



# Material Planning & Production Management

## For Sage 100 2014

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# Material Planning & Production Management 1

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# Material Planning & Production Management 2

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## Installation Instructions and Cautions

**PLEASE NOTE: SAGE 100** must already be installed on your system before installing any IIG enhancement. If not already done, perform your SAGE 100 installation and setup now; then allow any updating to be accomplished automatically. Once SAGE 100 installation and file updating is complete, you may install your IIG enhancement product by following the procedure below.

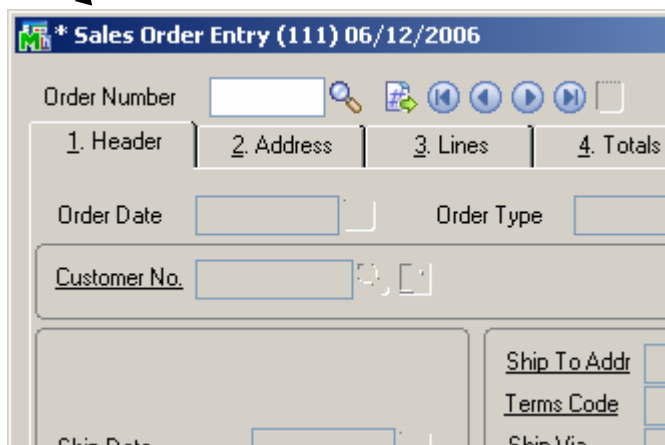
### Wait! Before You Install – Do You Use CUSTOM OFFICE?

**THIS IS AN IMPORTANT CAUTION:** If you have Custom Office installed, **and** if you have modified any SAGE 100 screens, you must run **Customizer Update** after you do an enhancement installation.

**But wait! BEFORE** you run **Customizer Update**, it is very **important** that you **print all of your tab lists**. Running **Customizer Update** will clear all Tab settings; your printed tab list will help you to reset your Tabs in Customizer Update. **Custom Office** is installed on your system if there is an asterisk in the title bar of some of the screens. The asterisk indicates that the screen has been changed.

An **asterisk** in a window's title bar indicates that the screen has been modified. This means that **Custom Office** is installed.

Follow all the instructions on this page before you run **Customizer Update!**



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## Registering IIG products

IIG Enhancement should be registered to be able to use it. If registration is not performed, the enhancement will work in a demo mode for a limited time period. The registration can be still done during the demo period.

Select the **IIG Product Registration** program under the **Library Master Setup** menu of the SAGE 100.

If this option is not listed under the Library Master Setup menu, go to the main menu, and select **Run** from the **File** menu. Type in SVIIGR and click **OK**.

Enhancement	Level	Release Date	Serial Number	Unlocking Key
IIG Enhancement	5.10		AAAAAAAAAAAAAAAA	BBBBB

Enter **Serial Number** and **Unlocking Key** provided by IIG, and click **OK**.

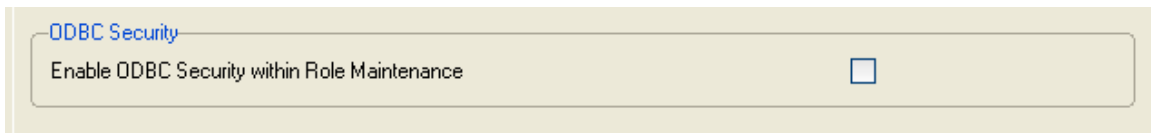
If multiple IIG Enhancements are installed, Serial Numbers and Unlocking Keys should be entered for each enhancement.

Use the **Print Registration Form** button to print IIG Registration Form.

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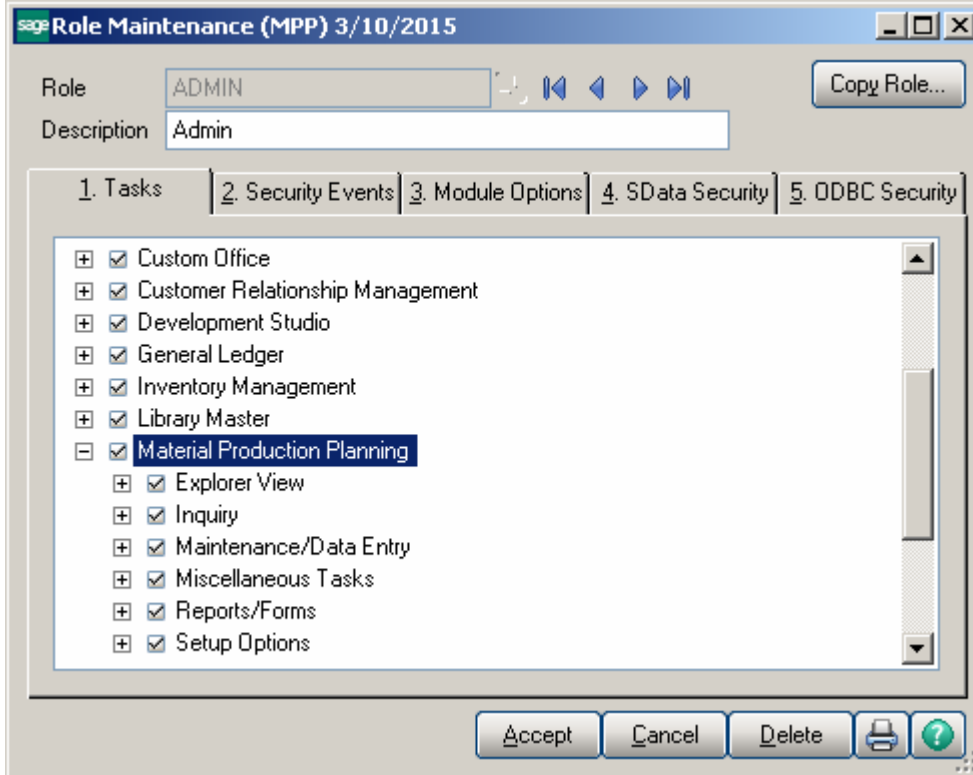
## ODBC Security

After installing an **IIG Enhancement**; it is **very important to verify** whether or not the **Enable ODBC Security within Role Maintenance** check box is selected in the **System Configuration** window of your system. If it is selected you must assign ODBC security permissions and allow access to custom data tables/fields for the Roles defined in your system.



## Role Maintenance

After installing an **IIG Enhancement**, permissions must be configured for newly created Tasks and Security Events.



## Introduction

*Note: It is not recommended to have both the Material Production Planning and W/O Modules activated in the same company in order to avoid problems with I/M quantities committed.*

The **Material Planning & Production Management** enhancement helps you to coordinate production to deliver what customers want accurately, efficiently and on a timely basis. Process takes into account BUF MAX values for items (stocking levels); and items that are produced to meet demand for existing sales orders

It also gives you full visibility into the process, with the ability to quickly adjust production as requirements change.

This enhancement provides the user with the following options:

- Calculation of requirements for finished goods, WIP and purchased products based on:
  - Material requirements to fulfill sales orders for an entered ship date
  - Material requirements based on stocking levels entered (min/max)
  - Showing the raw material requirements for all BOM levels
  - Taking into account existing SO, PO and WO transactions
- Ability to manage production and purchasing functions by:
  - Ability to analyze calculated demand by drilling down to:
    - Item Inquiry
    - Bill of Material Inquiry
    - Where Used Inquiry
    - Vendor / Purchasing Activity
  - Ability to maintain the calculated quantity requirements for each item
  - Auto creation of work orders to manufacture products from:
    - Material Requirements Planning dashboard
    - Sales Order Entry program for MTO items
    - Scheduling Board based on MRP run's calculated requirements
- Auto creation of purchase orders for products based on:
  - Demand based on existing transactions and inventory positions for purchased products
  - Demand calculated for components (all BOM component levels)
- Auto scheduling of work orders based on item's priority code and machine/mold preference entered
- Creation of production tasks (Work Order) based on routings linked to items
- Material requirement check based on work orders scheduled for the next x days



## Setup Activity

### Material Planning and Production Setup

Select the **WO Due date from SO Line Promise Date** checkbox to have the **Due Date** on the header of the generated Work Order populated with respective Sales Order line Item Promise Date.

Select the **Dispatch Ending Date from SO Line Promise Date** checkbox to have the Ending Date on the Dispatch Header populated with respective Sales Order line Item Promise Date.

The screenshot shows the 'Material Planning and Production Setup (MPP) 3/10/2015' window. The 'Main' tab is selected. The 'WO Due Date from SO line Promise Date' checkbox is checked and highlighted with a blue box. The 'Dispatch Ending Date from SO line Promise Date' checkbox is unchecked. The 'Manual' button is located at the bottom left, and the 'Accept', 'Cancel', and printer icon buttons are at the bottom right.

The Manual button allows for viewing MPP enhancement document in a PDF format.

On the **Entry** tab it is necessary to specify the **Work Order Type** and the **Default W.O Customer**.

The customer entered here is loaded as the customer number for the work orders generated. The actual customer number is loaded for work orders generated from the sales order entry program.

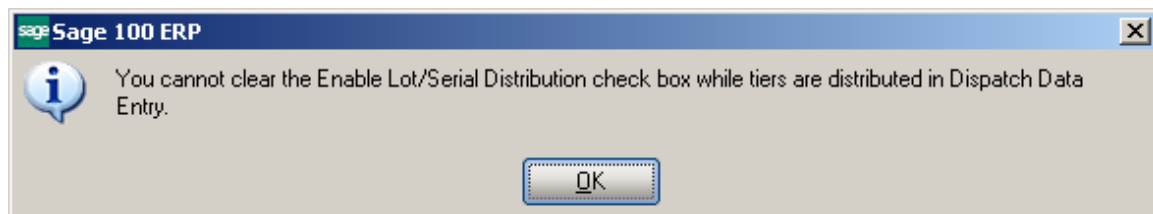
**Work Order Type** – is the default Work order type for the generated work orders. The WO type is used if there is no WO type selected for the Routing step.

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The **Dispatch Status (Released to Prod)** field is intended for specifying the status of the Dispatches released to Production.

**Enable Lot/Serial Distribution** - Select this check box to enable the distribution of lot and serial numbers in the **Dispatch Data Entry**. If this check box is selected, you can distribute and commit quantities for lot or serial items using the Lot/Serial Number Distribution window.

This check box cannot be cleared if Dispatch Entry distributions already exist. The following message appears when trying to clear the checkbox:



**Require Lines to be Fully Distributed** - Select this check box to require the data entry lines for lot or serial items to be fully distributed in Dispatch Data Entry. Clear this check box if you do not want to require to fully distribute the data entry lines for lot or serial items in Dispatch Data Entry. If this check box is cleared, all lot or serial line items can be partially distributed. This field is available only if the **Enable Lot/Serial Distribution** check box is selected.

Refer to [Lot/Serial Distribution](#) section for details.

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## Lines Tab

**OP Warehouse** field added on the Line Entry tab of **Material Planning and Production Setup** screen allows specifying the Warehouse Code for outside processing. If there is no **OP Warehouse** selected for an Item in the Item Maintenance the Outside Processing warehouse code specified here will be used. Refer to [Outside Processing](#) part for detail.

The screenshot shows the SAP Material Planning and Production Setup (MPP) 3/11/2015 window, specifically the Line Entry tab. The window is divided into several sections for configuration:

- 1. Main | 2. Entry | 3. Line Entry** (Current tab)
- Use Alternate Warehouse for Out-of-Stock Items:**
- Check for Available Quantity:**
- Default Warehouse:** 000
- OP Warehouse:** OP
- Material Job Code:** 011-000-000
- Labor Job Code:** 022-000-000
- Job Code Size:** Seg 1: 3, Seg 2: 3, Seg 3: 3
- Billing Rate and Cost Calculation Priority:**
  - Highest: Machine Code
  - Middle: Machine Code
  - Lowest: Machine Code
- Sales Account Priority:**
  - 1. MachineCode
  - 2. Labor Code
  - 3. Mold Type Code
  - 4. Nature of W.O.
  - 5. Work Order Type
- Labor Billing Presentation:** Special Item
- Miscellaneous Item:** (Empty)
- Sales Account:** 111-00-00
- COGS Account:** 205-00-00
- Product Line:** (Empty)
- Order In Item No:** Machine Code
- Other Receivables:** (Empty)
- Notes payable:** (Empty)
- Bypass Cost G/L Postings For Labor Items:**
- Calculate Taxes on Labor Based on:** None

Buttons at the bottom: Manual, Accept, Cancel, Print.

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## Machine Code Maintenance

The **Machine Code Maintenance** program is used to setup machines with respective mold types they can handle. The Machine Codes setup here are available in the Dispatch Board used to generate Work Orders.

During Work Order generation the program validates the Machine Code/Mold type to match the Mold type set on the Item.

Sage Machine Code Maintenance (MPP) 3/11/2015

Machine Code: M001

Machine Name: Machine #1

ABV Name: M1

Labor Cost: .00

Plant Code: UNION Union city

Active:

Molds...

Accept Cancel Delete

Enter new **Machine Code** to add in the system or select an existing one to make changes if necessary; e.g. change the Plant Code, Labor Cost etc.

Press the **Molds** button to assign the mold type to current machine.

The Lookup button lists all Machine codes setup in the system:

Sage Machine Code List

Machine Code	Machine Name	ABV Name
A1	Machine A1	
M001	Machine #1	M1
M002	Machine #2	M2
M1	MATK204-Auto	204 Auto

Search: Machine Code Begins with

Find

Filters...

Custom...

Select Cancel

Found 4 records

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## Plant Code Maintenance

The **Plant Code Maintenance** program is used to setup Plant Codes and assign the Default Machine Code to the Plant Code.

The screenshot shows the 'Plant Maintenance (MPP)' window. It contains the following fields and controls:

- Plant Code:** A text box containing 'UNION' with a lookup button (magnifying glass) to its right.
- Description:** A text box containing 'Union city'.
- Default Machine Code:** A text box containing 'M001' with a lookup button (magnifying glass) to its right, followed by the text 'Machine #1 M1'.
- Navigation:** A set of navigation buttons (back, forward, home, end) located below the Plant Code field.
- Buttons:** 'Accept', 'Cancel', 'Delete', a printer icon, and a help icon (question mark) are located at the bottom of the window.

The Lookup button next to the Plant Code field lists the Plant codes setup in the system.

The screenshot shows the 'Plant Code List' window. It features a table with the following data:

Plant Code	Description	Machine Code	Name
1	South West	M1	MATK204-Auto 204 Auto
PL1	Plant 1	A1	Machine A1
UNION	Union city	M001	Machine #1 M1

Below the table, there is a search section with a dropdown menu set to 'Plant Code', a 'Begins with' dropdown, and a search input field. A 'Find' button is to the right. Below the search section are buttons for 'Filters...', 'Custom...', 'Select', 'Cancel', a printer icon, and a help icon. At the bottom, it says 'Found 3 records'.

## Inventory Management Options

The **MRP Warehouse Code** has been added on the Main tab of the **Inventory Management Options** to allow setting the warehouse code to be used as the warehouse for transactions generated if **Calculate Quantity to Produce** (MRP run) program is processed at the item level (not at warehouse level).

The screenshot shows the 'Inventory Management Options (MPP) 3/11/2015' dialog box with the 'Main' tab selected. The 'MRP Warehouse Code' field is highlighted with a blue box and contains the value 'MRF'. Other fields include 'Require Multiple Warehouses' (checked), 'Reorder by Warehouse' (checked), 'Default Warehouse Code' (000), 'Inventory Period' (Calendar Months), 'Base Inventory Periods On' (2014), 'Current Calendar Year' (2014), 'Current Period' (03), 'Segment Substitution' (Location), 'Enable Warranty Tracking' (checked), 'Integrate with General Ledger' (checked), 'Job Cost' (unchecked), 'Track Warehouse Transfers as Issues' (unchecked), 'Calculate Commission by Inventory Item' (checked), and 'Include in Quantity Available' (No POs and WOs). Buttons for 'Accept', 'Cancel', and a help icon are at the bottom.

## Warehouse Code Maintenance

The **Include In MRP** checkbox has been added on the **Warehouse Code Maintenance** to allow indicating the Warehouse(s) to be included in MRP run when calculating demand for items at the item level.

The screenshot shows the 'Warehouse Code Maintenance (MPP) 3/11/2015' window. The 'Warehouse Code' is 'MRP' and the 'Description' is 'MRP warehouse'. The 'Include In MRP' checkbox is checked. The form includes fields for Name, Address, ZIP Code, City, State, Country, Telephone, Ext, Fax, E-mail Address, and Contact. The 'Post to Location' field is also present. The bottom of the window has buttons for Accept, Cancel, Delete, Print, and Help.

## Item Maintenance

The **Planning Code**, **MFG Priority Code** and **MFG Code** fields have been added on the main tab of the Item Maintenance.

**Planning Code** field is an informational field, which supports up to 5 alphanumeric characters and is used as selection field in the Calculate **Items Quantity To Produce** program.

The screenshot shows the Sage Item Maintenance (MPP) 3/11/2015 window. The main tab is selected. The Item Code is BEL25 and the Description is HON 4 DRAWER LETTER FILE W/D LK. The Product Line is WF&A (WORKSTATION FURN & ACCESS). The Product Type is Finished Good, Valuation is FIFO, and Procurement is Make. The Unit of Measure is EACH. The Price Code is STD (STANDARD QUANTITY PRIC), Default Whse is 000 (CENTRAL WAREHOUSE), and the MFG Code is Made to Stock. The MFG Priority Code is 1. The Primary Vendor is 01-AIRWAY. The Item Molds Machine is selected. The Sales and Purchases sections show prices and costs. The Quantities table is as follows:

Whse	Description	On Hand	On PO	On SO	On Bk Ord	Committed	On W/O	Req for W/O	Av
000	CENTRAL ...	5.00	25.00	200.00	.00	200.00	153.00	.00	
001	EAST WA...	.00	124.00	272.00	.00	272.00	.00	.00	

**MFG Priority Code**– is used to define MFG sort for the item. Items are loaded into the MRP grid sorted by the manufacturing priority code entered for each item.

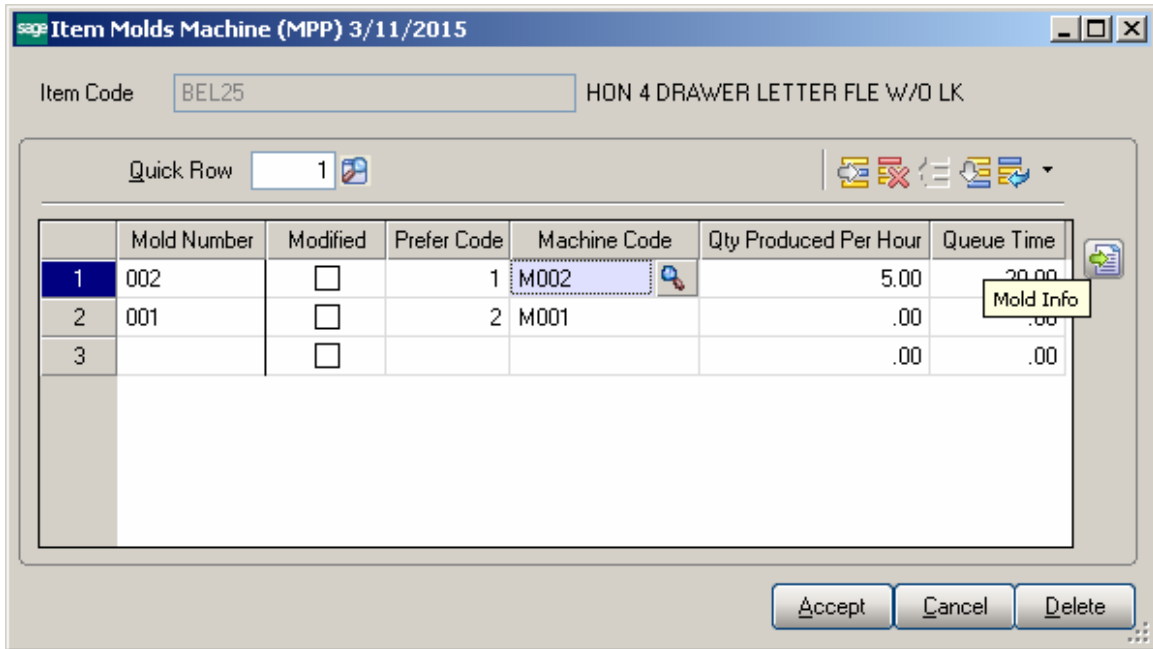
**MFG Code** – is used to define material planning groups to manage purchasing, production and scheduling processes. The following options are available:

- Made to Order
- Made to Stock

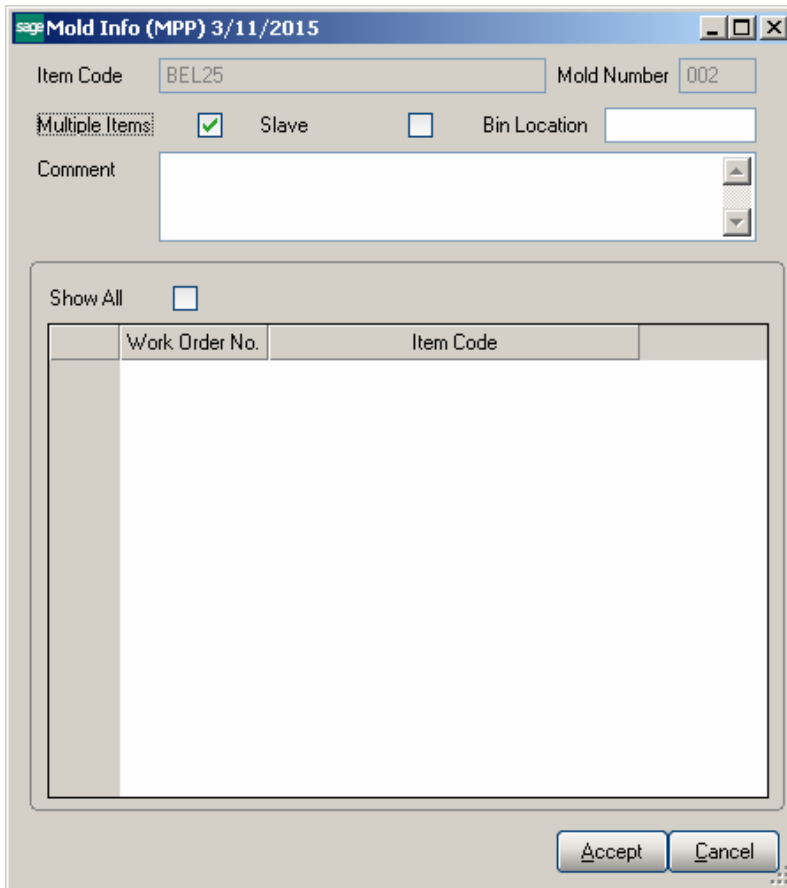
Mold and machine information is setup for each Item in the **Item Molds Machine** grid opened through the **Item Molds Machine** hyperlink button. The information entered here is required for work order generation and auto-scheduling functions.



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Multiple Items can be linked to the same Mold Number. Press the Mold Info button:



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The **Mold Info** screen is opened with current Item and Mold number selected. Select the **Multiple Items** checkbox to indicate multiple Items can be assigned to current Mold number. If the selected item is not flagged as **Slave** it is considered to be the master Item. In this case when assigning another Item to current Mold number the **Slave** checkbox will be automatically set upon checking the Multiple Items checkbox:

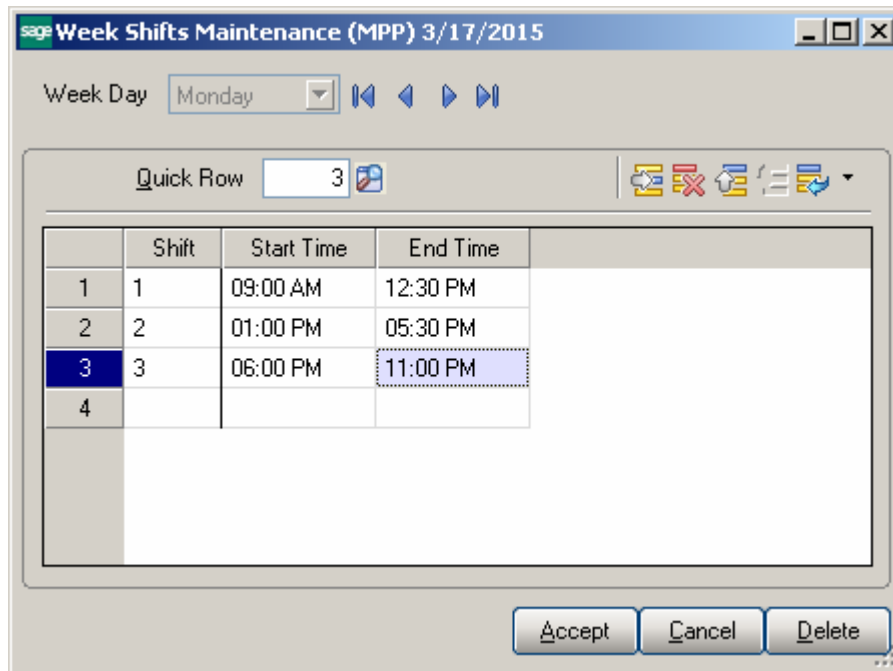
The screenshot shows the Sage Mold Info (MPP) 3/11/2015 window. The Item Code is BEL25 and the Mold Number is 002. The Multiple Items checkbox is checked, and the Slave checkbox is unchecked. The Bin Location field is empty. A Comment field is also present. Below these fields is a table with columns Work Order No. and Item Code. The table contains two rows: 1 with Work Order No. 0000237 and Item Code BEL25, and 2 with Work Order No. 0000240 and Item Code BEL25. The Show All checkbox is checked. At the bottom are Accept and Cancel buttons.

	Work Order No.	Item Code
1	0000237	BEL25
2	0000240	BEL25

The Multiple Items flag (indicating that this mold is used by more than one item) impacts quantity calculation in the Calculate Quantity to Produce/Purchase program. Refer to [Processing Master/Slave Items](#) for details.

## Week Shifts Maintenance

The **Shift Maintenance** program added under the **Material Planning and Production Management** Setup menu is used to setup shift schedules by week days.



## Routing Maintenance

**Routing Maintenance** is a program that allows setup of steps to be used when generating Work Orders for Bill Items.

The term “Routing” is used in this case to describe the total set of steps, of any kind, taken to complete a dispatch or Work Order.

# Material Planning & Production Management 19

	Step No.	Description	Req. Hours	Gen. W.O.	W.O. Type	Nature Of W.O.	Mfg	Labor Code	Machine	Next Step No., Alt-X
1	0010	Pull Product	3.00	<input checked="" type="checkbox"/>	S		<input type="checkbox"/>			
2	0030	Assemble Case / Enclosure	5.00	<input checked="" type="checkbox"/>	M	ASSEMBLY	<input type="checkbox"/>			
3	0050	Install Motor / Pump	4.00	<input checked="" type="checkbox"/>	M	INSTALL	<input type="checkbox"/>			
4	0070	Install Temp Control / Heat Pa	4.00	<input checked="" type="checkbox"/>	M	INSTALL	<input checked="" type="checkbox"/>	LAB1	M1	
5			.00	<input type="checkbox"/>			<input type="checkbox"/>			

Enter the **Routing Number** that represents the series of steps to be performed in completing a repair, installation or manufacturing.

Enter the **Description** (effectively, the name) of the routing in this field. You may use up to thirty characters for the description.

Enter the number of the step you wish to add or maintain in the **Step Number** field. Use the **Next Number** icon to accept the next automatically incremented step number.

If the **Step Number** represented by the next incremented value already exists, then the difference between the current step number and the step represented by the multiple will be divided by two.

If you are entering the first step number for a new routing, clicking the **Next Number** icon will insert **Step Number 0000** automatically.

Enter the **Step Description**. You may use as many characters as you wish to describe each step in the routing. The **Step Text Maintenance** window will be opened allowing the user to enter extended description.

Enter the **Required Hours** planned to complete this step.

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Step No.	Description	Req. Hours	Gen. W.O.	W.O. Type	Nature Of W.O.	Mfg	Labor Code	Machine
1	Pull Product	3.00	<input checked="" type="checkbox"/>	S		<input type="checkbox"/>		
2	Assemble Case / Enclosure	5.00	<input checked="" type="checkbox"/>	M	ASSEMBLY	<input type="checkbox"/>		
3	Install Motor / Pump	4.00	<input checked="" type="checkbox"/>	M	INSTALL	<input type="checkbox"/>		
4	Install Temp Control / Heat Pa	4.00	<input checked="" type="checkbox"/>	M	INSTALL	<input checked="" type="checkbox"/>	LAB1	M1
5		.00	<input type="checkbox"/>			<input type="checkbox"/>		

Select the **Gen. W.O** box to mark the step as a task, which can be dispatched when an item with this routing is sold or needs repairing.

If the **Generate W.O** box is checked, select a **W.O Type** describing the task. This will be transferred automatically to the generated Work order, and can be used for assigning a machine with the molds appropriate for completing the task.

If the **Generate W.O** box is checked, enter a **Nature of W.O** describing the task. You can click the **Lookup** button and select it from the list, which changes based on the **W.O Type**. This will be transferred automatically to the generated Work Order

The **Mfg (Manufacturing)** check box is available only for Steps with the **Generate W.O** option selected.

If the **Mfg** box is selected for a **Step**, the **Labor Code** and **Machine Code** fields become visible enabling selection for that Step.

For **Manufacturing** Step, Dispatch with Labor Charge line will be generated when generating **W.O** using the specified **Labor Code** and **Machine**.

The **Steps by Dispatch** option allows for setup of routings for which a single Work Order will be generated with respective Dispatches for all steps of Routing. This option is available only for newly created Routing Numbers.

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Routing Number: MFGROUTING  
Description: MFG Routing  
W.O. Task Type: [ ] Nature of W.O.: [ ] W.O. Description: [ ] Steps by Dispatch:

	Step No.	Mfg	Labor Code	Machine
	1	<input type="checkbox"/>		

Buttons: Accept, Cancel, Delete, Print, Help

Upon selecting the **Steps by dispatch** checkbox the Routing Maintenance screen changes allowing to setup steps for a W.O Task Type.

Routing Number: MFGROUTING  
Description: MFG Routing  
W.O. Task Type: M Nature of W.O.: [ ] W.O. Description: Manufacturing W/O Steps by Dispatch:

	Step No.	Mfg	Labor Code	Machine
	1	<input checked="" type="checkbox"/>	LAB1	M001
	2	<input checked="" type="checkbox"/>	LAB2	M002
	3	<input type="checkbox"/>		

Buttons: Accept, Cancel, Delete, Print, Help

When Work order is generated for a Bill Item having such Routing Number assigned one Work Order with the specified W.O Type will be generated. For each of steps having the MFG flag set manufacturing dispatches will be generated. For the step not marked as MFG a Dispatch is generated only with Labor Code loaded in the **Labor Charge Data Entry**.

## Material Requirement Planning

### Calculate Quantity to Produce/Purchase

The **Calculate Quantity to Produce/Purchase** program added under the **Material Production Planning Main** menu is designated to simplify and speed up the work processes of purchasing and the production managers, enabling them to plan more effectively.

This program allows for processing the selected Items and calculating quantity requirements for each Item based on selected MRP run options. The program calculates also the component requirements for each Item by Warehouse.

Select Field	Operand	Value
Item Code	All	
Material Planning Code	All	
Machine Code	All	

Item Code	Whse	Vendor No.	Qty On Hand	Qty On SO	Qty On BO	Qty On PO	Qty On WD	Qty Req For WD	Qty Avail.	MRP Run Req	Qty Avail
-----------	------	------------	-------------	-----------	-----------	-----------	-----------	----------------	------------	-------------	-----------

#### MRP Run Processing Options:

**Show Items With Zero Req. Qty-** select this checkbox if you don't want to load the Items with zero quantity required into the material production planning grid.

**Calculate Quantity for Item Level** – select this checkbox if you want the demand to be calculated at the Item level (instead of warehouse level). Only the warehouses flagged as “Include in MRP” in the Warehouse Code Maintenance are included in the

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calculation and the calculated quantities are shown under the Warehouse code selected as **MRP Warehouse** in the **Inventory Management Options**.

**Include Items Based on SO Selection Only** – select this checkbox to include in the demand calculation only the items of the selected Order(s) lines. If the ordered Item is a Bill the program uses the bill of materials structure to disassemble all components into the lowest level items and loads also those items.

**Calculate Demand Based on SO** – this option is enabled upon selecting the **Include Items Based on SO Selection Only** checkbox. If checked the demand is determined based on the open Sales Orders for the selected Ship Date.

**Add SO Items to Selection** – this checkbox is enabled only if the above two options are turned off. It allows for adding also Sales Orders' Items to the Items selected based on other selection criteria.

The **Machine Code** and **Start Date/Time** options are used for Manufacturing WO/Dispatch generation.

The screenshot shows the 'Calculate Quantity to Produce/Purchase' window. It includes several checkboxes for selection options, a search field for Machine Code, and a table of item data. The table columns are: Item Code, Whse, Vendor No., Qty On Hand, Qty On SO, Qty On BO, Qty On PD, Qty On WD, Qty Req For WD, Qty Avail., MRP Run Req, and Qty Av. The table lists 21 items, with some highlighted in red (e.g., BEL10, BEL25, BEL25-VIP).

Item Code	Whse	Vendor No.	Qty On Hand	Qty On SO	Qty On BO	Qty On PD	Qty On WD	Qty Req For WD	Qty Avail.	MRP Run Req	Qty Av
1 1001-HON-H252LK	000	01-CONT	59.00	.00	.00	.00	.00	.00	59.00	182.00	
2 1001-HON-H252LK	001	01-CONT	.00	.00	.00	.00	.00	.00	.00	39,160.00	
3 1001-HON-H254	000	01-CONT	86.00	.00	.00	.00	.00	.00	86.00	52.00	
4 1001-HON-H254	001	01-CONT	19.00	.00	.00	12,783.00	.00	6,376.00	6,426.00	12,888.00	
5 200-230	000	01-CONT	18.00	119.00	.00	143.00	.00	4,088.00	4,046.00	52.00	
6 200-230	001	01-CONT	52.00	.00	.00	7.00	6,376.00	4.00	6,439.00	12,888.00	
7 230-182-Z	000	01-CONT	63.00	.00	.00	84.00	.00	3,066.00	3,045.00	39.00	
8 230-182-Z	001	01-CONT	24.00	.00	.00	1,930.00	.00	12.00	1,966.00	9,666.00	
9 2480-8-50	001	01-UNITED	165.00	.00	.00	.00	.00	.00	165.00	25,776.00	
10 6655	000	01-CONT	23.00	.00	.00	.00	.00	.00	23.00	728.00	
11 6655	001	01-CONT	5.00	3.00	.00	.00	.00	.00	2.00	156,640.00	
12 720-100	001	01-CONT	60.00	15.00	.00	1,040.00	.00	20.00	1,015.00	14,870.00	
13 BEL10	001	01-CONT	7.00	3,123.00	.00	.00	142.00	.00	2,974.00	.00	
14 BEL10-VIP	001	01-CONT	84.00	11.00	.00	212.00	1.00	143.00	141.00	2,974.00	
15 BEL25	000	01-AIRWAY	5.00	200.00	.00	25.00	157.00	.00	13.00	.00	
16 BEL25	001	01-AIRWAY	.00	272.00	.00	124.00	.00	.00	148.00	.00	
17 BEL25-VIP	000	01-AIRWAY	7.00	8.00	.00	.00	2.00	157.00	160.00	13.00	
18 BEL25-VIP	001	01-AIRWAY	.00	.00	.00	122.00	.00	.00	122.00	248.00	
19 PLS-TRAY	000	01-CONT	259.00	.00	.00	244.01	.00	450.00	464.99	13.00	
20 PLS-TRAY	001	01-CONT	192.00	4.00	.00	110.00	.00	143.00	163.00	3,222.00	
21 TIP	000	01-CONT	.00	.00	.00	4.03	.00	157.00	152.97	13.00	

The following selection options may be applied:

- Item code
- Material Planning Code
- Machine Code
- Order Number



## Material Planning & Production Management 24

- Ship Date
- Warehouse

### **MRP columns:**

- **Item Code** – item number from inventory master file. The program lists all components (purchased or manufactured) to meet the selected items demand
- **Whse** – the warehouse code for the information or the MRP Warehouse code setup in the I/M options if MRP run is at item level
- **Vendor No** – vendor number for purchase items. The Make or Buy drop down in the inventory file is used to determine if a PO is to be generated for the item.
- **Qty On Hand (QOH)** – quantity on hand for the warehouse
- **Qty on SO (SOQ)** – sales order quantity represents quantity on sales orders for the entered date range or item's demand based on the Bypass Sales Order Selection MRP run option
- **Qty on BO (BOQ)** – backorder quantity, quantity on back orders for the entered date range or item's demand based on the Bypass Sales Order Selection MRP run option
- **Qty on PO (POQ)** - quantity on purchase orders
- **Qty on WO (WOQ)** - quantity on existing work orders
- **Qty Req for WO (QRWO)** component quantity needed for planned work orders
- **Qty Avail (QAVL)** – is calculated using the formula below:  
$$QAVL = QOH - SOQ - BOQ + POQ + WOQ - QRWO$$
- **Demand New Requirements (DNR)** - this value represents the requirements on items entered on the bill of material line's tab for any BOM item with negative Qty Avail (QAVL) value. The Demand New Requirement quantity is calculated for component Items only, it doesn't make sense for Bill parent Item. It is calculated as the Bill Recommended Qty multiplied by the component's Quantity/Bill.
- **Qty Avail MRP Run (MRPQ)**, this value is calculated as follows:
  - $MRPQ = QAVL - DNR$
- **Reorder Method** – MAX, ROP or EOQ.
- **Calc. Demand** – is calculated based on the Reorder method as follows:
  - For Max Stock level Reorder method, if the Qty Available is below reorder, Recommended Qty = Buf Max Quantity – MRPQ (Qty Avail MRP Run)
  - For Reorder Point method if Available quantity is below the Reorder, Recommended Qty = Reorder Point Quantity – MRPQ (Qty Avail MRP Run)
  - For Economic Qty method, if Available is below reorder, Recommended Qty = Economic Ord. Quantity
- **Mold Type**- this field is defaulted to the Mold Type setup for an Item in the Item Mold Maintenance and can be changed here. If there are several Molds setup, the Mold Type with the highest Prefer Code (for example from 001,

## Material Planning & Production Management 25

003, 005 the one with 001 will be loaded). The user is not allowed entering the Mold Type manually. It is necessary to select from the lookup list.

- **Machine Code**- this field is defaulted to the Machine Code setup for an Item in the Item Mold Maintenance and can be changed here.
- **Include**- select this checkbox to include the line in the Manufacturing WO generation

The following actions are available:

- **Recalculate/Relink**
- **Auto Scheduling**
- **Generate Manufacturing WO**
- **Generate PO**

**Recalculate/Relink**- this button is used for linking/relinking Master/Slave Items in case Multiple Items are being produced through the same Mold.

Pressing the **Auto Scheduling** button will generate and schedule work orders based on the machine/mold information entered for an Item in the **Calculate Quantity to Produce** grid taking into account Shifts setup in the [Week Shift Maintenance](#). If the **Start Date** checkbox is selected with a Date/Time entered the Manufacturing Dispatch Starting Date/Time fields will be defaulted to that Date/Time if the Machine specified for an Item is available for that Date/Time and the Ending Date will be calculated taking into account the shifts setup in the **Week Shift Maintenance**.

**Generate Manufacturing WO**- press this button to generate work orders based on the demand calculated. The user may schedule the generated work Orders using the **Schedule Board** program.

**Generate PO**- press this button to generate Purchase Orders for Items with Buy Procurement type. Purchase orders are generated both for components of BOM items or items sold on sales order.

Here is an example of material requirement calculation for Bill Item BEL10 for warehouse code: "001".

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**Calculate Quantity to Produce/Purchase**

Show Items With Zero Req Qty     Include Items Based On SO Selection Only   
 Calculate Quantity at Item Level     Calculate Demand Based On SO   
 Sort by MFG Code     Add SO Items To Selection

Machine Code:     Start Date:     Time:

Select Field	Operand	Value
Item Code	All	BEL10
Material Planning Code	All	
Machine Code	All	

Item Code	Whse	Qty Avail	MRP Run	Reorder Method	Reord. Qty	EOR	Max Qty	Calc. Demand	Mold Number	Machine Code	Include
-----------	------	-----------	---------	----------------	------------	-----	---------	--------------	-------------	--------------	---------

Proceed    Clear    Recalculate/Relink    Auto Scheduling    Gen. Manufacturing    Generate PO    Accept    Cancel

Press **Proceed** after making the necessary selections:

**Calculate Quantity to Produce/Purchase**

Show Items With Zero Req Qty     Include Items Based On SO Selection Only   
 Calculate Quantity at Item Level     Calculate Demand Based On SO   
 Sort by MFG Code     Add SO Items To Selection

Machine Code:     Start Date:     Time:


Select Field	Operand	Value
Item Code	All	
Material Planning Code	All	
Machine Code	All	

	Item Code	Whse	Qty Avail	MRP Run	Reorder Method	Reord. Qty	EOR	Max Qty	Calc. Demand	Mold Number	Machine Code	Include
1	1001-HON-H252LK	001	35,688.00		Max Stock Lev	5.00	10.00	20.00	35,708.00			<input type="checkbox"/>
2	1001-HON-H254	001	5,470.00		Max Stock Lev	10.00	20.00	50.00	5,520.00			<input type="checkbox"/>
3	200-230	001	5,457.00		Economic Qty	.00	2,000.00	.00	7,457.00			<input type="checkbox"/>
4	230-182Z	001	6,956.00		Economic Qty	.00	1,000.00	.00	7,956.00			<input type="checkbox"/>
5	2480-8-50	001	23,627.00		Max Stock Lev	200.00	600.00	800.00	24,427.00			<input type="checkbox"/>
6	6655	001	142,750.00		Max Stock Lev	10.00	30.00	70.00	142,820.00			<input type="checkbox"/>
7	720-100	001	13,855.00		Economic Qty	.00	.00	.00	13,855.00			<input type="checkbox"/>
8	BEL10	001	2,974.00		Economic Qty	.00	.00	.00	2,974.00	002	M002	<input type="checkbox"/>
9	BEL10-VIP	001	2,833.00		Max Stock Lev	.00	.00	100.00	2,933.00			<input type="checkbox"/>
10	PLS-TRAY	001	2,811.00		Economic Qty	.00	.00	.00	2,811.00			<input type="checkbox"/>
11	TIP-XI	001	2,828.98		Max Stock Lev	.00	.00	100.00	2,928.98			<input type="checkbox"/>

Proceed    Clear    Recalculate/Relink    Auto Scheduling    Gen. Manufacturing    Generate PO    Accept    Cancel

The Bill Item is loaded in the grid with its components.

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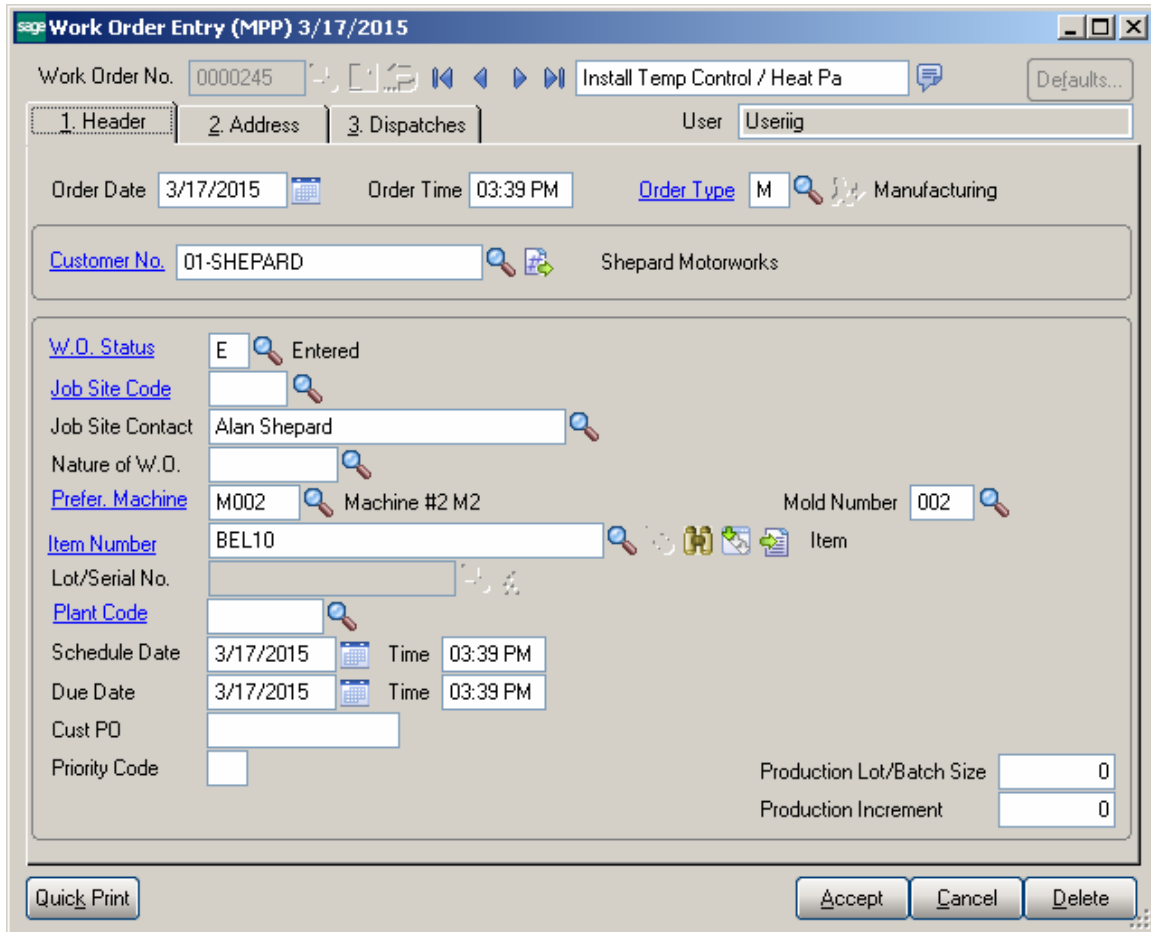
Select the Include checkbox. You can **Include** all lines by pressing the  **Select All** button or just clicking in the box to select an individual line.

The drill down buttons on the right hand of the grid enables drill down to Item Inquiry, Bill Item Inquiry (enabled for Bill Items), Where used Inquiry (enabled for component Items), Item Vendor Maintenance, Item Molds Machine entry and MRP Inquiry.

After selecting the lines and pressing **Accept** the information is saved in a special table (SO068\_XXXItemsQtyToProduce.M4T) used for generating Work Orders from Production Scheduling Dispatch Board.

If Bill Item has options, the BOM option components' quantities will take part in this calculation.

Here is the Work Order with respective Manufacturing Dispatch generated for Make Item# BEL10 by the **Gen Manufacturing WO** button:



Work Order No. 0000245 Install Temp Control / Heat Pa

1. Header 2. Address 3. Dispatches User Useriig

Order Date 3/17/2015 Order Time 03:39 PM Order Type M Manufacturing

Customer No. 01-SHEPARD Shepard Motorworks

W.O. Status E Entered

Job Site Code

Job Site Contact Alan Shepard

Nature of W.O.

Prefer. Machine M002 Machine #2 M2 Mold Number 002

Item Number BEL10 Item

Lot/Serial No.

Plant Code

Schedule Date 3/17/2015 Time 03:39 PM

Due Date 3/17/2015 Time 03:39 PM

Cust PO

Priority Code

Production Lot/Batch Size 0

Production Increment 0

Quick Print Accept Cancel Delete

The **Customer No** of the generated WO is the **Default W.O Customer** entered in the **Material Planning and Production Setup** window.

# Material Planning & Production Management 28

Work Order No. 0000245 Install Temp Control / Heat Pa Defaults...

1. Header 2. Address 3. Dispatches User Useriig

Dispatch No.	Dispatch Date	Machine	Machine Name	Status
0001	3/17/2015	M002	Machine #2 M2	Open

Quick Print Accept Cancel Delete

Components are loaded from the BOM into the WO Dispatch Transaction.

# Material Planning & Production Management 29

Work Order No: 0000245  
Dispatch No: 0001  
User: Useriig

1. Header | 2. Lines

Quick Row: 2

Serial No. [ ] Add New  Increment

	Item Code	Ordered	Unit Price	Extension	Comment
2	BEL10-WIP	2,974.00	117.900	350,634.60	
3	PLS-TRAY	2,974.00	121.500	361,341.00	
4	TIP-XI	2,974.00	117.900	350,634.60	
5	/LAB2	5,948.00	.000	25.00	
6		.00	.000	.00	

Description: HON 4 DRAWER LETTER FLE W/O LK  
Warehouse: 001  
Unit Of Measure: EACH  
Price Level: [ ]

Total Amount: 1,287,469.60

Buttons: Quick Print, Manufacturing, Labor, Accept, Cancel, Delete

Daily Production entry transactions are created for closed WO transactions.

## ***Processing Master/Slave Items***

The **Recalculate/Relink** action is intended for the Items linked to the same Mold Number.

After the lines are loaded in the grid you may press the **Recalculate/Relink** button to link the Items assigned to the same Mold Number and marked as **Multiple Items** (Master/Slave) in the **Mold Info** screen launched from the **Item Mold Machine** entry.

# Material Planning & Production Management 30

Calculate Quantity to Produce/Purchase

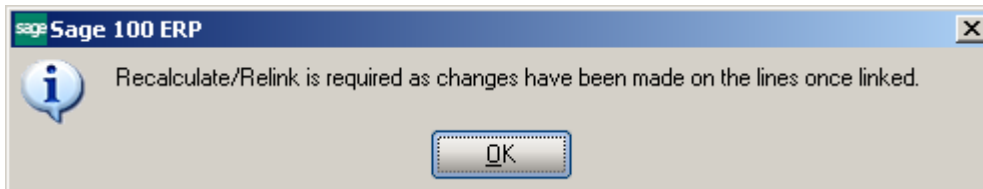
Show Items With Zero Req Qty  Include Items Based On SO Selection Only   
 Calculate Quantity at Item Level  Calculate Demand Based On SO   
 Sort by MFG Code  Add SO Items To Selection

Machine Code:  Start Date: 3/17/2015 Time: 12:00 AM

Item Code	Whse	MRP Run Req	Qty Avail	MRP Run	Reorder Method	Reord. Qty	EOR	Max Qty	Calc. Demand	Mold Number	Machine Code	Include
1	1001-HON-H252LK	000	182.00	123.00	Economic Qty	30.00	80.00	200.00	203.00			<input type="checkbox"/>
2	1001-HON-H252LK	001	38,668.00	38,668.00	Max Stock Lev	5.00	10.00	20.00	38,668.00			<input type="checkbox"/>
3	1001-HON-H254	000	52.00	34.00	Economic Qty	50.00	100.00	300.00	100.00			<input type="checkbox"/>
4	1001-HON-H254	001	12,724.00	6,298.00	Max Stock Lev	10.00	20.00	50.00	6,348.00			<input type="checkbox"/>
5	200-230	000	52.00	4,098.00	Economic Qty	.00	.00	.00	4,098.00			<input type="checkbox"/>
6	200-230	001	12,724.00	6,285.00	Economic Qty	.00	2,000.00	.00	8,285.00			<input type="checkbox"/>
7	230-182-Z	000	39.00	3,084.00	Economic Qty	.00	.00	.00	3,084.00			<input type="checkbox"/>
8	230-182-Z	001	9,543.00	7,577.00	Economic Qty	.00	1,000.00	.00	8,577.00			<input type="checkbox"/>
9	2480-8-50	001	25,448.00	25,283.00	Max Stock Lev	200.00	600.00	800.00	26,083.00			<input type="checkbox"/>
10	6655	000	728.00	705.00	Economic Qty	30.00	70.00	100.00	775.00			<input type="checkbox"/>
11	6655	001	154,672.00	154,670.00	Max Stock Lev	10.00	30.00	70.00	154,740.00			<input type="checkbox"/>
12	720-100	001	14,665.00	13,650.00	Economic Qty	.00	.00	.00	13,650.00			<input type="checkbox"/>
13	BEL10	000	.00	3.00	Economic Qty	.00	.00	.00	173.00	002	M002	<input type="checkbox"/>
14	BEL10	001	.00	.00	Economic Qty	.00	.00	.00	248.00	002	M002	<input type="checkbox"/>
15	BEL10-VIP	001	.00	2,833.00	Max Stock Lev	.00	.00	100.00	2,933.00			<input type="checkbox"/>
16	BEL25	000	.00	13.00	Economic Qty	.00	.00	.00	173.00	002	M002	<input type="checkbox"/>
17	BEL25	001	.00	148.00	Max Stock Lev	.00	.00	100.00	248.00	002	M002	<input type="checkbox"/>
18	BEL25-VIP	000	13.00	173.00	Economic Qty	.00	.00	.00	173.00	002	M002	<input type="checkbox"/>
19	BEL25-VIP	001	248.00	126.00	Economic Qty	.00	.00	.00	248.00	002	M002	<input type="checkbox"/>
20	PLS-TRAY	000	13.00	477.99	Economic Qty	.00	.00	.00	477.99			<input type="checkbox"/>
21	PLS-TRAY	001	248.00	3,059.00	Economic Qty	.00	.00	.00	3,059.00			<input type="checkbox"/>

Proceed Clear Recalculate/Relink Auto Scheduling Gen. Manufacturing Generate BQ Accept Cancel

Upon pressing the **Recalculate/Relink** button the lines having the same Mold Number, Warehouse and marked as Master/Slave become highlighted in red. After making any change on one of the linked lines it is necessary to Recalculate/Relink the lines again, otherwise the following message will appear while performing other actions (e.g. Auto Scheduling).



Upon pressing Recalculate/Relink button:

- The **Include** checkbox becomes selected for all linked lines if it is selected at least for one line.
- The **Calc. Demand Quantity** on all linked lines is updated with the greater one if it is changed on one of them so that the **Calc. Demand Quantity** becomes the same for all linked Items

# Material Planning & Production Management 31

**Calculate Quantity to Produce/Purchase**

Show Items With Zero Req Qty  Include Items Based On SO Selection Only   
 Calculate Quantity at Item Level  Calculate Demand Based On SO   
 Sort by MFG Code  Add SO Items To Selection

Machine Code:  Start Date: 3/17/2015 Time: 12:00 AM

Item Code	Whse	MRP Run Req	Qty Avail	MRP Run	Reorder Method	Reord. Qty	EOR	Max Qty	Calc. Demand	Mold Number	Machine Code	Include
1	1001-HON-H252LK	000	182.00	123.00	Economic Qty	30.00	80.00	200.00	203.00			<input type="checkbox"/>
2	1001-HON-H252LK	001	38,668.00	38,668.00	Max Stock Lev	5.00	10.00	20.00	38,668.00			<input type="checkbox"/>
3	1001-HON-H254	000	52.00	34.00	Economic Qty	50.00	100.00	300.00	100.00			<input type="checkbox"/>
4	1001-HON-H254	001	12,724.00	6,298.00	Max Stock Lev	10.00	20.00	50.00	6,348.00			<input type="checkbox"/>
5	200-230	000	52.00	4,098.00	Economic Qty	.00	.00	.00	4,098.00			<input type="checkbox"/>
6	200-230	001	12,724.00	6,285.00	Economic Qty	.00	2,000.00	.00	8,285.00			<input type="checkbox"/>
7	230-182-Z	000	39.00	3,084.00	Economic Qty	.00	.00	.00	3,084.00			<input type="checkbox"/>
8	230-182-Z	001	9,543.00	7,577.00	Economic Qty	.00	1,000.00	.00	8,577.00			<input type="checkbox"/>
9	2480-8-50	001	25,448.00	25,283.00	Max Stock Lev	200.00	600.00	800.00	26,083.00			<input type="checkbox"/>
10	6655	000	728.00	705.00	Economic Qty	30.00	70.00	100.00	775.00			<input type="checkbox"/>
11	6655	001	154,672.00	154,670.00	Max Stock Lev	10.00	30.00	70.00	154,740.00			<input type="checkbox"/>
12	720-100	001	14,665.00	13,650.00	Economic Qty	.00	.00	.00	13,650.00			<input type="checkbox"/>
13	BEL10	000	.00	3.00	Economic Qty	.00	.00	.00	173.00	002	M002	<input checked="" type="checkbox"/>
14	BEL10	001	.00	.00	Economic Qty	.00	.00	.00	248.00	002	M002	<input type="checkbox"/>
15	BEL10-VIP	001	.00	2,833.00	Max Stock Lev	.00	.00	100.00	2,933.00			<input type="checkbox"/>
16	BEL25	000	.00	13.00	Economic Qty	.00	.00	.00	173.00	002	M002	<input checked="" type="checkbox"/>
17	BEL25	001	.00	148.00	Max Stock Lev	.00	.00	100.00	248.00	002	M002	<input type="checkbox"/>
18	BEL25-VIP	000	13.00	173.00	Economic Qty	.00	.00	.00	173.00	002	M002	<input checked="" type="checkbox"/>
19	BEL25-VIP	001	248.00	126.00	Economic Qty	.00	.00	.00	248.00	002	M002	<input type="checkbox"/>
20	PLS-TRAY	000	13.00	477.99	Economic Qty	.00	.00	.00	477.99			<input type="checkbox"/>
21	PLS-TRAY	001	248.00	3,059.00	Economic Qty	.00	.00	.00	3,059.00			<input type="checkbox"/>

Proceed Clear Recalculate/Relink Auto Scheduling Gen. Manufacturing Generate BQ Accept Cancel

During Auto Scheduling a separate Work Order/Dispatch is generated for each linked line. The Dispatches are created with the same Starting-Ending Dates/Times as the same Mold is used for linked Items.



# Material Planning & Production Management 32

The screenshot shows the Sage Dispatch Data Entry (MPP) 3/17/2015 window. The interface includes the following elements:

- Work Order No.:** 0000248
- Dispatch No.:** 0001
- MFG Door:** MFG Door
- User:** Useriig
- Dispatch Date:** 3/18/2015
- Dispatch Status:** 0
- Starting Date:** 3/18/2015
- Starting Time:** 09:00 AM
- Ending Date:** 3/24/2015
- Ending Time:** 10:34 AM
- Commit Quantity:**
- Machine:** M002 (Machine #2 M2)
- Mold Number:** 002
- MFG Item Code:** BEL25
- Lot/Serial No.:** (empty)
- Quantity on WO:** 173.00
- Buttons:** Send Out..., Receive..., Quick Print, Labor, Accept, Cancel, Delete

After Work Orders are generated the Work Order numbers are shown in the Mold Info screen:

sage Mold Info (MPP) 3/17/2015

Item Code: BEL25      Mold Number: 002

Multiple Items:     Slave:     Bin Location:

Comment:

Show All:

	Work Order No.	Item Code
1	0000237	BEL25
2	0000240	BEL25
3	0000248	BEL25

Accept    Cancel

The **Show All** option allows for viewing the Work Order numbers generated for all the Items linked to current one.

# Material Planning & Production Management 34

	Work Order No.	Item Code
1	0000237	BEL25
2	0000240	BEL25
3	0000248	BEL25
4	0000253	BEL10

Once the Tasks/Dispatches have been generated with a Mold Number already assigned, the following message will appear while pressing **Proceed** button on the **Calculate Quantity to Produce/Purchase** screen:

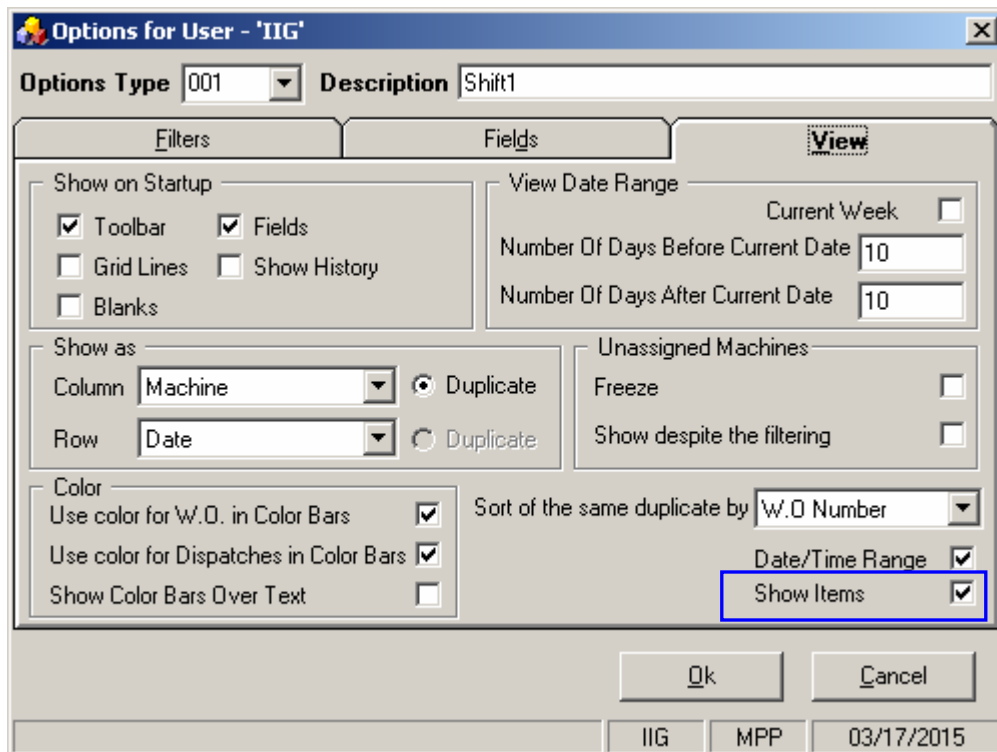
Mold Number "002" is planned for the following Item/WO(s):  
BEL10 0000253  
BEL25 0000237  
BEL25 0000240  
BEL25 0000248  
WO for item "BEL10" will be scheduled after completion of planned WO for mold "002".  
Do you want to bypass creating WO(s) for mold "002"?

## Work Order Generation

### Production Scheduling Board

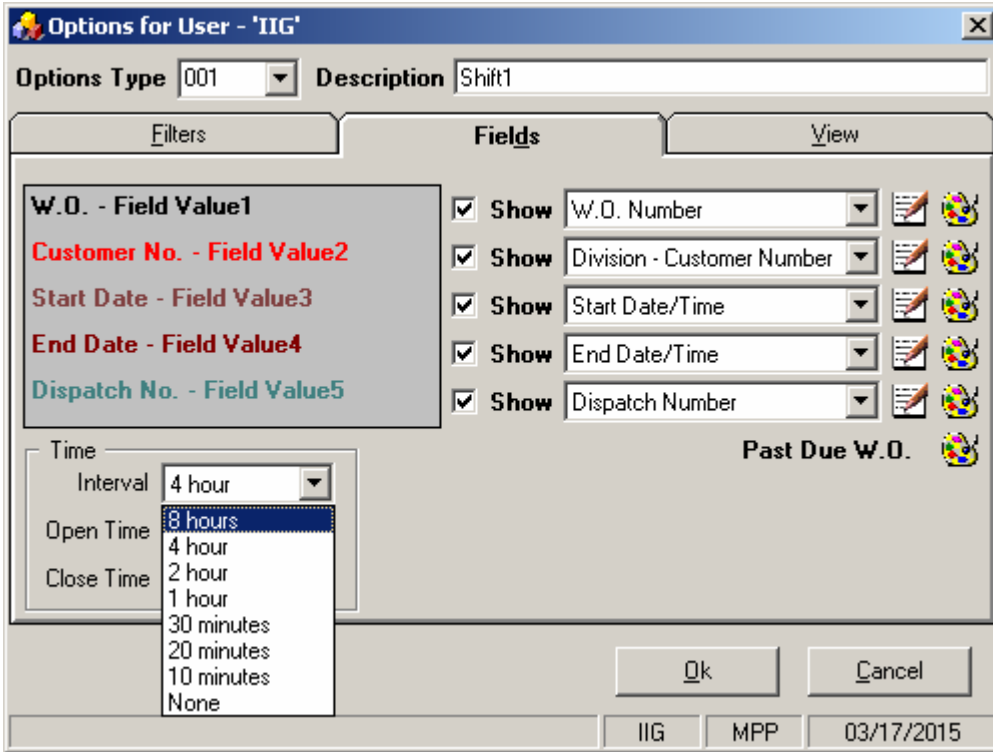
**Schedule Board** provides the following functions:

- Ability to create work orders by:
  - a. Manually dragging and dropping work orders into machine and date/time specific cells for items and quantity set by the MRP program. Program will validate that the item dragged can be run produced on the machine selected
  - b. Auto create and schedule work orders based on the demand set by the MRP program
- Visibility over production schedule.
  - a. Work order generated can be dragged and dropped from one machine to another or from one day / shift to another
  - b. Views can be setup to display certain day shift or task by type, Mold Setup, Production, etc. using view selection grid
- Managing daily functions by right clicking on a work order

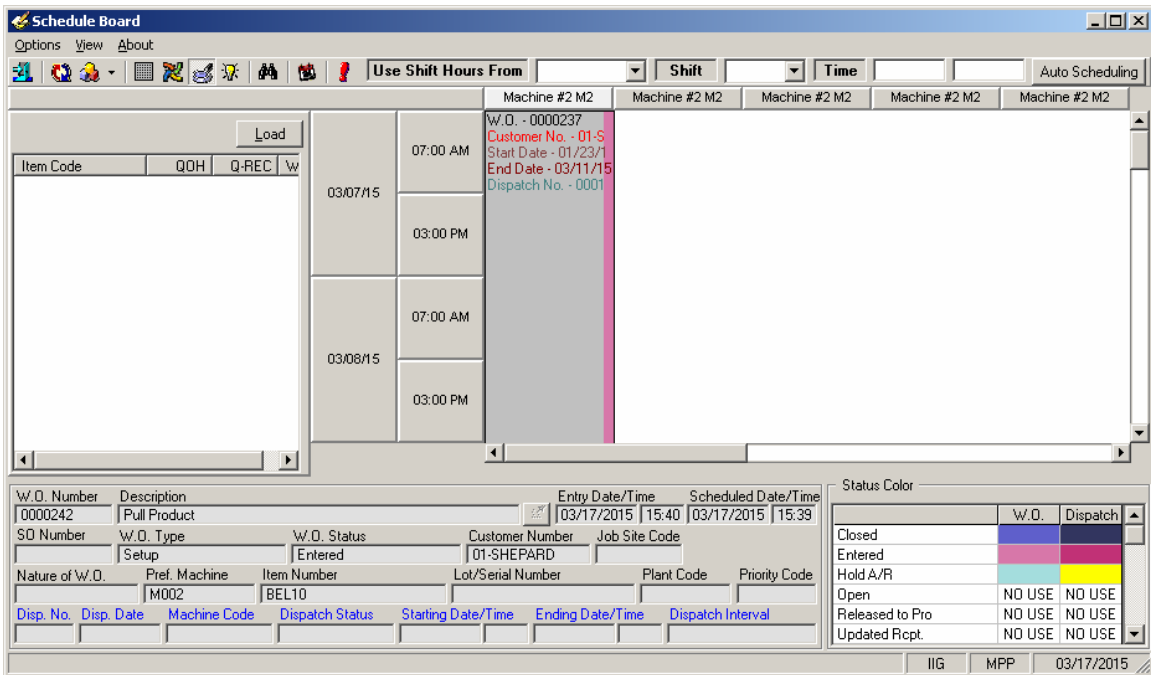


Select the **Show Items** checkbox to have the Items loaded in the Item list.

# Material Planning & Production Management 36



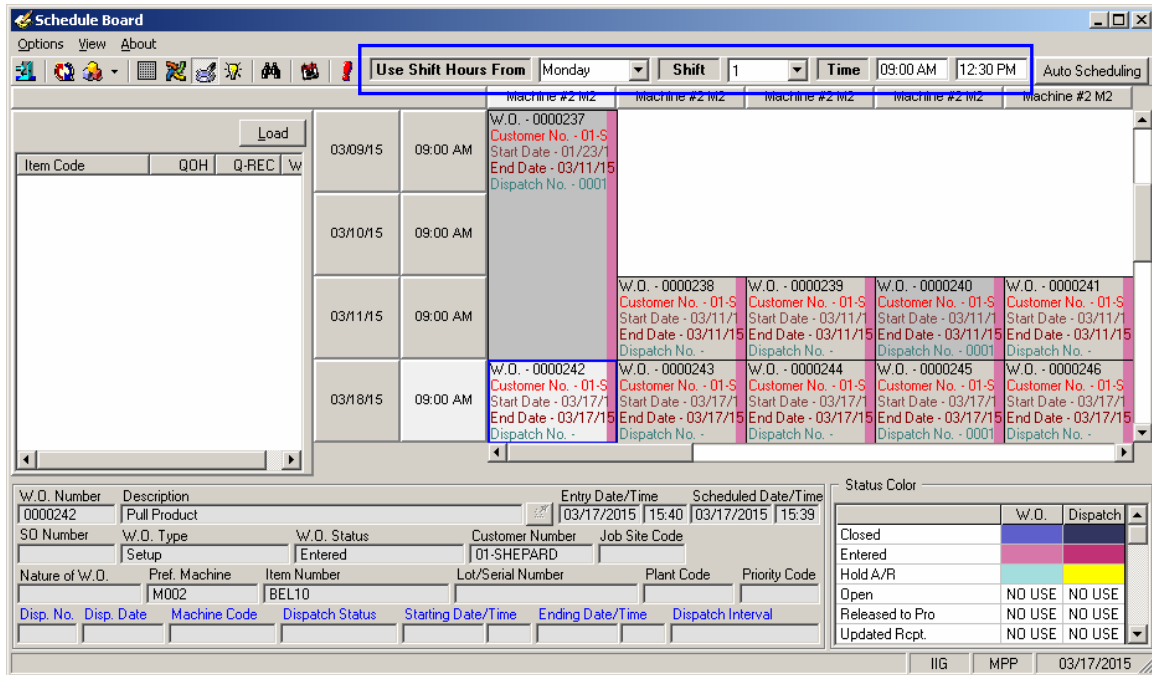
4 and 8 hours intervals added in the Interval drop down allows for showing Work Orders/Dispatches on the Board by 4/8 hours interval:



# Material Planning & Production Management 37

**Use Shift Hours From** drop down allows the user to select a day (Monday, Tuesday, etc.) and specify the Shift for that day. Upon selecting a day with respective shift the starting/ending times are automatically loaded from Shift Maintenance.

The Schedule Board is refreshed automatically to show only the W.O./Dispatches for current Shift.



If no Shift is selected the W.O./Dispatches are shown based on the Time Interval set in the Board Options:

Upon pressing **Load** button the Items processed through the **Calculate Quantity to Produce/Purchase** program and saved in the SO068\_MPPItemsQtyToProduce.M4T table are loaded in the Item list at the left hand of the Board. It is necessary to have the **Include** checkbox selected for respective lines in the **Calculate Quantity to Produce/Purchase** program and accepted.

**Work Order Generation** can be processed also from **Schedule Board**. The Columns of the **Board** display dates and the **Rows** are Machine Codes setup in the system:

Production **Scheduling Board** can be used to manage the Production. Work Orders can be moved from one day/shift to next or from one machine to another.

Production Scheduling Board Views can be setup to display machines in a given Plan, Machine Type, or Work Orders for a specific shift. If needed a Board View can be setup to Show the hours of Operation on the Board.

Drag the Item and drop into a cell in the Production Scheduling Board.

# Material Planning & Production Management 38

The screenshot shows the 'Schedule Board' application window. On the left is a table with columns: Item Code, QOH, Q-REC, and W... The table lists items like 1001-HON..., 200-230, and BEL10. The main area is a Gantt chart with a vertical axis for dates (03/09/15, 03/10/15) and times (11:00 AM, 03:00 PM, 07:00 PM, 07:00 AM). The chart shows Work Order (W.O.) bars for various items, with details like Customer No., Start Date, End Date, and Dispatch No. visible for each bar. At the bottom, there are fields for W.O. Number, Description, Entry Date/Time, and Scheduled Date/Time, along with a 'Status Color' legend.

The following message appears for the user to confirm new Work Order generation for current Date and Machine code:

The dialog box is titled 'Schedule Board' and contains a question mark icon. The text inside reads: 'Do You want to create new W.O. for 03/09/15 07:00 PM Schedule Date'. There are two buttons: 'Yes' and 'No'.

If the user selects **Yes** to generate Work Order, the Bill Options Selections screen is opened allowing the user to select Bill option.

# Material Planning & Production Management 39

Bill Number: BEL10 Item  
Revision: 000

	Option Category	Required	Option	Option Description
1	Counter Top	<input type="checkbox"/>	01	Marble - Dora Royal
2	Cabinet Finish	<input type="checkbox"/>		
3	Door Styles	<input type="checkbox"/>		
4	Counter Top Finish	<input type="checkbox"/>		
5	Tear Down & Hallaway	<input type="checkbox"/>		

OK Cancel ?

Work Order generation is done based on the Routing Number specified on the Bill Item Header.



# Material Planning & Production Management 40

sage Bill of Materials Maintenance (MPP) 3/17/2015

Bill Number: BEL10  
Revision: 000  
Bill Type: Standard  
Description 1: Item  
Description 2:

1. Header | 2. Lines

Routing Number: EQP MFG

Current Revision: 000  
Date Last Used: 8/27/2013  
Maximum Lot Size: 0

Print Components:   
Bill Has Options:   
Components By Percentage:   
Production Lot/Batch Size: 0  
Production Increment: 0

Option Categories:

1	Counter Top	<input checked="" type="checkbox"/>	Required
2	Cabinet Finish	<input type="checkbox"/>	Required
3	Door Styles	<input type="checkbox"/>	Required
4	Counter Top Finish	<input type="checkbox"/>	Required
5	Tear Down & Hallaway	<input type="checkbox"/>	Required
6		<input type="checkbox"/>	Required
7		<input type="checkbox"/>	Required
8		<input type="checkbox"/>	Required
9		<input type="checkbox"/>	Required

Accept Cancel Delete [Printer Icon] [Help Icon]

The number of Work Orders being generated is based on the Routing steps. Work Orders are generated for all the steps having the Gen. W. O. option selected. Manufacturing Dispatch is automatically created for a Work Order generated for a Routing Step indicated as Mfg.

# Material Planning & Production Management 41

Routing Maintenance (MPP) 3/17/2015

Routing Number: EQP\_MFG  
Description: Equipment / AC MFG

Steps by Dispatch

	Step No.	Description	Req. Hours	Gen. W.O.	W.O. Type	Nature Of W.O.	Mfg	Labor Code	Machine
1	0010	Pull Product	3.00	<input checked="" type="checkbox"/>	S		<input type="checkbox"/>		
2	0030	Assemble Case / Enclosure	5.00	<input checked="" type="checkbox"/>	M	ASSEMBLY	<input type="checkbox"/>		
3	0050	Install Motor / Pump	4.00	<input checked="" type="checkbox"/>	M	INSTALL	<input type="checkbox"/>		
4	0070	Install Temp Control / Heat Pa	4.00	<input checked="" type="checkbox"/>	M	INSTALL	<input checked="" type="checkbox"/>	LAB1	M1
5			.00	<input type="checkbox"/>			<input type="checkbox"/>		

Accept Cancel Delete

Here is a Work Order with respective Manufacturing Dispatch generated for Bill Item: BEL10:

# Material Planning & Production Management 42

Work Order No. 0000267 Install Temp Control / Heat Pa Defaults...

1. Header 2. Address 3. Dispatches User Useriig

Order Date 3/17/2015 Order Time 05:23 PM Order Type M Manufacturing

Customer No. 01-SHEPARD Shepard Motorworks

W.O. Status E Entered

Job Site Code

Job Site Contact Alan Shepard

Nature of W.O.

Prefer. Machine M002 Machine #2 M2 Mold Number 002

Item Number BEL10 Item

Lot/Serial No.

Plant Code

Schedule Date 3/10/2015 Time 07:00 AM

Due Date 3/10/2015 Time 07:00 AM

Cust PO

Priority Code

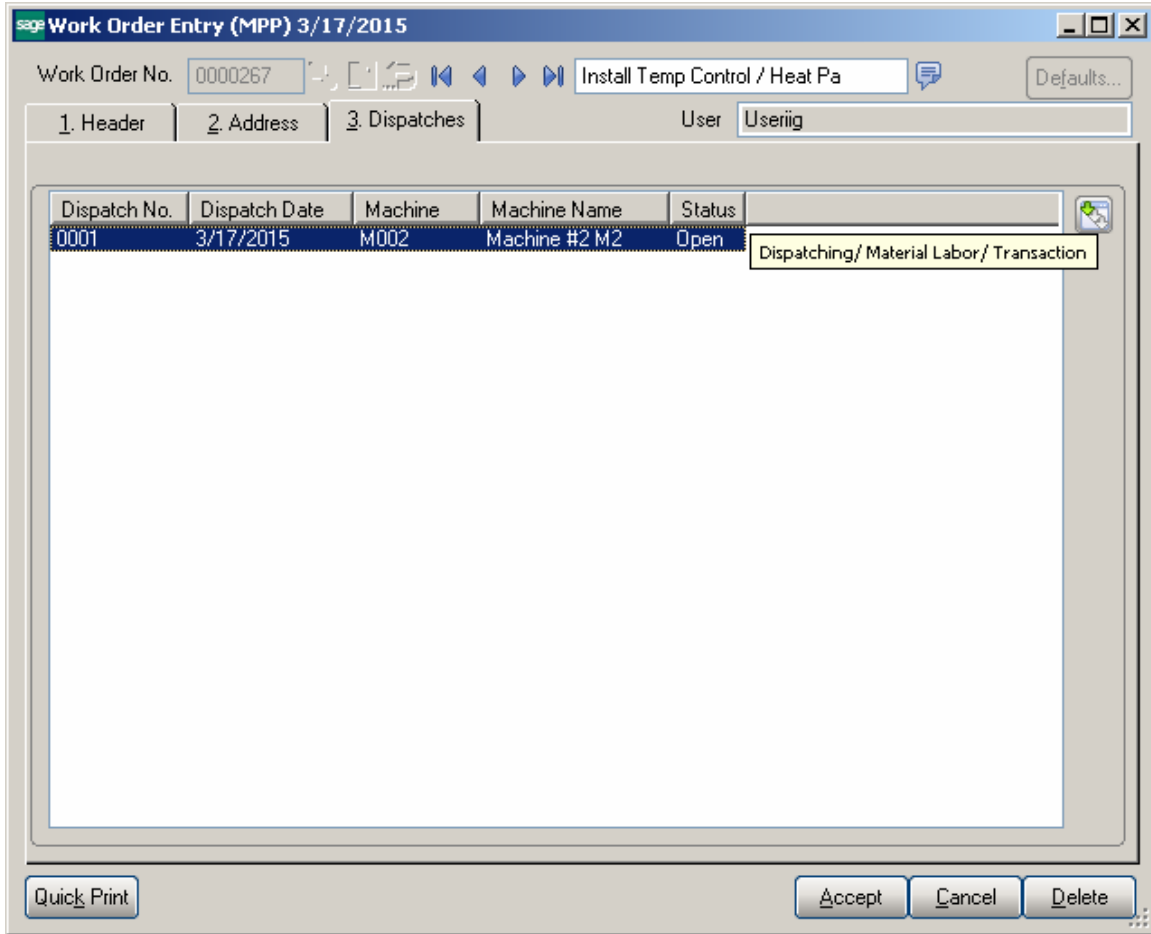
Production Lot/Batch Size 0

Production Increment 0

Quick Print Accept Cancel Delete

*Note: The Customer number is defaulted from **Material Planning and Production Setup** so you may have the Default WO Customer setup in the system.*

# Material Planning & Production Management 43



Press the Dispatching button to open the Dispatch Data Entry:

# Material Planning & Production Management 44

The screenshot shows the Sage Dispatch Data Entry (MPP) 3/17/2015 window. The 'Header' tab is active, displaying the following information:

- Work Order No: 0000267
- Dispatch No: 0001
- User: Useriig
- Dispatch Date: 3/17/2015
- Dispatch Status: 0
- Starting Date: 3/10/2015
- Starting Time: 07:00 AM
- Ending Date: 3/17/2015
- Ending Time: 05:23 PM
- Machine: M002 (Machine #2 M2)
- Mold Number: 002
- MFG Item Code: BEL10
- Lot/Serial No.:
- Quantity on WO: 333.00

Buttons at the bottom include 'Quick Print', 'Labor', 'Accept', 'Cancel', and 'Delete'. The 'Commit Quantity' checkbox is checked.

Go to the Lines tab. The Bill Item is automatically exploded in the Dispatch Data Entry with the Component Item of Option Bill added in the lines.

# Material Planning & Production Management 45

Work Order No: 0000267  
Dispatch No: 0001  
User: Useriig

1. Header | 2. Lines

Quick Row: 1

Serial No. [ ] Add New [ ] Bill Options, Alt-B [ ]

	Item Code	Ordered	Unit Price	Extension	Comment
1	BEL10	333.00	75.600	25,174.80	
2	BEL10-VIP	333.00	117.900	39,260.70	
3	FINSTNGLAZE	5,994.00	.000	.00	
4	PLS-TRAY	333.00	121.500	40,459.50	
5	SLBMDR	15,984.00	.000	.00	
6	TIP.XI	333.00	117.900	39,260.70	

Description | Item  
Warehouse: 000  
Unit Of Measure: EACH  
Price Level: [ ]

Total Amount: 144,260.70

Quick Print | Manufacturing | Labor | Accept | Cancel | Delete

Bill Options button in the Dispatch Data entry allows for viewing Bill Options:

# Material Planning & Production Management 46

	Option Category	Required	Option	Option Description
1	Counter Top	<input type="checkbox"/>	01	Marble - Dora Royal
2	Cabinet Finish	<input type="checkbox"/>	02	Stain / Glazed
3	Door Styles	<input type="checkbox"/>	03	Item
4	Counter Top Finish	<input type="checkbox"/>		
5	Tear Down & Hallaway	<input type="checkbox"/>		

If the **Commit Quantity During MFG Dispatch Generation** flag is set on the Entry tab of the **Material Planning and Production Setup**, the **Commit Quantity** checkbox will be automatically selected on the generated manufacturing Dispatch to commit the quantities on Work Order. Press the Item Inquiry button on the Dispatch line to see the quantities updated:

# Material Planning & Production Management 47

The screenshot shows the Sage Item Inquiry (MPP) 3/17/2015 window. The item code is BEL10 and the description is Item. The Quantity tab is selected, displaying a table with the following data:

Description	On Hand	On PO	On SO	On Bk Ord	Committed	On WO	Req for WO	Available
CENTRAL...	270.00	.00	560.00	.00	560.00	1,132.00	.00	290.00
EAST WA...	7.00	.00	3,123.00	.00	3,123.00	3,116.00	.00	3,116.00

The Quantity On WO for Bill Item reflects the Quantity Ordered in the manufacturing dispatch(es).

For component Items the Req for WO field is updated with respective quantity from manufacturing dispatch Quantity Ordered:

The Components defined for the Bill Item are loaded into the created Work Order. Users can change the quantity loaded if actual quantity used is different than component quantity entered in the Bill of Material program.

The actual Labor defined for the Bill item is loaded into the Created Work Order. Users can change the labor based on actual Labor hours for the production.



## Work Order Entry

In addition to the **Production Scheduling Board**, the **Work Order Entry** program can also be accessed from the **Material Production Planning Main** menu for creation of Work Orders.

Work Order No. 0000268

1. Header | 2. Address | 3. Dispatches | User: Useriig

Order Date: 3/17/2015 | Order Time: 05:34 PM | Order Type: M | Manufacturing

Customer No. 01-ABF | American Business Futures

W.O. Status: E Entered

Job Site Code: 2 | American Business Futures

Job Site Contact: John Quinn

Nature of W.O.

Prefer. Machine: M002 Machine #2 M2 | Mold Number: 002

Item Number: BEL25 | HON 4 DRAWER LETTER FLE W/C

Lot/Serial No.

Plant Code

Schedule Date: 3/17/2015 | Time: 05:34 PM

Due Date: 3/17/2015 | Time: 05:34 PM

Cust PO

Priority Code

Production Lot/Batch Size: 0

Production Increment: 0

Quick Print | Accept | Cancel | Delete

## Lot Number Generation

The **Mold Number** assigned to the work order is used when generating Lot/serial number for Make Item with Lot/Serial Valuation.

Pressing the **Lot/Serial Number** generation button added next to the Lot/Serial No field will generate the lot number based on the specified mold number and Julian date.

# Material Planning & Production Management 49

Work Order Entry (MPP) 3/17/2015

Work Order No. 0000268

1. Header | 2. Address | 3. Dispatches

User Useriig

Order Date 3/17/2015 Order Time 05:34 PM Order Type M Manufacturing

Customer No. 01-ABF American Business Futures

W.O. Status E Entered

Job Site Code 2 American Business Futures

Job Site Contact John Quinn

Nature of W.O.

Prefer. Machine M002 Machine #2 M2 Mold Number 002

Item Number 2480-8-50 DESK FILE 8" CAP 50

Lot/Serial No. 2457099002

Plant Code Lot/Serial Number Generation

Schedule Date 3/17/2015 Time 05:34 PM

Due Date 3/17/2015 Time 05:34 PM

Cust PO

Priority Code

Quick Print Accept Cancel Delete

The generated lot number is saved in the work order transaction and is loaded into the Daily Production Entry transaction, created when manufacturing dispatch is closed.

# Material Planning & Production Management 50

## Production Generation

B/M Production is automatically generated upon closing the Dispatch.

The screenshot shows the 'Sage Dispatch Data Entry (MPP) 3/31/2015' window. It contains the following fields and controls:

- Work Order No: 0000258
- Dispatch No: 0001
- MFG Door: [Text Field]
- User: Userig
- Dispatch Date: 3/17/2015
- Dispatch Status: 0 (with 'Open' button)
- Starting Date: 3/9/2015
- Starting Time: 05:06 PM
- Ending Date: 3/17/2015
- Ending Time: 05:05 PM
- Commit Quantity: [Checked]
- Machine: M002 (Machine #2 M2)
- Mold Number: 002
- MFG Item Code: BEL25
- Lot/Serial No.: [Text Field]
- Quantity on WO: 333.00
- Buttons: Send Out..., Receive...
- Bottom Bar: Quick Print, Manufacturing, Labor, Accept, Cancel, Delete

The following screen is opened with the quantity on work order defaulted to Quantity Produced. The user is allowed to change the quantity produced. If the user reduces the Quantity Produced a prompt appears about leaving the work order open for the remaining quantity. In this case after generating Production a new dispatch will be created with "Open" status with Items Ordered Quantity equal to original Qty Ordered – Quantity Produced.

The screenshot shows the 'Sage Production Generation' dialog box with the following details:

- Quantity Produced: 3.00
- OK button

# Material Planning & Production Management 51

If Batch processing is enabled for Production Entry the B/M Production Entry Batch screen is opened upon pressing Ok.

The screenshot shows the 'Sage B/M Production Entry Batch' window. It features a title bar with the Sage logo and window controls. The main area contains several input fields and buttons. At the top, there is a 'Batch Number' field with the value '00001', a 'Comment' field, and a 'Private Batch' checkbox. To the right of these fields are buttons for 'Modify...', 'Verify', 'Renumber...', and 'Merge...'. Below these is a section for 'Status' (set to 'Available') and 'Entries' (set to '0'). There are also fields for 'Created By' and 'Modified By'. At the bottom, there are buttons for 'Accept', 'Cancel', 'Delete', and a help icon.

Here is the Production Entry generated after the manufacturing Dispatch is closed:

The screenshot shows the 'Sage Production Entry (MPP) 3/31/2015' window. It has a title bar with the Sage logo and window controls. The window is divided into sections. The top section contains 'Production Number' (0000041) and 'Batch' (00001). Below this are tabs for '1. Header' and '2. Lines'. The 'Header' section includes 'Production Date' (3/31/2015), 'Bill Number' (BEL25), and 'Bill Type' (Standard). The 'Lines' section includes 'Revision' (000), 'Option Code', 'Quantity' (3.00), 'Unit of Measure' (EACH), and 'Effective Date' (3/31/2015). At the bottom, there are fields for 'Parent Warehouse' (000) and 'Component Warehouse' (000), both set to 'CENTRAL WAREHOUSE', and an 'Explode Sub-Assemblies' checkbox. The bottom of the window features buttons for 'Accept', 'Cancel', 'Delete', a printer icon, and a help icon.

## Material Planning & Production Management 52

Production Number: 0000041      Batch: 00001

1. Header      2. Lines

Quick Row: 1

Lot/Serial Number:

	Component Item Code	Quantity/Bill	Extended Quantity	Comment
1	BEL25-VIP	1.00	3.00	
2	PLS-TRAY	1.00	3.00	
3	TIP	1.00	3.00	
4	/MISC_CHARGE1	5.00	15.00	
5		.00	.00	

Description: HON 4 DRAWER LETTER FLE W/O LK  
Revision: 000  
Warehouse: 000  
Unit Of Measure: EACH

Accept      Cancel      Delete      ?

Actual Inventory and Labor information from the Work Order transaction is loaded into the Daily Production Entry transaction.

After the Production is updated the Bill Item Qty On Hand is updated with quantity produced and the Qty On WO and Qty Req For WO are released.

The generated **Production** number is displayed on the Header tab of the Dispatch Entry: The **Production** button allows for launching respective Production Entry.

# Material Planning & Production Management 53

The screenshot shows the Sage Dispatch Data Entry (MPP) 3/31/2015 window. The interface is organized into several sections:

- Header Section:** Work Order No. 0000258, Dispatch No. 0001, MFG Door, User Useriig.
- Dispatch Information:** Dispatch Date 3/17/2015, Dispatch Status Closed.
- Time and Quantity:** Starting Date 3/9/2015, Starting Time 05:06 PM, Ending Date 3/17/2015, Ending Time 05:05 PM, Commit Quantity (checkbox).
- Machine and Item Details:** Machine M002, Machine #2 M2, Mold Number 002, MFG Item Code BEL25, Lot/Serial No.
- Production and Quantity:** Production 0000041, Quantity on WO 3.00.
- Buttons:** Send Out..., Receive..., Quick Print, Labor, OK.

## Auto Scheduling

When Work orders are generated from **Calculate Quantity To Produce** program by **Auto Scheduling** button, the work orders are auto-assigned to machine code specified on the **Calculate Quantity To Produce** screen.

The duration of dispatch is calculated based on the information entered for each mold/machine combination (**Recommended Qty/QtyProduced PerHour + Queue Time**) taking into account the Shifts setup in the Week Shift Maintenance. If there is Start Date specified on the **Calculate Quantity To Produce** screen that Date/Time is taken into account when checking for Machine availability.

# Material Planning & Production Management 54

sage Dispatch Data Entry (MPP) 4/2/2015

Work Order No. 0000271 MFG Door

Dispatch No. 0001

User Userrig

1. Header 2. Lines

Dispatch Date 4/2/2015 Dispatch Status 0 Open

Starting Date 4/2/2015 Starting Time 09:00 AM Commit Quantity

Ending Date 4/4/2015 Ending Time 04:00 PM

Machine M002 Machine #2 M2 Mold Number 002

MFG Item Code BEL25 Lot/Serial No.

Quantity on WO 5.00

Outside Processing

Quick Print Manufacturing

sage Week Shifts Maintenance (MPP) 4/2/2015

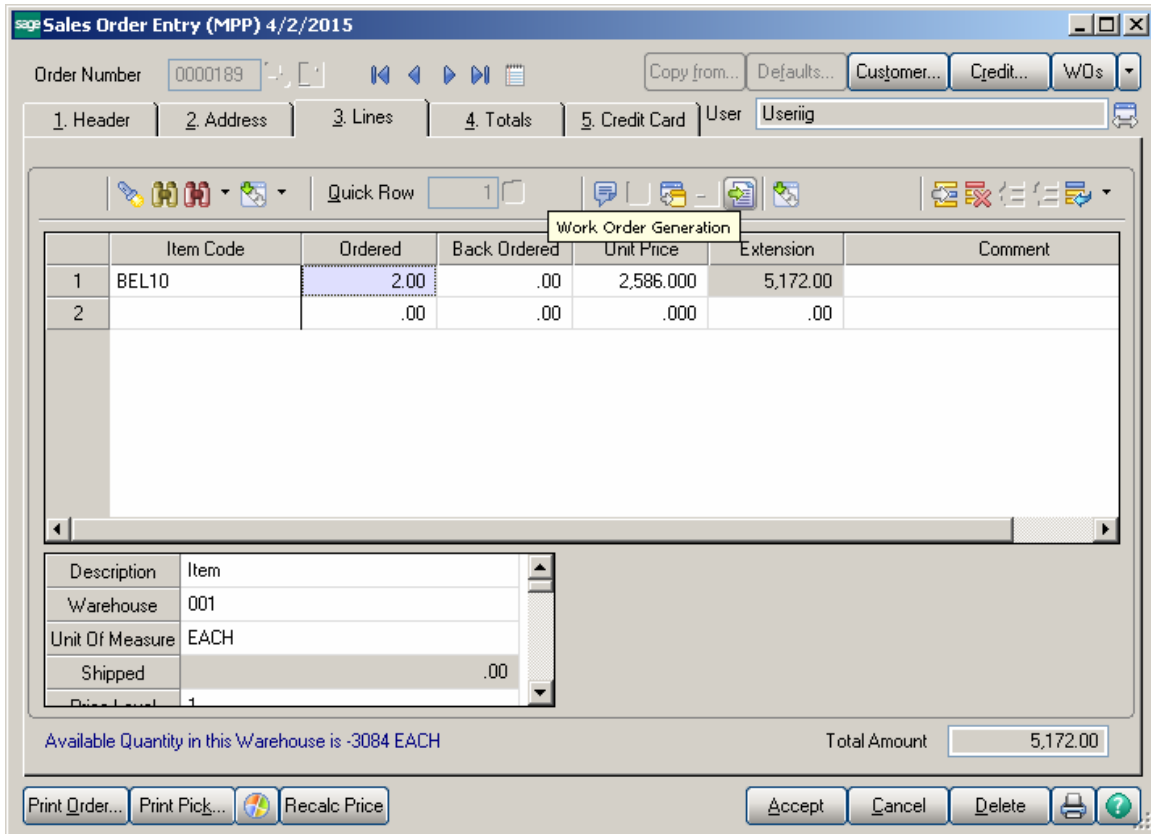
Week Day Thursday

Quick Row 1

	Shift	Start Time	End Time
1	1	09:00 AM	01:00 PM
2	2	01:00 PM	06:00 PM
3			

## Sales Order Entry

This enhancement provides also ability of creating Work Orders from the Sales Order Entry program.



Press the **Work Order Generation** button to generate Work Order(s) for the selected Bill Item based on the Routing entered for current Bill Item in the Bill of Materials Maintenance.

If the selected **Bill Number** has options, the Options Selection screen is displayed allowing the user to select options.



# Material Planning & Production Management 56

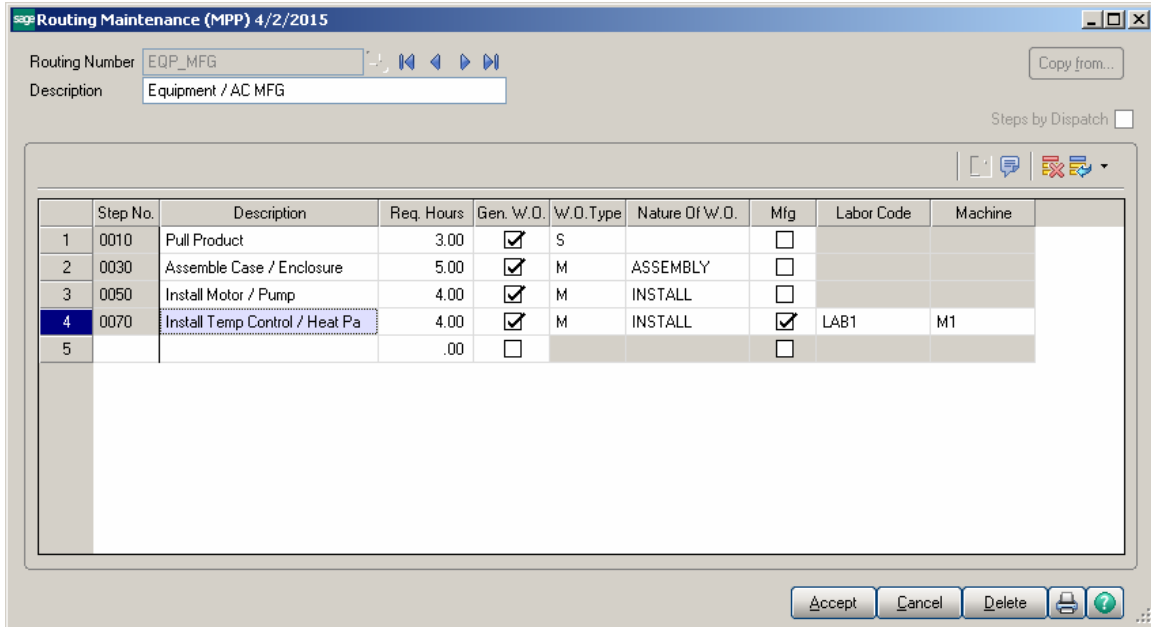
	Option Category	Required	Option	Option Description
1	Counter Top	<input type="checkbox"/>	01	Marble - Dora Royal
2	Cabinet Finish	<input type="checkbox"/>	02	Stain / Glazed
3	Door Styles	<input type="checkbox"/>	03	Item
4	Counter Top Finish	<input type="checkbox"/>		
5	Tear Down & Hallaway	<input type="checkbox"/>		

The Generate Work Orders screen is opened with the Bill number selected and disabled

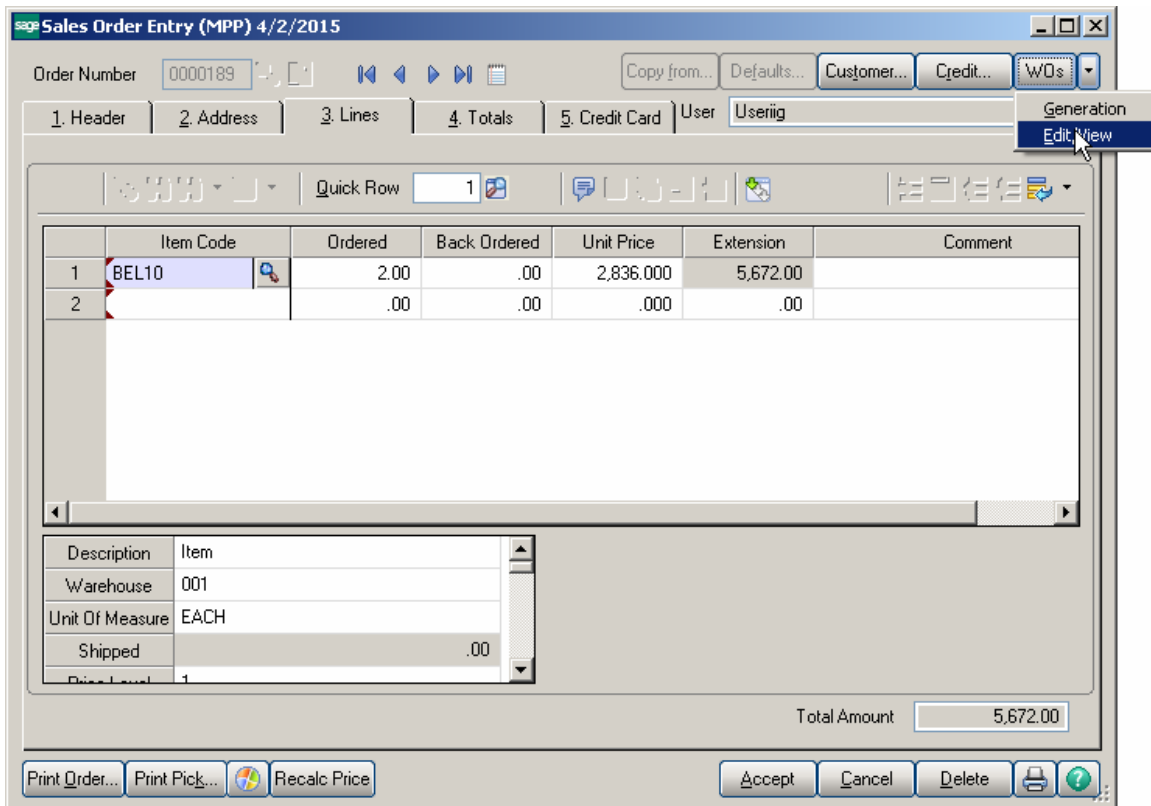
Field	Value
Next W.O. Number	0000273
Routing Number	
Bill Number	BEL10
Options	01,02,03

Work Orders are generated for all the steps of Routing having the **Gen. W.O** option flagged in the **Routing Maintenance**. For the steps having **Mfg** checkbox selected in the Routing Maintenance Dispatches are automatically created under the Work Order with a Labor Code and **Machine Code** specified for that Step of the Routing.

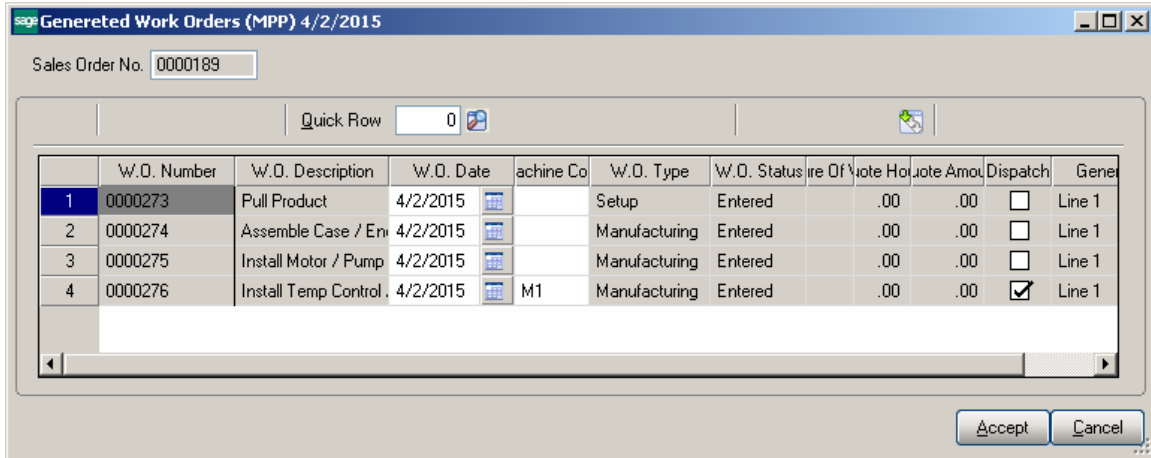
# Material Planning & Production Management 57



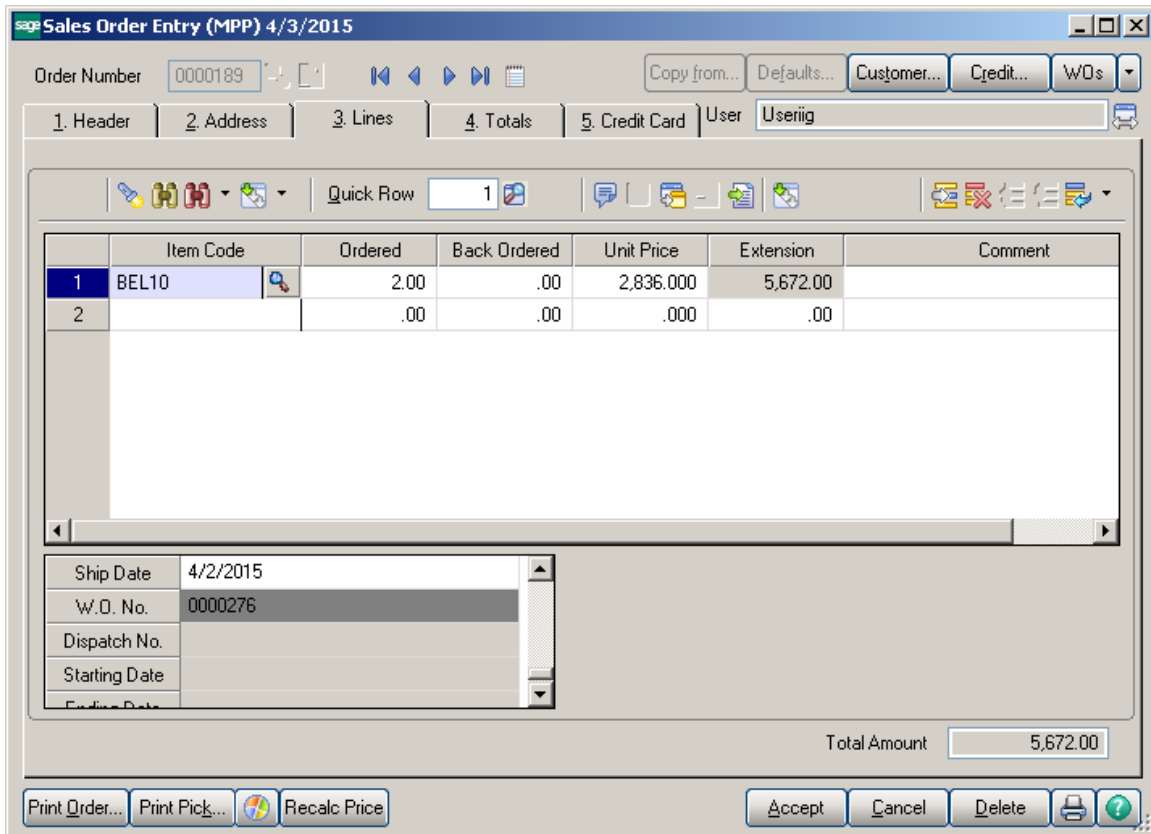
Press the **Edit/View** button to see the Work Orders generated for the Sales Order Bill line:



# Material Planning & Production Management 58

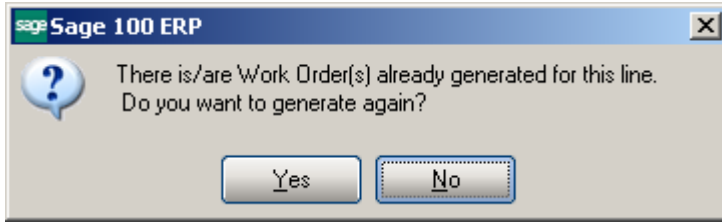


The Number of the Work Order generated from a SO line is loaded in the **W.O. No.** field in the Sales Order secondary grid.

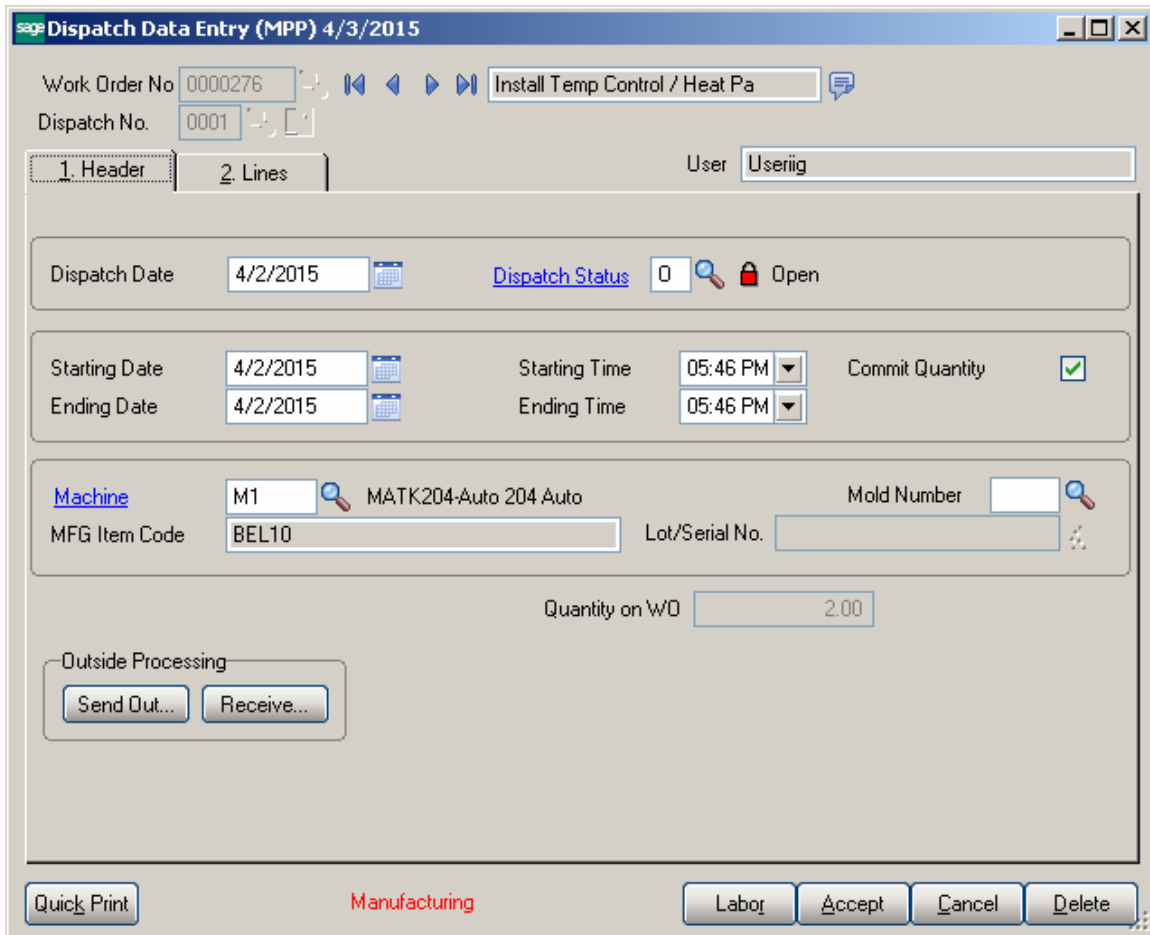


If there are multiple WOs generated for a line, the last Work Order number is displayed. The user may generate a new Work Order for a sales Order even if there are Task s already generated. In this case a prompt appears about the Task(s) already generated for Sales Order.

# Material Planning & Production Management 59



Here is the Dispatch automatically created for Mfg WO:



The Bill Item Components are loaded from the BOM into the WO Dispatch Transaction.

# Material Planning & Production Management 60

Work Order No: 0000276    Install Temp Control / Heat Pa  
Dispatch No: 0001    User: Userriig

1. Header    2. Lines

Quick Row: 1

Serial No.    Add New    Increment

	Item Code	Ordered	Unit Price	Extension	Comment
1	BEL10	2.00	2,836.000	5,672.00	
2	BEL10-VIP	2.00	131.000	262.00	
3	FINSTNGLAZE	36.00	.000	.00	
4	PLS-TRAY	2.00	135.000	270.00	
5	SLBMDR	96.00	.000	.00	
6	TIP.XI	2.00	131.000	262.00	

Description    Item  
Warehouse    001  
Unit Of Measure    EACH  
Price Level    1

Total Amount: 6,571.00

Quick Print    Manufacturing    Labor    Accept    Cancel    Delete

To be able to enter a Labor line in the Labor **Charge Data Entry** it is necessary to have Miscellaneous Charge Item matching the Labor Code setup in the Miscellaneous Item Maintenance. The following message appears if no Misc. Charge is found with the Item Code matching the Labor Code entered:

Sage 100 ERP

There is no Misc. Charge matching the Labor Code.

OK

# Material Planning & Production Management 61

Work Order No. 0000276 Dispatch No. 0001 Dispatch Date 4/2/2015 Starting 4/2/2015 05:46 PM  
Ending 4/2/2015 05:46 PM

	Labor/Mold Type Code	Description	Hours Spent
1	LAB1	Machine#1 Labor	2.50
2			.00

Machine Code M1

Accept Cancel Delete

Daily Production entry transactions are created when Dispatch is closed. The Labor line added in the Labor Charge Entry is loaded in the generated Production lines as a **Miscellaneous Charge** line.

If Work Order is generated from Sales Order header, the selected Bill Item is loaded to the generated Work Order. No manufacturing dispatch is generated in this case.

## Custom UDFs

### Dispatch Data Entry

The **Dispatch Data Entry** program has been modified to allow transferring the Dispatch UDF fields' values to respective UDF-s added on the B/M Production Entry.

## Material Planning & Production Management 62

The screenshot shows a software window titled "sage\* Dispatch Data Entry (MPP) 4/3/2015". At the top, there are input fields for "Work Order No" (0000304) and "Dispatch No." (0001). Below these are tabs for "1. Header", "2. Lines", and "Production", with the "Production" tab selected. A "User" field contains the text "Useriig". The main area contains three custom fields: "Custom Field1" with the value "Test Prod", "Custom Field 2" with the value "200.00", and "Custom Field3" with the value "4/3/2015" and a calendar icon. At the bottom, there are buttons for "Quick Print", "Labor", "Accept", "Cancel", and "Delete". The word "Manufacturing" is displayed in red text in the center of the bottom bar.

In order to have the UDF data transferred from Dispatch Data Entry to Production Entry, the UDF fields' names added on the Dispatch Data Entry should match the ones added on the Production Entry.

It is necessary to select the Data Source and respective column on the Data Sources tab of the Edit UDF screen:

# Material Planning & Production Management 63

Field Name: UDF\_CUSTOM\_FIELD1 [Locked]  
Description: Custom Field1  
Control Type: Multi-Line [Locked]  
Field in Use: Yes  
Bytes Used: 279 of 20,000  
Name Space Used: 529

Business Object	Select	Data Source	Column	Ignore	Expression	DM
BM_Production_bus	<input type="checkbox"/>					
BM_Production_bus.CreateFromSMPDispatch	<input checked="" type="checkbox"/>	SM_DispatchHeader	UDF_CUSTOM_FIELD1	<input type="checkbox"/>		

If the UDF fields are created correctly and the data source specified, the UDF fields' values are transferred to the Production Entry generated upon closing the Manufacturing Dispatch.

Production Number: 0000046 Batch: 00005  
Production Date: 4/3/2015  
Bill Number: BEL10 Bill Type: Standard  
Revision: 000 Option Code: Quantity: 1.00 Unit of Measure: EACH Effective Date: 4/3/2015  
Parent Warehouse: 000 CENTRAL WAREHOUSE  
Component Warehouse: 000 CENTRAL WAREHOUSE  
Explode Sub-Assemblies:  Custom Field1: Test Prod



## Production Number on the Dispatch

The **Production** button has been added on the Dispatch Header to provide a link to the Production Entry. The field added next to the **Production** button is populated with Production Number generated upon closing the manufacturing Dispatch.

sage\* Dispatch Data Entry (MPP) 4/3/2015

Work Order No 0000304

Dispatch No. 0001

1. Header 2. Lines Production User Useriig

Dispatch Date 4/3/2015 Dispatch Status C Closed

Starting Date 4/3/2015 Starting Time 04:45 PM Commit Quantity

Ending Date 4/3/2015 Ending Time 04:45 PM

Machine M002 Machine #2 M2 Mold Number

MFG Item Code BEL10 Lot/Serial No.

Production 0000046 Quantity on WO 1.00

Outside Processing

Send Out... Receive...

Quick Print Manufacturing Labor OK

Upon pressing the **Production** button respective Production Entry Lines tab is accessed:

# Material Planning & Production Management 65

sage® Production Entry (MPP) 4/3/2015

Production Number 0000046 Batch 00005 Defaults...

1. Header 2. Lines

Quick Row 1

Lot/Serial Number

	Component Item Code	Quantity/Bill	Extended Quantity	Comment
1	BEL10-VIP	1.00	1.00	
2	PLS-TRAY	1.00	1.00	
3	TIP-XI	1.00	1.00	
4	/LAB2	2.00	2.00	
5		.00	.00	

Description: HON 4 DRAWER LETTER FLE W/O LK  
Revision: 000  
Warehouse: 000  
Unit Of Measure: EACH

Accept Cancel Delete

## Dispatch Quick Printing

The **Dispatch Quick Printing** program has been modified to allow printing custom UDF fields and the generated Production Number. In order to have the UDFs populated in the SM\_Dispatch worktable it is necessary to add those UDF fields in the SM Dispatch Report Table and select respective data source:

Business Object	Select	Data Source	Column	Ignore	Expression	DM
SM_DispatchQuickPrint_rpt	<input checked="" type="checkbox"/>	SM_DispatchHeader	UDF_CUSTOM_FIELD1			

Here is the SM\_Dispatch Worktable with the UDF fields populated:

# Material Planning & Production Management 67

The screenshot shows the 'Data File Display and Maintenance' window. At the top, the 'File Name' is 'D:\MAS\MAS510\MPP\PU3\MAS90\MAS\_MPP\SMMPP\SM\_Dispatch\WrkIIG0403169998'. Below this, 'Key Size' is 'N/A', 'Rcd Size' is '7,936', 'Rcd Count' is '5', 'Company' is 'MPP', and 'Type' is 'Keyed'. A progress bar is visible below the file information.

The main display area shows a list of fields and their values:

110	UnitOfMeasureConvFactor	1.00
111	LineDiscountPercent	.00
112	LaborSkillCode\$	{}
113	LineType\$	{}
114	TechnicianCode\$	{M002}
115	LineDesc\$	{}
116	StartingDate\$	{}
117	StartingTime\$	{}
118	OvertimeStartDate\$	{}
119	OvertimeStartTime\$	{}
120	Overtime\$	{}
121	ImportToJC\$	{}
122	HoursSpent	.00
123	BillingRate	.00
124	RetainerFactor	.00
125	OvertimeFactor	.00
126	UDF_CUSTOM_FIELD1\$	{Test Prod}
127	UDF_CUSTOM_FIELD3\$	{20150403}
128	UDF_CUSTOM_FIELD_2	200.00

Below the list is the 'Key Scan and Display Options' section, which includes a 'Key Column Separator' dropdown, a 'Key Scan Filter' checkbox (unchecked), and a 'Formatted Display' checkbox (checked). At the bottom, there are fields for 'Key No.' and 'Key', along with navigation buttons (back, forward, search) and 'Edit...', 'Delete', 'Print', and 'Help' buttons.

## MRP Inquiry

The **MRP Inquiry** program has been added under the **Material Planning and Production Management** Inquiries menu to allow reviewing information for an item by Transaction type and Required Date. The demand, supply, and Proj. On Hand quantities for an item can be viewed.

Type	Document No.	Required Date	Demand	Supply	Proj. On Hand
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# Material Planning & Production Management 69

sage MRP Inquiry (MPP) 4/3/2015

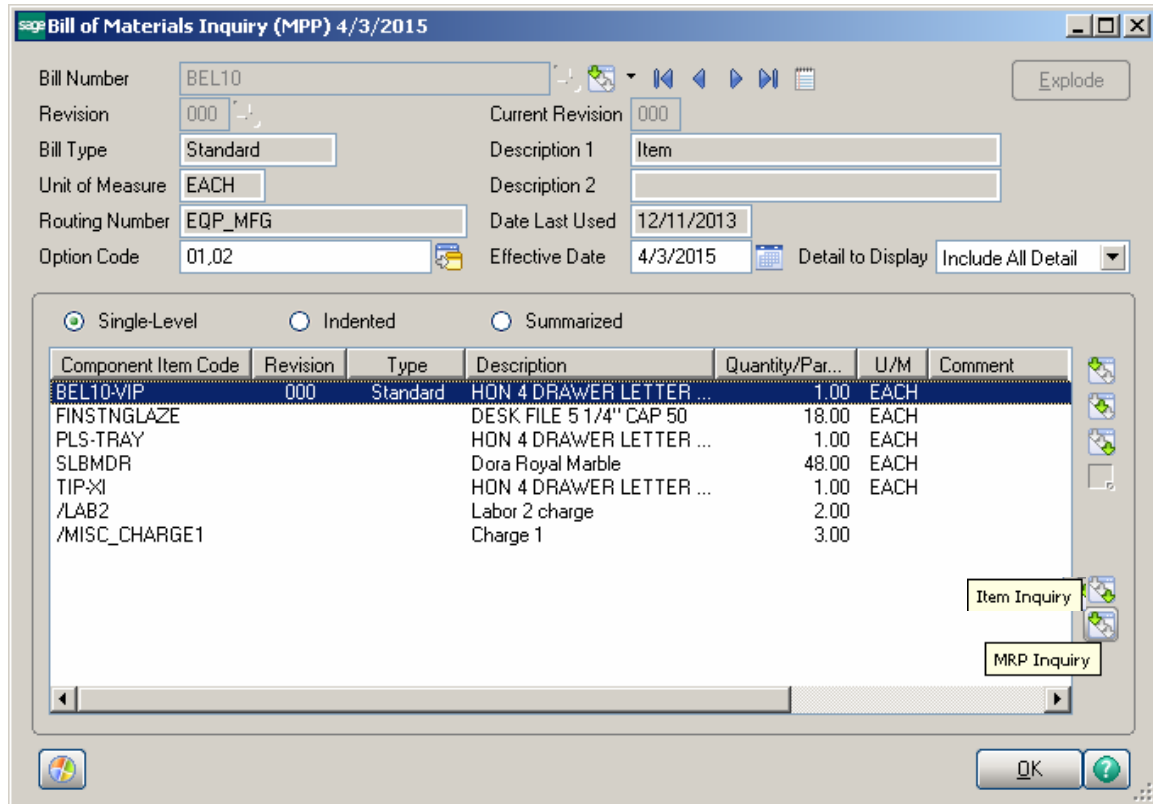
Item Code: BEL10 U/M: EACH  
 Description: Item On Hand: 309.00

	Type	Document No.	Required Date	Demand	Supply	Proj. On Hand
1	SO	0000176	1/22/2013	30.00	.00	Order Zoom
2	SO	0000177	1/22/2013	250.00	.00	29.00
3	SO	0000177	1/22/2013	1,500.00	.00	1,471.00
4	SO	0000178	8/24/2013	3.00	.00	1,474.00
5	SO	0000179	8/24/2013	4.00	.00	1,478.00
6	SO	0000180	8/26/2013	310.00	.00	1,788.00
7	SO	0000182	8/29/2013	2.00	.00	1,790.00
8	SO	0000184	8/29/2013	2.00	.00	1,792.00
9	SO	0000186	8/29/2013	2.00	.00	1,794.00
10	WO	0000189/0001	8/29/2013	2.00	.00	1,796.00
11	WO	0000191/0001	8/29/2013	2.00	.00	1,798.00
12	WO	0000163/0001	9/3/2013	.00	35.00	1,763.00
13	WO	0000196/0001	9/12/2013	.00	257.00	1,506.00
14	SO	0000187	10/29/2013	1,580.00	.00	3,086.00
15	WO	0000204/0001	10/29/2013	.00	1,560.00	1,526.00
16	WO	0000245/0001	3/17/2015	.00	2,974.00	1,448.00
17	WO	0000253/0001	3/24/2015	.00	173.00	1,621.00
18	SO	0000189	4/2/2015	2.00	.00	1,619.00
19	WO	0000276/0001	4/2/2015	.00	2.00	1,621.00

OK

## Bill of Materials Inquiry

The **Item Inquiry** and **MRP Inquiry** buttons added to the **Bill of Materials Inquiry** screen allows for drill down respectively to Item Inquiry and MRP Inquiry for the selected component line.



# Material Planning & Production Management 71

sage Item Inquiry (MPP) 4/3/2015

Item Code: BEL10-VIP  
 Description: HON 4 DRAWER LETTER FLE W/O LK

1. Main | 2. Additional | 3. Quantity | 4. History | 5. Transactions | 6. Orders | 7. Cost Detail

Product Line: WF&A WORKSTATION FURN & ACCESS  
 Product Type: Finished Good  
 Valuation: FIFO  
 Procurement: Make

Unit of Measure: Standard EACH  
 Purchases EACH No. of EACH 1  
 Sales EACH No. of EACH 1

Price Code: STD STANDARD QUANTITY PRIC  
 Default Whse: 000 CENTRAL WAREHOUSE  
 Planning Code: 001 MFG Priority Code: 2 MFG Code: Made to Stock

Primary Vendor: 01-CONT Container Corporation Of Usa  
 Warranty Code:   
[Item Molds Machine](#)

Sales: Retail Price 131.000  
 Standard Price 131.000  
 Last Sold:   
 Purchases: Standard Cost 82.500  
 Average Cost 1,654.458  
 Last Receipt 3/31/2015  
 Last Costs: Item 1,733.550  
 Allocated .000  
 Total 1,733.550

Quantities

Whse	Description	On Hand	On PO	On SO	On Bk Ord	Committed	On WD	Req for WD	Av
000	CENTRAL ...	783.00	244.00	.00	.00	.00	1,195.00	466.00	
001	EAST WA...	52.00	212.00	11.00	.00	11.00	1.00	3,119.00	
MRP	MRP wareh...	.00	.00	5.00	.00	5.00	.00	.00	

OK [Print] [Help]



# Material Planning & Production Management 72

The screenshot shows the Sage MRP Inquiry (MPP) window for 4/3/2015. The window title is "sage MRP Inquiry (MPP) 4/3/2015". The "Item Code" field contains "BEL10-VIP" and the "Description" field contains "HON 4 DRAWER LETTER FLE W/O LK". The "U/M" field is set to "EACH" and the "On Hand" field shows "835.00".

	Type	Document No.	Required Date	Demand	Supply	Proj. On Hand
1	PO	0010019	3/20/2013	.00	239.00	1,074.00
2	PO	0010019	3/20/2013	.00	208.00	1,282.00
3	PO	0010024	3/20/2013	.00	3.00	1,285.00
4	PO	0010035	3/20/2013	.00	4.00	1,289.00
5	PO	0010040	3/20/2013	.00	2.00	1,291.00
6	SO	0000178	8/24/2013	5.00	.00	1,286.00
7	SO	0000179	8/24/2013	6.00	.00	1,280.00
8	WO	0000163/0001	9/3/2013	35.00	.00	1,245.00
9	WO	0000196/0001	9/12/2013	257.00	.00	988.00
10	WO	0000204/0001	10/29/2013	1,560.00	.00	572.00
11	WO	0000198/0001	10/31/2013	.00	257.00	315.00
12	WO	0000208/0001	11/4/2013	.00	257.00	58.00
13	WO	0000245/0001	3/17/2015	2,974.00	.00	3,032.00
14	WO	0000253/0001	3/24/2015	173.00	.00	3,205.00
15	WO	0000253/0002	3/24/2015	.00	173.00	3,032.00
16	WO	0000276/0001	4/2/2015	2.00	.00	3,034.00
17	SO	0000190	4/3/2015	5.00	.00	3,039.00

An "OK" button is visible at the bottom right of the window.

## Production Release Status

### Change Manufacturing Dispatches Status/Date

The **Change Manufacturing Dispatches Status/Date** program has been added under the **Material Planning and Production Management ->Main** menu to allow processing all manufacturing dispatches for a given status and dispatch date range to check for availability of inventory for production of quantity (all the components) on the dispatch.

Additional selections for WO type, Nature of W.O. and Customer Number are available:

# Material Planning & Production Management 73

sage Change Manufacturing Dispatches Status/Date (MPP) 4/3/2015

Select Field	Operand	Value
W.O. Type	All	
Nature of W.O.	All	
Customer Number	All	
Dispatch Status	All	
Dispatch Date	All	

W.O. No.	Dispatch No.	Item Code	Whse Code	Qty Avail.	Qty Ord.	Customer No.	Dispatch

Clear Select Cancel Proceed

Press **Select** to load the Dispatches meeting the selection criteria:

sage Change Manufacturing Dispatches Status/Date (MPP) 4/3/2015

Select Field	Operand	Value
W.O. Type	All	
Nature of W.O.	All	
Customer Number	All	
Dispatch Status	All	
Dispatch Date	All	

	W.O. No.	Dispatch No.	Item Code	Dispatch Date	Disp. St.	Start Date	Include
15	0000258	0003	BEL25	3/17/2015	O	3/9/2015	<input type="checkbox"/>
16	0000267	0003	BEL10	3/17/2015	O	3/10/2015	<input type="checkbox"/>
17	0000271	0001	BEL25	4/2/2015	O	4/2/2015	<input type="checkbox"/>
18	0000276	0001	BEL10	4/2/2015	O	4/2/2015	<input type="checkbox"/>
19	0000277	0001	TEST_BILL	4/3/2015	O	4/3/2015	<input type="checkbox"/>
20	0000277	0002	TEST_BILL	4/3/2015	R	4/3/2015	<input type="checkbox"/>
21	0000277	0003	TEST_BILL	4/3/2015	R	4/3/2015	<input type="checkbox"/>
22	0000281	0001	BEL10	4/3/2015	O	4/3/2015	<input type="checkbox"/>
23	0000281	0002	BEL10-VIP	4/3/2015	O	4/3/2015	<input type="checkbox"/>

Clear Select Cancel Proceed

# Material Planning & Production Management 74

The **Qty Available** column displays the min quantity available to produce current Bill based on the components quantity available in the Warehouse.

Here the user can change the Dispatch Status and Dispatch start Date.

If there is enough inventory in stock for current Bill ( $Qty\ Ordered < Qty\ Avail$ ) the user can change the Dispatch Status to the one setup as the **Dispatch Status (Released to Production)** in the **Material Planning and Production Setup** without any warning.

If there is not enough inventory in stock for current Bill ( $Qty\ Ordered > Qty\ Avail$ ) a message appears upon changing a **Dispatch Status** to the one setup as the **Dispatch Status (Released to Production)** in the **Material Planning and Production Setup**:

Select Field	Operand	Value		
W.O. Type	All			
Nature of W.O.	All			
Customer Number	All			
Dispatch Status	All			
Dispatch Date	All			

	W.O. No.	Dispatch No.	Item Code	Dispatch Date	Disp. St.	Start Date	Include
11	0000245	0001	BEL10	3/17/2015	O	3/17/2015	<input type="checkbox"/>
12	0000248	0001					
13	0000253	0001					
14	0000253	0002					
15	0000258	0003					
16	0000267	0003					
17	0000271	0001	BEL25	4/2/2015	O	4/2/2015	<input type="checkbox"/>
18	0000276	0001	BEL10	4/2/2015	R	4/2/2015	<input checked="" type="checkbox"/>
19	0000277	0001	TEST_BILL	4/3/2015	O	4/3/2015	<input type="checkbox"/>
20	0000277	0002	TEST BILL	4/3/2015	R	4/3/2015	<input type="checkbox"/>

After pressing Ok the status will be changed. It is necessary to select the **Include** checkbox and press Proceed to have the Date and Status changes updated on respective Dispatches.

## Auto Generate Production for Component Bill

### Bill of Material Maintenance

The **Auto Production** checkbox has been added to the **Bill of Materials Maintenance** Lines grid to allow indicating the component Item, which is manufactured item (item that has its own BOM needs to be produced together).

Bill of Materials Maintenance (MPP) 4/3/2015

Bill Number: BEL10  
 Revision: 000  
 Bill Type: Standard

Description 1: Item  
 Description 2:

	Component Item Code	Revision	Step No.	Quantity/Bill	C
1	BEL10-VIP	*		1.00	
2	PLS-TRAY			1.00	
3	TIP-XI			1.00	
4	/LAB2			2.00	
5				.00	

Del Change No.:  
 Del Change Dte:  
 Extended Desc:   
 Auto Production:

Accept Cancel Delete

Two Dispatches (One for the main Bill Number and one for the component Bill) will be generated for production of these items when Work Order is generated for the Bill Number from the **Calculate Quantity To Produce/Purchase** program.

# Material Planning & Production Management 76

Calculate Quantity to Produce/Purchase

Show Items With Zero Req Qty  Include Items Based On SO Selection Only   
 Calculate Quantity at Item Level  Calculate Demand Based On SO   
 Sort by MFG Code  Add SO Items To Selection

Machine Code:  Start Date: 4/3/2015 Time: 12:00 AM

Item Code	Whse	MRP Run Req	Qty Avail	MRP Run	Reorder Method	Reord. Qty	EOR	Max Qty	Calc. Demand	Mold Number	Machine Code	Include
1	1001-HON-H252LK	MRP	180.00	186.00	Economic Qty	.00	.00	.00	186.00			<input type="checkbox"/>
2	1001-HON-H254	MRP	60.00	60.00	Economic Qty	.00	.00	.00	60.00			<input type="checkbox"/>
3	200-230	MRP	60.00	60.00	Economic Qty	.00	.00	.00	60.00			<input type="checkbox"/>
4	230-182Z	MRP	45.00	45.00	Economic Qty	.00	.00	.00	45.00			<input type="checkbox"/>
5	2480-8-50	MRP	120.00	138.00	Economic Qty	.00	.00	.00	138.00			<input type="checkbox"/>
6	6655	MRP	720.00	720.00	Economic Qty	.00	.00	.00	720.00			<input type="checkbox"/>
7	720-100	MRP	75.00	75.00	Economic Qty	.00	.00	.00	75.00			<input type="checkbox"/>
8	BEL10	MRP	.00	15.00	Economic Qty	.00	.00	.00	5.00	002	M002	<input checked="" type="checkbox"/>
9	BEL10-VIP	MRP	15.00	32.00	Economic Qty	.00	.00	.00	32.00			<input type="checkbox"/>
10	PLS-TRAY	MRP	15.00	15.00	Economic Qty	.00	.00	.00	15.00			<input type="checkbox"/>
11	TIP-XI	MRP	15.00	15.00	Economic Qty	.00	.00	.00	15.00			<input type="checkbox"/>

Proceed Clear Recalculate/Relink Auto Scheduling Gen. Manufacturing Generate BQ Accept Cancel

Here are 2 Dispatches generated for current Bill Item:

# Material Planning & Production Management 77

Work Order No. 0000281 Install Temp Control / Heat Pa Defaults...

1. Header 2. Address 3. Dispatches User Useriig

Dispatch No.	Dispatch Date	Machine	Machine Name	Status
0001	4/3/2015	M002	Machine #2 M2	Open
0002	4/3/2015	M002	Machine #2 M2	Open

Quick Print Accept Cancel Delete

This is the Dispatch generated for main Bill:

# Material Planning & Production Management 78

sage Dispatch Data Entry (MPP) 4/3/2015

Work Order No 0000281 Install Temp Control / Heat Pa  
Dispatch No. 0001

1. Header 2. Lines User Useriig

Dispatch Date 4/3/2015 Dispatch Status 0 Open

Starting Date 4/3/2015 Starting Time 11:53 AM Commit Quantity   
Ending Date 4/3/2015 Ending Time 11:53 AM

Machine M002 Machine #2 M2 Mold Number 002  
MFG Item Code BEL10 Lot/Serial No.

Quantity on WO 5.00

Outside Processing  
Send Out... Receive...

Quick Print Manufacturing Labor Accept Cancel Delete

# Material Planning & Production Management 79

The screenshot shows the Sage Dispatch Data Entry (MPP) 4/3/2015 window. The title bar includes the Sage logo and the text 'Dispatch Data Entry (MPP) 4/3/2015'. The window contains the following elements:

- Work Order No: 0000281
- Dispatch No: 0001
- Work Order Description: Install Temp Control / Heat Pa
- User: Useriig
- Navigation tabs: 1. Header, 2. Lines
- Quick Row: 1
- Serial No. field with Add New and Increment checkboxes.
- Table with columns: Item Code, Ordered, Unit Price, Extension, Comment.
- Summary table with fields: Description, Item, Warehouse, Unit Of Measure, Price Level.
- Total Amount: 2,357.85
- Buttons: Quick Print, Manufacturing, Labor, Accept, Cancel, Delete.

	Item Code	Ordered	Unit Price	Extension	Comment
1	BEL10	5.00	81.480	407.40	
2	BEL10-VIP	5.00	127.070	635.35	
3	PLS-TRAY	5.00	130.950	654.75	
4	TIP-XI	5.00	127.070	635.35	
5	/LAB2	10.00	.000	25.00	
6		nn	nnn	nn	

Description	Item
Warehouse	MRP
Unit Of Measure	EACH
Price Level	

Here is the second dispatch generated for component Bill:



# Material Planning & Production Management 80

Work Order No. 0000281 Install Temp Control / Heat Pa  
Dispatch No. 0002 User Useriig

1. Header 2. Lines

Quick Row 1

Serial No. Add New Increment

	Item Code	Ordered	Unit Price	Extension	Comment
1	BEL10-VIP	5.00	127.070	635.35	
2	200-230	20.00	179.000	3,580.00	
3	230-182-Z	15.00	125.550	1,883.25	
4	720-100	25.00	429.000	10,725.00	
5	/MISC_CHARGE3	15.00	.000	50.00	23
6		nn	nnn	nn	

Description: HON 4 DRAWER LETTER FLE W/O LK  
Warehouse: MRP  
Unit Of Measure: EACH  
Price Level:

Total Amount 16,873.60

Quick Print Manufacturing Labor Accept Cancel Delete

Quantity Produced 5.00

OK

When the Dispatch generated for the main Bill Number is closed, the first Production is generated for the component Bill and then for the Main Bill Number:

# Material Planning & Production Management 81

sage Production Entry (MPP) 4/3/2015

Production Number 0000043 Batch 00003 Defaults...

1. Header 2. Lines

Production Date 4/3/2015

Bill Number BEL10-VIP HON 4 DRAWER LETTER FLE W/O LK  
Bill Type Standard

Revision 000  
Option Code  
Quantity 5.00  
Unit of Measure EACH  
Effective Date 4/3/2015

Parent Warehouse MRP MRP warehouse  
Component Warehouse MRP MRP warehouse  
Explode Sub-Assemblies

Accept Cancel Delete Print ?

# Material Planning & Production Management 82

sage Production Entry (MPP) 4/3/2015

Production Number 0000043 Batch 00003 Defaults...

1. Header 2. Lines

Quick Row 1

Lot/Serial Number

	Component Item Code	Quantity/Bill	Extended Quantity	Comment
1	200-230	4.00	20.00	
2	230-182-Z	3.00	15.00	
3	720-100	5.00	25.00	
4	/MISC_CHARGE3	3.00	15.00	23
5		.00	.00	

Description PRINTER STAND W/ BASKET  
Revision 000  
Warehouse MRP  
Unit Of Measure EACH

Accept Cancel Delete

# Material Planning & Production Management 83

sage Production Entry (MPP) 4/3/2015

Production Number 0000044 Batch 00003 Defaults...

1. Header 2. Lines

Production Date 4/3/2015

Bill Number BEL10 Item

Bill Type Standard

Revision 000

Option Code

Quantity 5.00

Unit of Measure EACH

Effective Date 4/3/2015

Parent Warehouse MRP MRP warehouse

Component Warehouse MRP MRP warehouse

Explode Sub-Assemblies

Accept Cancel Delete

# Material Planning & Production Management 84

sage Production Entry (MPP) 4/3/2015

Production Number 0000044 Batch 00003 Defaults...

1. Header 2. Lines

Quick Row 1

Lot/Serial Number

	Component Item Code	Quantity/Bill	Extended Quantity	Comment
1	BEL10-VIP	1.00	5.00	
2	PLS-TRAY	1.00	5.00	
3	TIP-XI	1.00	5.00	
4	/LAB2	2.00	10.00	
5	/LAB1	.00	.00	Labor Description: Machin
6		.00	.00	

Description HON 4 DRAWER LETTER FLE W/O LK  
Revision 000  
Warehouse MRP  
Unit Of Measure EACH

Accept Cancel Delete

## Outside Processing

### Dispatch Data Entry

The **Dispatch Data Entry** program has been modified to enable outside processing for bill components which are processed outside your company.

Work Order No 0000282  
Dispatch No. 0001  
User Useriig

1. Header 2. Lines

Dispatch Date 4/3/2015 Dispatch Status 0 Open

Starting Date 4/3/2015 Starting Time 12:07 PM Commit Quantity   
Ending Date 4/3/2015 Ending Time 12:08 PM

Machine M002 Machine #2 M2 Mold Number 002  
MFG Item Code BEL10-VIP Lot/Serial No.  
Quantity on WD 15.00

Outside Processing  
Send Out... Receive...

Quick Print Manufacturing Labor Accept Cancel Delete

The Outside processing is performed by the following steps:

- a. sending Items for outside processing
- b. receiving the Items already processed

Upon pressing **Send Out** button all the components with Standard and Average Cost valuation types (LIFO, FIFO and Lot/Serial valuation types are not supported) are automatically loaded into the **Send out Items for outside Processing** grid.

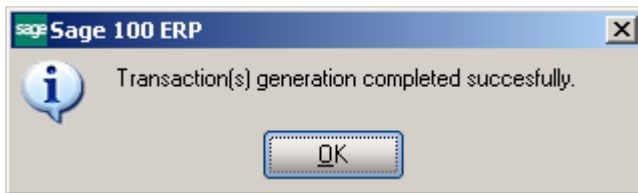
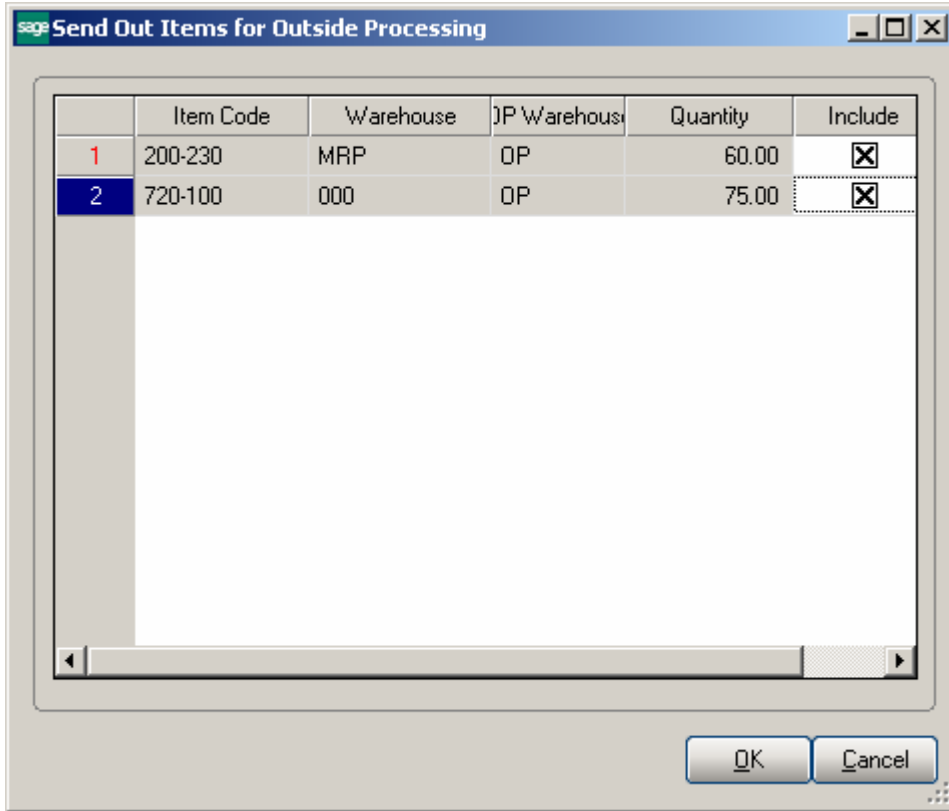
## Material Planning & Production Management 86

	Item Code	Warehouse	OP Warehouse	Quantity	Include
1	200-230	MRP	OP	60.00	<input type="checkbox"/>
2	720-100	000	OP	75.00	<input type="checkbox"/>

The Warehouse field displays the Warehouse Code from the Dispatch line and the OP warehouse is the **OP Warehouse** code specified for current Item in the Item Maintenance or the OP Warehouse Code setup in the **Material Planning and Production Setup** if there is not one selected in the **Item Maintenance**.

It is necessary to select include checkbox for a component and press OK to have Transfer Transaction automatically generated.

# Material Planning & Production Management 87



Transfer transaction(s) is/are generated for the Items send out for outside processing.  
Here is the Transfer transaction generated:



# Material Planning & Production Management 88

The screenshot shows the Sage Transaction Entry (MPP) window for the date 4/3/2015. The window title is "sage Transaction Entry (MPP) 4/3/2015". The "Transaction Type" is set to "Transfers" and the "Entry Number" is "00000001". There are two tabs: "1. Header" (selected) and "2. Lines". The "Transaction Date" is "4/3/2015". The "Transfer From Warehouse" is "000" (CENTRAL WAREHOUSE) and the "Transfer To Warehouse" is "OP" (Outside Processing). The "Comment" field contains "SM Outside Processing". At the bottom, there are buttons for "Accept", "Cancel", "Delete", a printer icon, and a help icon.

The Outside Processing Warehouse is set as the **Transfer To** Warehouse for current transaction.

For the Dispatch lines send out for outside processing the Item Code cell becomes red colored:

# Material Planning & Production Management 89

Work Order No: 0000282  
Dispatch No.: 0001  
User: Useriig

1. Header | 2. Lines

Quick Row: 3

Serial No. [ ] Add New  Increment

Serial No.	Item Code	Ordered	Unit Price	Extension	Comment
1	BEL10-VIP	15.00	121.830	1,827.45	
2	200-230	60.00	179.000	10,740.00	
3	230-182-Z	45.00	121.500	5,467.50	
4	720-100	75.00	429.000	32,175.00	
5	/MISC_CHARGE3	45.00	.000	50.00	23
6		nn	nnn	nn	

Description: HON 4 DRAWER LETTER FLE W/O LK  
Warehouse: 000  
Unit Of Measure: EACH  
Price Level: 1

Total Amount: 50,259.95

Quick Print | Manufacturing | Labor | Accept | Cancel | Delete

It is necessary to manually update Transfer transaction generated during Send Out process.

Receiving of Items is performed similar to sending just by pressing the **Receive** button. While receiving Items Item may be replaced by another Item. While receiving Items Transfer transaction is generated for receiving the Item from OP Warehouse to the Warehouse specified on the Dispatch Line.

If a replacement Item is entered for an Item in the **Receive Items from Outside Processing** grid an adjustment transaction will be generated for that Item and the Item Code in the Dispatch Line will be replaced with that item Code.

# Material Planning & Production Management 90

	Item Code	Replace Item Code	Warehouse	Warehou	Quantity	Include
1	200-230		MRP	OP	60.00	<input type="checkbox"/>
2	720-100		000	OP	75.00	<input type="checkbox"/>

OK Cancel

	Item Code	Replace Item Cod	Warehouse	P Warehouse	Quantity	Include
1	200-230	230-182-Z	MRP	OP	60.00	<input checked="" type="checkbox"/>
2	720-100		000	OP	75.00	<input checked="" type="checkbox"/>

OK Cancel

# Material Planning & Production Management 91

Work Order No: 0000282  
 Dispatch No: 0001  
 User: Useriig

1. Header | 2. Lines

Quick Row: 2

Serial No. [ ] Add New  Increment

	Item Code	Ordered	Unit Price	Extension	Comment
1	BEL10-VIP	15.00	121.830	1,827.45	
2	230-182-Z	60.00	121.500	7,290.00	
3	230-182-Z	45.00	121.500	5,467.50	
4	720-100	75.00	429.000	32,175.00	
5	/MISC_CHARGE3	45.00	.000	50.00	23
6		nn	nnn	nn	

Description: HON 4 DRAWER LETTER FLE W/O LK  
 Warehouse: MRP  
 Unit Of Measure: EACH  
 Price Level: 1

Total Amount: 46,809.95

Quick Print | Manufacturing | Labor | Accept | Cancel | Delete

If Batch processing for Transaction entry is enabled in the **Inventory Management Options a Batch** is created with a comment indicating the Batch is created for Outside Processing and all transaction auto generated during outside processing are located in that batch.

Batch Number: 00001  
 Comment: SM Outside Processing  
 Private Batch:

Modify... | Verify  
 Renumber... | Merge...

Status: Available | Created By: IIG | 4/3/2015 01:59:24 pm  
 Entries: 1 | Modified By: IIG | 4/3/2015 01:59:24 pm

Accept | Cancel | Delete | ?

## Lot/Serial Distribution

### Dispatch Data Entry

Use the **Lot/Serial Number Distribution** button to distribute the transaction quantity or to display the lot and serial numbers that are already distributed for the current line item.

Work Order No. 0000277 MFG Product

Dispatch No. 0003

User Userig

1. Header 2. Lines

Quick Row 3

Serial No. Add New Increment

	Item Code	Ordered	Unit Price	Extension	Comment
1	TEST_BILL	2.00	84.000	168.00	
2	1001-HON-H252LK	2.00	87.000	174.00	
3	2480-8-50	6.00	33.902	203.41	
4	BEL10-VIP	4.00	131.000	524.00	
5		.00	.000	.00	

Description: DESK FILE 8" CAP 50  
 Warehouse: 000  
 Unit Of Measure: EACH  
 Price Level: 1

Total Amount 1,069.41

Quick Print Manufacturing Labor Accept Cancel Delete

When entering a lot or serial item during line entry, you are required to distribute the total quantity entered for the item to one or more lot/serial numbers. You can enter the lot/serial numbers and quantities one at a time until the total quantity for the item is fully distributed. If the **Require lines to be Fully Distributed** flag is set in the **Material Planning and Production Setup** screen you must fully distribute all lot and serial lines before accepting Dispatch Entry.

Item Code: 2480-8-50 DESK FILE 8" CAP 50  
 Unit of Measure: EACH

	Lot Number	Available	Distribute
1	101	9,699.00	2.00
2	10210	198.00	2.00
3	JAN10	323.00	2.00
4		.00	.00

Distribution Balance: .00

Buttons: OK, Cancel, ?

**Available** -This field displays the lot or serial number quantity available for the selected lot or serial number and can only be viewed.

**Distribute**-Type the total quantity to distribute for the lot or serial number selected.

The **Distribution Balance** field at the bottom of the window reflects a running total of the remaining quantity to distribute. This balance does not reflect the quantity entered for the current line.

*Note When the warehouse code, or unit of measure is changed on a previously saved line with existing lot and serial distribution records, the previously entered distribution records are removed.*

# Material Planning & Production Management 94

Work Order No: 0000277 MFG Product

Dispatch No.: 0003

User: Useriig

1. Header 2. Lines

Quick Row: 5

Serial No.: 55-127 Add New  Increment

	Item Code	Ordered	Unit Price	Extension	Comment
1	TEST_BILL	2.00	84.000	168.00	
2	1001-HON-H252LK	2.00	87.000	174.00	
3	2480-8-50	6.00	33.902	203.41	
4	BEL10-VIP	4.00	131.000	524.00	
5		.00	.000	.00	

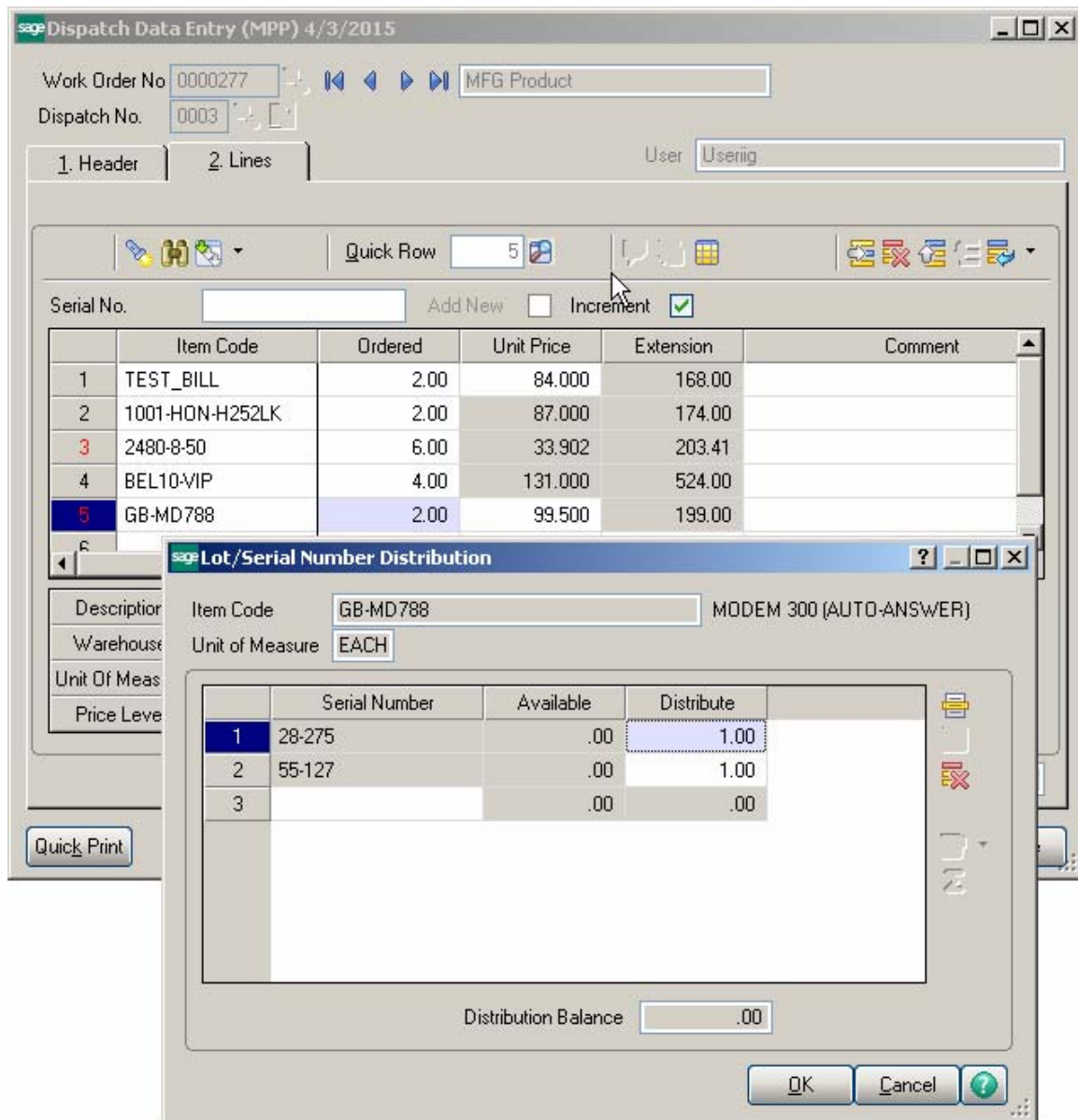
Description  
Warehouse  
Unit Of Measure  
Price Level

Total Amount: 1,069.41

Quick Print Manufacturing Labor Accept Cancel Delete

For **Serial Items** Serial number scanning is provided on the Dispatch entry Lines:  
In the **Add New** mode upon scanning serial number respective Serial Item is loaded in the grid with the ordered quantity set to 1 and the Serial Item is distributed by the scanned Serial number.  
If the **Increment** checkbox is selected upon scanning each Serial Number the ordered quantity is incremented by one with respective Serial Number auto distributed.

# Material Planning & Production Management 95



The Lot/Serial distribute quantity is always committed regardless the Dispatch Header Commit checkbox setting.

When **Manufacturing Dispatch**, having Bill Item with Lot/Serial components fully distributed, is closed the distribution is carried over to the Production generated.

The Lot/Serial distribution is carried over also to the Sales Order/SO Invoice generated upon closing the Dispatch if the Lot/Serial items are fully distributed.



## Processing of BOM's with Percentage

### Bill of Material Maintenance

The **Components By Percentage** checkbox has been added on the **Header** tab of **Bill of Materials Maintenance** to enable entering Percentage for component items instead of **Quantity/Bill**.

Option Category	Required
1	<input type="checkbox"/>
2	<input type="checkbox"/>
3	<input type="checkbox"/>
4	<input type="checkbox"/>
5	<input type="checkbox"/>
6	<input type="checkbox"/>
7	<input type="checkbox"/>
8	<input type="checkbox"/>
9	<input type="checkbox"/>

Upon selecting this checkbox on the **Bill of Materials Header** the Quantity/Bill field is hid and the **Percentage** field is shown instead:

The **Production Lot/Batch Size** field is intended for entry of the lot/batch quantity of the product to be produced. It is loaded to the respective field in the Work Order entry upon selecting the Bill Item.

The **Production Increment** field is intended for determination of the optimum production lot/batch size of a product and the ordering quantities of associated raw materials together.

# Material Planning & Production Management 97

Bill of Materials Maintenance (MPP) 4/3/2015

Bill Number: TEST\_BILL  
Revision: 000  
Bill Type: Standard  
Description 1: Test Bill Item  
Description 2:

1. Header 2. Lines

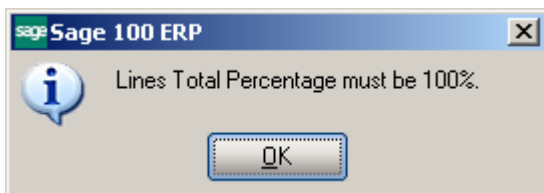
Quick Row: 2

	Component Item Code	Revision	Step No.	Percentage	Co
1	1001-HON-H252LK	*	0010	50.00	
2	BEL10-VIP	*	0020	20.00	
3	2480-8-50		0030	30.00	
4				.00	

Description: HON 4 DRAWER LETTER FLE W/O LK  
Find No.:  
Unit Of Measure: EACH  
Cost Account:

Accept Cancel Delete

Checking is performed upon **Accept** to not allow accepting the entry if the sum of components percentages is not 100.



When Manufacturing Dispatch, Production is generated for Bill Item with Percentages entered for components, the components' quantity in the Dispatch and production entries is calculated based on the Percentage specified in the Bill of Materials Entry. Here is an example of Manufacturing Dispatch created for Bill Item with components percentages:

# Material Planning & Production Management 98

Work Order No: 0000286  
Dispatch No: 0001  
User: Useriig

1. Header | 2. Lines

Quick Row: 1

Serial No. [ ] Add New  Increment

	Item Code	Ordered	Unit Price	Extension	Comment
1	TEST_BILL	1.00	84.000	84.00	
2	1001-HON-H252LK	.50	87.000	43.50	
3	2480-8-50	.30	34.950	10.49	
4	BEL10-VIP	.20	131.000	26.20	
5		.00	.000	.00	

Description	Item
Warehouse	000
Unit Of Measure	EACH
Price Level	1

Total Amount: 164.19

Quick Print | Manufacturing | Labor | Accept | Cancel | Delete

The **Production Lot/Batch Size** and **Production Increment** fields' values are defaulted to the Work Order and are applied when generation Dispatch from Work order entry:

# Material Planning & Production Management 99

**sage Work Order Entry (MPP) 4/3/2015**

Work Order No. 0000268 Defaults...

1. Header | 2. Address | 3. Dispatches | User Useriig

Order Date 3/17/2015 | Order Time 05:34 PM | Order Type M Manufacturing

Customer No. 01-ABF American Business Futures

W.O. Status E Entered

Job Site Code 2 American Business Futures

Job Site Contact John Quinn

Nature of W.O.

Prefer. Machine M002 Machine #2 M2 | Mold Number 002

Item Number TEST\_BILL Item

Lot/Serial No.

Plant Code

Schedule Date 3/17/2015 Time 05:34 PM

Due Date 3/17/2015 Time 05:34 PM

Cust PO

Priority Code

Production Lot/Batch Size 5

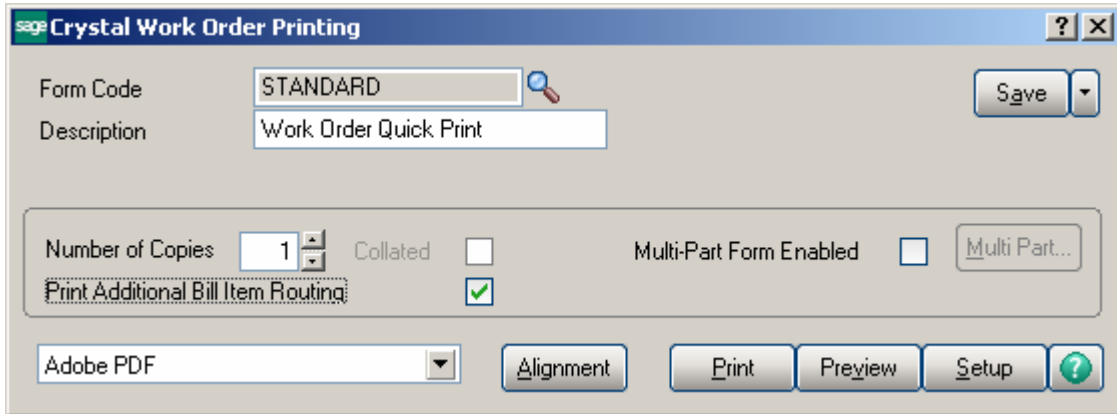
Production Increment 2

Quick Print | Accept | Cancel | Delete

## Routing Steps on Work Order Printing

### Work Order Printing

The **Print Additional Bill Item Routing** option added on the **Work Order Printing** program allows for printing the information about the steps of Bill Item Routing.



The screenshot shows the Sage Crystal Work Order Printing dialog box. The title bar reads "Sage Crystal Work Order Printing". The "Form Code" field is set to "STANDARD" and the "Description" field is "Work Order Quick Print". There is a "Save" button with a dropdown arrow. Below these are options for "Number of Copies" (set to 1), "Collated" (unchecked), and "Multi-Part Form Enabled" (unchecked). The "Print Additional Bill Item Routing" checkbox is checked. At the bottom, there is a dropdown menu set to "Adobe PDF" and buttons for "Alignment", "Print", "Preview", "Setup", and a help icon.

Select the **Print Additional Bill Item Routing** checkbox to print the information of the Routing assigned to the Bill Item.

After Work Order report is printed the **Work Order Additional Printing** is opened.

# Material Planning & Production Management 101

**Work Order Printing** MPP Demo Company (MPP)

**Work Order Number:** 0000310  
**Work Order Date:** 4/3/2015  
**Customer Number:** 01-ABF

**Preferred Machine:** Machine #2 M2  
**W.O. type:** M  
**Nature of W.O.:**  
**W.O. Status:** E  
**W.O. Priority:**

American Business Futures  
 Racine Warehouse  
 5411 Kendrick Place  
 Racine, WI 53120

American Business Futures  
 2131 N. 14th Street  
 Suite 100  
 Accounting Department  
 Milwaukee, WI 53205-1204

**W.O. Description:** MFG Product

Dispatch No.	Dispatch Date	Dispatch Machine				
0001	4/3/2015	Machine #2 M2				
TEST_BILL	Item		2.00	84.000	0.000	168.00
1001-HON-H252LK	HON 2 DRAWER LETTER FLE W/ LCK		2.00	87.000	0.000	174.00
2480-8-50	DESK FILE 8" CAP 50		6.00	33.902	0.000	203.41
BEL10-VIP	HON 4 DRAWER LETTER FLE W/O LK		4.00	131.000	0.000	524.00
LAB1	Machine#1 Labor		0.00	0.000	0.000	0.00
<b>Dispatch Total :</b>						<b>1,069.41</b>
0002	4/3/2015	Machine #2 M2				
TEST_BILL	Item		2.00	84.000	0.000	168.00
1001-HON-H252LK	HON 2 DRAWER LETTER FLE W/ LCK		2.00	87.000	0.000	174.00
2480-8-50	DESK FILE 8" CAP 50		6.00	33.902	0.000	203.41
BEL10-VIP	HON 4 DRAWER LETTER FLE W/O LK		4.00	131.000	0.000	524.00
LAB2	Machine#002 Labor		0.00	0.000	0.000	0.00
<b>Dispatch Total :</b>						<b>1,069.41</b>

Current Page No.: 1 Total Page No.: 2 Zoom Factor: 100%

**Work Order Additional Printing**

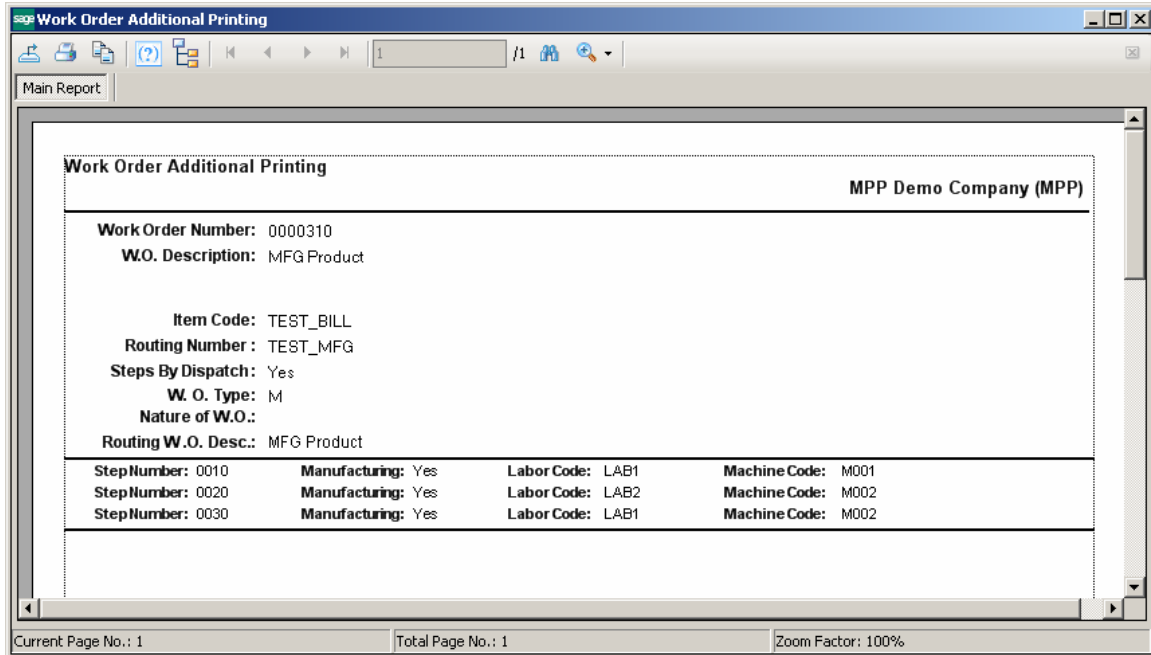
MATERIAL PRODUCTION PLANNING WORK ORDER ADDITIONAL PRINTING

Adobe PDF

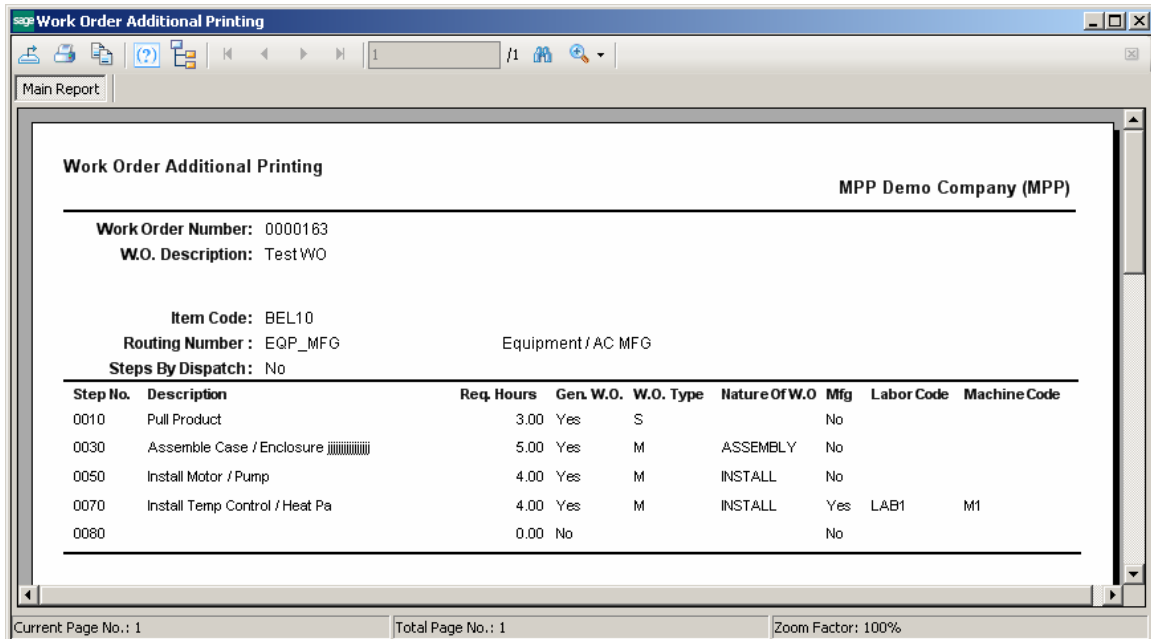
Print Preview Setup

The **Work Order Additional Printing** prints information about the Bill Item, the Routing assigned to it and the steps of Routing. Here is an example of printout for a **Routing Number** marked as **Steps by Dispatch** in the **Routing Maintenance**.

# Material Planning & Production Management 102

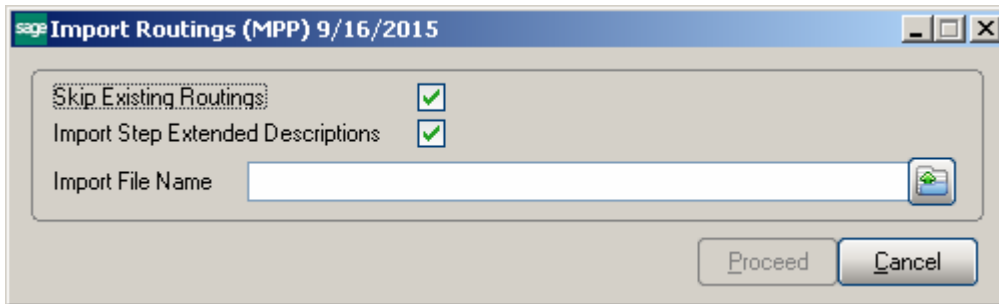


This is an example of printout for a Routing Number not marked as **Steps by Dispatch** in the **Routing Maintenance**.



## Import Routings from W/O Module

The **Import Routings from W/O Module** utility program has been added under the **Material Planning and Production Management-> Utilities** menu to allow importing the Routings setup in W/O module of any Company (with W/O module activated) to the Material Planning and Production Management-> Routing Maintenance.



**Skip Existing Routings** – is defaulted to checked.

**Import Step Extended Description** - is defaulted to checked.

**Import File Name** - it is necessary to select the WOCXXX.soa file (where XXX is the Company code) from any Company with W/O module activated and having Routings setup.

