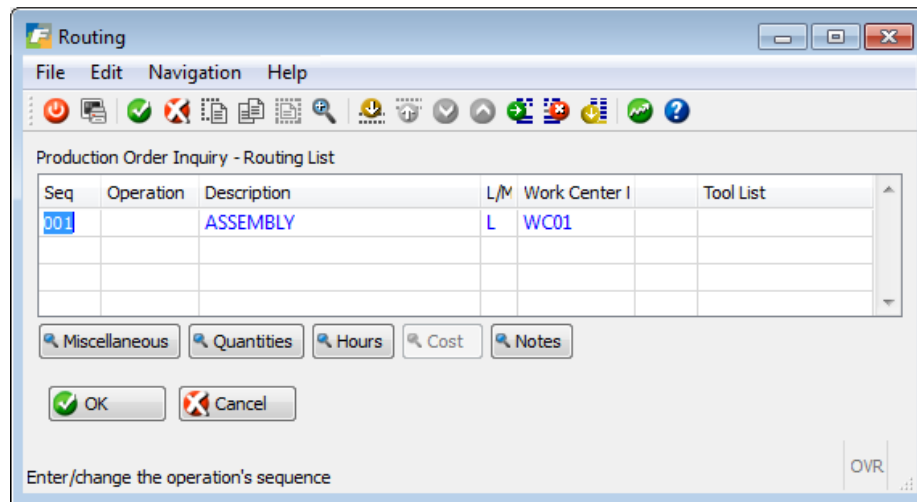


Reserved for future use

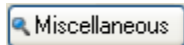
### Routing List screen



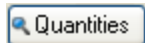
This screen displays when you click the **Routing** button from the Status screen:

A screenshot of the 'Routing' window. The window has a title bar 'Routing' and a menu bar 'File Edit Navigation Help'. Below the menu bar is a toolbar with various icons. The main area is titled 'Production Order Inquiry - Routing List' and contains a table with columns: Seq, Operation, Description, L/M, Work Center I, and Tool List. The first row has '001' in Seq, 'ASSEMBLY' in Description, 'L' in L/M, and 'WC01' in Work Center I. Below the table are five buttons: 'Miscellaneous', 'Quantities', 'Hours', 'Cost', and 'Notes'. At the bottom left are 'OK' and 'Cancel' buttons. At the bottom right is a label 'OVR' and a small icon. A status bar at the very bottom says 'Enter/change the operation's sequence'.

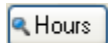
The following additional information is available, by clicking the appropriate button:



View additional descriptive information for the current routing step



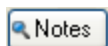
View quantity-related information for the current routing step



View hours-related information for the current routing step



View cost-related information for the current routing step

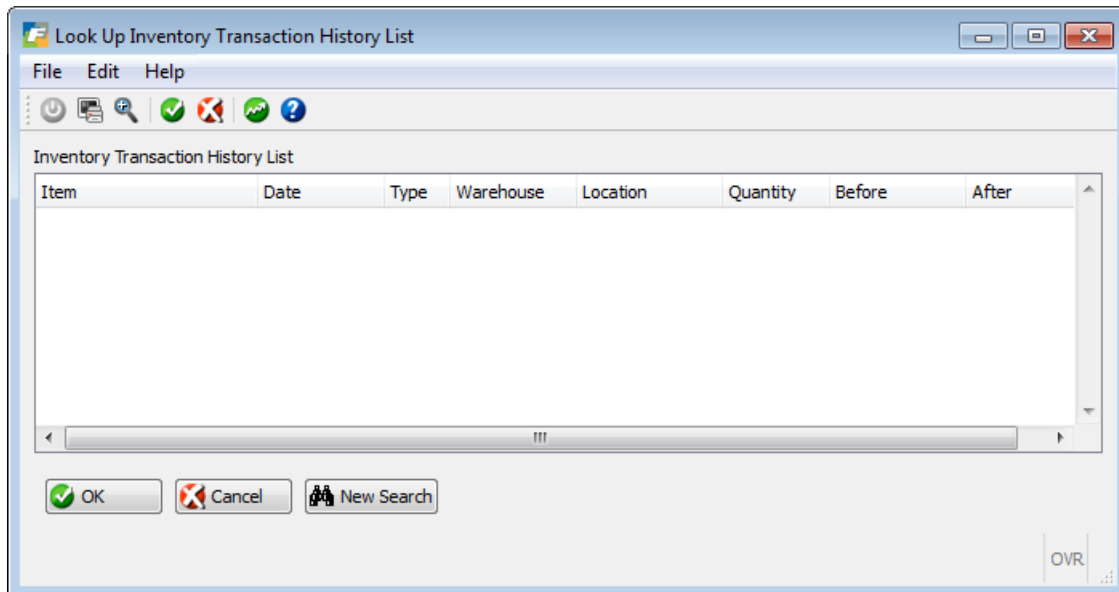


View user-defined notes entered for the current routing step

## Order History screen



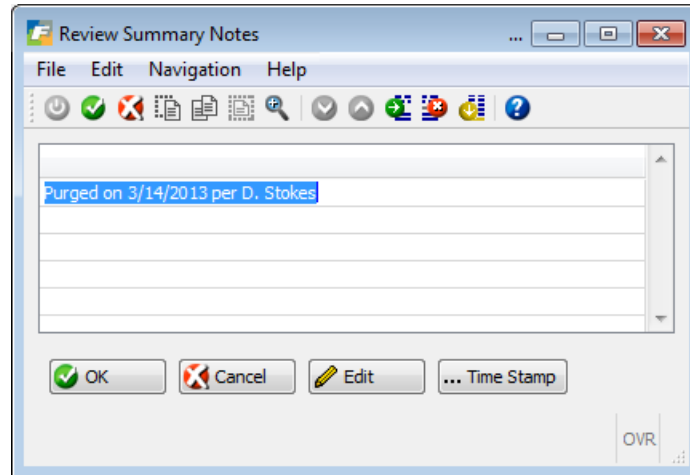
This screen displays when you click the **Order History** button from the Status screen. It displays the Production Receipts which have been processed for the current order.



### Order Notes screen



This screen displays when you click the **Notes** button from the Status screen. It displays any user-defined notes entered for the current order.



## Component Requirements

Use this menu option (option 4-c) to display the production orders which require a common component. This is useful in determining where a component item might be needed when it is in stock, or when arriving on a purchase order.

### Component Requirements screen

When you select the menu option, the following screen displays:

Component Requirements

File Edit View Navigation Tools Actions Options Help

Order Details Prod Receipts Purch Receipts

Find Prev Next Details Browse

Item: C-USB Warehouse: ATLANTA On Hand: .000 On Order: 50.000

USB FLASH DRIVE U/M EA

Order	Rel	Sts	Sequence	Required Qty	Issued Qty	Required Date	Due Date
315	000	A	0004	2.000	.000	08/17/2011	08/24/2011
316	000	A	0004	2.000	.000	08/17/2011	08/24/2011
389	000	A	0004	2.000	.000	08/17/2011	08/24/2011

1 of 5

View Detail

OVR

First click the Find button, and enter the component item and warehouse to be reviewed. After the item and its requirements are displayed, click the Detail button to access more options.

## Order Details screen



This screen displays when you click the **Order Details** button from the Status screen:

**Order Inquiry**

File Edit View Navigation Tools Actions Options Help

Cost Elements Components Routing Order History Notes Misc Costs

Find Prev Next Add Details Delete Browse Options

Order **815** Item **C-MAC** Warehouse **ATLANTA**

Release **000** Description **MAC LAPTOP** U/M **EA**

Order Type **MTO** Job  Customer **12**

Order Status **A** Project  Order **2528**

Hold Code  Priority  Line **1**

Packet Prints

**Quantities**

Original Order	1.000
Current Order	1.000
Total Complete	.000
Total Scrapped	.000
Remaining	1.000

**Dates**

Start	08/17/2011
Original Due	08/24/2011
Current Due	08/24/2011
Completed	
Created	08/24/2011
Closed	

**Processing Status**

Component Issue	None
Labor Reporting	Partial
Variance Posting	Not posted
Hours Remain	0.000

**Current**

Oper **0001** **ASSEMBLY**

Work Ctr **WC01** Mach  Dept **DP1**

Responsible

**1 of 1**

Enter the production order, or allow to default

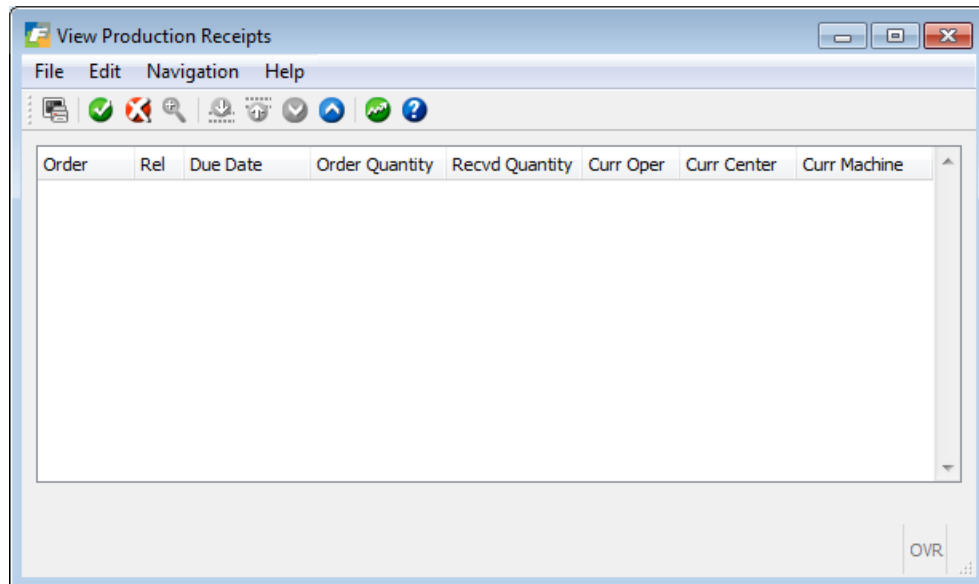
OVR

From this screen, you can access the same additional data as in the Production Order Status Inquiry (menu option 4-a).

## **Production Receipts screen**



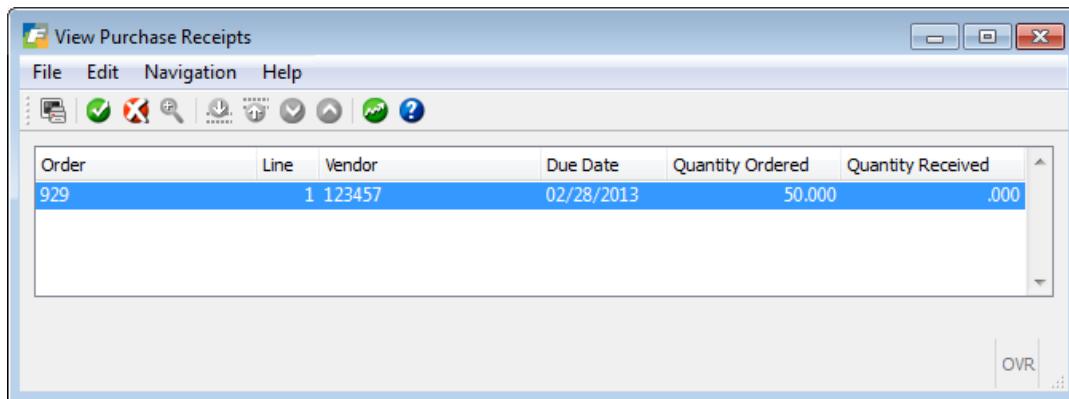
This screen displays when you click the **Prod Receipts** button from the Status screen. It shows scheduled receipts from open production orders. If the component item is a manufactured item, this screen would show any pending production for the item.



### Purchase Receipts screen



This screen displays when you click the **Purch Receipts** button from the Status screen. It shows scheduled receipts from open purchase orders. If the component item is a purchased item, this screen would show any pending purchase receipts for the item.

A screenshot of a software window titled "View Purchase Receipts". The window has a standard menu bar with "File", "Edit", "Navigation", and "Help". Below the menu bar is a toolbar with several icons: a printer, a green checkmark, a red X, a magnifying glass, a download arrow, an upload arrow, a green up arrow, and a question mark. The main area of the window contains a table with the following data:

Order	Line	Vendor	Due Date	Quantity Ordered	Quantity Received
929	1	123457	02/28/2013	50.000	.000

At the bottom right of the window, there is a label "OVR" and a small icon.



## Work in Process Reconciliation Steps

Balance Sheet Balance:	\$ 1,000,000
Add:	
WIP Open Orders Report: DTP Not Invoiced total	25,000 (1)
WIP Closed Orders Report: DTP Not Invoiced total	15,000 (1)
Subtract:	
WIP Closed Orders Report Total fiscal YTD	(120,000) (2)
Revised WIP Balance (should match WIP Open Orders report total):	\$ 920,000

- (1) DTP purchase orders and purchase orders for non-stock items (line type NON) do not post to GL WIP until the vendor invoice is received and posted to AP. However these items are included on the WIP Cost Status report. Because of this the balance sheet and WIP report will never balance due to these transactions so this total must be added to the balance sheet balance when reconciling the two reports.
- (2) In order to maintain a proper balance between the Work in Process Cost Status report and the General Ledger work in process account, it is necessary to review the cost details for orders which are closed out during an accounting period and confirm that all costs have been properly recorded in the General Ledger.

When using the Average Costing option for inventory valuation, the cost of end items manufactured on production orders is the sum of all material, labor, overhead and outside process costs. If the production receipt is the last transaction for an order, the sum of the costs is transferred from work in process to the end item's inventory account. This leaves a balance of zero for the production order. In addition, the order is automatically closed. These types of orders reflect a proper balance with General Ledger.

In some cases, it is necessary to re-open an order to add more material, labor, overhead, or outside process costs. This results in additional costs being added to the order that may not be transferred to inventory and therefore a non-zero balance for the order. The 'Work in Process Report – Closed Orders' prints the cost value of any orders where this additional activity occurs. Any cost balances on closed orders must be either:

- Resolved with additional transactions to properly close the order (see Approach I)
- Used to create a General Journal that transfers the cost balances to another account, typically Cost of Goods Sold (see Approach II)

### Approach 1 – Resolve Remaining balances

The recommended steps to resolve remaining balances on Production Orders are:

- a. Run the WIP Cost Status Report – Closed Order – to get the list of orders to be addressed
- b. Use the Production Orders/Order Processing/Order Closeout/Re-Open Closed Orders – to reactivate a closed order
- c. Enter NEGATIVE Production Receipt transactions for the total received
- d. Enter adjusting transactions for Component Issue – if applicable
- e. Enter adjusting Labor Transactions and post them
- f. Enter POSITIVE Production Receipt transactions
- g. Run the WIP Cost Status Report – Closed Orders – to confirm the order has a zero balance

By executing these steps, you can be assured that all costs transferred into WIP, and from WIP to inventory, are properly recorded in the General Ledger. If you run the Closed Order report and see balances for a given accounting period, but do not resolve them, recognize that they represent costs that were automatically removed from Work In Process, but did NOT have a corresponding transfer of costs in the General Ledger.

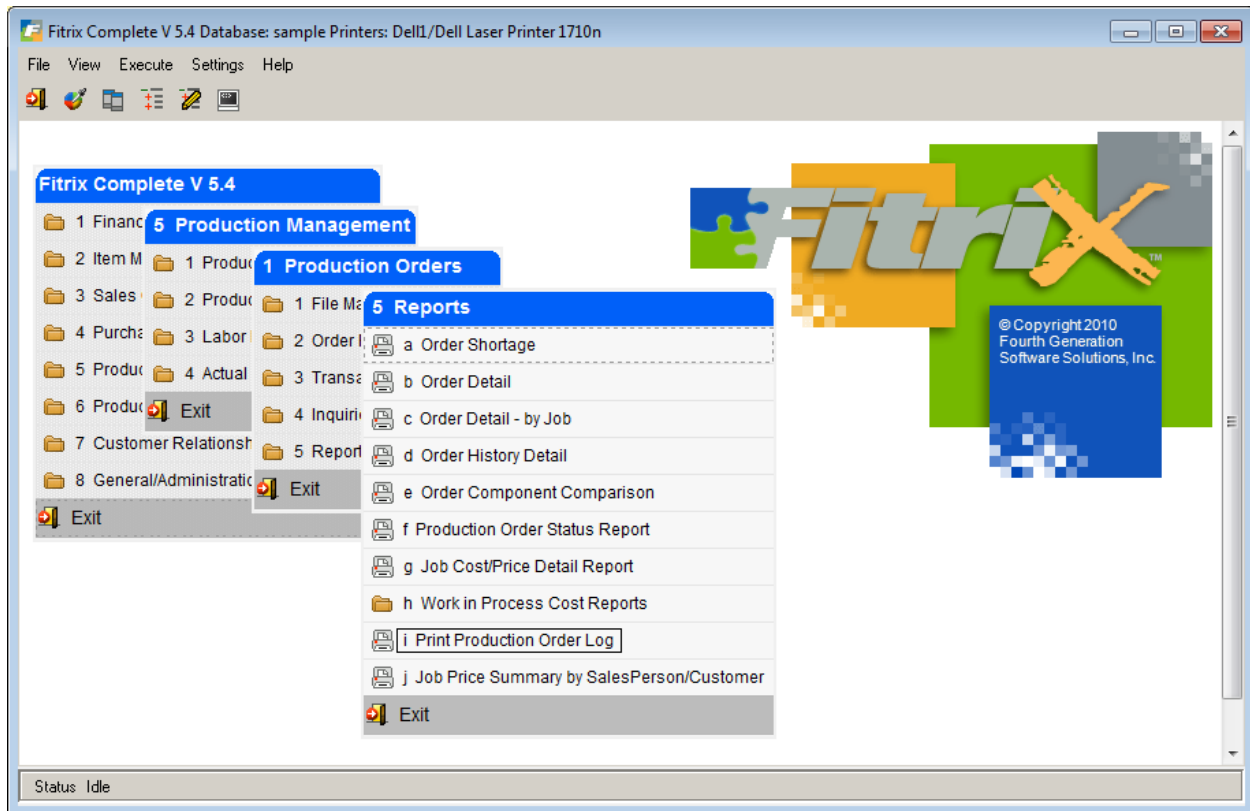
### Approach 2 – Record General Journal

- a. If you choose not to take the above steps, you can use the total cost from the Closed Order report to record a General Journal that credits the GL WIP account for the total value of the orders for the date range specified. For the debit if a shop is mostly make-to-stock, it will be a production variance (i.e. a contra asset account). If make-to-order, it will be a COGS account.



## Reports

Use the options on this menu to review on screens the status of open and closed production orders .  
Samples of the reports can be found in the Production Order Processing User Guide.



## **Section Summary**

Production Order Processing maintains information about production orders, and supports inventory transactions related to those orders.

Setting up Production Order Processing includes:

- Defining Order Types, Hold Codes and Reason Codes
- Completing the Production Order Processing Setup option and setting the Setup Complete flag to "Y".

The main tasks which are performed in Production Order Processing include:

- Entering and maintaining Production Orders
- Entering inventory-related transactions for production orders:
  - Component Issue
  - Production Receipt
- Optionally posting transactions to General Ledger
- Closing orders and moving them to the Order History archive

## Lab Exercise a: Set Up Production Order Processing

In this lab you will be setting up production order processing defaults and reference files and adding to the Database.

### 1. Set up new Order Types (option a on File Maintenance menu)

Order Type	Description	Accounting Code	GL Department	Type of Bill	Type of Routing
MTO	Make To Order	DEFAULT	000	C	S
STD	Standard to Stock	DEFAULT	000	S	S

### 2. Set Up Hold Codes (option b on File Maintenance menu):

Decide if you want to use hold codes. If so, add as many as you will need to support the types of production order hold situations you will encounter (for example Material Short, QC Problems, machine down, etc)

### 3. Set Up Reason Codes (option c on File Maintenance menu):

This task will be deferred, as the Production Scrap transaction is not yet available.

### 4. Set Up Production Order Processing (option d on File Maintenance menu):

Decide which of the Order Types already set up should be the default

Decide if you want Order History Support

Decide if you want automatically generated order numbers

Decide what type of pick number you want to use

Decide on default work in process account numbers

## **Lab Exercise b: Production Order Entry/Maintenance**

### **Order Entry/Maintenance (option a on the Order Processing menu):**

#### **1. Add a new order**

Use the item WINASSY defined in the Bill of Material exercises

Warehouse should be the primary stocking warehouse

Use order type STD, as we want to build WINASSY, and put it into stock before selling it.

Enter a quantity and due date

Verify that the Bill of Material and Routings are both 'MFG'

Verify that the type of Bill of Material is S, and type of Routing is S

You will be prompted to create purchase orders for any short components. Select NO.

### **Print Production Pick List (option d on the Order Processing menu)**

#### **2. Select the specific order you just entered**

Verify that the content is consistent with the components and their quantities per unit.

## **Lab Exercise c: Transaction Processing**

### **Enter Production Receipt Transaction**

Run the Inventory Valuation report for the main stocking warehouse

Select Add option to enter a new transaction

Select OK on the Session Defaults screen

Enter the Production Order number from Lab Exercise B.

Skip pick number

Enter quantity produced; components should then display with quantities filled in.

Check the box for 'Update now'

Select OK to process the receipt

Verify that inventory balances were updated in Inventory Information Maintenance

Run the Inventory Valuation report and compare to the earlier run of the report.



## **Chapter 2 – Labor Processing**

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## **Learning Objectives**

To learn the type of information and tasks that are maintained and completed in Labor Processing

To learn the relationship between the Labor Processing module and other modules in the Fitrix Accounting and Distribution System

To learn the steps involved in setting up the module

To learn the steps necessary to process Labor Processing Transactions

To understand inquiries and reports in the module

## Overview of Labor Processing

### What type of information is maintained in Lab Processing?

Fitrix Labor Processing is an application in the Production Management family. It facilitates the processing of labor transactions against production orders. Actual labor time, actual labor costs, and overhead costs for production orders are reported and calculated in this application. Together with Fitrix Production Order Processing, this application provides a complete picture of the activities that occur in completing a production order.

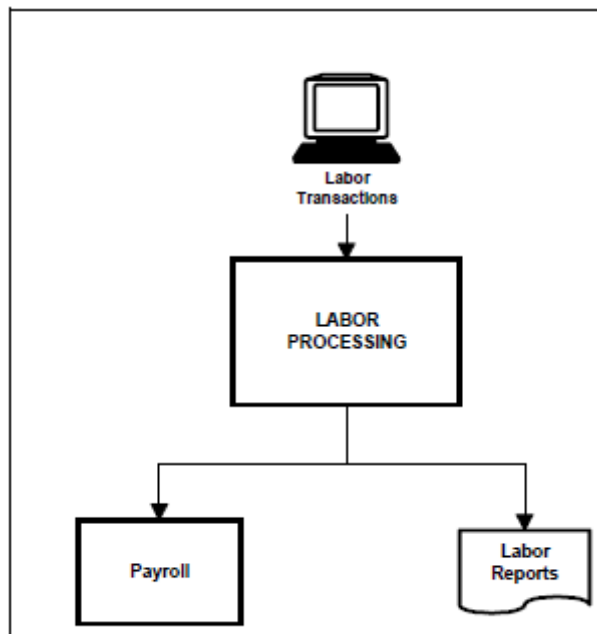
An effective labor reporting system allows easy and accurate reporting of time spent on a job. Costs and hours are accurately calculated based on a variety of cost elements and time-keeping rules. It supports the flow of hours and costs to the general ledger, payroll, and costing modules.

To achieve these objectives, the Fitrix Labor Processing application includes the following features:

- User defined labor types for setup, run, direct or indirect labor.
- Single transaction entry for a group of employees.
- Multiple shift codes for the same physical shift
- Employee job classifications for alternate labor costing.
- Standard Costing Integration
- Actual Costing Integration
- Production Processing Integration

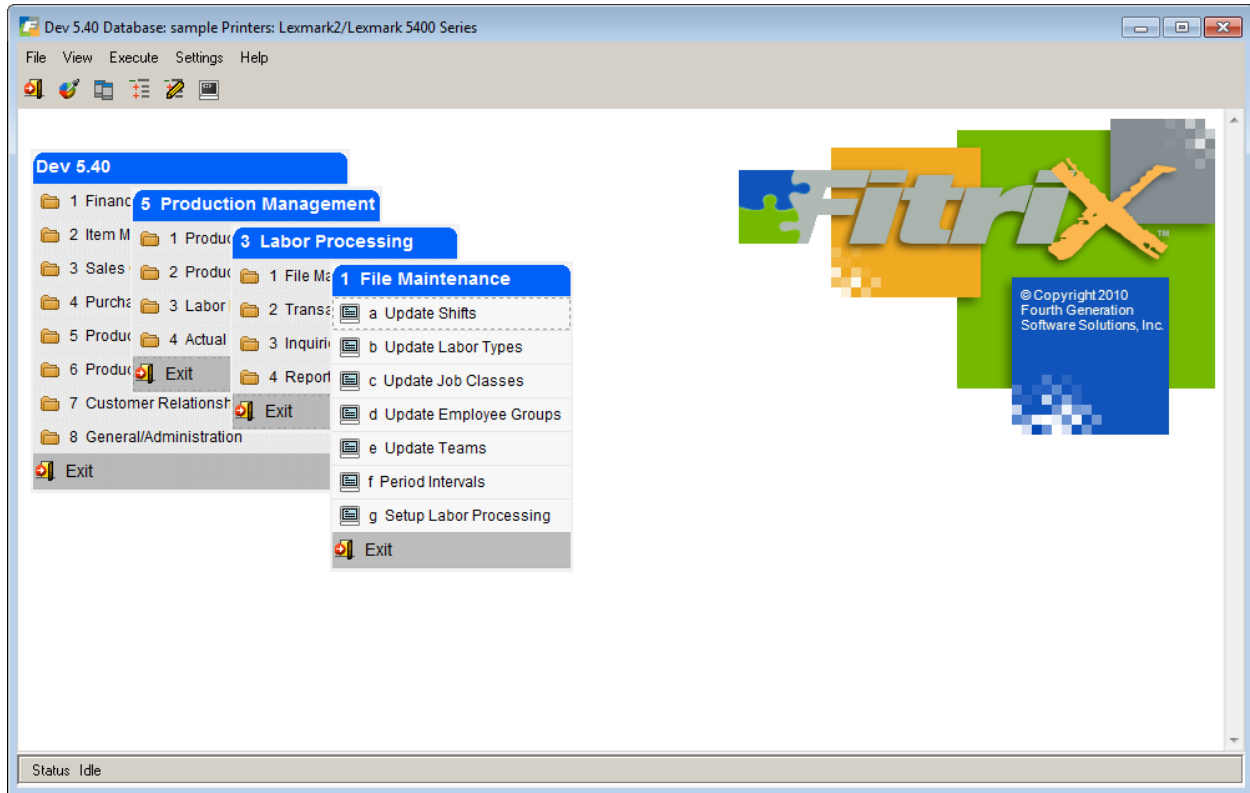
### What relation does order entry have to other Fitrix Modules?

Fitrix Labor Processing works with an integrated database where information entered is immediately available to all other Fitrix applications. The figure below identifies the primary tables used by Fitrix Labor Processing and the functions which interact with them.



## File Maintenance Menu

Options on the File Maintenance menu allow you to set up a number of reference files for use in other functions within Labor Processing. To view this menu from the main menu select **Production Management > Labor Processing > File Maintenance (option 1)**.



## Update Shifts

Use the Update Shift menu option (a) to add, update or delete shift information.

This table defines the parameters for the time calculation in labor transaction processing. Lunch, break start and finish times are some of the parameters in this table. At least one shift must be defined.

Below is a description of the fields which can be entered in the Planning Parameters window

Field	Description
Shift Number	The identifier for the shift being defined. The identifier of the shift being defined.The identifier for the shift being defined.
Shift Description	Description of shift
Shift Start Time	Time of day shift begins
Shift Stop Time	Time of day the shift ends
Clock On	The early time is the earliest time of day a transaction can take place. The latest time is latest time of day a person can clock in and not be considered late.
Clock Off	The earliest time of day that a person can clock out and not be considered leaving early. The earliest time of day a person can clock out and the latest time of day a person can clock out and not have their time considered as overtimeThe earliest time of day that a person can clock out and not be considered leaving early.
Shift premium	Monetary amount for premium pay (i.e.- graveyard shift)

## Update Labor Types

Labor type codes define whether the labor in the transaction is direct or indirect. Accounting information is assigned to the labor type so that the general ledger transactions are assigned to the correct general ledger accounts numbers. At least one labor type must be defined.

The screenshot shows the 'Update Labor Types' application window. It features a standard menu bar and a toolbar with various icons. The main form area contains several input fields and dropdown menus. The 'Labor Type' field is set to 'RUN', 'Description' is 'Run Labor', 'Direct/Indirect' is 'Direct', 'Setup/Run' is 'Run', and 'Run/Rework' is 'Run'. The 'Accounting Code' field is empty. The 'Date Added' field is empty, and the 'Date Maintained' field is set to '09/04/2012'. At the bottom of the window, it indicates '1 of 1' record and an 'OVR' button.

Field	Description
Labor Type	The identifier for the labor type being defined
Description	Description for the labor type
Direct/Indirect	Whether this labor type is direct (charged to a specific work order) or indirect (not charged to a specific work order)
Setup/Run	Setup or run labor time
Run/Rework	Run or rework labor time
Accounting Code	The identifier for the general ledger accounting codes that should be used with this transaction. These accounting codes are set up using the Accounting Codes program on the Bill of Material File Maintenance submenu.
Date Added/Maintained	These dates are maintained by the program



## Job Classes

Job class codes are used in the costing process to assign labor costs. If the employee entering the labor time has a job class code in their employee master record, and the Setup Labor Processing program is set up to use job class as the default labor rate type, the standard rate found here will be used rather than the employee's rate will be used. Use of job classes is optional.

The screenshot shows the 'Update Job Classes' window. It has a menu bar (File, Edit, View, Navigation, Tools, Actions, Help) and a toolbar with icons for Find, Prev, Next, Add, Update, Delete, and Browse. The form contains the following fields:

- Job Class: JC1
- Description: DEFAULT JOB CLASS
- Department: D1 (with a magnifying glass icon and a dropdown arrow)
- Standard Rate: 10.000
- Minimum Rate: 8.000
- Maximum Rate: 15.000
- Date Added: 09/04/2012
- Date Maintained: 09/13/2012

At the bottom, it says '1 of 2' and 'OVR'.

Field	Description
Job Class	The identifier for the class being defined
Description	A description for the job class.
Department	The identifier for the department that this job class is assigned. To view a list of departments press [CTRL]-[z] or click on the magnifying glass.
Standard Rate	The standard rate of pay for employees assigned to this job class.
Minimum Rate	The minimum rate of pay for employees assigned to this job class.
Maximum Rate	The maximum rate of pay for employees assigned to this job class.
Date Added/Maintained	These dates are maintained by the program



## Employee Groups

This table defines the group that can be used in reporting labor transactions. By assigning employees to a group, only one person needs to report labor transactions for the group. Each employee assigned to the group will have the correct labor information added to his employee number. The table contains the group ID and description. This table is optional.

Field	Description
Group Number	The identifier for the group being defined.
Description	A description for the group.
Date Added/Maintained	These dates are maintained by the program

## Update Teams

This table defines the teams that can be used in scheduling work. The table contains the description for the team, the team capacity by shift and the resource information needed for the planning applications. This table is optional.

Field	Description
Team Number	An identifier for the employee team that you want to define.
Description	A description of the team.
Capacity in Hours	Hours per shift the team is capable of performing
Rough Cut Resource	Reserved for future use with the Master Scheduling module.
Rough Cut Conversion	Reserved for future use with the Master Scheduling module.
Date Add/Maintained	These dates are maintained by the program

## Period Intervals

Fitrix Manufacturing has many inquiries and reports where past or future activity is presented in a table format, with the columns representing time periods, such as days, weeks, months, etc., and the rows representing summarized business data, such as labor hours reported (past), or expected sales (future), or planned production (future).

These inquiries/reports use Fitrix Period Intervals, to define the lengths of the above time periods. Some period intervals are pre-defined and shipped with Fitrix, such as:

- 26 weekly time periods
- 12 monthly periods

These pre-defined intervals are used when running various Fitrix inquiries/reports. If necessary, new Period Intervals can be created with other defined lengths of time periods. For example, the Material

## Fitrix Manufacturing Execution Course Workbook

Planning application may be set up to display future inventory movement in weekly periods for the next 8 weeks, then monthly for the next 10 months after the initial 8 weeks.

Use the Period Intervals menu option (f) Period Intervals to set up interval codes that define the number of periods and the number of days in each period. When defining a Period Interval, a 1 to 3 digit value is used to define each specific period (1 or more) and is associated with the selected number of calendar days (such as 1-daily, 7-weekly, 30-monthly, etc).

Period	Days	Period	Days	Period	Days	Period	Days
1	7	2	7	3	7	4	7
5	7	6	7	7	7		
8	7	9	7	10	7	11	7
12	7	13	7	14	7		
15	7	16	7	17	7	18	7
19	7	20	7	21	7		

When running an inquiry or report, one part of the selection criteria is a 'Start Date'. This date is used as the beginning date for the first interval (the first column in the table). The next column beginning date is the first column, PLUS the period interval in calendar days, and so on.

When running an inquiry/report that looks at future activity (such as Material Planning or Production Scheduling), using a start date of 'today' is appropriate, because the data being reviewed is future-oriented.

When running an inquiry/report that is looking at past activity (such as Labor Efficiency), it is more important to review data in the past, so the start date entered should be 30 days BEFORE today, in order for the last 30 days of activity to be displayed by period interval. If period intervals are set to 7 days, then the activity for the past 30 days would be summarized and displayed in 4 columns.

The menu options in Fitrix that use Period Intervals:

- Labor Processing/Inquiries/Labor Efficiency – multiple (includes past labor activity)

- Material Planning/Reports/Material Planning – multiple (includes future inventory activity)

- Material Planning/Reports/Material Planning Recommendations – multiple (includes future inventory activity)

- Production Scheduling/Inquiries/Order Status by Warehouse – includes future labor activity

- Production Scheduling/Inquiries/Capacity vs Load – multiple (includes future labor activity)

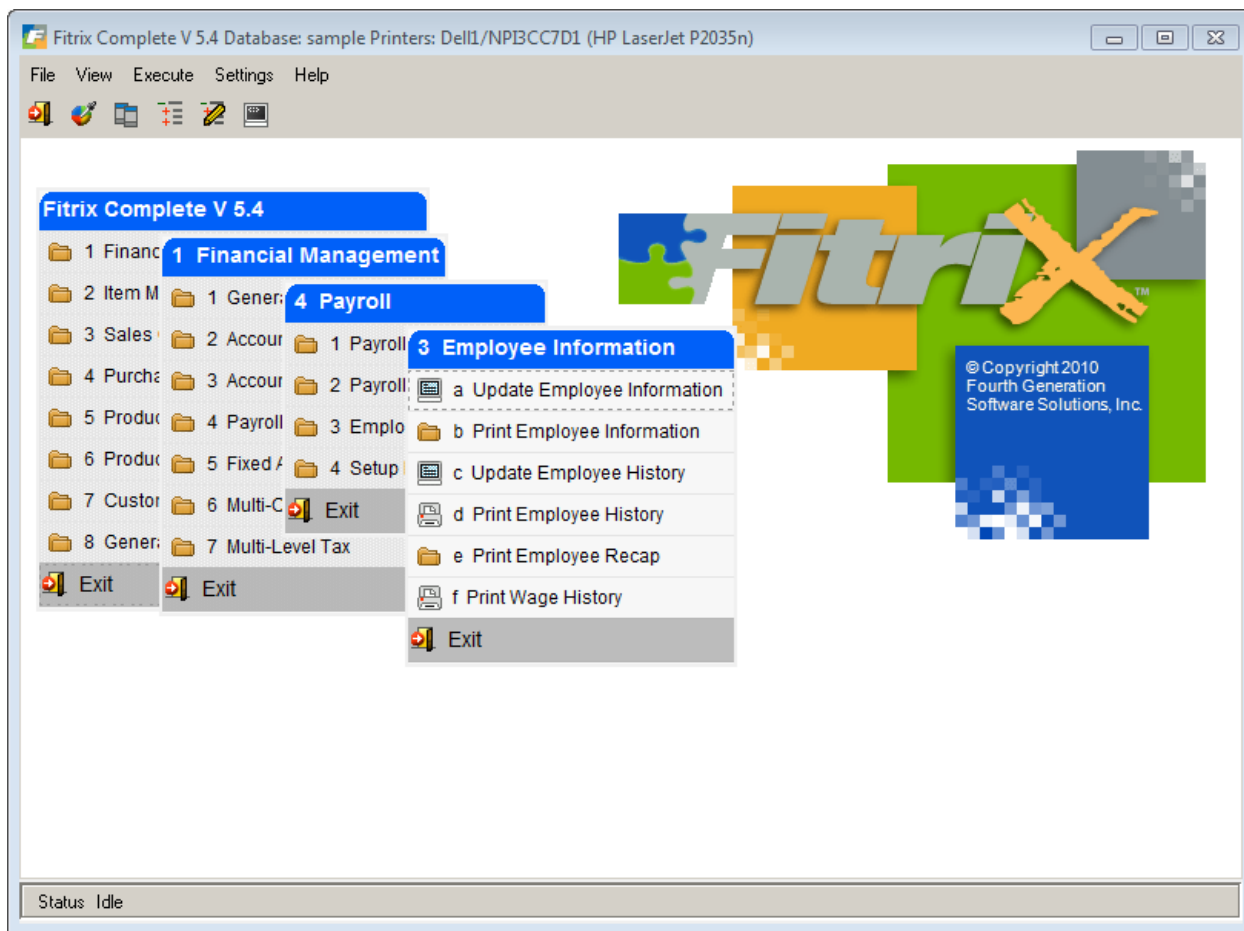
## Set up Labor Processing

This table establishes the controls for processing labor transactions. Default values are defined and this table is required

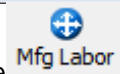
Field	Description
Transaction History	<p>Y indicates labor transaction will be written to the history table when posted. They can be viewed online after posting. Many reports use this history table.</p> <p>N indicates labor transactions will not be written to history.</p>
Default Labor Type	Rates can come from either the work center, job class, or employee table
Interface Check Boxes	Check these if you want GL transactions and payroll timecards created when the labor processing transactions are posted.
Efficiency % Threshold	These values are used by the Labor Efficiency Inquiry programs discussed in Chapter 4. For example, if the actual labor hours worked is 80% or more of the standard hours this is rated as good performance.

## Employee Master

Use the Update Employee Information menu option to add, update or delete employee information.



Once in this program, select Find to display the employee. Select Update and then click on the icon on the toolbar to launch the Manufacturing Labor program.



**Manufacturing Labor**

File Edit Help

**Labor Entry Defaults**

Department: 01

Job Class: JC1

Team: TM1

Group: GP1

Shift: 1

**Labor Entry Override Permissions**

Machine? ☒

Work Center? ☒

Department? ☒

Team? ☒

Shift? ☒

Job Class? ☒

Standard Hours? ☒

Transaction Date? ☒

OK Cancel

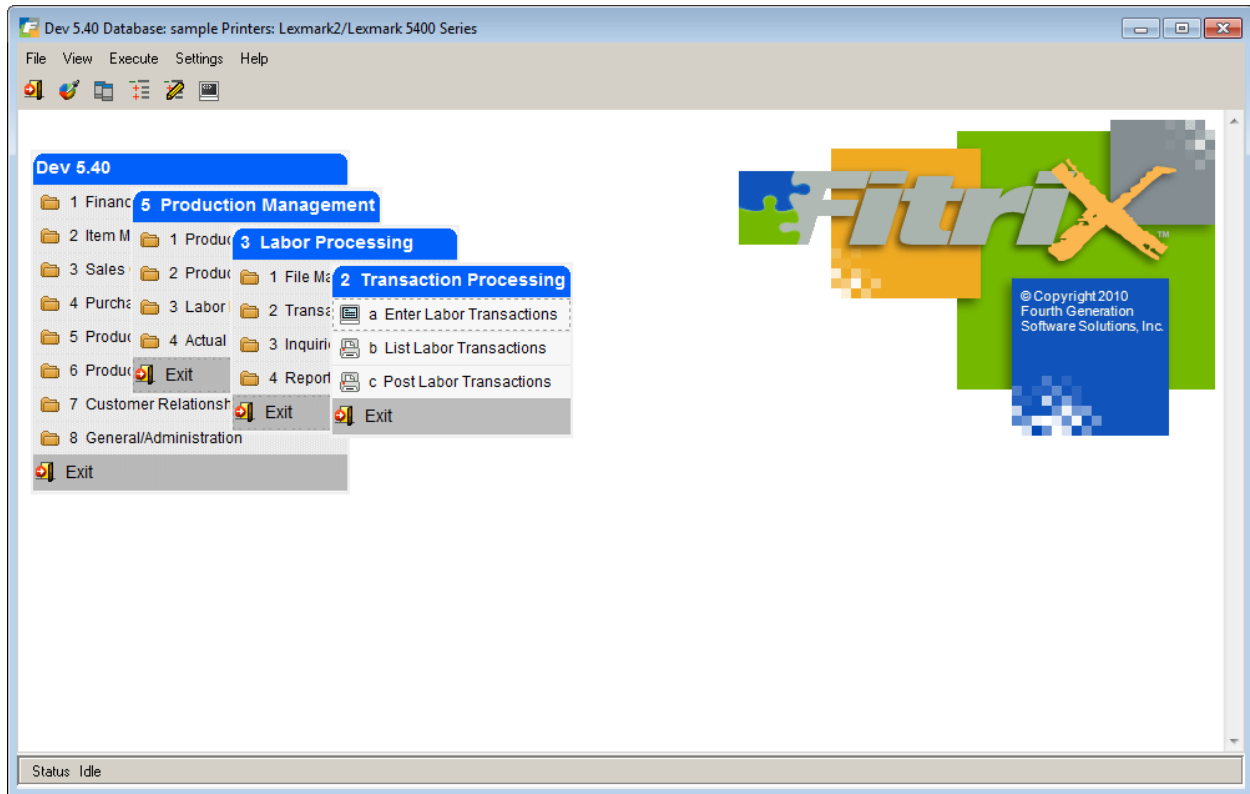
Enter a department(Optional). Use Ctrl-z for a list. OVR

Field	Description
Department	The department the employee works in (not to be confused with the department codes used when recoding accounting transactions). These departments are set up using the Department program located on the Standard Routing File Maintenance menu. To view a list of departments press [CTRL]-[z] or click on magnifying glass.
Job Class	The job class to which this employee is assigned. To view a list of job classes press [CTRL]-[z] or click on magnifying glass
Team	The team to which this employee is assigned. A team is a resource that is used for planning and scheduling activities. To view a list of teams press [CTRL]-[z] or click on magnifying glass.
Group	The group to which this employee is assigned. Employees may be assigned to a group so that a transaction for the group will be propagated to each employee in the group. This reduces the number of transactions required. A group is different from a team in that a group is used only in this application for transaction processing. A team is a resource that is used for planning and scheduling activities. To view a list of groups press [CTRL]-[z] or click on the magnifying glass.
Shift	The shift this employee usually works. To view a list of shifts press [CTRL]-[z] or click on the magnifying glass.
Labor Entry Override Permissions	Checking these check boxes means the value can be changed ( i.e. change the shift an employee is assigned to) when entering labor transactions



## Transaction Processing

When work on a production order is reported, the time information is entered into a labor transaction. The labor transaction updates the production order status at the time the transaction is entered. The costing information is calculated and updated on the production order when the Post Labor Transactions option is executed. GL transactions and payroll time card entries are also created at this time.



### ***Enter Labor Transactions***

The steps to assign labor costs to items being manufactured are as follows:

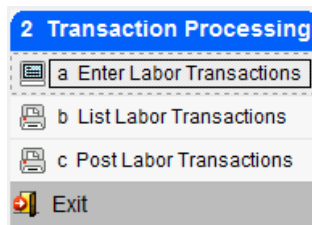
- Enter a production work order
- Print a production packet
- Print a production pick ticket
- Pull components
- Run component issue to commit components and record work in process
- Assemble/build the item(s)

Enter, edit, and post labor transactions to add labor cost to the finished products and create timecard entries for labor hours worked.

Post production receipt to remove components from inventory, place finished goods in inventory, increase inventory GL balance, and reduce work in process GL balance.

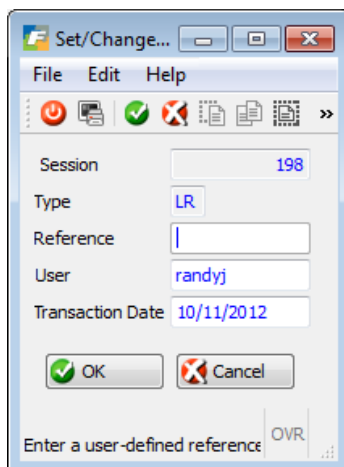
Use menu option (a) Enter Labor Transactions to report labor transactions against production orders.





Labor transactions can be manually entered into this application. The date, shift, and employee number are required to record labor transactions. Each labor transaction will require a labor type, the production order number, the step in routing, and the time worked and the quantity produced. Transaction data is validated against the production order as it is entered. Then run menu option (b) List Labor Transactions to verify accuracy of information and correct any errors. Then run menu option (c) Post Labor transactions to post transactions.

When you go into Add mode this screen will display:



**Session Number**

A unique sequential number assigned by the program.

**Type**

Defaults to LR for labor reporting. This is a source code stored with the GL activity transactions created by the labor posting program and used as reference to indicate that this transaction was created by the Labor Processing module.

**Reference**


Optional freeform field.

**User ID**

Defaults to the User login ID

**Transaction Date**

The date the transaction occurred. This is also the date used by the posting routine.


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## Header Screen

## Employee Number

The employee code for the employee whose time is being reported. The employee name will be displayed after the code. To view a list of Employees press [CTRL]-[z] or click on the magnifying

Trans Date

Defaults to the value entered on the Set/Change Sessions Defaults screen. This will be the date used for the GL activity transactions created by the posting program.

Shift

Defaults to the employee's shift code but can be changed. Ctrl Z or click on magnifying glass to find a different shift.

**Status**

Display only field maintained by the system. Valid values are A for Active and P for Posted.

### Start and Stop Time

Time employee started working on the production order and the time when the employee stopped working on the production order.

Elapsed - time

Calculated value based on start and stop times. You can also leave start and stop times blank and enter the elapsed time instead.

**Detail Screen**

**Labor Type**

The type of labor being reported. Defaults to Run. To view a list of labor types press [CTRL]-[z] or click on magnifying glass.

**Prod Order**

The production order being reported against. To view a list of orders press [CTRL]-[z] or click on the magnifying glass.

**Rel (Release)**

The release level of this order. To view a list of releases press [CTRL]-[z] or click on the magnifying glass.

**Description**

Description of the item.

**Sales Order**

Sales order number work order is linked to.

**Line**

Sales order line number.

**Customer**

Customer Code.

**Name**

Business name.

**Seq (Sequence)**

The routing step that is being reported against. To view a list of routing steps press [CTRL]-[z] or click on the magnifying glass.

**Time**

The following columns define how much time is spent on this operation. If start time is entered then the stop time must be entered. The elapsed time is calculated automatically. If the start and stop times are left blank, then the elapsed time must be entered.

**Start**

The time work began on this operation.

**Stop**

The time work ended on this operation.

**Elapsed**

The amount of time spent on this operation. This is calculated automatically if the start and stop times were entered.

**Quantity Complete**

The number of units that are completed on this operation.

**Quantity Scrapped**

The number of units that are rejected on this operation.

**C (Complete)**

Blank indicates that this operation is not complete.

## Fitrix Manufacturing Course Workbook

- C indicates that this operation is complete. A completed operation is still open and can have additional transactions posted to it. It is closed in the operation closed transaction in production order processing.

### Mach/Pers (Machine/ Persons)

The number of machines per person assigned to this transaction. The default value is 1. This means that one hour of labor time also creates one hour of time to be costed at the work center's overhead rate. If a direct labor employee works on multiple machines during a shift, this number should be the number of machines worked at. If Mach/Pers is 2, then each hour of labor time creates 2 hours of overhead rate time. If Mach/Pers is entered, then Pers/Mach is skipped.

### Pers/Mach (Persons/Machine)


The number of persons per machine assigned to this transaction. The default value is 1 (if Mach/Pers is not used). This means that one hour of labor time also creates one hour of time to be costed at the work center's overhead rate. If multiple direct labor employees work on a single machine during a shift, this number should be the number of persons working at the machine. If Pers/Mach is 2, then each hour of labor time creates 1/2 hour of overhead rate time.

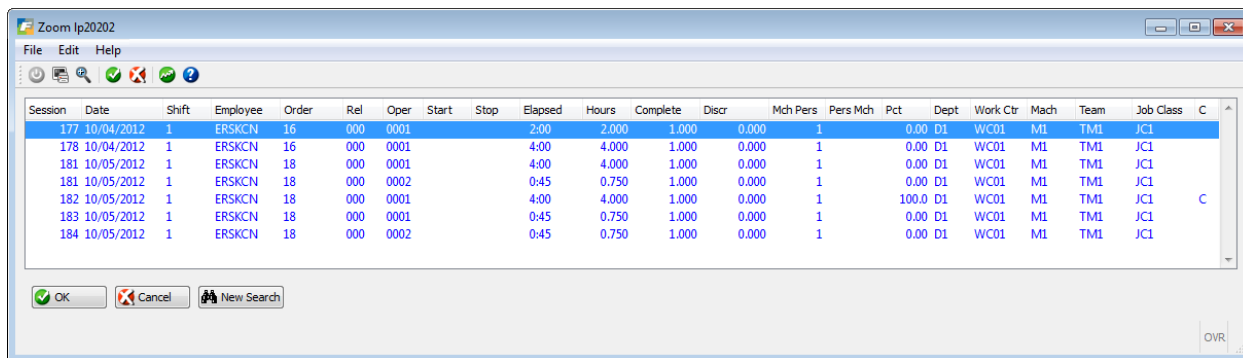
### % Comp

The estimated percent of the operation that is complete.

## History Screen

While in either the header or detail section of the Labor Entry screen and in either Add or Update mode


click on  History icon to see past labor transactions associated with the employee code.



Session	Date	Shift	Employee	Order	Rel	Oper	Start	Stop	Elapsed	Hours	Complete	Discr	Mch Pers	Pers Mch	Pct	Dept	Work Ctr	Mach	Team	Job Class	C
177	10/04/2012	1	ERSKCN	16	000	0001			2:00	2.000	1.000	0.000	1		0.00	D1	WC01	M1	TM1	JC1	
178	10/04/2012	1	ERSKCN	16	000	0001			4:00	4.000	1.000	0.000	1		0.00	D1	WC01	M1	TM1	JC1	
181	10/05/2012	1	ERSKCN	18	000	0001			4:00	4.000	1.000	0.000	1		0.00	D1	WC01	M1	TM1	JC1	
181	10/05/2012	1	ERSKCN	18	000	0002			0:45	0.750	1.000	0.000	1		0.00	D1	WC01	M1	TM1	JC1	
182	10/05/2012	1	ERSKCN	18	000	0001			4:00	4.000	1.000	0.000	1		100.0	D1	WC01	M1	TM1	JC1	C
183	10/05/2012	1	ERSKCN	18	000	0001			0:45	0.750	1.000	0.000	1		0.00	D1	WC01	M1	TM1	JC1	
184	10/05/2012	1	ERSKCN	18	000	0002			0:45	0.750	1.000	0.000	1		0.00	D1	WC01	M1	TM1	JC1	

## Overrides Screen

While in either the header or detail section of the Labor Entry screen and in either Add or Update mode

click on  Overrides icon to view and modify any of the default settings associated with this employee code.

Extension Ip20203

File Edit Help

Machine M1

Department D1

Job Class JC1

Work Center WC01

Team TM1

Group GP1

Std Hours 0.0

OK Cancel

Enter a machine code(Optional). Use Ctrl-z for a list. OVR

## **List Labor Transactions**

Use menu option (b) List Labor Transactions entered.

2 Transaction Processing

a Enter Labor Transactions

b List Labor Transactions

c Post Labor Transactions

Exit

This edit listing must be run prior to posting the labor transactions.

Labor Shift-End Transaction List

Shift End Processing

This option will post costs for labor transactions to production orders. It will add transactions to GL activity and Payroll timecards, if the interfaces to GL and Payroll are activated in Setup Labor Processing. It will optionally copy the transactions to labor history, if transaction history is activated in Setup Labor Processing.


Date selected 01/14/2013



From Shift To Shift

OK Cancel







Enter Labor Transaction Date to process OVR

## Fitrix Manufacturing Course Workbook

 List Labor Transactions

File    Navigate    Help

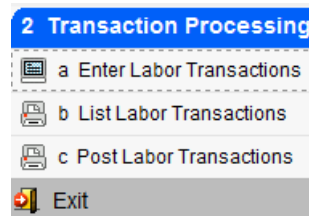
01/14/2013 10:24:37
ABC DISTRIBUTION
Page: 2

User: kathyh
Labor Shift-End Transaction List
Pgm: lp208

Sess	Trans Date	Lbr Shf Typ Order	Rel Seq	--Time-- Start Stop	----Quantity---- Complete Scrap	Pr Mc \$ C Mc Pr Cmp Mach	Work Cntr Dept Team	Job Std Cls Hours	---Elapsed--- Run Mach
Employee 21666 SMITH, JOHN									
397	01/14/13	1 RUN 180	000 0002	Start 07:00 Stop 15:00	2.00 0.00	1 0	WC01 D1	4.00 8.00	8.00
Employee Total								4.00	8.00 8.00
<div style="display: flex; justify-content: space-between;"> <span>----- Report Total Hours -----</span> </div> <div style="display: flex; justify-content: space-between;"> <span>Standard</span> <span>4.00</span> <span>Run</span> <span>8.00</span> <span>Machine</span> <span>8.00</span> </div>									

## ***Post Labor Transactions***

Use menu option (c) Post Labor Transactions after reviewing the edit listing.



This program will create the timecard entry for employees that have labor transactions and also creates GL transactions in the activity table.

## Fitrix Manufacturing Execution Course Workbook

**Labor Shift-End Transaction Post**

Shift End Processing

This option will post costs for labor transactions to production orders. It will add transactions to GL activity and Payroll timecards, if the interfaces to GL and Payroll are activated in Setup Labor Processing. It will optionally copy the transactions to labor history, if transaction history is activated in Setup Labor Processing.

Date selected: 01/14/2013

From Shift:  To Shift:

Enter Labor Transaction Date to process

OVR

**Post Labor Transactions**

File Navigate Help

01/14/2013 10:28:59 ABC DISTRIBUTION Page: 2

User: kathyh Labor Shift-End Transaction Post Pgm: lp208

GL Doc Number: 223

Trans	Lbr	Shf	Typ	Order	Rel	Seq	Start	Stop	Complete	Scrap	C	Mc	Pr	Cmp	Mach	Cntr	Dept	Team	Cls	Hours	Run	Mach				
Employee 21666 SMITH, JOHN																										
397	01/14/13	1	RUN	180	000	0002	Start 07:00	Stop 15:00	Hours 8.00																	
							2.00	0.00	1	0					WC01 D1				4.00	8.00	8.00					
																				Employee Total			4.00	8.00	8.00	
----- Report Total Hours -----																										
		Standard	4.00	Run	8.00	Machine	8.00																			

If you find errors in any transactions you post you can enter a negative transaction to reverse it and then re-enter it correctly.

The standard entries are as follows:

Program	Cost Type	Debit	Credit	Work Center (labor type W)	Job Class (labor type J)	Employee Rate (labor type E)	Standard Costing instead of average costing

## Fitrix Manufacturing Course Workbook

Labor Posting (LP)	Labor	WIP-Labor	Mfg Control -Labor	Hrs worked x WC labor rate	Hrs worked x JC rate	Hrs worked x Employee rate	Pieces complete x WC Labor Rate x Std hrs per piece
	Overhead	WIP – Ovhd	Mfg Control-Ovhd	Hours worked x WC Ovhd Rate	Hours worked x WC Ovhd Rate	Hours worked x Work Center Ovhd Rate	Pieces complete x WC Ovhd Rate x Std hrs per piece
	Setup	WIP-Labor	Mfg Control-Labor	Hours worked x WC Labor Rate	Hours worked x JC Rate	Hours Worked x Employee Rate	WC Labor Rate x Setup hours
Payroll Posting		Mfg Control-Labor	Payroll payable or cash	Hours worked x Employee Rate	Hours worked x Employee Rate	Hours worked x Employee Rate	Hours worked x Employee Rate
Production Order Cost Variance Posting (AC)	Labor Rate Variance	Mfg Control - Labor	Labor Rate Variance Expense	Hours worked x WC Rate - Empl Rate	Hours worked x JC Rate - Empl Rate	N/A	WC Labor Rate x ((Pieces complete x Std hrs per piece) - Hours Worked)
	Labor Usage Variance	Mfg Control-Labor	Labor Rate Variance Expense	N/A	N/A	N/A	WC Labor Rate x ((Pieces complete x Std hrs per piece) - Hours Worked)
	Overhead Rate Variance	Mfg Control - Ovhd	Ovhd Rate Variance Expense	N/A	N/A	N/A	N/A
	Overhead Usage Variance	Closeout Variance - Expense	WIP Close Var- WIP Subaccount	Total WIP Additions - Prod Receipts	Total WIP Additions - Prod Receipts	Total WIP Additions - Prod Receipts	Total WIP Additions - Prod Receipts

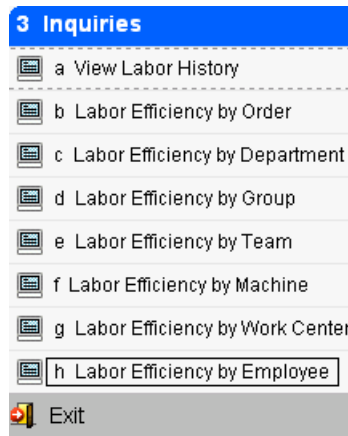


## ***Fitrix Manufacturing Execution Course Workbook***

Assumes a positive variance. If variance is negative, debits and credits will be reversed.

Assumes the accumulated value in WIP is more than the Production Receipt value.

## Inquiries



The inquiry functions included are:

- View Labor History
- Labor Efficiency
  - By Order
  - By Department
  - By Group
  - By Team
  - By Item
  - By Machine
  - By Work Center
  - By Employee

## View Labor History

Use menu option (a) View Labor History to see posted labor entries.

The screenshot shows the 'Review Transaction History' window with the following data:

Employee	Order	Rel	Seq	Labor Type	Start	Stop	Act Hours	Std Hours	Work Ctr	Complete Qty	Date	Machine	Shift	Job Class	Team	Scrap Qty	GL Doc
ERSKCN	26	000	0002	RUN	08:00	12:00	4.00000	1.00000	WC01	1.000	10/11/2012	M1	1	JC1	TM1	0.000	60
ERSKCN	28	000	0002	RUN	08:00	12:00	4.00000	1.00000	WC01	1.000	10/12/2012	M1	1	JC1	TM1	0.000	64
ERSKCN	29	000	0001	SET	08:00	08:45	0.75000	0.00000	WC01	0.000	10/15/2012	M1	1	JC1	TM1	0.000	65
ERSKCN	29	000	0001	RUN	08:45	12:45	4.00000	5.00000	WC01	1.000	10/15/2012	M1	1	JC1	TM1	0.000	65
ERSKCN	30	000	0001	SET	08:00	08:45	0.75000	0.00000	WC01	0.000	10/15/2012	M1	1	JC1	TM1	0.000	67
ERSKCN	30	000	0001	RUN	08:45	12:45	4.00000	5.00000	WC01	1.000	10/15/2012	M1	1	JC1	TM1	0.000	67
ERSKCN	31	000	0001	SET	08:00	08:45	0.75000	0.00000	WC01	0.000	10/15/2012	M1	1	JC1	TM1	0.000	68
ERSKCN	31	000	0001	RUN	08:45	12:45	4.00000	5.00000	WC01	1.000	10/15/2012	M1	1	JC1	TM1	0.000	68
ERSKCN	34	000	0001	SET	08:00	08:45	0.75000	0.00000	WC01	0.000	10/15/2012	M1	1	JC1	TM1	0.000	71
ERSKCN	34	000	0001	RUN	08:45	12:45	4.00000	5.00000	WC01	1.000	10/15/2012	M1	1	JC1	TM1	0.000	71
ERSKCN	34	000	0001	SET	08:00	08:45	0.75000	0.00000	WC01	0.000	10/15/2012	M1	1	JC1	TM1	0.000	71

**Employee**

The identifier for the employee that performed the work in this transaction

**Order**

The production order number for which work is being reported

**Rel (Release)**

The identifier for the split of the production order that is being reported

**Seq (Sequence)**

The identifier for the step in the routing for which the work is being reported

**Lab Typ (Labor Type)**

The identifier for the type of work being reported. Labor types are user defined in labor type maintenance.

**Start**

The time of day that the activity being reported was started

**Stop**

The time of day that the activity being reported was stopped

**Act Hours**

Total of actual hours reported

**Std Hours**

Total standard hours per routing steps

**Work Center**

The identifier for the work center in which this routing step is being worked

**Complete Qty**

Quantity produced

**Mach (Machine)**

The identifier for the work center in which this routing step is being worked

**Shift**

The identifier for the shift on which the work being reported in this transaction occurred

**Job Class**

The identifier for the job class that is assigned to the employee reporting time in this transaction

**Team**

The identifier for the team assigned to this routing step

**Scrap Qty**

Quantity scrapped

**GL Doc**

Posting document number

## Labor Efficiency Screen Programs

Use options b through h to display labor efficiency by production work order, department, group, team, machine, work center, and employee. The screen below is Labor Efficiency by Order. Select Find, enter warehouse, start date, and interval code. Press enter or click OK to find records that match the search criteria.

### Warehouse code

Warehouse in which work order is being produced

### Start Date

Start date to use in displaying labor transactions

### Interval Code

Pre-defined interval codes are setup in Period Interval File Maintenance. They represent a specific number of periods and the number of days per period.

Order	Rel	Description	01/21	01/28	02/04	02/11	02/18	02/25	03/04	03/11	03/18	03/25	04/01	04/08	04/15	04/22	04/29	C
195	000	MAC LAPTOP	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205	000	COMPUTER REFURBISH	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
206	000	GENERAL REPAIR	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207	000	GENERAL REPAIR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

To view transaction details, place the cursor on the selected detail period and click on the Transaction Details button. The detailed labor records for the selected time period will display.

Employee	Order	Rel	Seq	Labor Type	Start	Stop	Act Hours	Std Hours	Work Ctr	Complete	Date	Machine	Shift	Job Cla	Team	Scrap Qty	GL Doc
21666	195	000	0001	RUN			5.00000	5.00000	WC01	5.000	01/21/2013	1				0.000	240
21666	195	000	0002	RUN			8.00000	8.00000	WC01	4.000	01/21/2013	1				0.000	241
ERSKCN	195	000	0002	RUN			2.00000	2.00000	WC01	1.000	01/21/2013	1	JC1	TM1		0.000	241
21666	195	000	0003	RUN			5.00000	5.00000	WC01	5.000	01/21/2013	1				0.000	243

**Employee**

The identifier for the employee that performed the work in this transaction

**Order**

The production order number for which work is being reported

**Rel (Release)**

The identifier for the split of the production order that is being reported

**Seq (Sequence)**

The identifier for the step in the routing for which the work is being reported

**Lab Typ (Labor Type)**

The identifier for the type of work being reported. Labor types are user defined in labor type maintenance.

**Start**

The time of day that the activity being reported was started

**Stop**

The time of day that the activity being reported was stopped

**Act Hours**

Total of actual hours reported

**Std Hours**

Total standard hours per routing steps

**Work Ctr**

The identifier for the work center in which this routing step is being worked

**Complete Qty**

Quantity produced

**Date**

The date this labor transaction is reported

**Mach (Machine)**

The identifier for the work center in which this routing step is being worked

**Shift**

The identifier for the shift on which the work being reported in this transaction occurred

**Job Class**

The identifier for the job class that is assigned to the employee reporting time in this transaction

**Team**

The identifier for the team assigned to this routing step

**Scrap Qty**

Quantity scrapped

**GL Doc**

Posting document number



## Reports

The reports included in FITRIX Labor Processing are:

Labor History by Order, Department, Group, Work Center, Machine, Team, Employee

Labor Efficiency by Order, Department, Group, Work Center, Machine, Team, Employee

4 Reports	
a Labor History by Order	m Labor Efficiency by Team
b Labor History by Department	n Labor Efficiency by Employee
c Labor History by Group	
d Labor History by Work Center	
e Labor History by Machine	
f Labor History by Team	
g Labor History by Employee	
h Labor Efficiency by Order	
i Labor Efficiency by Department	
j Labor Efficiency by Group	
k Labor Efficiency by Work Center	
l Labor Efficiency by Machine	
Exit	

## Labor History Reports

Historical labor reports can be run by order, department, group, work center, machine, team, or employee. The example here is Labor History by Order.

Labor History by Order

Warehouse: MIMAI

From: Production Order: To:

Transaction Date: 10/01/2012 10/24/2012

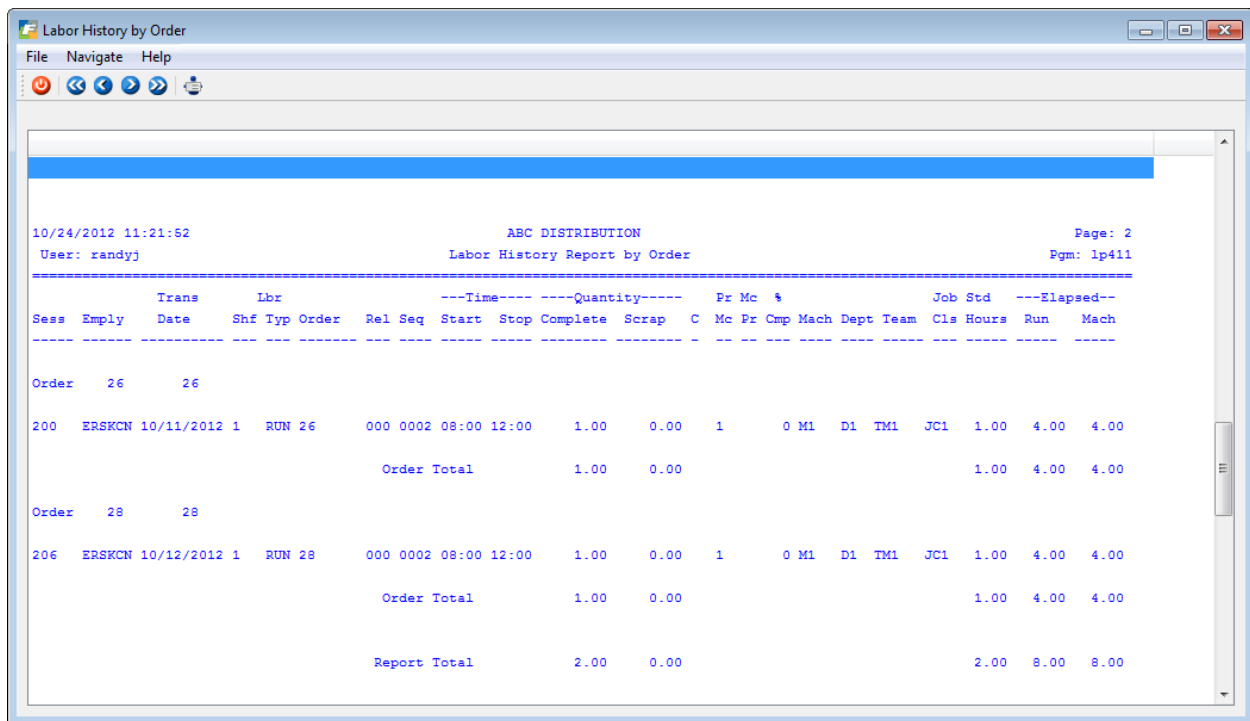
Shift: 1 2 3 4 5 6 7

Specific Labor Types: RUN

OK Cancel

Enter a labor type, or leave blank for all OVR

## Fitrix Manufacturing Course Workbook



10/24/2012 11:21:52  
User: randyj

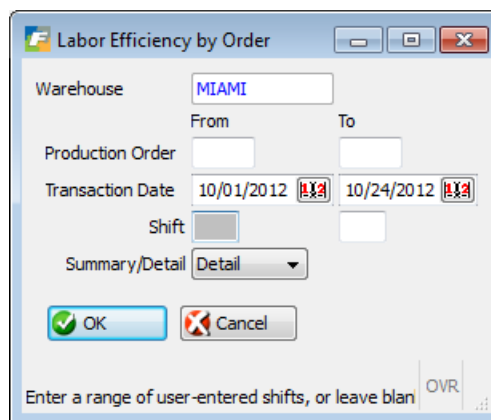
ABC DISTRIBUTION  
Labor History Report by Order

Page: 2  
Pgm: lp411

Seas	Empl	Trans Date	Lbr Shf Typ Order	Rel Seq	Start	Stop	Complete	Scrap	C	Pr	Mc	%	Job	Std	Hours	Run	Mach
Order	26	26															
200	ERSKCN	10/11/2012	1	RUN 26	000	0002	08:00	12:00	1.00	0.00	1	0	M1	D1	TM1	JC1	1.00 4.00 4.00
Order Total										1.00	0.00				1.00	4.00	4.00
Order	28	28															
206	ERSKCN	10/12/2012	1	RUN 28	000	0002	08:00	12:00	1.00	0.00	1	0	M1	D1	TM1	JC1	1.00 4.00 4.00
Order Total										1.00	0.00				1.00	4.00	4.00
Report Total										2.00	0.00				2.00	8.00	8.00

## Labor Efficiency Reports

You can run efficiency reports by order, department, group, work center, machine, team, or employee. The example here is Labor Efficiency by Order.



Labor Efficiency by Order

Warehouse: MIAMI

From: To:

Production Order:

Transaction Date: 10/01/2012 10/24/2012

Shift:

Summary/Detail: Detail

OK Cancel

Enter a range of user-entered shifts, or leave blank OVR



## Fitrix Manufacturing Execution Course Workbook

Labor Efficiency by Order

File Navigate Help

10/24/2012 11:29:49

ABC DISTRIBUTION

Page: 2

User: randyj

Labor Efficiency Report by Order

Pgm: lp421

Empty	Order	Rel Oper	Trans Date	Lbr Cmp Shf Typ Cde	Quantity Complete	Quantity Scrapped	M P L	Reported Hours Setup	Run	Standard Hours Setup	Run	% Efficiency Setup	Run	Total
-------	-------	----------	------------	---------------------	-------------------	-------------------	-------	----------------------	-----	----------------------	-----	--------------------	-----	-------

Production Order 26 SCM A SERIES MULSTRIKE

ERSKCN 26	000	0002	10/11/2012	1	RUN	1.00	0.00	1	L	0.00	4.00	0.00	1.00	.0 25.0 25.0
Order Total									0.00	4.00	0.00	1.00	.0 25.0 25.0	

Production Order 28 SCM A SERIES MULSTRIKE

ERSKCN 28	000	0002	10/12/2012	1	RUN	1.00	0.00	1	L	0.00	4.00	0.00	1.00	.0 25.0 25.0
Order Total									0.00	4.00	0.00	1.00	.0 25.0 25.0	

Report Total									0.00	8.00	0.00	2.00	.0 25.0 25.0
--------------	--	--	--	--	--	--	--	--	------	------	------	------	--------------





## **Exercise a: Set Up Labor Processing**

In this lab you will be setting up labor processing defaults and reference files and adding to the Database.

## **Lab Exercise b: Labor Processing Transactions**

## **Lab Exercise c: Inquiries and Reports**

## **Chapter 3 – Job Shop**

---

## Learning Objectives

Job Shop is a type of production process that handles custom and/or makes to order products. Jobs are an accumulation of stock and non-stock items, labor, overhead, miscellaneous charges, and outside process steps, each of which may have associated internal costs and charges to be billed to the customer. These elements are then consolidated in the job, for both the cost and price. Reporting is available that compares price to both actual and estimated costs and calculates the gross margin achieved.

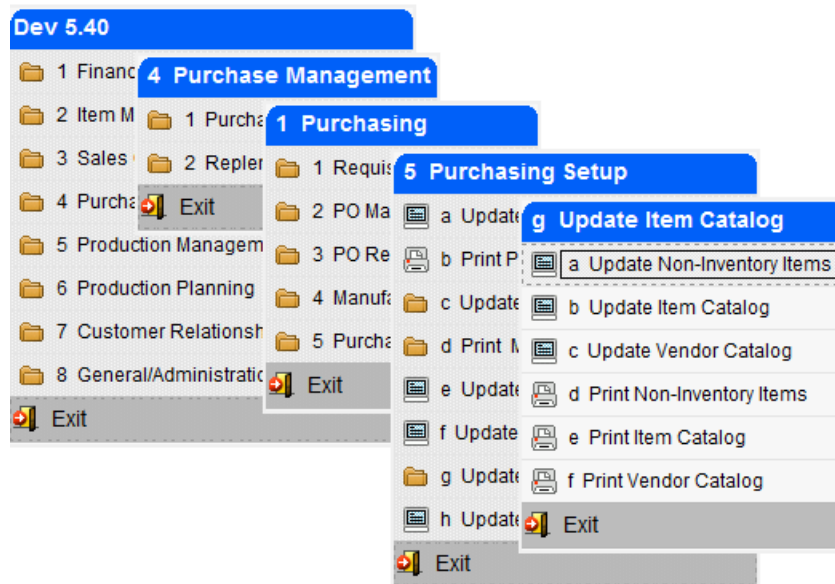
In this chapter we will cover the options, screens, and reports used to process and analyze jobs. As a prerequisite for job shop processing you should have already become familiar with the following Fitrix modules:

- Sales Order Entry
- Production Work Order Processing
- Standard Routing
- Labor Processing
- Accounts Payable



## Setting up Non-Stock Items to Be Used in Sales Order Entry

The end item being produced by a job can be either a make to stock item (an item you typically stock) or a non-stock item. For make to stock items that exist in the item master table you simply use the line type MTO when entering the sales order and a production work will be created when the sales order is saved. For non-stock items you must first create the item using the Update Non Stock Items program found on this Purchasing submenu. You then use the line type MTN (make to order for non-stock) on the sales order.



A good example of a non-stock item used in a job would be an item for REPAIR as shown here.

The job for this item could then consist of stock and non-stock items needed to refurbish an item previously purchased plus labor and miscellaneous costs like the packaging needed to ship the repaired item to your customer.

## Fitrix Manufacturing Course Workbook

The screenshot shows the 'Update Non-Inventory Items' window. The menu bar includes File, Edit, View, Navigation, Tools, Actions, and Help. The toolbar contains icons for Find, Prev, Next, Add, Update, Delete, and Browse. The main form fields are as follows:

Field	Value
Item Code	REPAIR
Vendor Code	123457
Commodity Code	
Description	REFURBISH A COMPUTER
Item Class	NON
Purchasing Unit	EA
Weight	1.000
Unit	LB
Volume	
Sales Account No.	400000000
Cost of Sales Account No.	500000000
Taxable?	N
Subject to Trade Discount	N
Item Type	N
Commission Code	STD
Default Unit Cost	50.0000

The 'Extended Description' field contains the text: 'USE THIS NON-STOCK ITEM WHEN REFURBISHING COMPUTERS PREVIOUSLY SOLD THAT HAVE BEEN RETURNED FOR REPAIR OR UPGRADE.'

At the bottom of the window, it says '1 of 1' and 'OVR'.

### Item Code

This code uniquely identifies each approved non-inventory item to the system.

- Up to 20 characters

### Vendor Code

This field holds the vendor code from which this item is usually purchased.

- Up to 20 characters

### Commodity Code

This field holds the unique commodity code for this item. Certain industries use standard commodity codes to identify items they buy and sell. Entry in this field is optional.

### Description

There are two description lines available for each item entered.

### Extended Description

Enter up to 256 characters of extended description.

**Purchasing Unit**

This two character field is required and specifies the default unit of purchase for this item.

**Weight**

The weight of each unit can optionally be entered in this field.

**Unit**

This field contains the unit of measure for the weight entered in the previous field.

**Volume**

This field contains the volume of the item.

**Sales Account Number**

Enter the sales account number that should be credited when this item is sold. Initially defaults to the sales account number in the Update Order Entry Defaults program but can be changed.

**Cost of Sales Account No**

Enter the cost of sales account number that should be debited when the production work order is posted. Initially defaults to the Non-stock Account number set up in the Update Purchasing Defaults program but can be changed.

**Taxable**

Enter Y if taxed should be charged on this item when it is sold to a customer that you collect sales tax from.

**Subject to Trade Discount**

Enter Y if this item should be included in trade discounts offered to your customers.

**Item Type**

This is a non-entry field. It will contain an N for a non-stock item.

**Commission Code:**

Enter a commission code if commission is paid on this item when it is sold.

**Default Unit Cost:**

Cost used when non stock item is included in a bill of material. For job shop items this cost is not used. The cost will be the accumulation of all components, labor, and miscellaneous costs on the work order.

## Entering a Sales Order for a Job

You should already be very familiar with how to process a sales order using the Fitrix Order Entry module. If you are not, you should read the Fitrix Order Entry User Guide. What will be discussed in this section are items that need to be made or reworked in some way via a production work order.

### Quotation for a Job

The sales order entry screen:

**Update Customer Orders**

File Edit View Navigation Tools Actions Options Help

Quit Print OK Cancel Cut Copy Paste Zoom Notes Attachments U Fields To Do View Detail Next Page Previous Page Insert Row Delete Row Append Row Technical status Help Summary Defaults Credit Check Recalc

Find Prev Next Add Update Delete Browse Options

**Customer**

Phone: 574 993 5436 Order Type: QUO

Customer: 12

Name: CLASSIC PARTS UNLIMITED

Customer PO: 31122

Contract:

**Ship To**

Ship To: WEST

Ship/Return Date: 03/19/2013 Ship Type: OTHER

Required Date: Ship Via: YELLOW

Name: WEST DISTRIBUTION CENTER

Address: 200 WILLOW LANE

City: SOUTH BEND

State: IN Zip: 30032

Country: US UNITED STATES

**Order**

Contact Name: BOB JONES

Contact Phone: 404-567-4039

Extended Description

MAKE SURE TO UPGRADE THE HARD DRIVE AND REPLACE THE DAMAGED KEYBOARD.

Order Number: 4167

Document: 4167

Order Date: 03/19/2013

Multiple Orders: ☐

Ship Complete: ☐

Status: REF

Stage: NEW

Currency:

Discount Code: NONE

Order Total: 100.00

Fixed Price: ☐

**Credit/Debit/RMA**

Reason:

Description:

RMA Status:

Description:

Base Doc No: 4167

RMA Ref Doc No:

Default Type:

To Be Invoiced: ☐

**Line Items**


Ln	Type	Stg	Item Code	Description	Additional Description	Warehouse	UM	Quantity	Price	Net Amount	Tax	CRM Rsn	BKO Ref
1	MTN	NEW	REPAIR	REFURBISH A COMPUTER		SEATTLE	EA	1.000	100.0000	100.00	NOTAX		

If the order type entered is QUO for quotation any components added to the production work order after the sales order is saved will not be committed because the Allocate Now flag on the production work order created is unchecked as shown here.

## Fitrix Manufacturing Execution Course Workbook

Order	532	Release	000
Item	REPAIR	Non-Stock Item	
Description	REFURBISH A COMPUTER		
Order Quantity	1.000		
Start Date	03/19/2013		
Due Date	03/19/2013		
Order Type	MTN		
Order Status	A		
Hold Code			
Priority			
Sales Order	4167		
Line	1		
Contact Name	BOB JONES		
Contact Phone	404-567-4039		
Bill of Material			
Standard Routing			
Allocate Now?	<input type="checkbox"/>		



If you need to send a quotation to your customer for approval, click on the  button on the toolbar and select Quotation from the drop down list that displays. You can also print the quotation using the Print Quotes/Order Acknowledgements option on the Order Maintenance Menu (option b).



1110 Sample Street  
Seattle, WA 98133  
(800) 555-1212

QUOTATION

PAGE
1

Sell To: CLASSIC PARTS UNLIMITED  
22501 72ND  
CLEARING POINT BUSINESS CENTER  
SOUTH BEND IN 46601  
US

Ship To: WEST DISTRIBUTION CENTER  
200 WILLOW LANE  
SOUTH BEND IN 30032  
US

Ship Terms: PREPAID SHIP POINT

QUOTE NO	QUOTE DATE	CUSTOMER	SALESPERSON	PURCHASE ORDER	SHIP VIA	TERMS
4167	03/19/13	12	BAB	31122	YELLOW	NET30
QUOTED	UM	ITEM	DESCRIPTION	UNIT PRICE	EXTENDED PRICE	
1.000	EA	REPAIR	REFURBISH A COMPUTER	100.0000	100.00	


If the quote is not accepted and the sale order is cancelled, this in turn will cancel the production work order linked to it.

## Fitrix Manufacturing Course Workbook

### Sales Order for a Job

You can enter a regular order (order type REG) or if a quotation was entered you can change the order type from QUO to REG. This will commit the component inventory on the production work order and change the Order Status from REF for reference to ACT for active on the sales order.

Ln	Type	Stg	Item Code	Description	Additional Description	Warehouse	UM	Quantity	Price	Net Amount	Tax	CRM Rsn	BKO Ref
1	MTN	NEW	REPAIR	REFURBISH A COMPUTER		SEATTLE	EA	1.000	100.0000	100.00	NOTAX		

If you need to send an Acknowledgement to your customer for approval, click on the  button on the toolbar and select Acknowledgement from the drop down list that displays. You can also print the acknowledgement using the Print Quotes/Order Acknowledgements option on the Order Maintenance Menu (option b).



1110 Sample Street  
Seattle, WA 98133  
(800) 555-1212

### ACKNOWLEDGEMENT

PAGE

1

Sell To: CLASSIC PARTS UNLIMITED  
22501 72ND  
CLEARING POINT BUSINESS CENTER  
SOUTH BEND IN 46601  
US

Ship To: WEST DISTRIBUTION CENTER  
200 WILLOW LANE  
SOUTH BEND IN 30032  
US

Ship Terms: PREPAID SHIP POINT

ORDER NO	ORDER DATE	CUSTOMER	SALESPERSON	PURCHASE ORDER	SHIP VIA	TERMS
4167	03/19/13	12	BAB	31122	YELLOW	NET30
ORDERED UM	ITEM	DESCRIPTION	UNIT PRICE	EXTENDED PRICE		
1.000 EA	REPAIR	REFURBISH A COMPUTER	100.0000	100.00		

## Fitrix Manufacturing Execution Course Workbook

Below is a list of differences between processing a sales order for a stock item versus an MTO or MTN item that will be made or reworked in some way.

### Sales Order Header Screen:

#### Contact Name

Enter a contact name if there is a specific contact for this sales order. This contact name will transfer to the production work order that is created when the sales order is saved and it will also display on the Labor Entry screen.

#### Contact Phone

Enter a telephone number for the contact entered. This contact phone will transfer to the production work order that is created when the sales order is saved and it will also display on the Labor Entry screen.

#### Description

Use this field to enter an optional description about the order. The description can be up to 256 characters long. This description will transfer to the production work order that is created when the sales order is saved.

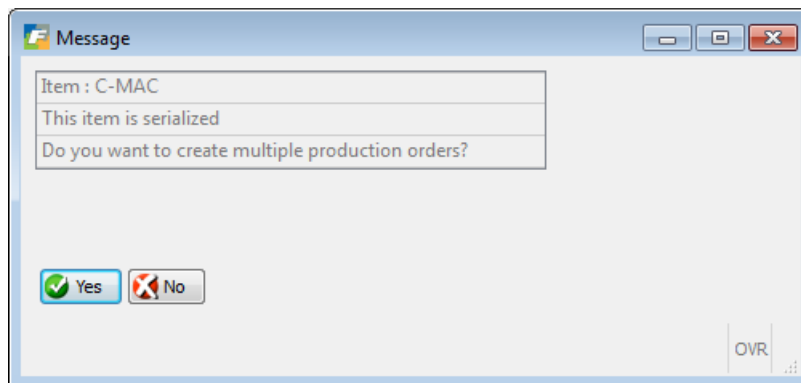
#### Fixed Price

Check this box if you do not want to update the unit price based on a roll up of prices calculated and/or entered on the work order.

### Sales Order Detail Screen

**Line Type** – there are two line types that create production work orders.

- **MTO** – make to order. Using this line type will create a production work order. The line stage will initially be set to NEW and when the item is made and the production order is processed, the line stage will be reset to ORD so that the item can be picked and shipped. If the order quantity is greater than 1 you will receive this prompt:



Answer yes if you want to create multiple production work orders or no if you want to create one production work order for the total quantity ordered.

## Fitrix Manufacturing Course Workbook

- **MTN** – make to order non stock item. Using this line type will create a production work order. The line stage will initially be set to NEW and when the item is made and production order is processed, the line stage will be reset to ORD so that the item can be shipped. When you enter a MTN item the standard Non-stock item screen shown here will display.

Non Stock Item

File Edit View Tools Help

MAKE-TO-ORDER NON-STOCK

Vendor: 123457

Item Code: REPAIR

Description: REFURBISH A COMPUTER

Item Class: NON NON ITEM CLASS

Commodity Code:

Purchase Unit: EA

Unit Cost: 10.0000

Weight: 1.000 Unit: LB

Taxable?: N

Discountable?: N

Sales Account No: 400000000

Cost of Sales Account No: 500000000

OK Cancel

Enter the vendor code (if known).

OVR

The cost that displays on this screen will not be used as the cost of the MTN item. The cost instead will be the accumulated cost of all components, labor, and miscellaneous costs on the corresponding production work order.

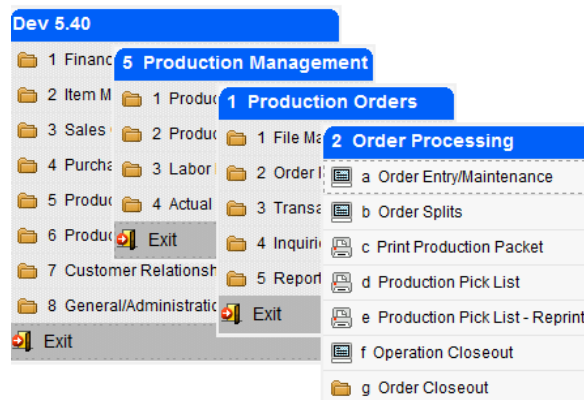
**Price** – you have the option of updating the price entered on the sales order by rolling it up based on the pricing of components, labor, and costs on the production work order unless you have checked the Fixed Price check box in the order header. See the section on Production Work Orders for more information on price roll up.

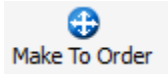




## Production Order Maintenance

When the sales order for an MTO or MTN item is saved the production work order is automatically created. This production work can be accessed by going to Order Entry/Maintenance option (a) on the Order Processing submenu shown here:



It can also be accessed from within Sales Order Entry by clicking on the  button on the toolbar while on the line item in the detail section of the Sales Order Entry screen.

Sales order # 4167 (screen shot on previous page) created this production work order when it was saved.

## Fitrix Manufacturing Execution Course Workbook

Order Entry/Maintenance

File Edit View Navigation Tools Actions Options Help

Cost Elements Misc Costs Components Routing Configure

Find Prev Next Add Update Delete Browse

Order 532 Release 000

Item REPAIR Non-Stock Item Warehouse SEATTLE

Description REFURBISH A COMPUTER Extd Desc MAKE SURE TO UPGRADE THE HARD DRIVE AND REPLACE THE DAMAGED KEYBOARD.

Order Quantity 1.000

Start Date 03/19/2013 Due Date 03/19/2013

Order Type MTN

Order Status A

Hold Code

Priority

Sales Order 4167

Line 1

Contact Name BOB JONES

Contact Phone 404-567-4039

Bill of Material

Standard Routing

Allocate Now? ☒

Assembly Line

Accounting Code DEFAULT

G/L Department 000

Job

Project

Responsible Party

Revision Level

Bill Effective Date 03/19/2013

User Field 1

User Field 2

User Field 3


Type of Bill of Material

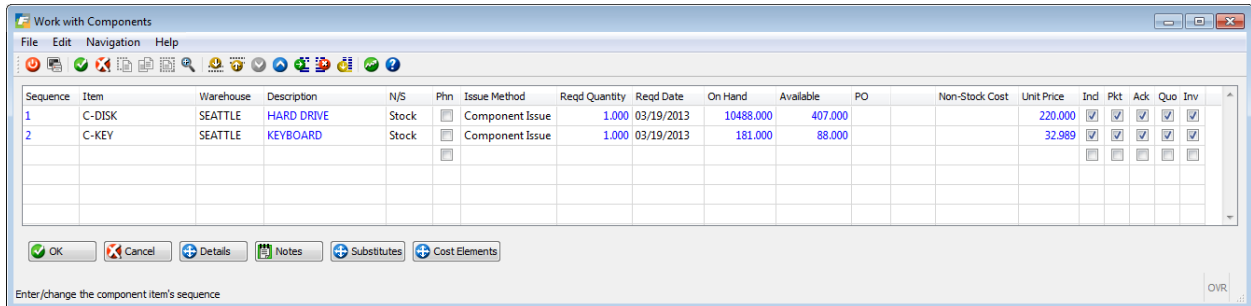
Type of Routing

1 of 1

OVR

## Adding Components

To add components to the work order, go into update mode and then click on the  button on the toolbar. This screen displays:



Sequence	Item	Warehouse	Description	N/S	Phn	Issue Method	Reqd Quantity	Reqd Date	On Hand	Available	PO	Non-Stock Cost	Unit Price	Incl	Pkt	Adk	Quo	Inv
1	C-DISK	SEATTLE	HARD DRIVE	Stock	<input type="checkbox"/>	Component Issue	1.000	03/19/2013	10488.000	407.000			220.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	C-KEY	SEATTLE	KEYBOARD	Stock	<input type="checkbox"/>	Component Issue	1.000	03/19/2013	181.000	88.000			32.989	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
					<input type="checkbox"/>									<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Buttons: OK, Cancel, Details, Notes, Substitutes, Cost Elements

Enter/change the component item's sequence

OVN

Enter the component items needed for the job. The price will default to the list price or whatever pricing structure is set up for the customer (i.e.- cost plus 30%) in the Special Pricing Defaults defined in the Order Entry module ( see Chapter 2 of the Order Entry User Guide, Update Special Price Defaults, for more information on customer pricing).

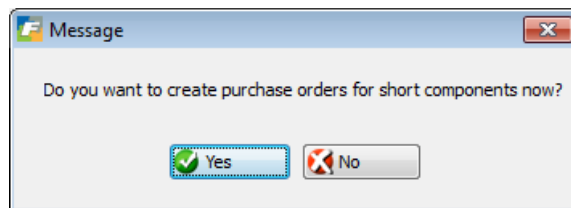
If any component is a non stock item you must also enter the cost for the item.

If the price of the component should be included in the price roll up , check the Incl check box. Also check which documents you want the component detail to print on. The choices include:

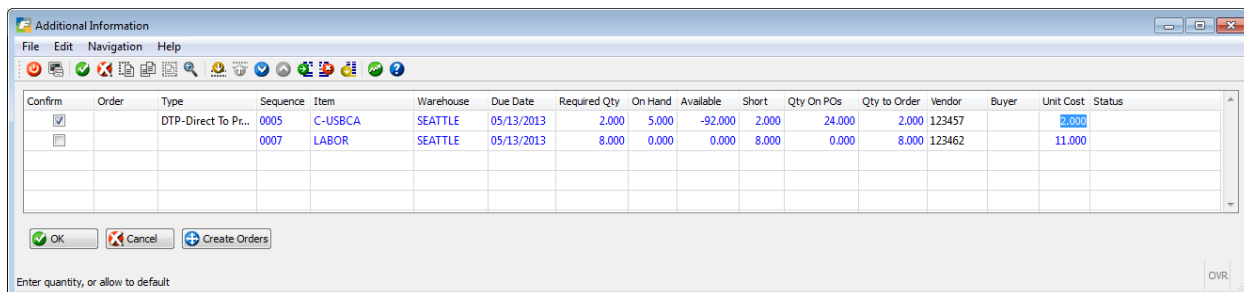
- Production Packet
- Order Acknowledgement
- Customer Quotation
- Customer Invoice

## Short Components

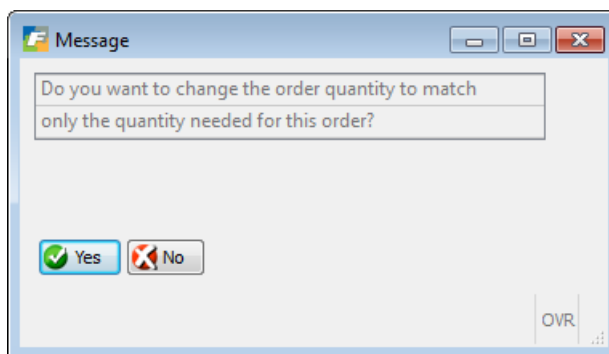
If you are short components you will receive this prompt when you save the work order:



If you answer yes this screen displays and you can select which items you want to create purchase orders for, the type of PO, select the vendor the PO should be issued to, and the cost that should be used.



If the production work order type is ST (for make to stock) this PO release screen recommends an order quantity that will cover all short units on all work orders, not just the production work order being created, and the PO type will be REG. If you want to just order enough components for the one work order you can change the "Type" on the screen shown above to DTP and receive this message:



Answer Yes and the order quantity will automatically be reduced to what the one work order requires.

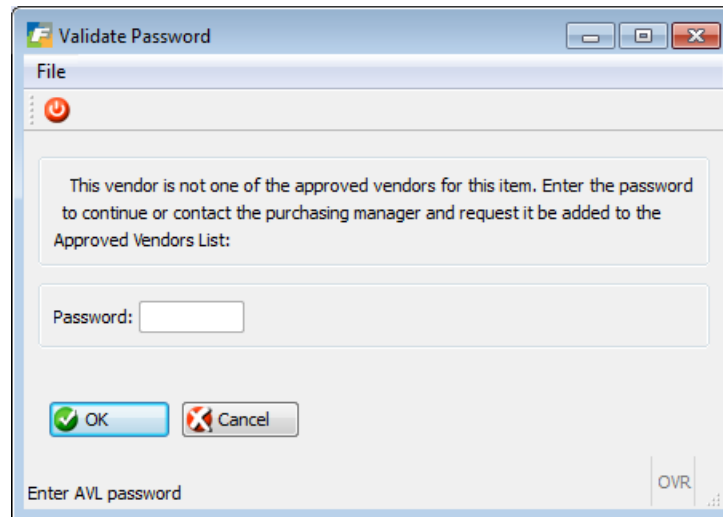
If the production work order type is MTO or MTN (created automatically from a sales order and is therefore make to order or make to order nonstock) this PO release screen recommends an order

## Fitrix Manufacturing Course Workbook

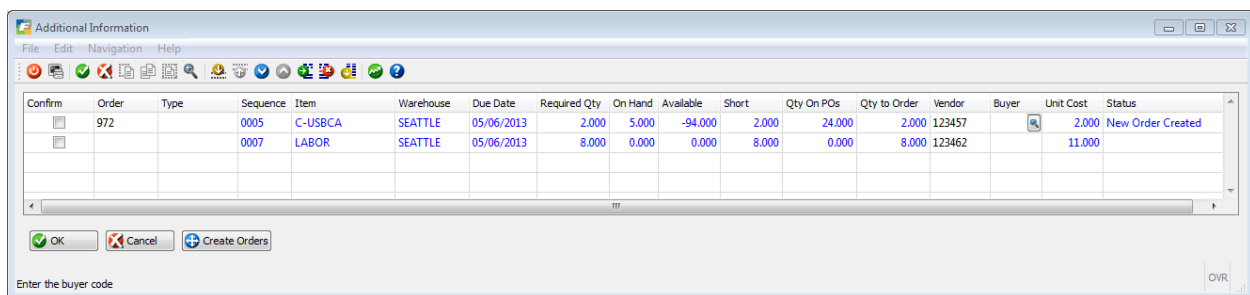
quantity that will cover just the work order being created and the PO type will be DTP (direct to production).

If you have already created a PO and then add an additional component to the work order that should be included on the PO, enter the PO number in the order column before you click on Create Order. If you don't do this a new PO will be created.

If the AVL Required check box in the Update Purchasing program is checked and you enter a non-catalog vendor you will receive this prompt.



Click on the Create Orders button at the bottom of the screen to create the purchase orders and the order # created will now display as shown here:



The PO number created will then display on the Component Screen. The available and on hand are null to show that the component quantity will be supplied by the purchase order.

If after creating purchase orders you add additional components that you are also short on you can zoom from the Order field when the screen above displays to add these components to POs already created. If you instead want to issue yet another PO, leave the order field blank.

## Fitrix Manufacturing Execution Course Workbook

Sequence	Item	Warehouse	Description	N/S	Ptn	Issue Method	Req'd Quantity	Req'd Date	On Hand	Available	PO	Non-Stock Cost	Unit Price	Inc	Pkt	Ack	Quo	Inv
0001	C-DISK	SEATTLE	HARD DRIVE	Stock		Production Receipt	1.000	03/14/2013	10489.000	410.000			220.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0002	C-KEY	SEATTLE	KEYBOARD	Stock		Production Receipt	1.000	03/14/2013	182.000	91.000			32.989	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0003	C-MOUSE	SEATTLE	MOUSE	Stock		Production Receipt	1.000	03/14/2013	191.000	112.000			17.589	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0004	C-USB	SEATTLE	USB FLASH DRIVE	Stock		Production Receipt	2.000	03/14/2013	215.000	77.000			55.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0005	C-USBCA	SEATTLE	USB CABLE	Stock		Production Receipt	1.000	03/14/2013			935		8.800	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0006	C-MON	SEATTLE	24" MONITOR	Stock		Production Receipt	1.000	03/14/2013	103.000	25.000			175.989	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0007	LABOR	SEATTLE	LABOR CHARGES	Non-s...		Production Receipt	8.000	03/14/2013					8.800	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The purchase order is created with an order type of DTP which stands for Direct to Production. When the purchase order is received the production orders the parts should be allocated to will print on the receipt posting report.

## Un-attaching DTP orders from Work Orders

1. Find the DTP PO, go into update mode and set the work order # to null as shown here.

References & Contract	References & Contract
Cust Doc No: 1264	Cust Doc No:
Orig Cust Doc No:	Orig Cust Doc No:
Production Order: 348	Production Order:
Confirm Date:	Confirm Date:
On Board Date:	On Board Date:
Multiple Orders: N	Multiple Orders: N
Contract:	Contract:
Contact Name:	Contact Name:
Container:	Container:

If the PO HAS already been received (and therefore already automatically issued to the Work Order). The steps are:

1. Enter NEGATIVE Component Issues on the Work Order, for the items on the PO you want to remove – this either puts the stock inventory back into stock, or moves the \$ for non-stock material back to the expense account it belongs to. Either way, it removes the \$ from the work order.

## Fitrix Manufacturing Course Workbook

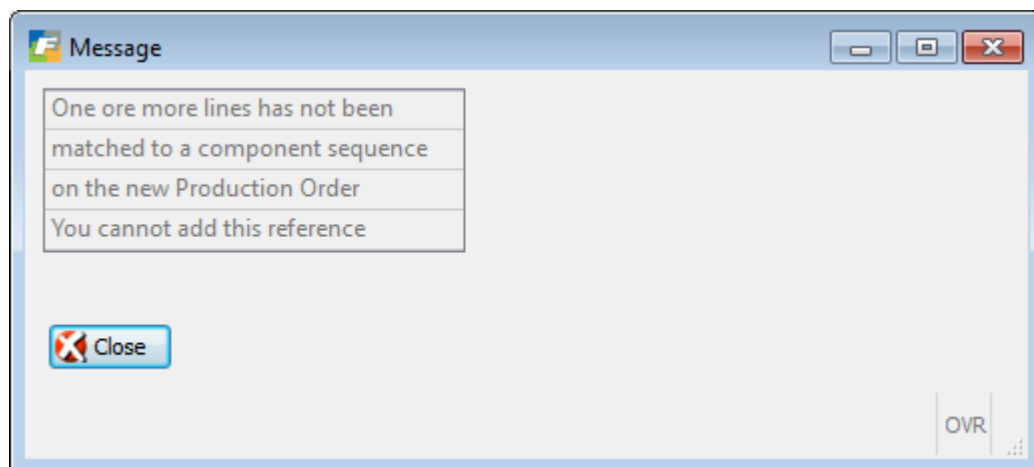
2. Update the PO in PO Maintenance - blank out the Production Order in the PO Header – this will take the PO OFF the Job Cost Report for the Work Order.

To attach the removed DTP PO to another work order


1. Find the PO, go into update mode and enter the work order #.

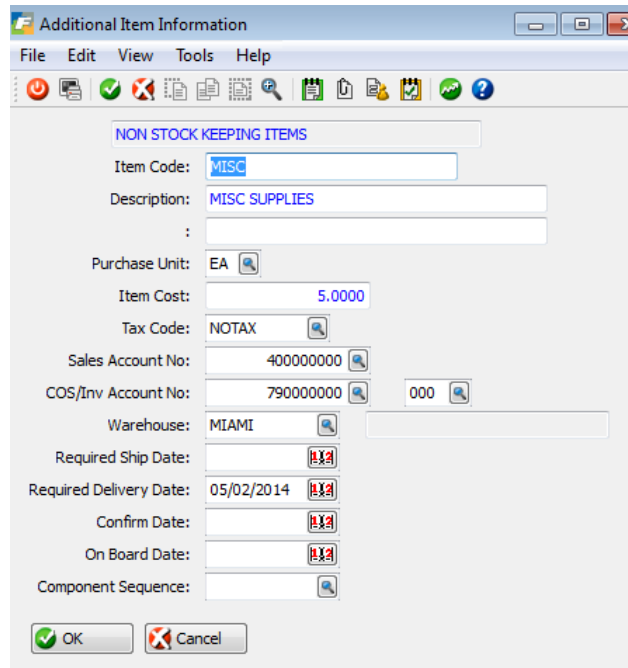
References & Contract		References & Contract	
Cust Doc No:	<input type="text"/>	Cust Doc No:	<input type="text"/>
Orig Cust Doc No:	<input type="text"/>	Orig Cust Doc No:	<input type="text"/>
Production Order:	<input type="text"/>	Production Order:	349
Confirm Date:	<input type="text"/>	Confirm Date:	<input type="text"/>
On Board Date:	<input type="text"/>	On Board Date:	<input type="text"/>
Multiple Orders:	N	Multiple Orders:	N
Contract:	<input type="text"/>	Contract:	<input type="text"/>
Contact Name:	<input type="text"/>	Contact Name:	<input type="text"/>
Container:	<input type="text"/>	Container:	<input type="text"/>

You will get this message when you try to save the transaction because you need to attach the PO line to the WO line.





- Go to the detail line on the PO, click the  button on the toolbar and this screen will display:



**Additional Item Information**

File Edit View Tools Help

NON STOCK KEEPING ITEMS

Item Code: MISC

Description: MISC SUPPLIES

Purchase Unit: EA

Item Cost: 5.0000

Tax Code: NOTAX

Sales Account No: 400000000

COS/Inv Account No: 790000000 000

Warehouse: MIAMI

Required Ship Date: [X] [X] [X]

Required Delivery Date: 05/02/2014 [X] [X] [X]

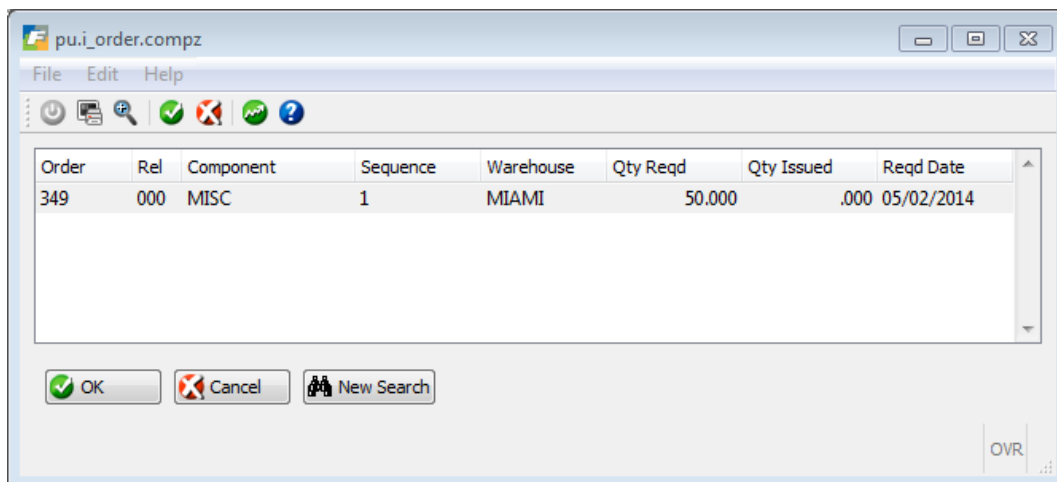
Confirm Date: [X] [X] [X]

On Board Date: [X] [X] [X]

Component Sequence: [X]

OK Cancel

Click on the Component Sequence magnifying glass, this screen will display. Confirm the info is correct and click OK to save. This sets the sequence # on the PO line and the PO and WO are now attached.



**pu.i\_order.compz**

File Edit Help

Order	Rel	Component	Sequence	Warehouse	Qty Reqd	Qty Issued	Reqd Date
349	000	MISC	1	MIAMI	50.000	.000	05/02/2014

OK Cancel New Search


OVR

- If the PO has already been received use the Component Issue option to issue the components to the Work Order. This would normally happen automatically when the Purchase Receipt is entered. But in this case, the items have already been received.



## Adding Routing



To add routing steps to the job click on the  button on the toolbar and this screen displays:

Seq	Oper	Description	L/M	I/O	Work Center	Machine	Dept	Tool List	Setup Hr	Run Labor Hr	Basis	Mach Labor Hr	Basis	Unit Price	Ind	Pkt	Ack	Quo	Inv
1	0010	STANDARD ASSEMBLY	Labor-based	Inside	WC01		DP1		0.000	2.0000000	Hours per piece	0.0000000	Hours ...	30.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
															<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

OK Cancel Details Quantities Hours Cost Notes


Enter/change the operation's sequence

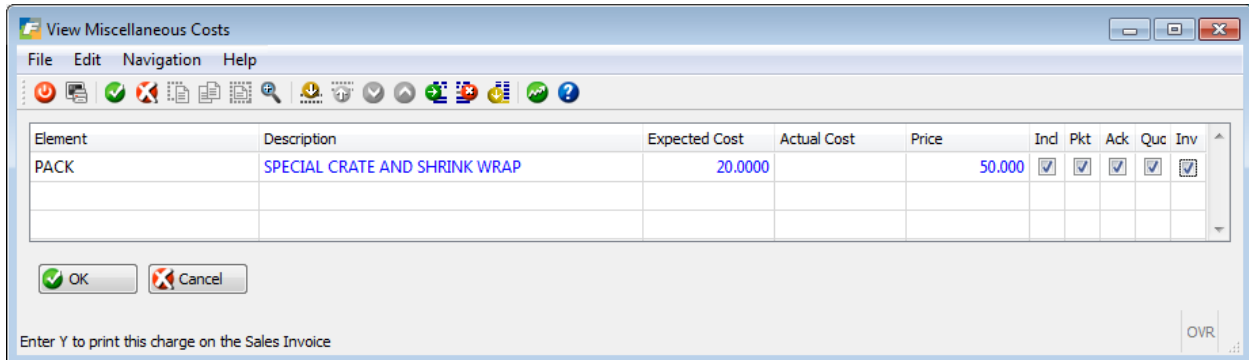
OVR

Just like with the components, enter the price to be charged to the customer and select which documents the routing steps should print on.

## Adding Miscellaneous Costs



To add miscellaneous costs to the job click on the  button and this screen will display:



Element	Description	Expected Cost	Actual Cost	Price	Ind	Pkt	Ack	Quc	Inv
PACK	SPECIAL CRATE AND SHRINK WRAP	20.0000		50.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

OK Cancel

Enter Y to print this charge on the Sales Invoice

OVR

**Element** – must have been previously set up using the Cost Elements program (option (b) on the Standard Routing File Maintenance submenu).

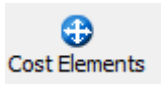
**Expected Cost**- enter what the expected cost is and this cost will be included in the total expected cost calculation on the Job Cost/Price Detail report discussed later in this chapter.

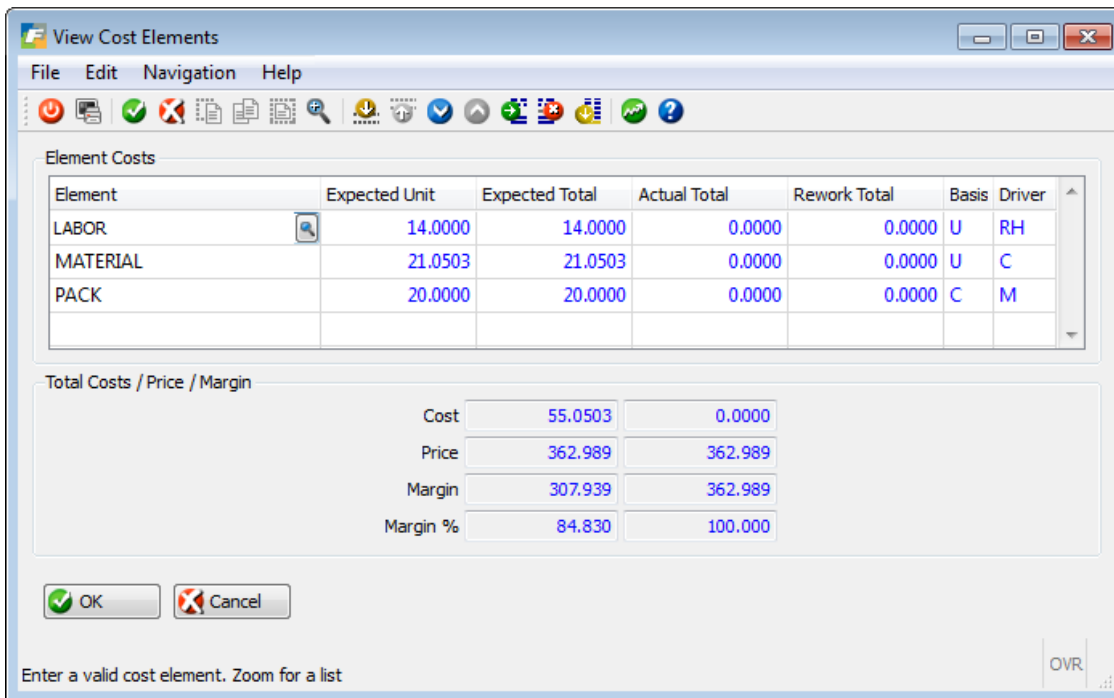
**Actual Cost** – this cost will come from the AP invoice received from your vendor. See the section below “AP Invoices for Miscellaneous Costs”.

**Price** – enter the price the customer should be charged for this cost element.

Just like with the components and routing steps select which documents the routing steps should print on by checking the appropriate check boxes.

## Cost Elements Screen

To view all of the cost elements that make up the job, click on the  button



**View Cost Elements**

File Edit Navigation Help

Element Costs

Element	Expected Unit	Expected Total	Actual Total	Rework Total	Basis	Driver
LABOR	14.0000	14.0000	0.0000	0.0000	U	RH
MATERIAL	21.0503	21.0503	0.0000	0.0000	U	C
PACK	20.0000	20.0000	0.0000	0.0000	C	M

Total Costs / Price / Margin

Cost	55.0503	0.0000
Price	362.989	362.989
Margin	307.939	362.989
Margin %	84.830	100.000

OK Cancel

Enter a valid cost element. Zoom for a list

OVR

The actual costs will not display until components have been issued, labor processed and posted, and miscellaneous cost are posted through AP. All of these steps are discussed later in this chapter.

## Adding Freight to a Job

If the vendor charges freight on the merchandise purchased as part of a job and you want this freight cost included in the job here is the best way to handle this.

1. Create a nonstock item FREIGHT.
2. Enter FREIGHT as a non-stock component on the Production Order, with an estimate of the cost
3. When the PO is created for the Production Order components that are short, FREIGHT will be added to the PO as a line item.
4. When the PO lines are received, the FREIGHT line will be flagged as received along with the other lines

## Fitrix Manufacturing Course Workbook

- a. If the AP Invoice is available at the time, the actual freight amount must be updated on the PO, BEFORE it is received (just like the price on all other items on the PO should be verified). If the freight cost is NOT updated, then the freight cost added to the job will not be the actual cost.
5. When the AP Invoice is entered in Purchasing, the freight line cost can be changed to the actual freight charged if this was not done in step 4a.

## Charging Sales Tax on Jobs

The rule for charging tax on fixed priced jobs is as follows:

1. If material and labor is not broken out on the invoice always charge tax on the fixed price \$ amount.
2. If material and labor is broken out on the invoice and labor is not taxable, charge tax on the lesser of actual material or fixed price.

On the Component screen, Routing screen, and Miscellaneous Costs screen there is a box labeled Tax. If you want to charge sales tax, check this box. The default values are as follows:

Stock and Nonstock items – will default to taxable if taxable flag at item level is Yes.

Sequence	Item	Warehouse	Description	N/S	Phn	Issue Method	Req'd Quantity	Req'd Date	On Hand	Available	PO	Non-Stock Cost	Unit Price	Tax	Ind	Pkt	Ack	Quo	Inv
1	C-DISK	SEATTLE	HARD DRIVE	Stock		Production Rec...	1.000	05/13/2013	10481.000	376.000			220.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Routing steps - defaults to not taxable.

Seq	Oper	Description	L/M	I/O	Work Center	Machine	Dept	Tool List	Setup Hr	Run Labor Hr	Basis	Mach Labor Hr	Basis	Unit Price	Tax	Ind	Pkt	Ack	Quo	Inv
1	0040	PACKAGING	Labor-based	Inside	WC01				4.000	0.2500000	Hours per pie...	0.0000000	Hours ...	45.000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Miscellaneous Costs – defaults to not taxable.

## Fitrix Manufacturing Course Workbook

Element	Description	Expected Cost	Actual Cost	Price	Tax	Ind	Pkt	Ack	Quc	Inv
PACK	SPECIAL CRATE	50.0000		75.000	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

OK Cancel

Enter Y to print this charge on the Sales Invoice

OVR

### Price Rollup

Unless you have checked the Fixed Price box on the Sales Order header screen, every time you are in update mode and the save the production work order this prompt will display:

Message

Do you want to update sales order prices?

Yes No

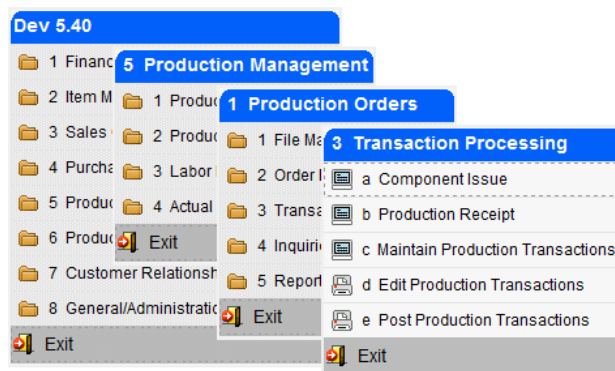
Select yes if the unit price on the sales order should be a cumulative total of pricing on all components, routing steps, and miscellaneous costs.

### Component Issue

To remove components from inventory run the Component Issue program (option (a) on this submenu):



## Fitrix Manufacturing Execution Course Workbook



### The Component Issue screen:

Component Issue

File Edit View Navigation Tools Actions Options Help

Session Scanner Issue History Add Component

Find Prev Next Add Browse

Order 532 Release 000 Pick Number Issue Number 1 Due Date 03/19/2013 Update Inventory Now? ☒

Item REPAIR Warehouse SEATTLE GL Document Issue Date 03/19/2013 Components to Process Unissued Only Default Quantities? ☒

Sequence	Warehouse	Item	Description	Qty On Hand	Qty Available	Required	Issued	Serial/Lot	This Issue	Sts	Detl
1	SEATTLE	C-DISK	HARD DRIVE	10488.000	406.000	1.000	.000		1.000	Close	<input type="radio"/> Needed <input type="radio"/> Supplied
2	SEATTLE	C-KEY	KEYBOARD	181.000	87.000	1.000	.000		1.000	Close	<input type="radio"/> Needed <input type="radio"/> Supplied

(New Document)

View Detail

OVR

Processing a component issue will book the work in process to your General Ledger. To view what makes up the Work in Process total run the Work in Process Cost Status Report on the Production Management Reports submenu.

p3/19/2013 17:11:34 User: bettyb

ABC DISTRIBUTION  
Work in Process Cost Status Report  
Detail by Item/Order

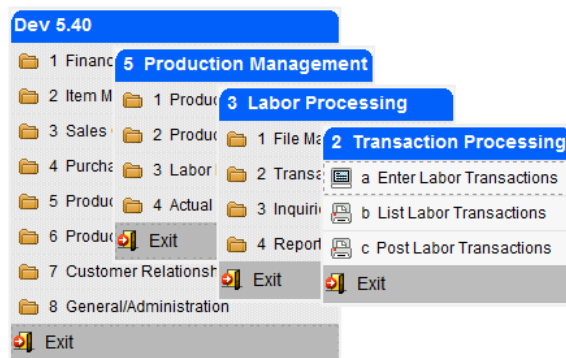
Page: 1  
Pgms: cm410

Order	Rel	Type	Sts	Quantity	Due Date	Material	Setup	Labor	Overhead	Costs	Misc Charge	Total In	Recvd	Sorap	Balance
532	000	MIN	A	1.000	03/19/13										
Item REPAIR REFURBISH A COMPUTER Warehouse SEATTLE															
Seq	Item	Element													
1	C-DISK	MATERIAL				11.00						11.00			
2	C-KEY	MATERIAL				10.05						10.05			
Order Totals						21.05	0.00	0.00	0.00	0.00	0.00	21.05	0.00	0.00	21.05
Item Totals						21.05	0.00	0.00	0.00	0.00	0.00	21.05	0.00	0.00	21.05
Report Totals						21.05	0.00	0.00	0.00	0.00	0.00	21.05	0.00	0.00	21.05



## Post Labor Costs to the Job

To post labor costs to the job, run the three programs found on this submenu.



The Enter Labor Transactions screen:

Employee Number: ERSKON  
Trans Date: 03/19/2013  
Shift: 1  
Status: A  
Start Time: 10:00  
Stop Time: 12:00  
Elapsed: 2:00

Labor Type	Prod Order	Rel	Sales Order	Line	Customer	Name	Contact	Phone	Seq	Start	Stop	Elapse	Complete	Scrap	C. Mach Pers	Pers Mach	Pct Comp
RUN	532	000	4167	1 12	CLASSIC PARTS UNLIMITED	BOB JONES	404-567-4039	1	10:00	12:00	2:00	1.000	.000		1		0.0
(New Document)																	

View Detail

OVR

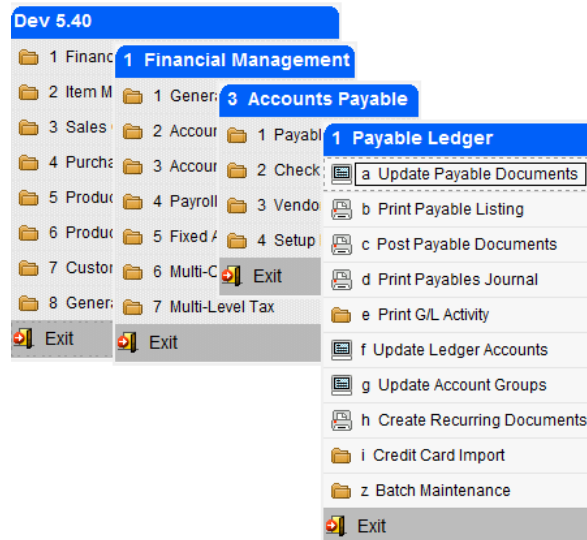
For more information on this screen program please refer to the Labor Processing User Guide.

Once the labor has been entered run the edit and post program to update both the actual labor costs associated with the job and the general ledger balances.



## Post Miscellaneous Costs to the Job

These costs are processed through Accounts Payable. Use the Update Payable Documents program found on this submenu.



When entering the detail lines for the invoice simply enter the work order that the cost should be added to. Zoom is available to find the work order number, release number, and cost element.

**Update Payable Documents**

File Edit View Navigation Tools Actions Options Help

Batch Options Vendor Payto Chart

Find Prev Next Add Update Delete Browse

Date: 03/19/2013 Gross Amt Entry: N Dept.: 300  
 Vendor: 123457 CHAMPION INC Posted: N  
 Pay-To: PAYTO Recurrent Code: Recurrent Times:  
 Doc.Type: I SU92 Ref.No:  
 Descript: Invoice Date: 03/19/2013 Fix Date:  
 Terms: B 2% 10 NET PAYMENT 30 DAYS Default Tax: NOTAX  
 Pay On: 03/29/2013 Due: 04/18/2013 Disc.: 03/29/2013 Disc%: 2.000  
 P.O. No.: P.O. Date:  
 Acct.Grp: Cash: 100000000 - 000

Account	Dpt	Description	Code	Amount	Order	Rel	Element
121500000	000	WIP- PR	NOTAX	35.00	35.00	DB	532 000 PACK

Currency: STD Multilevel-Tax: 0.00 0.00 DB  
 TTL: 200000000 - 000 ACCOUNTS PAYABLE 35.00 35.00 CR  
 (New Document)

View Detail

OVR

## **Fitrix Manufacturing Course Workbook**

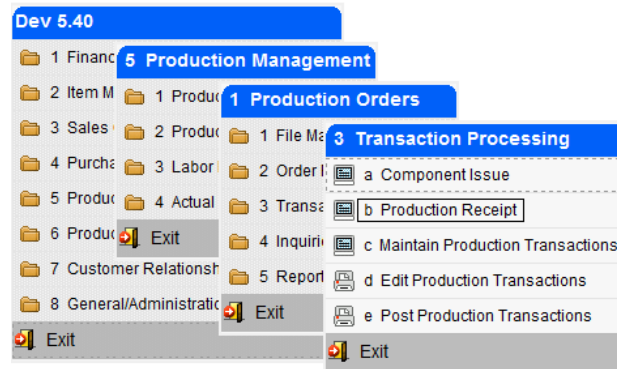
The GL account number that should be used should be the same GL account number that is debited when the production receipt is posted. See the section in this chapter “GL Accounting for Jobs”.

Once the AP invoice has been entered, run the edit and post to post the item to the vendor’s account to be paid and to update the GL balances.



## Production Receipt

The Production Receipt program is found on this submenu:



This program will change the line stage on the sales order from NEW to ORD so that it can be processed and shipped and also posts entries to the General Ledger. See the section in this chapter “GL Accounting for Jobs”.

The screenshot shows the Production Receipt program window. The window has a menu bar (File, Edit, View, Navigation, Tools, Actions, Options, Help) and a toolbar with various icons. The main area contains the following fields and controls:

- Order: 532
- Release: 000
- Receipt Number: 1
- Receipt Date: 03/19/2013
- Unit Cost: \$41.0503
- Item: REPAIR
- Due Date: 03/19/2013
- This Receipt: 1.000
- Complete: Close
- Warehouse: SEATTLE
- Ordered: 1.000
- Detail: ☐ Needed ☐ Supplied
- Status: A
- Total Received: .000
- GL Document No: 167
- Update Inventory Now: ☒

Below the fields is a table with the following columns: Sequence, Warehouse, Item, Description, Qty On Hand, Qty Available, Required, Total Issued, Serial/Lot, This Issue, and Sts. The table is currently empty, and the text "(New Document)" is displayed below it. A "View Detail" button is located at the bottom left of the window.





## Invoicing the Customer

Once the Production receipt program is run here are the steps needed to invoice the customer:

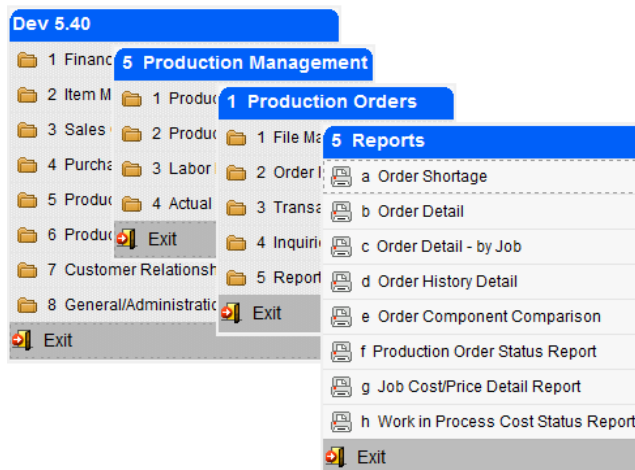
Program	Menu Option	
Print Picking Ticket	3-2-1-c	
Update Invoices/Memos	3-2-1-i-b	
Print Invoices and Memos	3-2-1-i-f	
Print Order Entry Edit List	3-2-1-k	(end of day process for all invoices)
Post Order Entry Documents	3-2-1-l	(end of day process for all invoices)

Please note that when the invoice is created if the production order type has the Price Calculation Method set to Actual units and hours and the sales order is not fixed priced, the item pricing will be based on the actual material and labor pricing on the production order not the estimated.



## Job Profitability Reporting

To determine the profitability of the job run the Job Cost/Price Detail Report found on this submenu:



03/19/2013 18:20:17		ABC DISTRIBUTION				Page: 2	
User: bettyb		Job Cost/Price Detail Report				Pgm: so430	
=====							
Item: REPAIR		REFURBISH A COMPUTER					
-----							
Order 532	Sales Order 4167	----- Dates -----		----- Quantities -----		----- Price/Cost -----	
Rel 000	Line 1	Started 03/19/2013		Ordered	1.000	Price	362.99
Whse SEATTLE	Customer 12	Due 03/19/2013		Completed	1.000	Expected Cost	55.05
Type MTN	CLASSIC PARTS UNLIMITED	Closed 03/19/2013		U/M EA		Expected Margin	84.83%
Status C						Actual Cost	41.05
Desc REFURBISH A COMPUTER						Actual Margin	88.69%
-----							
C O M P O N E N T S							
-----							
Seq	Component / Description	S/N	----- Quantity -----		----- Cost -----		
			Required	Issued	Expected	Actual	Price
1	C-DISK HARD DRIVE	S	1.000	1.000	11.00	11.00	220.00
2	C-KEY KEYBOARD	S	1.000	1.000	10.05	10.05	32.99
-----							
R O U T I N G							
-----							
Seq	I/O	Description	Work Ctr	Hours	----- Cost -----		
				Expected	Actual	Expected	Actual
1	I	STANDARD ASSEMBLY	WC01	2.00	2.00	14.00	20.00
							60.00
-----							
C H A R G E S							
-----							
Element	Description				----- Cost -----		
					Expected	Actual	Price
PACK	SPECIAL CRATE AND SHRINK WRAP				20.00	0.00	50.00
-----							
		Price	Expected Cost	Expected Margin%	Actual Cost	Actual Margin%	
Item Sub-Totals		362.99	55.05	84.83%	41.05	88.69%	



## **Job Profitability Reporting**

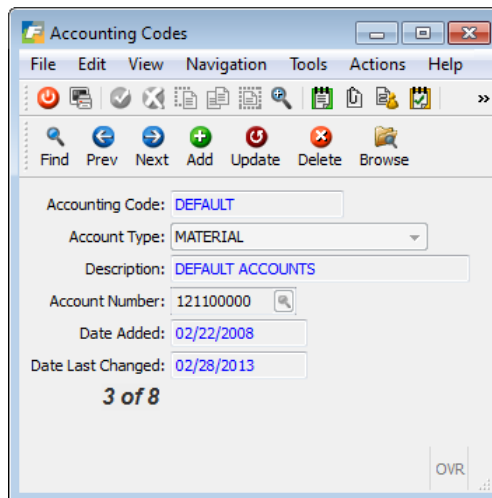
## GL Accounting for Jobs

The item being produced is a MTN (made to order non-stock item)

### Component Issue

**Debit** – for stock items the work in process account that is debited is the account number for material as defined for the accounting code used on the production work order (See Accounting Codes on the Bill of Material File Maintenance menu). For example, if the accounting code DEFAULT was used on the production work order this account will be debited.

There is no component issue for nonstock components. See DTP PO posting below.



The screenshot shows a software window titled "Accounting Codes". It has a menu bar with "File", "Edit", "View", "Navigation", "Tools", "Actions", and "Help". Below the menu is a toolbar with icons for Find, Prev, Next, Add, Update, Delete, and Browse. The main area contains the following fields:

- Accounting Code: DEFAULT
- Account Type: MATERIAL (dropdown menu)
- Description: DEFAULT ACCOUNTS
- Account Number: 121100000
- Date Added: 02/22/2008
- Date Last Changed: 02/28/2013

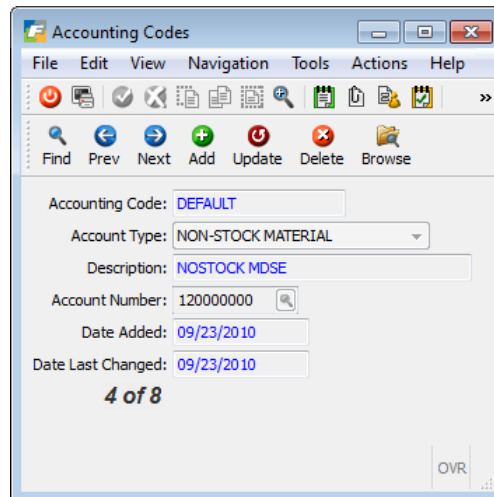
At the bottom of the main area, it says "3 of 8". In the bottom right corner, there is a button labeled "OVR".

**Credit** –for stock items the item's inventory account number as defined in the item master. For non-stock components there is no component issue. See DTP PO posting below.

### PO Post for Nonstock Components

For nonstock components a DTP purchase order (direct to production) can be created to order the items when the production work order is saved. When the PO is received there is no GL entry made. When the PO is posted to AP the entry is a debit to WIP for the account number defined for the accounting code for nonstock items shown here and a credit to the AP liability account.

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The screenshot shows the 'Accounting Codes' window with the following fields:

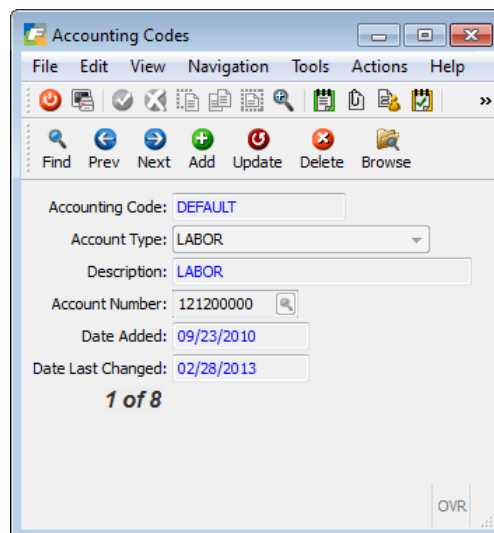
- Accounting Code: DEFAULT
- Account Type: NON-STOCK MATERIAL
- Description: NOSTOCK MDSE
- Account Number: 12000000
- Date Added: 09/23/2010
- Date Last Changed: 09/23/2010

At the bottom, it indicates '4 of 8' records and an 'OVR' button.

The cost of the nonstock components is recorded when the production receipt is posted. See Production Receipt below.

### ***Labor Posting***

**Debit** – the work in process account that is debited is the account number for labor as defined for the accounting code used on the production work order (See Accounting Codes on the Bill of Material File Maintenance menu). For example, if the accounting code DEFAULT was used on the production work order this account will be debited:



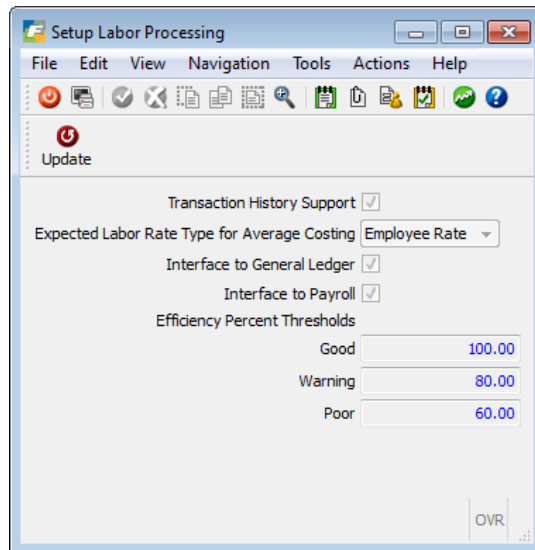
The screenshot shows the 'Accounting Codes' window with the following fields:

- Accounting Code: DEFAULT
- Account Type: LABOR
- Description: LABOR
- Account Number: 121200000
- Date Added: 09/23/2010
- Date Last Changed: 02/28/2013

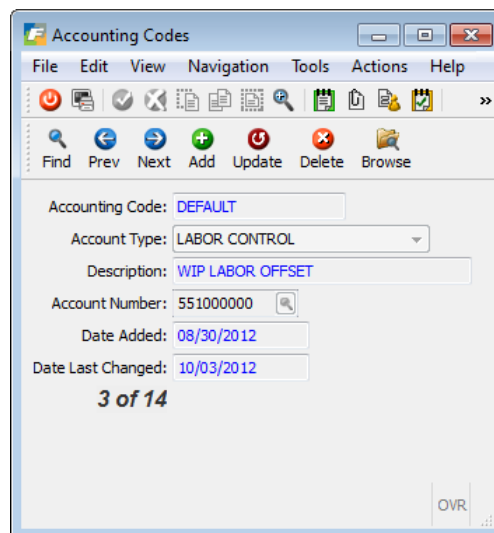
At the bottom, it indicates '1 of 8' records and an 'OVR' button.

The amount of the transaction is the number of hours worked multiplied by the employee rate in the employee payroll table if the Labor control program uses Employee Rate for costing as shown here (versus using a work center or job class rate). See Setup Labor Processing program on the Labor Processing File Maintenance submenu.





**Credit** – the work in process account that is credited the account number for labor control as defined for the accounting code used on the production work order (See Accounting Codes on the Bill of Material File Maintenance menu). For example, if the accounting code DEFAULT was used on the production work order this account will be credited:



## ***Miscellaneous Charges Posted via AP***

**Debit** - the account debited is whatever account is used when entering the vendor invoice. It is recommended that you use the WIP- Production Receipts account since this is what will be credited when the production receipt is posted. See Accounting Codes on the Bill of Material File Maintenance menu. For example, if the accounting code DEFAULT was used on the production work order this account will be credited when the receipt is posted:

## Fitrix Manufacturing Course Workbook

The screenshot shows the 'Accounting Codes' window. It has a menu bar with 'File', 'Edit', 'View', 'Navigation', 'Tools', 'Actions', and 'Help'. Below the menu is a toolbar with icons for Find, Prev, Next, Add, Update, Delete, and Browse. The main area contains the following fields:

- Accounting Code: DEFAULT
- Account Type: WIP RECEIPT (dropdown)
- Description: RECPT TO FG
- Account Number: 121500000 (with a search icon)
- Date Added: 09/09/2010
- Date Last Changed: 10/03/2012

At the bottom, it says '14 of 14' and 'OVR'.

**Credit** – Accounts payable liability account as defined in the Vendor Master record.

### ***Production Receipt***

**Debit- (MTN item)** the item's cost of goods account number as defined in the Update Non Inventory Items catalog program.

**Credit** – Production Receipts WIP account as defined for the Accounting code assigned to the work order.

This is an identical screenshot to the one above, showing the 'Accounting Codes' window with the same fields and values.

## ***Order Entry Invoice Posting Stock or MTO Items***

**Debit** – Accounts Receivable

**Debit-** Cost of sales as defined in the item master

**Credit** – Inventory as defined in the item master

**Credit** – Sales as defined in the item master

## ***Order Entry Invoice Posting Non-stock or MTN Items***

**Debit** – Accounts Receivable

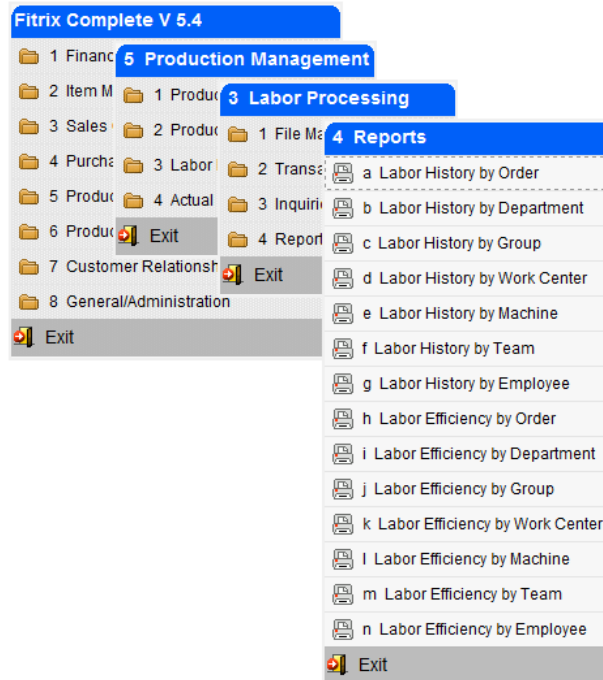
**Credit** – Sales as defined in the Non Inventory Items catalog

The cost of goods is debited when the production receipt was posted. See above.

## ***Month End Journal Entries***

1. All the work in process (WIP accounts) will net each other out but if you use different WIP account numbers for material, labor, overhead, you will need to do a journal entry to offset the various balances to 0.
2. There will be a balance in the Labor Control account that was credited when the Labor was posted. Run the Labor History by Employee report for the month to see how many hours were recorded for labor. Then do a journal entry to debit the labor control account and credit salary expense.

## Fitrix Manufacturing Course Workbook



## **Exercise a: Set Up Job Shop**