



Material Planning & Production Management

For Sage 100 2018

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Material Planning & Production Management 1

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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.*

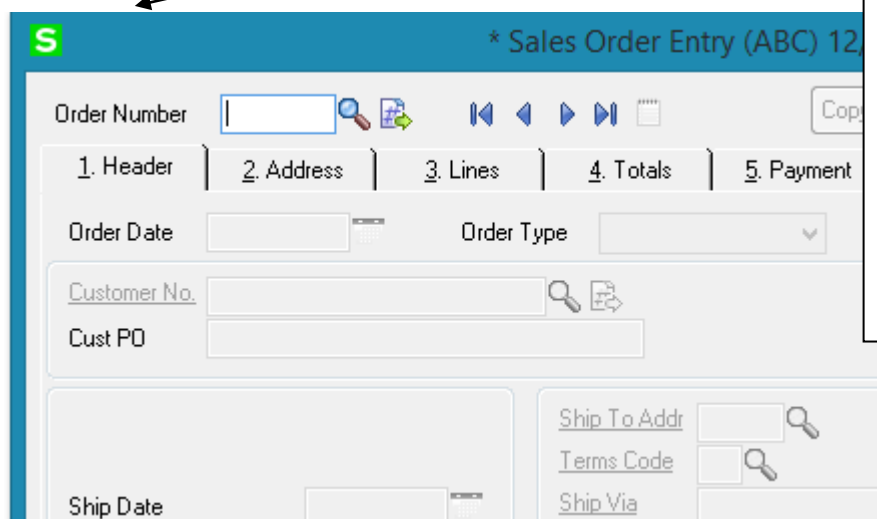
Wait! Before You Install – Do You Use CUSTOM OFFICE?

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**.

IIG Master Developer Enhancement Registration

Registered Customer: IIG - Glendale

Registration Information:

- Reseller Name: [Empty]
- Serial Number: 1111111
- Customer Number: 222222222
- User Key: 3333333333333333
- Product Key: 55555 55555 55555 55555 55555

Enhancement	Level	Release Date	Serial Number	Unlocking Key
IIG Enhancement	6.00		AAAAAAAAAAAAAAAA	BBBBB

Buttons: OK, Undo, Print Registration Form, Close

Status Bar: IIG ABC 12/16/2016

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

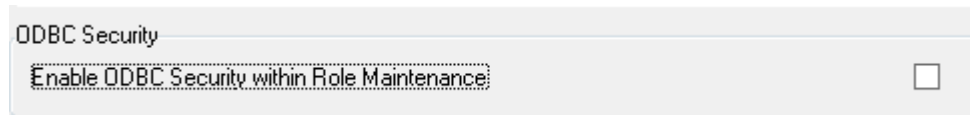
If multiple IIG Enhancements are installed, Serial Numbers and Unlocking Keys should be entered for each enhancement.

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

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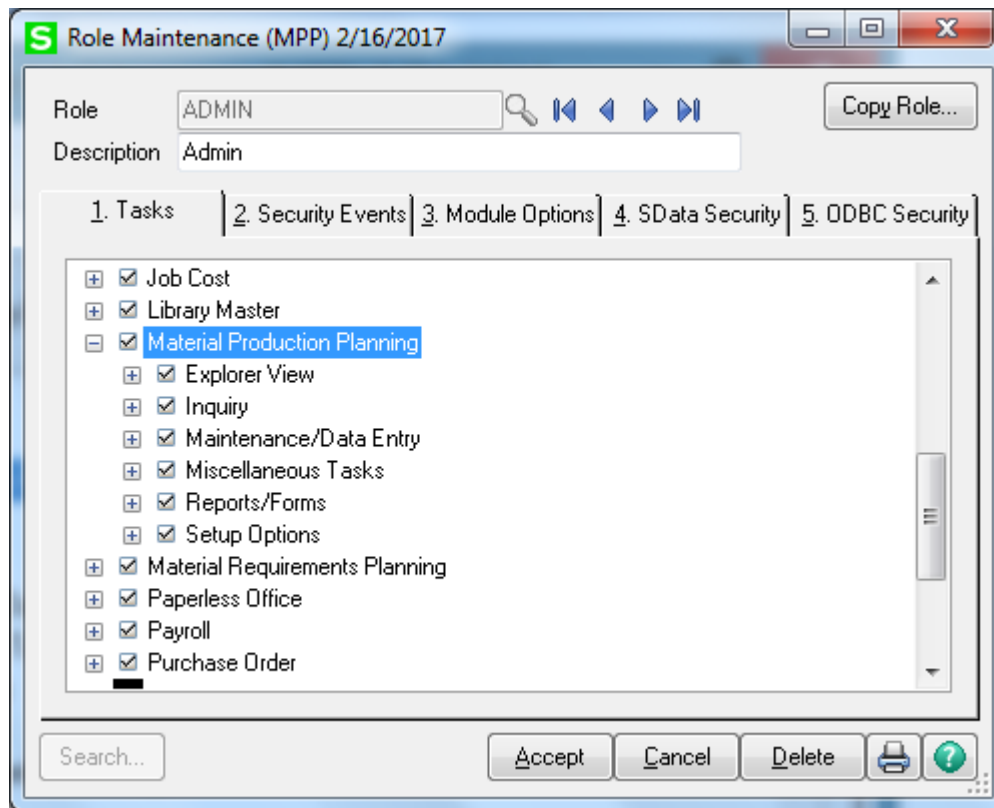
ODBC Security

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 Work Orders (Work Order) based on routings linked to items
- Material requirement check based on work orders scheduled for the next x days

Installing Material Planning and Production Module

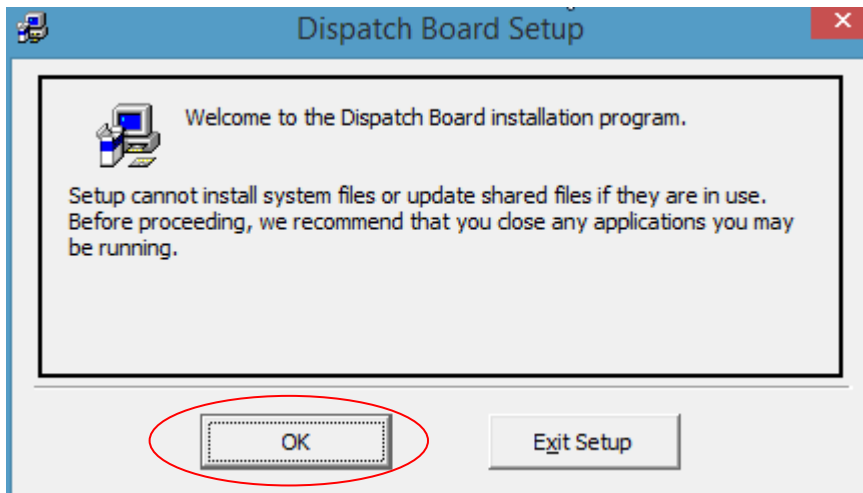
Note: If you are not going to use the Scheduling Board, you may start installation from step 2.

Note: In order to be able to run Scheduling Board from Sage 100 Workstation it is necessary to have the Dispatch Board package installed on the workstation. You must have administrative rights to the workstation you are installing on.

How to install Dispatch Board:

1. Open the **Dispatch Board Package** folder and, select SETUP.EXE and double click on it. The installation program will then start.

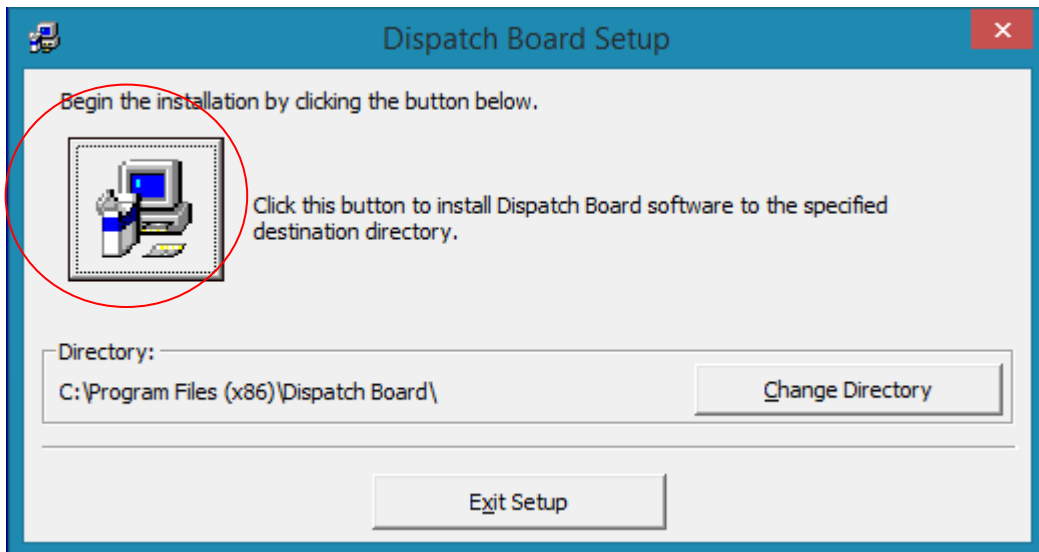
If on Windows7 , Windows 2008, Windows8.1, or higher answer Yes on the Windows security prompt to allow the program to install.



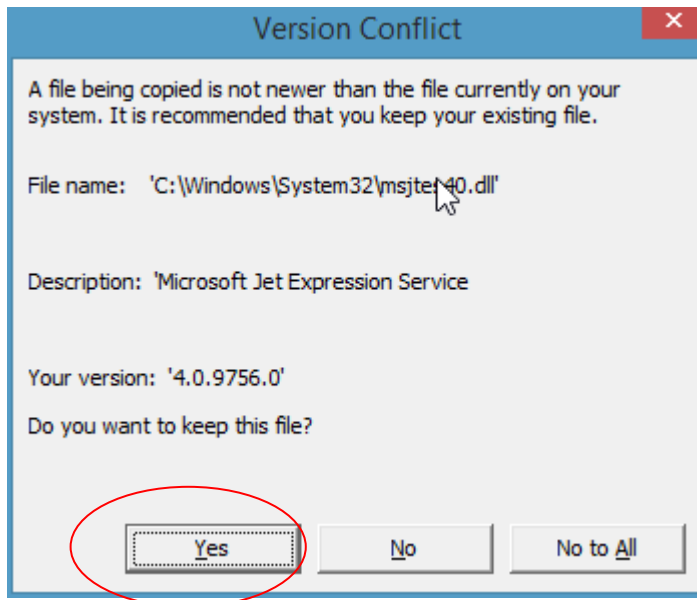
Press OK to proceed with installation.

- 1.2 The installation program will select the C:\Program Files\DispatchBoard\ directory.
Use the Browse button to point the installation program to the directory you would like and then click the Installation button to start the installation process.

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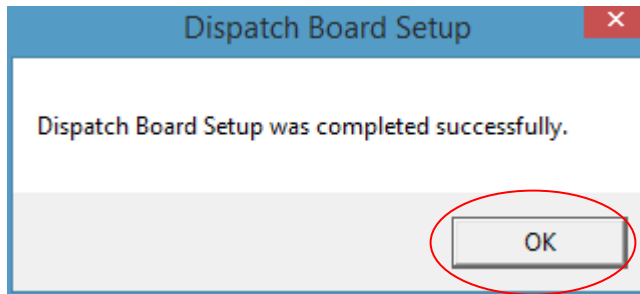
1.3 The following prompt appears if some DLL files being installed during this installation are older than the ones existing in your system:



We recommend that you keep the existing files. Select **Yes** to keep your system DLL files. You may have to do this a number of times.

1.4 Once the Dispatch Board installation program finishes the following message appears. Click the OK button to exit the installation program.

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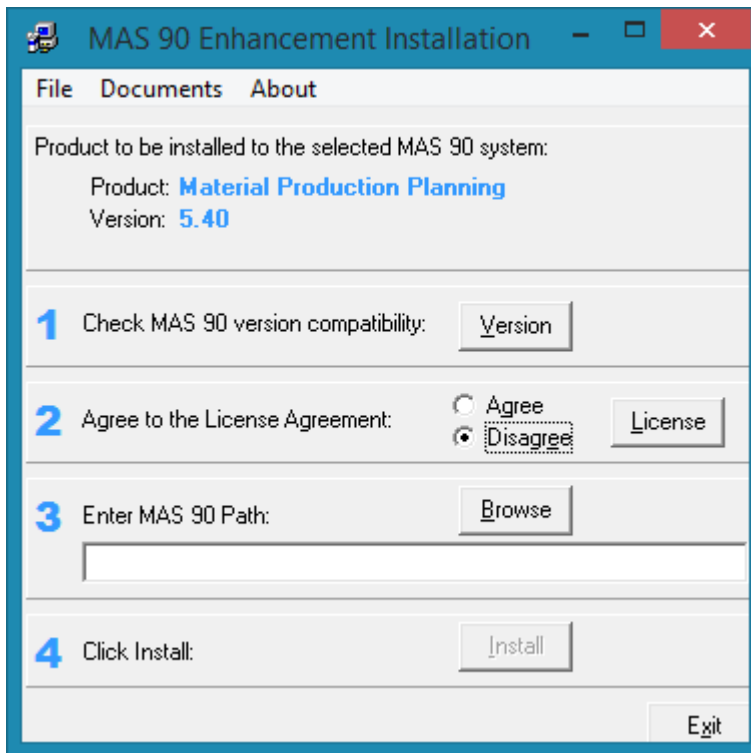
1.5 After the Dispatch Board is successfully installed on your machine, you may login to your MAS MPP system and run **Scheduling Board** program under the **Material Production Planning->Main** menu.

2. Be sure you have a full back up before installing!

2.2 Open the **MPP2017** folder.

2.3 Run **Setup.exe**.

Running SETUP.EXE begins the installation process. The installation screen will look similar to this:



Click the **Agree** option (the **Install** button will not be activated till Agree is selected).

Use the **Browse** button to point where MAS 90 is installed

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Now click the **Install** button on the **MAS 90 Enhancement Installation** screen.

Wait for the installation process to be completed, then log in and update the Administrator role to authorize the next steps.

3. Open the **IIG_Dll_CD** and run the **Setup.exe** to install and register some DLL(s) and OCX(s) needed for MPP proper functionality. Follow on-screen instructions for installation.

Instruction to Install Dispatch Board in Terminal Services Environment

For installing Dispatch Board in a terminal server environment follow the steps below:

1. All users must be off of the terminal server.
2. Install in Administrator mode (CHANGE USER /INSTALL)
3. Install Dispatch Board first. We recommend installing it in the C:\Program Files\DispatchBoard\ directory instead of the UAC redirects.
4. Install IIG DLL, same as with Dispatch Board.
5. Change user back to execute mode (CHANGE USER /EXECUTE).
6. You must install these programs on every server that a Sage 100 client is on for the dispatch board to work.
7. In MAS, update the roles to give access to MPP files if ODBC security is enabled. We recommend that you create a Dispatch Board role for this and add that role to the users who need it.

Setup Activity

Material Planning and Production Setup

Main tab

Enable Schedule Board – Select this checkbox to be able to run the **Scheduling Board**.

The screenshot shows the 'Material Planning and Production Setup (MPP) 2/16/2017' window. It has three tabs: '1. Main', '2. Entry', and '3. Line Entry'. The 'Main' tab is active. The window is divided into several sections. On the left, there's a section for 'Generated Document Line Hours Rounding' with fields for 'Spent Hours Rounding' (set to 'Closest'), 'Spent Hours Precision in Minutes' (set to '15'), and 'Minimum Billed Time' (set to '15'). Below this is a 'Process MFG' section with 'Enable Process MFG' (unchecked) and 'Use Default Drained Wt to Calculate Qty/Bill' (unchecked). At the bottom left is a 'Job Cost Posting' section with 'Default Account' (111-00-00), 'J/C Cost Code Segment for Technician Postings' (Seg2), and a search icon. On the right, there's an 'Automatically Increment Steps By' field (010), an 'Integrate with Payroll' section with 'Include History in Payroll Batch' (unchecked) and 'Payroll Overtime Calculation' (8 hours a day), an 'Auto Load' section with 'Machine/Tech. from W.O. to Dispatches and Labors' (checked), 'Dispatch Starting Date/Time from Scheduled' (First), 'First Labor Hours from Dispatch Dates/Times' (checked), 'Allow Use of Overtime Calculation for Labor' (unchecked), 'Apply Dispatch Date/Time to Labor Lines' (None), 'WO Due Date from SO line Promise Date' (checked), and 'Dispatch Ending Date from SO line Promise Date' (unchecked). At the bottom right is an 'Other Receivables' section. The window has a 'Manual' button on the bottom left and 'Accept', 'Cancel', and a printer icon on the bottom right.

Generated Document Line Hours Rounding – this group provides settings for rounding of dispatch labor lines' hours during the Labor Charge line entry.

This is a close-up of the 'Generated Document Line Hours Rounding' section. It contains three fields: 'Spent Hours Rounding' (set to 'None'), 'Spent Hours Precision in Minutes' (set to '15'), and 'Minimum Billed Time' (set to '15'). Each field has a dropdown arrow.

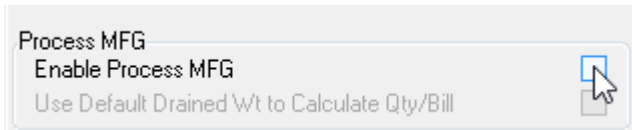
Spent Hours Rounding- the available options are: Up, Down, Closest, None.

Spent Hours Precision in Minutes- allows for setting the precision in Minutes to be used while rounding the hours.

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Minimum Billed Time- dropdown menu is also intended for setting time in minutes. You may select the minimum time to be always billed even if the actual spent time rounded is less than this setting.

Process MFG



Enable Process MFG - Select the **Enable Process MFG** checkbox to enable entering recipes in the **Bill of Materials Maintenance** and generating Manufacturing Dispatches for those recipes in the Work Order Entry.

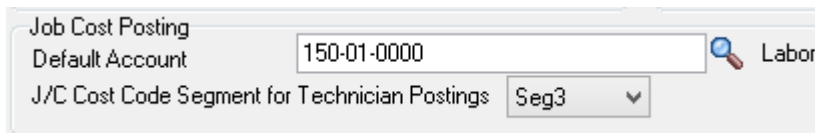
Use Default Drained Wt to Calculate Qty/Bill - The **Use Default Drained Wt (Weight) to Calculate Qty/Bill** option is enabled upon selecting the **Enable Process MFG** checkbox. Select the **Use Default Drained Wt To Calculate Qty/Bill** option to have the Default **Drained Weight** added on the **Bill of Material Maintenance** to be used for comparison with the **Ingredients Total Quantity**, and force recalculation of **Ingredient Quantities**.

If MFG processing is enabled in the MPP system, the **Bill of Material Maintenance** is adjusted for entry of recipes.

Refer to [Process MFG](#) section for details.

Job Cost Posting

The **Job Cost Posting** options are available only if the **Job Cost** module is setup in the system.



Default Account –select the **G/L Account** to be used as the default **G/L Account** during the import into the **Job Posting Entry**. It is used if the **Post to G/L for Work in Process** option is selected in the **Job Cost Options**, otherwise there is no **G/L Account** specified for the **Material Cost Type** of the selected **Cost Code**.

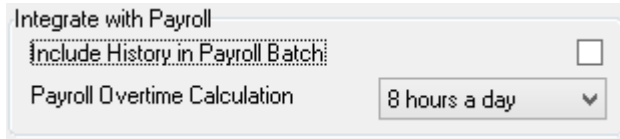
J/C Cost Code Seg. for Tech Postings- is used for specifying the segment of Cost Code that should be substituted with **Cost Code Segment Value** entered in the **Technician Code Maintenance** (if any), during the import into the **Job Posting Entry**.

Automatically Increment Steps By- this option is used as increment step for Routing. Available values are 10; 20; 30; 40; 50... 100.

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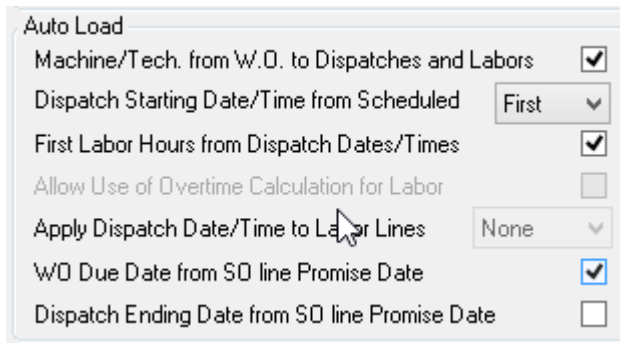
Integrate with Payroll:

Include History in Payroll Batch – check this box to have the program search for labor records during the given period in the history as well. This setting is the default setting for all Payroll Batch Entries, and can be changed on each separate Payroll Batch Entry.



Payroll Overtime Calculation- available options are: 8 hours a day or 40 hours a week. This determines how the hours over time are calculated: on the daily or weekly basis.

Auto Load:



Machine/Tech. from W.O. to Dispatches and Labors- check this box to automatically load the Work Order's machine and technician (if any) into the generated dispatches header as well as to the Labor lines.

Dispatch Starting Date/Time from Scheduled- allows loading the Scheduled Date/Time from the WO into the generated dispatches. The following options are available: None, First, All.

None – in this case the Work Order's Scheduled Date/Time will not be loaded into any of the generated dispatches. In this case the Dispatch Date and dispatch Starting/Ending Dates are defaulted to S/M module current Accounting Date.

First- the Work Order's Scheduled Date/Time will be loaded only into the first dispatch generated.

All- the Work Order's Scheduled Date/Time will be loaded into all dispatches being generated.

System- the Dispatch Starting Date/Time will be populated with current system date/time.

First Labor Hours from Dispatch Dates/Times- allows automatically calculating the Hours Spent based on the dispatch Starting and Ending Date/Time and loading it to the first labor line entered in the dispatch.

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Allow Use of Overtime Calculation for Labor - enables special calculation of Labor with Overtime Factor, based on the working hours and Coverage Code. (Refer to Labor Charge Data Entry for more details)

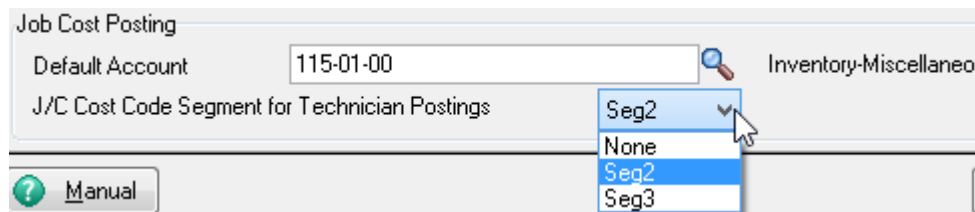
Apply Dispatch Date/Time to Labor Lines- enables automatically applying the Dispatch Date/Time to the Labor lines being entered. Three options are available:

None - the Dispatch Date/Time will not be applied to any of the Labor lines.

First- the Dispatch Date/Time will be applied only to the first Labor line entered.

All- the Dispatch Date/Time will be applied to all Labor lines being entered.
The Manual button allows for viewing MPP enhancement document in a PDF format.

The **Job Cost Posting** options are available only if the **Job Cost** module is setup in current company.



Default Account –select the G/L Account to be used as the default G/L Account during the import into the Job Posting Entry. It is used if the Post to G/L for Work in Process option is selected in the Job Cost Options, otherwise there is no G/L Account specified for the Material Cost Type of the selected Cost Code.

J/C Cost Code Seg. for Tech Posting- is used for specifying the segment of Cost Code that should be substituted with Cost Code Segment Value entered in the Technician Code Maintenance (if any), during the import into the Job Posting Entry.

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Entry tab

The screenshot shows the 'Material Planning and Production Setup (MPP) 2/16/2017' window with the 'Entry' tab selected. The window has three tabs: '1. Main', '2. Entry', and '3. Line Entry'. The 'Entry' tab contains several sections:

- Time entry drop box in Dispatch Data Entry:** A dropdown menu showing '15'.
- Next Automatic Work Order Number:** A text field containing '0000273'.
- Next Automatic Contract Number:** A text field containing '000000003'.
- Next Automatic Template Contract Number:** A text field containing '00000001'.
- Default Values:** A section with several options:
 - Work Order Type:** A dropdown menu showing 'M' (Manufacturing).
 - Dispatch Status (Quick Entry):** A dropdown menu showing 'O' (Open).
 - Close Dispatches into the:** A dropdown menu showing 'Sales Order'.
 - Dispatch Status (Released to Prod.):** A dropdown menu showing 'P' (Production).
- Lot/Serial Distribution in Dispatch Data Entry:** A section with two checkboxes:
 - Enable Lot/Serial Distribution:** Checked.
 - Require Lines to be Fully Distributed:** Unchecked.
- Other options:** A list of checkboxes on the right side of the window:
 - Present Sales Kit as a Set of Regular Items:** Unchecked.
 - Item Contract Instead Of Order Contract:** Unchecked.
 - Retain Work Order History:** Checked.
 - Allow Quote Hours in Work Order:** Unchecked.
 - PM Work Order Generate Based On W.O. Close Date:** Unchecked.
 - Commit Quantity During MFG Dispatch Generation:** Checked.
 - Default W.O. Customer:** A text field containing '01-SHEPARD'.
 - Load Comment Lines During MFG Dispatch Gen.:** Unchecked.

At the bottom of the window, there is a 'Manual' button on the left and 'Accept', 'Cancel', and a printer icon on the right.

Time entry drop box in Dispatch Data Entry- select a value (in minutes) from the drop down to be used for populating drop-down lists of the starting and ending time selection in the Dispatch Data Entry program.

Next Automatic Work Order Number- enter the next work order number to assign when using the next Work Order Number feature in the Work Order Data Entry.

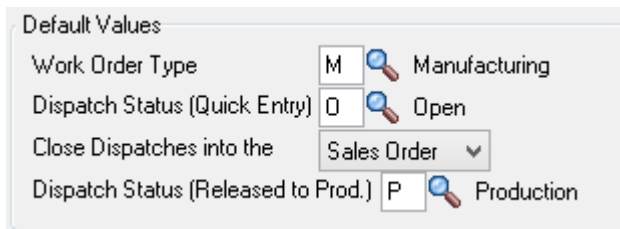
Next Automatic Contract Number- enter the next contract number to assign when using the next Contract Number feature in the Contract Data Entry.

Next Automatic Template Contract Number- enter the next template contract number to assign when using the Next Template Contract Number feature **NTC** in the [Contract Data Entry](#). A template contract is used to generate a regular contract (such as a standard service contract) whenever a particular item is sold. If you enter a template contract once and then assign it to an item in **Inventory Maintenance**, the system will automatically set up a contract adhering to the rules of the template for any customer who purchases that item.

Default Values

This group of options allows for setting default values to be used when entering new Work Orders, Dispatches and generating a sales document upon closing the Dispatch.

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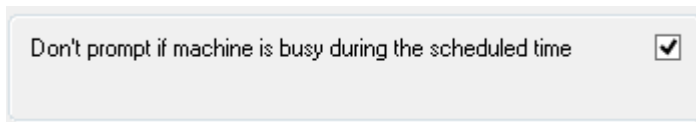


Work Order Type- select the default WO type to be assigned when entering a new Work Order.

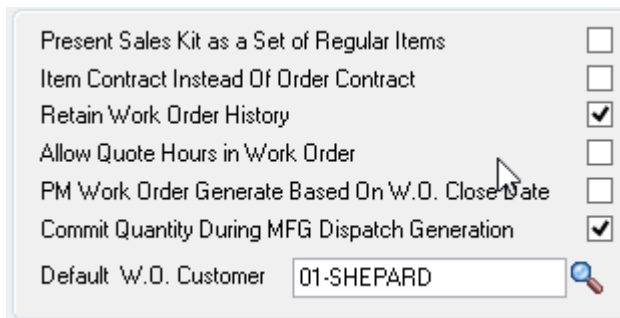
Dispatch Status - select the status to be used by default when new Dispatch is created.

Close Dispatches into the- select Sales Order/Invoice to indicate whether charges from a closed dispatch should generate a sales order or an invoice. Select None to not generate any document when closing dispatch.

Dispatch Status (Released to Prod.)- specify the status to be applied to the Dispatches released to Production.



Don't prompt if machine is busy during the scheduled time- check this box to suppress the prompt appeared upon accepting the Dispatch if the machine is busy on other active dispatches during current time period (Dispatch Starting - Ending Date/time).



Present Sales Kit as a Set of Regular Items- If this check box is selected, the Sales Kit Item number will be replaced with a comment line indicating sales kit number during Dispatch Data Entry, Sales Order Entry or Invoice Data Entry. All the components of that kit will be presented as regular line items.

Item Contract Instead of Order Contract- Check the **Item Contract Instead of Order Contract** box to attach the contract specified for the Item in the **Inventory Maintenance** program instead of the contract specified in the **Sales Order Entry** to the Work Orders generated for the item.

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Retain Work Order History- Select this check box to retain Work Order history information. If this checkbox is selected the work Order will be moved to the Work Order History when it is closed. Clear this check box if you do not want to retain the history.

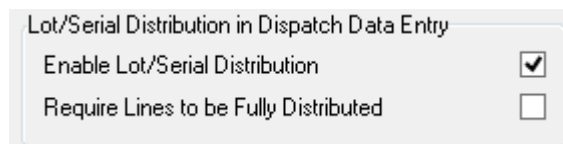
Allow Quote Hours in Work Order- Select this checkbox to have the **Quote Hours** and **Quote Amount** fields visible on the **Labor Charge Entry**.

PM Work Order Generation Based On W.O Close Date- check this box to generate the next preventive maintenance work order based on the Work Order Close Date.

Commit Quantity During MFG Dispatch Generation- Select this checkbox to commit the Item quantity on MFG Dispatches being generated. If this checkbox is selected the On Work Order and Req for Work Order fields (in the Item Maintenance Quantities grid) are updated respectively for Bill and Component items.

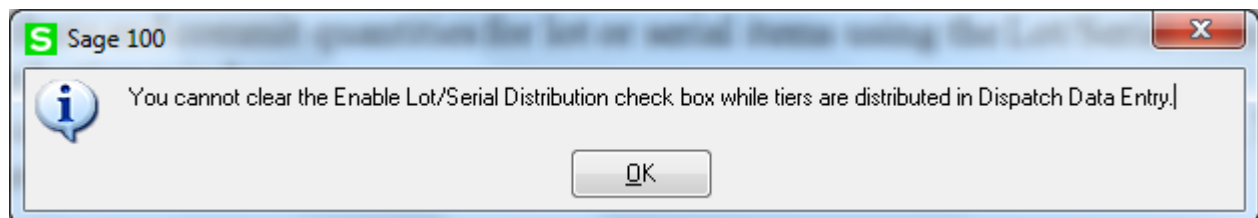
Note: It is highly recommended to not enable this option if W/O module is activated in your system.

Default W.O. Customer- select the default Customer Number to be loaded as the customer number of the Work Order generated by the Calculate Quantity to Produce/Purchase program.



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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Line Entry Tab

The screenshot shows the 'Material Planning and Production Setup (MPP) 2/16/2017' window with the 'Line Entry' tab selected. The window is divided into several sections for configuration:

- Navigation:** 1. Main | 2. Entry | 3. Line Entry
- Warehouse Settings:**
 - ☒ Use Alternate Warehouse for Out-of-Stock Items
 - ☐ Check for Available Quantity
 - Default Warehouse: 000
 - OP Warehouse: OP
- Job Codes:**
 - 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: Technician Code
 - Middle: Technician Code
 - Lowest: Technician Code
- Sales Account Priority:**
 - 1. Technician Code
 - 2. Labor Code
 - 3. Skill Code
 - 4. Nature of W.O.
 - 5. Work Order Type
- Labor Billing Presentation:** Special Item
- Miscellaneous Item:** DESK-1000
- Sales Account:** 111-00-00
- COGS Account:** 205-00-00
- Product Line:** C&A CABLES & ACCESSORIES
- Order In Item No:** Technician Code
- Other Receivables:**
- Notes payable:**
- Bypass Cost G/L Postings For Labor Items:** ☐
- Calculate Taxes on Labor Based on:** None

At the bottom, there is a 'Manual' button on the left and 'Accept', 'Cancel', and a printer icon on the right.

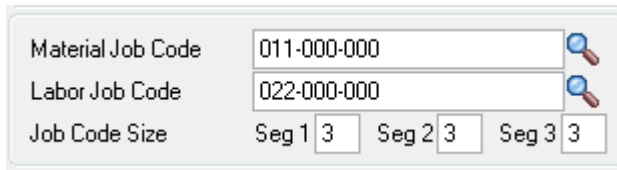
Use Alternate Warehouse for Out- of-Stock Items- Select this check box to fill dispatch lines from an alternate warehouse if the primary warehouse is out of stock for the selected item. Clear this check box if you do not want to fill dispatch lines from an alternate warehouse. This field is available only if the Require Multiple Warehouses check box is selected in the Inventory Management options.

Check for Available Quantity - Select this check box to force the **Entry Exceeds Available Quantity** message to appear in the Dispatch Data Entry when the quantity ordered is greater than the quantity available in the warehouse. Clear this check box if you do not want the message to appear.

Default Warehouse -The warehouse selected here is used as the default when entering items in the Dispatch Data Entry.

OP Warehouse – the Warehouse Code setup as outside processing (OP) warehouse is used during outside processing in Dispatch Data Entry if no outside processing warehouse is specified for the Item in the Item Maintenance.

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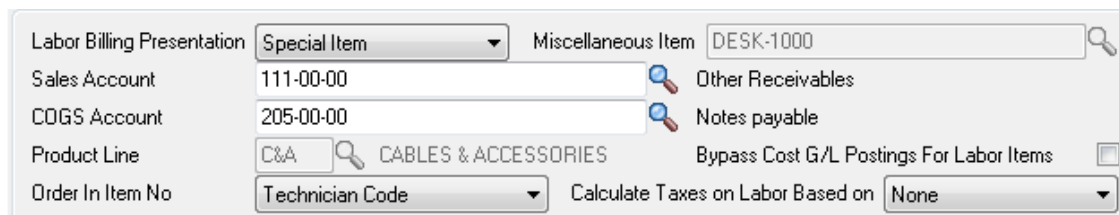
Job Codes are used to track material and labor cost and revenue in the contract file. Job Codes are entered for each inventory item, for posting of material related information and in the Technician, Labor and Skill Code Master files for labor information tracking.

You can add new codes in the **Job Codes Maintenance** program in the **Material Planning and Production Management** Main menu.

If no Job Codes are assigned to inventory items or charge codes, the default job codes specified here will be used for material or labor items.

A total of nine characters can be used for Job Codes. You can define segmentation of the Job Codes by changing the appropriate setting in the **Job Code Size** field.

Labor Billing Presentation group is a set of controls that allows the user to choose from the following options for charges or labor billing presentations.



- ☐ If **None** is selected, the system will not process labor charges.
- ☐ If **Inventory Item** is selected a regular Item will be loaded to the **Sales Order/SO Invoice** generated based on the **Dispatch Labor/Skill** line. The system will build an Inventory Item based on the Technician Code of the person who performed the job and Labor or Skill Code of the job that was performed.
 - The **Product Line** should be specified.

The **Product Line** entered here will be used to get the default information for the Inventory Item being generated upon closing the Dispatch. The **Tax Class, Description (Extended Description), Default Warehouse, Price** and **Cost** fields will be populated correspondingly from MPP files. The **Material Job Code** specified on the MPP Options will be applied to the Inventory Item if no Job Code is entered for the selected **Product Line**.

- ☐ If **Miscellaneous Item** is selected in the **Labor Billing Presentation** field, the system will build a Miscellaneous Item based on the Technician Code of the

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person who performed the task and Labor or Skill Code of the job that was performed.

- The **Miscellaneous Item** should be selected to get the default information when a Misc. Item is generated upon closing the Dispatch.

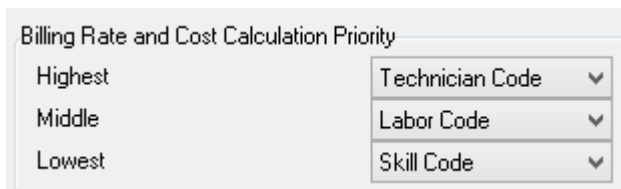
For the generated **Miscellaneous Item** the **Tax Class**, **Price** and **Cost** fields are populated with corresponding values from MPP files.

- ☐ If **Special Item** is selected, the system will load a Special Item line to the **Sales Order/SO Invoice** generated based on the **Dispatch Labor/Skill** line.
 - The **Sales** and **COGS Accounts** entered here will be applied to the Special Item line loaded in the Sales Order/SO Invoice if no **Sales** and **COGS Accounts** will be found for corresponding fields in the Dispatch Detail table.

The **Calculate taxes on Labor based on** drop-down box allows the user to define how **Sales Taxes** should be calculated. The following options are available: **None**, **Dispatch Line**, **System Default**.

- ☐ **None**-means the **Tax Class** will not be shown on the **Dispatch Line** and it will be set to "NT" for the line item loaded in the Sales Order or Invoice transaction.
- ☐ **Dispatch Line**-means the **Tax Class** specified on the Dispatch Labor Line will be carried over to the corresponding line item loaded in the Sales Order or Invoice transaction.
- ☐ **System Default**-means that the **Tax Class** of corresponding Item (Inventory, Misc, Special) generated upon closing the Dispatch (based on the Labor Billing Presentation) will be applied.

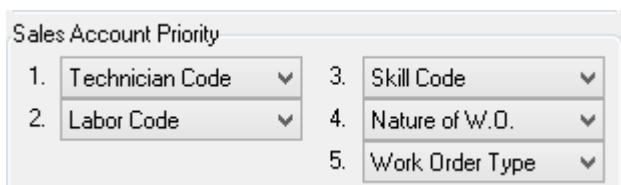
The **Bypass Cost G/L Postings For Labor Items** check box allows to process items generated for labor with zero cost, that is, cost is not posted to G/L.



Billing Rate and Cost Calculation Priority

Highest	Technician Code
Middle	Labor Code
Lowest	Skill Code

The **Billing Rate and Cost Calculation Priority** group of controls will define the priority by which labor billing rates and costs will be calculated. Rate and Cost can be used from **Technician Code**, **Labor Code**, or **Skill Code**.



Sales Account Priority

1. Technician Code	3. Skill Code
2. Labor Code	4. Nature of W.O.
	5. Work Order Type

Sales Account Priority defines the priority of using the G/L accounts for sales postings.

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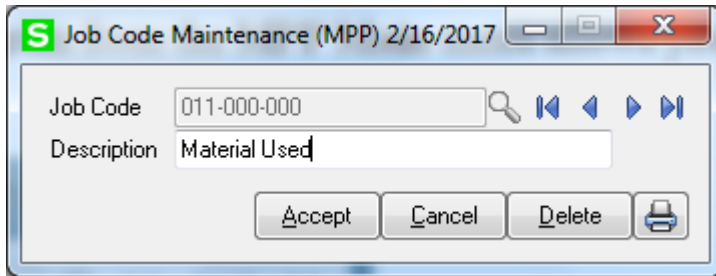
G/L accounts are assigned in the **Technician Code Maintenance**, **Labor Code Maintenance**, **Skill Code Maintenance**, **Nature of W.O.** and **Work Order Type Maintenance**.

The first in the list will be used if on file, otherwise the second will be used, etc.

Job Code Maintenance

Job Codes are used to track material and labor cost and revenue in the contract file. You can assign job codes to the inventory items and charge codes in order to track their usage by service contracts.

The **Job Code Maintenance** program from the **MPP Main** menu allows you to add and remove Job Codes.



If no Job Codes are assigned to inventory items or charge codes, the default job codes specified in **Material Planning and Production Setup** will be used for material or labor items.

A total of nine characters can be used for Job Codes. You can define segmentation of the Job Codes by changing the appropriate setting on the **Line Entry** tab of **Material Planning and Production Setup**.

Skill Code Maintenance

The **Skill Codes** represents special abilities needed to perform a task. The **Skill Code Maintenance** program is used to maintain, edit and add skill codes used in **Material Planning and Production Management** Module.

Skills defined in this program are used in Technician Code Maintenance to describe different skills, at appropriate levels, for each technician. This allows you to pick the appropriate or most qualified technician during Work Order or Dispatch Data Entry.

Skill Code Maintenance (MPP) 2/16/2017

Skill Code: ADM

Description: Administrative Skills

COGS G/L

Job Code: 022-000-000

Sales Account: 111-00-00

Tax Class: NT

Skill Cost: 45.00

Billing Rate: 55.00

Accept Cancel Delete

Job Code is used when posting labor charges to the contract file.

Sales Acct is used for postings when closing dispatches with labor (based on the priority in Options).

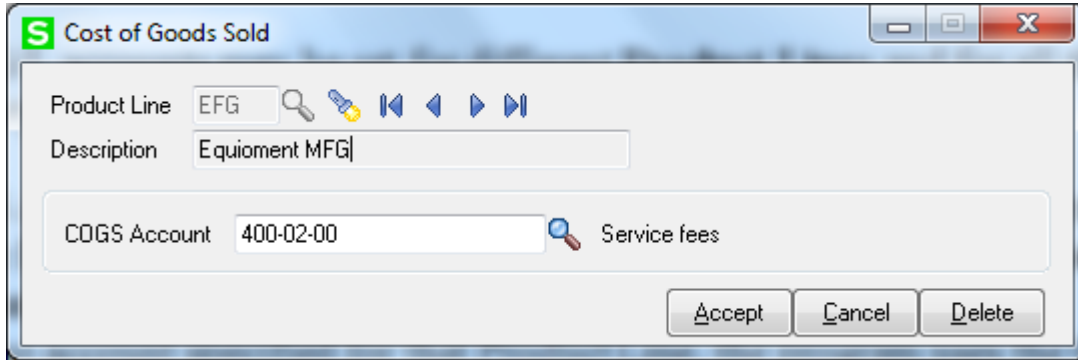
Skill Cost is used for posting cost to contracts for transactions generated when closing dispatches with labor (based on billing rate calculation).

Billing Rate is the billing rates for labor items subject to contract settings or the billing rate calculation priority set-up in **MPP Options**.

Clicking the **COGS G/L** button opens the **Cost Of Goods Sold** screen, where you can specify account to be used for the labor items generated from the selected Skill during dispatch closing into Sales Orders or Invoices.

The COGS G/L button is available only if the Labor Billing Presentation is set to Inventory Item in the **Material Planning and Production Setup**.

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Cost of Goods Sold

Product Line EFG

Description Equioment MFG

COGS Account 400-02-00 Service fees

Accept Cancel Delete

Different G/L accounts may be set for different **Product Lines** and for all the Product Lines (empty Product Line) not having separate accounts specified.

The COGS Account specified for current Product Line is used for the generated inventory items if the **Product Line** matches the one set for Inventory Item in the **Material Planning and Production Setup**.

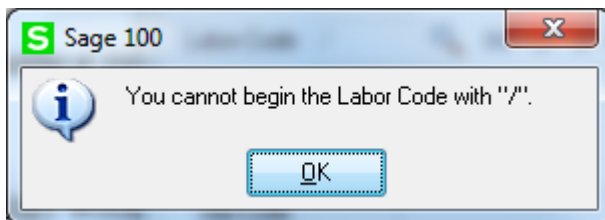
If there is no account specified for that Product Line, the program uses the **COGS Account** specified for blank **Product Line**.

Labor Code Maintenance

Labor Code represents the type of work a technician can perform.

The **Labor Code Maintenance** program is used to maintain, edit and add labor codes used in the **MPP** Module.

The **Labor Code** cannot start with “/” symbol and the following message will popup if a labor code starting with “/” is entered:

A screenshot of the "Labor Code Maintenance (MPP) 2/16/2017" window. The window has a title bar with the Sage logo and the text "Labor Code Maintenance (MPP) 2/16/2017". Inside the window, there are several fields and buttons. At the top, there is a "Labor Code" field with the value "PROD" and a search icon. Below it is a "Description" field with the value "Production". To the right of the description field is a button labeled "COGS G/L". Below these fields is a section for "Skill Code" with a dropdown menu showing "ADM" and a search icon. To the right of the skill code field is the text "Administrative Skills". Below the skill code field are several other fields: "Job Code" with the value "022-000-000", "Sales Account" with the value "111-00-00", "Tax Class" with the value "NT", "Labor Cost" with the value "35.00", "Billing Rate" with the value "50.00", "Regular Earnings" with a search icon, and "Overtime Earnings" with a search icon. At the bottom of the window are four buttons: "Accept", "Cancel", "Delete", and a printer icon.

Skill Codes are used to specify to which Skill Code group this labor code belongs. A single Skill Code can include any number of individual labor codes. Using the **Skill Code** during Dispatch Data Entry can reduce confusion and speed up your data entry.

Job Codes are used when posting labor charges to the contract file.

Sales Account is used for postings when closing dispatches with labor (based on the priority set in the **Material Planning and Production Setup**).

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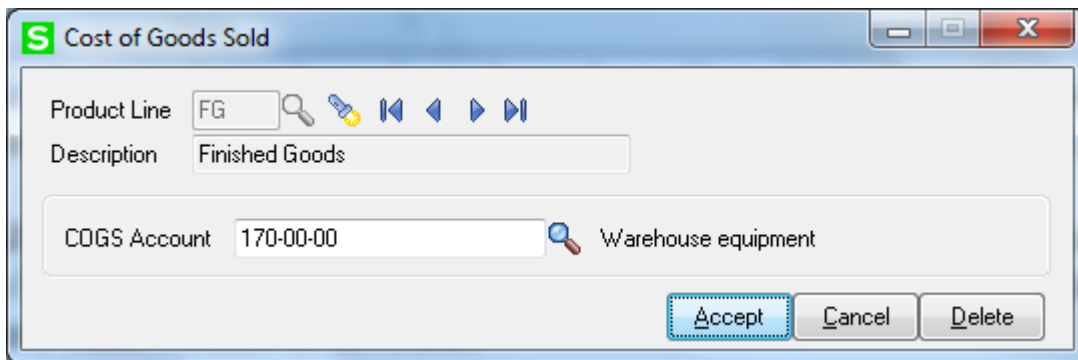
Tax Class will be used in the Dispatch by default, if the Work Order's **Ship To Address** has **Calculate taxes on Labor** checked and the **Calculate taxes on Labor** option is not set to **None** in the **Material Planning and Production Setup**. If new item (labor presenting) is generated during dispatch closing, this **Tax Class** will be set for it.

Labor Cost is used for posting cost to contracts for transactions generated when closing dispatches with labor (based on billing rate calculation).

Billing Rate is the billing rates for labor items subject to contract settings or the billing rate calculation priority set-up in the **Material Planning and Production Setup**.

Select the **Regular** and **Overtime Earnings Codes** from the **Earnings List**. Earnings Codes are set in the **Earnings Code Maintenance** under the **Payroll Setup** menu.

Clicking the **COGS G/L** button opens the **Cost Of Goods Sold** screen, where you can specify account to be used for the labor items generated from the selected Labor during dispatch closing into Sales Orders or Invoices.



Different G/L accounts can be set for different **Product Lines** and for all the Product Lines (empty Product Line) not having separate accounts specified.

The account specified for the **Product Line** set in the **Material Planning and Production Setup** will be used for the generated inventory items. If there is no account set for that Product Line, the program uses the account set **without Product Line**.

Shift Maintenance

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

	Shift	Start Time	End Time
1	1	09:00 AM	12:30 PM
2	2	01:00 PM	05:30 PM
3	3	06:00 PM	11:00 PM
4			

Plant Code Maintenance

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

Plant Code: UNION

Description: Union city

Default Machine Code: M001 Machine #1 M1

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

The screenshot shows a window titled "Plant Code List" with a table containing the following data:

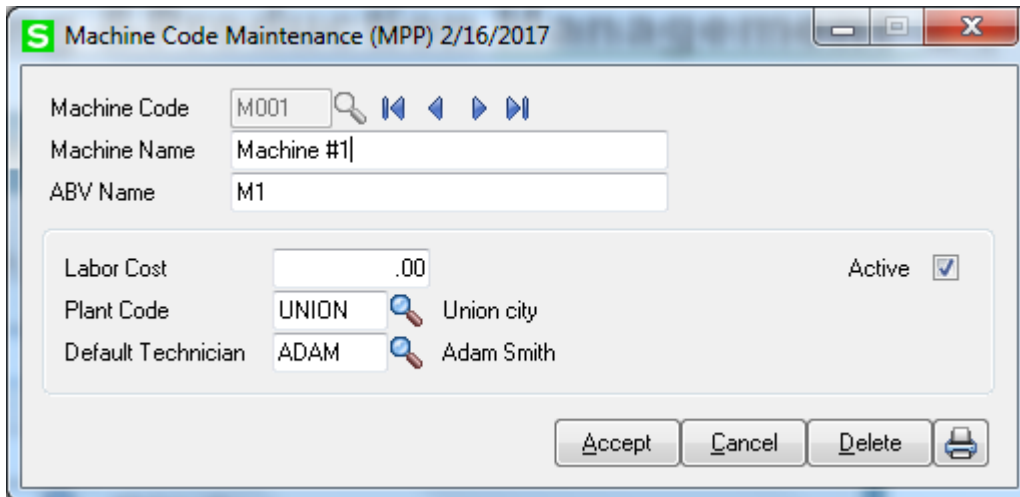
Plant Code	Description	Machine Code	Name
1	South West	M1	MATK204-Auto 204 Auto
PL1	Plant 1	A1	Machine A1
UNION	Union city	M001	Machine #1 M1

Below the table, there is a search section with a "Search" label, a dropdown menu set to "Plant Code", a "Begins with" dropdown, a text input field, and a "Find" button. There is also a "Filters..." button. At the bottom, there are buttons for "Custom...", "Lookup Wizard...", "Select", "Cancel", and icons for Excel, Print, and Help. A status bar at the bottom indicates "Found 3 records".

Machine Code Maintenance

The **Machine Code Maintenance** program is used to setup machines with respective Mold Numbers they can handle. The Machine Codes set up here are available in the Scheduling Board used to generate Work Orders.

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



Machine Code Maintenance (MPP) 2/16/2017

Machine Code: M001

Machine Name: Machine #1

ABV Name: M1

Labor Cost: .00

Plant Code: UNION (Union city)

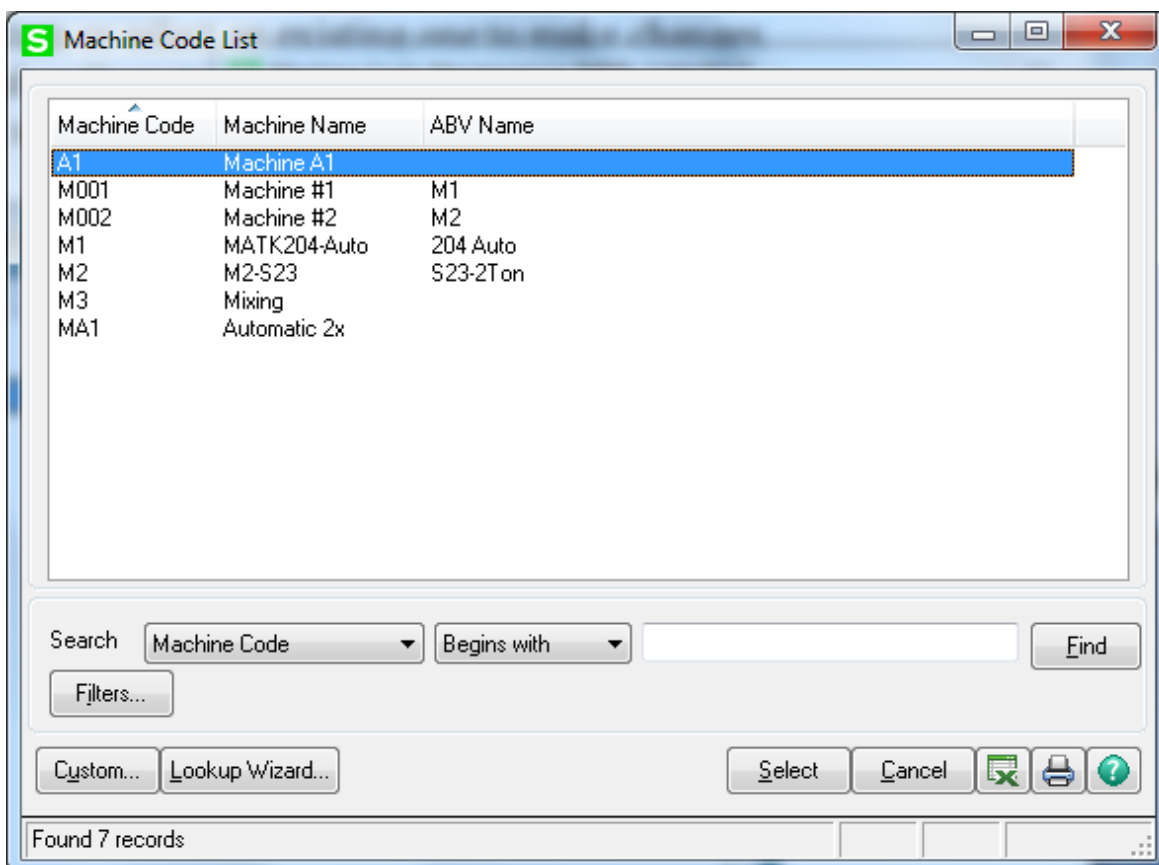
Default Technician: ADAM (Adam Smith)

Active: ☒

Buttons: Accept, Cancel, Delete, Print

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.

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



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
M2	M2-S23	S23-2Ton
M3	Mixing	
MA1	Automatic 2x	

Search: Machine Code Begins with

Find

Filters...

Custom... Lookup Wizard...

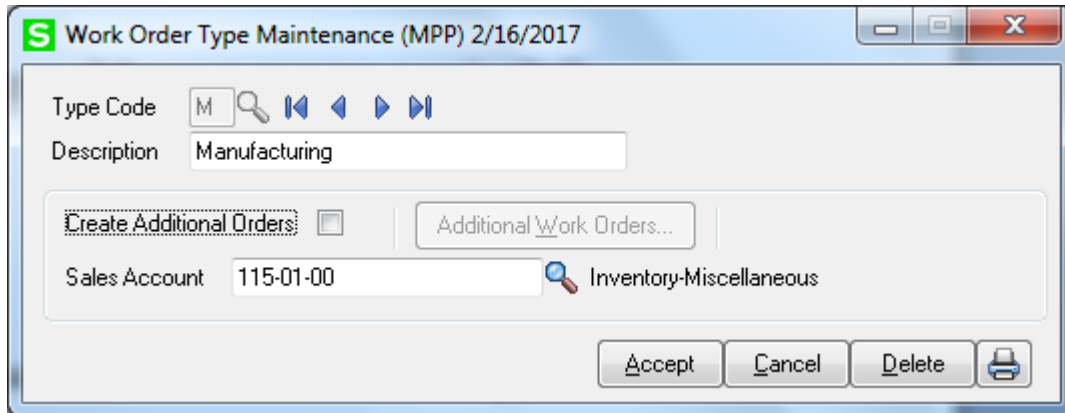
Select Cancel

Found 7 records

Here you may assign Default Technician to a Machine.

Work Order Type Maintenance

The **Work Order Type Maintenance** program is used to maintain Work Order type codes.



The screenshot shows a software window titled "Work Order Type Maintenance (MPP) 2/16/2017". Inside the window, there are several input fields and buttons. The "Type Code" field contains the letter "M". The "Description" field contains the word "Manufacturing". Below these, there is a checkbox labeled "Create Additional Orders" which is currently unchecked. To the right of this checkbox is a button labeled "Additional Work Orders...". Below the checkbox, the "Sales Account" field contains "115-01-00". To the right of this field is a button with a magnifying glass icon and the text "Inventory-Miscellaneous". At the bottom of the window, there are four buttons: "Accept", "Cancel", "Delete", and a printer icon.

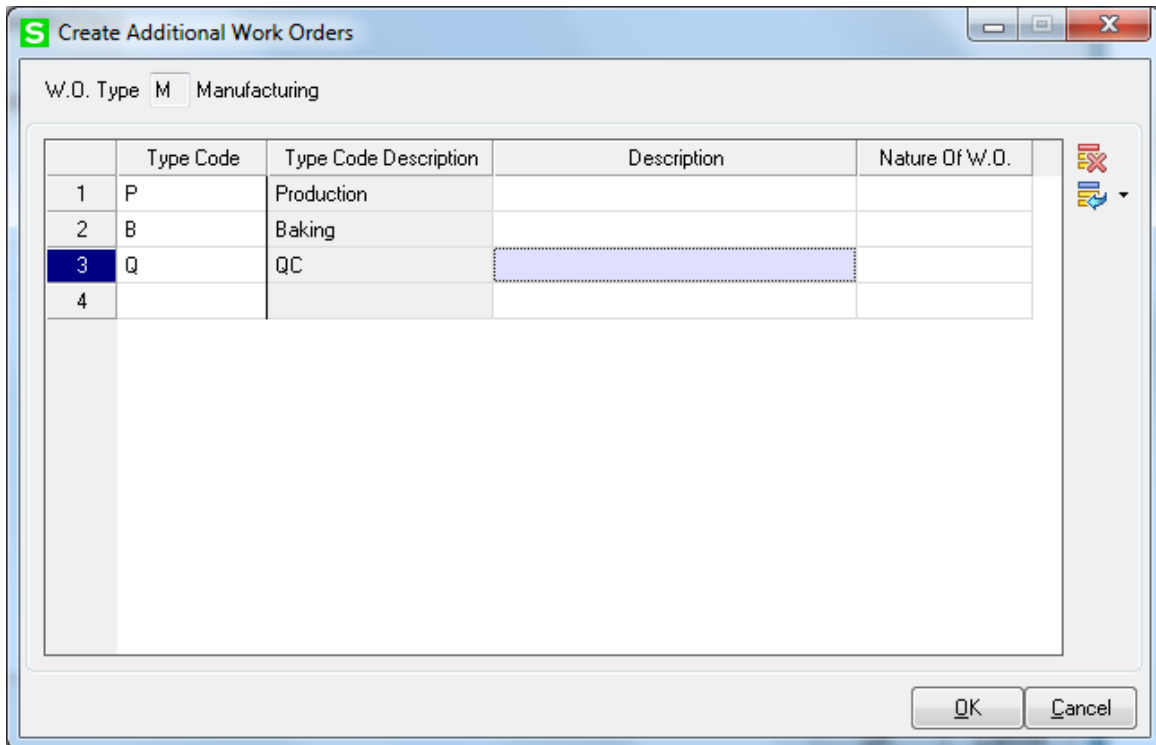
Sales Acct is used for postings when closing dispatches with labor (based on the priority in **Material Planning and Production Setup**).

Enter the **Type Code** and check the **Create Additional Orders** box to have the program create records for additional Work Orders. The WOs will be generated at the moment you're accepting a new Work Order of respective type in the **Work Order Entry**.

If you delete all the additional Type Codes in the list, and close the **Create Additional Work Orders** screen, the check box in the **Work Order Type Maintenance** will be automatically cleared. You must check it anew and click the button, if you want to add new Type codes after it.

Here is the **Create Additional Work Orders** screen with 3 WO types selected to be generated additionally for current Work Order type.

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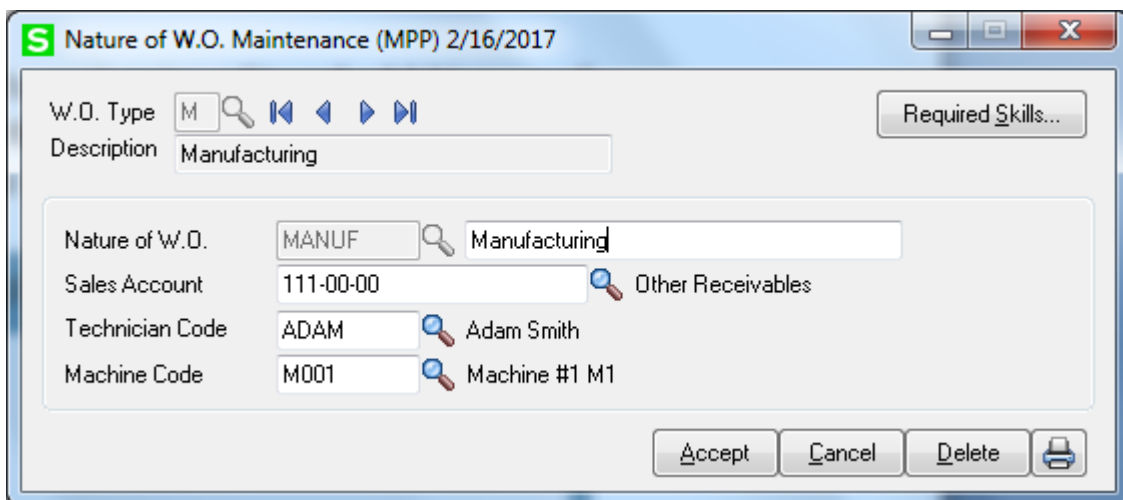
The "Create Additional Work Orders" dialog box shows a table with four rows. The third row is selected, and a new row is being added below it.

	Type Code	Type Code Description	Description	Nature Of W.O.
1	P	Production		
2	B	Baking		
3	Q	QC		
4				

Buttons: OK, Cancel

Nature of W.O. Maintenance

The **Nature of W.O. Maintenance** program is used to maintain, edit and add Nature of WO codes used in the **Material Planning & Production Management** module. This program can also be used to list the skills required for a Work Order type.



The "Nature of W.O. Maintenance (MPP) 2/16/2017" dialog box shows the following fields and values:

Field	Value
W.O. Type	M
Description	Manufacturing
Nature of W.O.	MANUF
Sales Account	111-00-00
Technician Code	ADAM
Machine Code	M001

Buttons: Required Skills..., Accept, Cancel, Delete, Print

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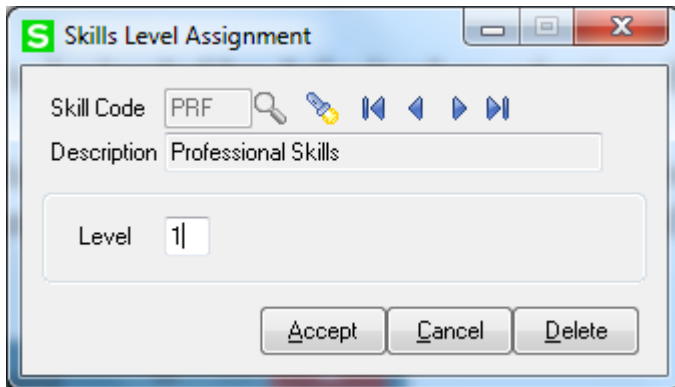
Enter **W.O. Type** or select it from the lookup for the Nature of W.O. you wish to maintain.

Enter the desired **Nature of W.O.** code to add or maintain and a **Description** for the Nature of WO

Sales Acct is used for postings when closing dispatches with labor (based on the priority in the **Material Planning and Production Setup**).

Select the **Technician Code** to be loaded by default when selecting the **Nature of WO**.

Use the **Required Skills** button on the **Nature of W.O. Maintenance** screen to open the **Skills Level Assignment** screen. Use this screen to specify the list of skills needed for the assigned Work Orders.



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.

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

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** automatically based on the **Automatically Increment Steps By option** set in the **Material Planning and Production Setup**.

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. The Extended Step Description will be loaded as the Extended Description of the generated Work Order.

The **Extended Dispatch Description** button enabled for a step flagged as MFG allows for entry of extended description to be loaded as the Extended Description of the generated MFG Dispatch.

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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.

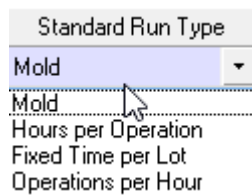
If the **Generate W.O** box is checked, enter a **Nature of W.O** describing the Work Order. This will be transferred automatically to the generated Work Order

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**, **Machine** and the **Technician** (if selected).

The **Standard Run Type** column is enabled for Manufacturing Step (the Mfg checkbox is selected) allowing the user to select the calculation method for manufacturing Dispatch Duration. This options are applied only if MFG Dispatch is generated by the Calculate Quantity to Produce/Purchase -> Auto Scheduling button.



- Default value is Mold. In this case the duration of dispatch is calculated based on the information entered for each mold/machine combination (Calc. Demand Qty/QtyProduced PerHour + Queue Time) taking into account the Shifts setup in the Week Shift Maintenance.
- Select **Hours per Operation** to calculate the dispatch duration (Dispatch Ending Date/Time) based on the specified Req. Hours taking into account the Shifts setup in the **Week Shift Maintenance**.
- Select **Fixed Time per Lot** to calculate the dispatch duration as a fixed amount of time per lot (for example, a setup operation).
- Select **Operations per Hour** to calculate the dispatch duration based on the number of operations per hour entered in the Req. Hours field.

Note: If it takes more than one hour to complete one operation, select Hours per Operation. If you complete more than one operation per hour, select Operations per Hour. If an operation always takes a fixed amount of time, regardless of the quantity being produced (for example, setup activities), select Fixed Time per Lot.

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If you selected **Hours per Operation** at the Standard Run Type field, enter the number of hours required to complete the current operation in the **Req. Hours** field. If you selected Hours per Lot at the Standard Run Type field, type the number of hours that the operation will be performed, regardless of the quantity being produced. If you selected Operations per Hour at the Standard Run Type field, enter the number of operations that can be performed in one hour in the **Req. Hours** field.

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

Routing Maintenance (MPP) 5/17/2017

Routing Number: MFGROUTING
Description: MFG Routing
W.O. Type: ☐ Nature of W.O.: ☐ W.O. Description:
Steps by Dispatch: ☒

Step No.	Mfg	Standard Run Type	Req. Hours	Labor Code	Technician	Machine	Dispatch Description
1	<input type="checkbox"/>		.00				

Accept Cancel Delete

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

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Routing Number: MFGROUTING
Description: MFG Routing
W.O. Type: M Nature of W.O.: MANUF W.O. Description: Production/Mold Steps by Dispatch: ☒

	Step No.	Mfg	Standard Run Type	Req. Hours	Labor Code	Technician	Machine	Dispatch Description
1	0010	<input checked="" type="checkbox"/>	Mold	.00	LAB1	ADAM	M001	
2	0020	<input checked="" type="checkbox"/>	Mold	.00	LAB2	BILL	M002	
3		<input type="checkbox"/>		.00				

Accept Cancel Delete

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 and for each steps having the MFG flag set, manufacturing dispatches will be generated with respective Dispatch Description/Extended Description entered. For the step not marked as MFG a Dispatch is generated only with a Labor Code loaded in the **Labor Charge Data Entry**.

Dispatch/W.O. Status Maintenance

The **Dispatch/W.O. Status Maintenance** program is used to maintain Work Order /Dispatch status codes, which are used to display the current status of Work Orders and dispatches. For example, Work Order can be opened or closed, entered or waiting for a receipt.

Dispatch/W.O. Status Maintenance (MPP) 2/16/2017

Status Code

Description

Allow Cascade Replacement ☐

Retain during Cascade Replacement ☐

Use this Status in

Use color in Scheduling Board

For W.O. ☒ R: G: B:

For Dispatches ☒ R: G: B:

Check the **Allow Cascade Replacement** box if you want to have the selected Status applied to all Dispatches associated with the W.O. when applying it to the Work Order. This checkbox is disabled if the **Use this Status in** option is set to **Dispatch**.

Check the **Retain during Cascade Replacement** box if you want the Status to be retained for the Dispatches while applying the cascade replacement to the Work Order. This checkbox is disabled if the **Use this Status in** option is set to **Work Order**. The user can select the status to be used only in the **Work Order**, **Dispatch** or both in **Work Order and Dispatch**.

Dispatch/W.O. Status Maintenance (MPP) 2/16/2017

Status Code: L

Description: Late /Conflict

Allow Cascade Replacement: ☐

Retain during Cascade Replacement: ☐

Use this Status in: **Work Order & Dis**

Use color in Scheduling: ☐

For W.O.: ☐ R: 0 G: 0 B: 0

For Dispatches: ☐ R: 0 G: 0 B: 0

Buttons: Accept, Cancel, Delete, Print

The **W.O. /Dispatch Status List** is opened through the **Status Code** Lookup button. There are several standard Status Codes that are always present in this list. Those Status Codes are set in the system upon MPP Module setup. Besides them you can add new codes for your special needs, delete them and modify their settings. However, the standard Status Codes cannot be deleted. For those codes **Yes** is displayed in the Necessary column of the **W.O./Dispatch Status List**.

Status Code	Description	Use this Status in	Necessary
C	Closed	W.O. & Dispatch	Yes
E	Entered	W.O. & Dispatch	Yes
H	Hold A/R	W.O. & Dispatch	Yes
O	Open	W.O. & Dispatch	Yes
U	Updated Rcpt.	W.O. & Dispatch	Yes
W	Wait. for Rcpt	W.O. & Dispatch	Yes
L	Late /Conflict	W.O. & Dispatch	No
P	Production	W.O. & Dispatch	No
R	Released to Pro	W.O. & Dispatch	No

Search: Status Code Begins with Find

Filters...

Custom... Lookup Wizard... Select Cancel

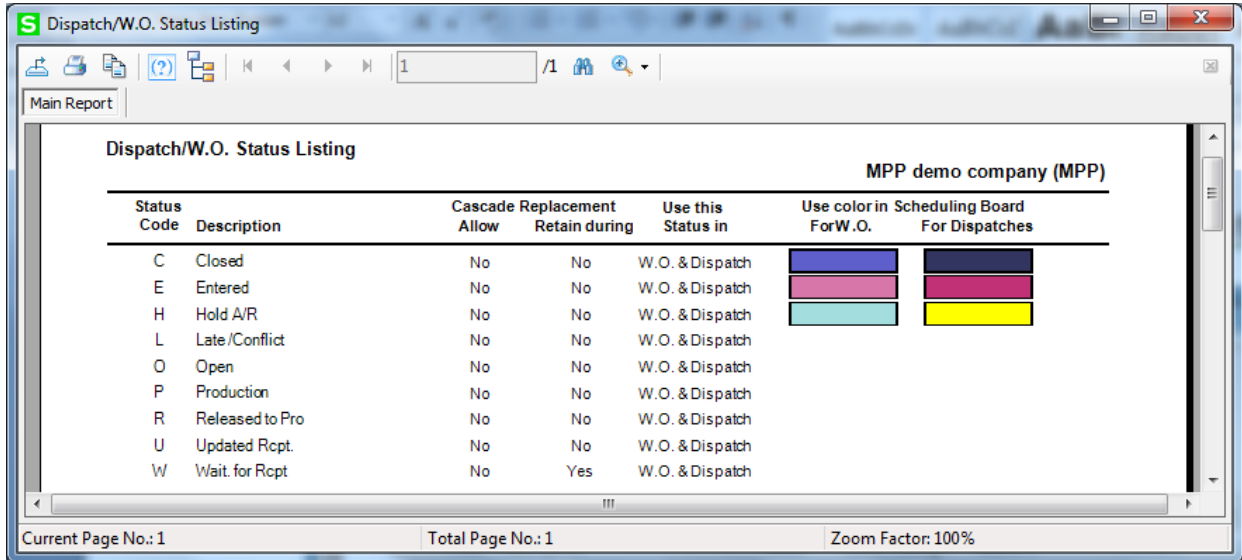
Found 9 records

Check the **Use color in Scheduling Board** box, to display Color Bars for statuses of Work Orders or Dispatches, correspondingly.
 When the box is checked, the color selection fields become enabled. You can enter RGB of the color, or click the **Lookup Colors** icon to select color in the standard Windows **Color** dialog box.

The previews display currently selected colors. You can use the arrows to easily copy one of the selected colors to the other.

The **Work Order** and **Dispatch** status colors are displayed also on the **Dispatch/W.O. Status Listing** report.

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The screenshot shows a software window titled "Dispatch/W.O. Status Listing" with a standard Windows-style title bar. Below the title bar is a toolbar with icons for file operations and navigation. A "Main Report" tab is active. The main content area displays a table titled "Dispatch/W.O. Status Listing" for "MPP demo company (MPP)". The table lists various status codes (C, E, H, L, O, P, R, U, W) and their descriptions. It also includes columns for "Cascade Allow", "Replacement Retain during", "Use this Status in", and "Use color in Scheduling Board" (with sub-columns for "For W.O." and "For Dispatches"). The bottom status bar shows "Current Page No.: 1", "Total Page No.: 1", and "Zoom Factor: 100%".

Status Code	Description	Cascade Allow	Replacement Retain during	Use this Status in	Use color in Scheduling Board For W.O.	Use color in Scheduling Board For Dispatches
C	Closed	No	No	W.O. & Dispatch		
E	Entered	No	No	W.O. & Dispatch		
H	Hold A/R	No	No	W.O. & Dispatch		
L	Late /Conflict	No	No	W.O. & Dispatch		
O	Open	No	No	W.O. & Dispatch		
P	Production	No	No	W.O. & Dispatch		
R	Released to Pro	No	No	W.O. & Dispatch		
U	Updated Rcpt.	No	No	W.O. & Dispatch		
W	Wait. for Rcpt	No	Yes	W.O. & Dispatch		

Coverage Code Maintenance

The **Coverage Code Maintenance** allows entry of coverage hours for each day of the week. Each Coverage Code can be specified as **Workdays Only** or not.

Coverage Code Maintenance (MPP) ...

Coverage Code: HMFG

Description: Work hours for manufacturing

Workdays Only: ☒

Day	Start Time	End Time
Monday	9:00AM	8:00PM
Tuesday	9:00AM	8:00PM
Wednesday	9:00AM	8:00PM
Thursday	9:00AM	6:00PM
Friday	9:00AM	6:00PM
Saturday	9:00AM	11:59AM
Sunday	12:00AM	12:00AM

Buttons: Accept, Cancel, Delete, Calendar, Alt T

Clicking the **Calendar** button displays the **Working Days Maintenance** screen, where you can specify the Workdays and Holidays.

Working Days Maintenance (MPP) 2/6/2017

Year: 2017

Quick Row: 2

	Day	Description	Work Day
1	1/1/2017	New Year	<input type="checkbox"/>
2	1/2/2017	Holiday	<input type="checkbox"/>
3	1/6/2017	Christmas	<input type="checkbox"/>
4	7/5/2017	Holiday	<input type="checkbox"/>
5			<input type="checkbox"/>

Workday Count: 20 x 8 hours = 160

Buttons: Accept, Cancel, Delete, Printer

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The **Work Days Only** option allows the user to include only workdays when calculating the Due Date/Time of the Work Order.

Memo Manager Maintenance

The **Memo Manager Maintenance** program allows setting Memo Options for Material Production Planning module to be shown/ maintained in the selected Tasks.

Module: Material Production Planning
Memo Type: Contract No
Role: Admin

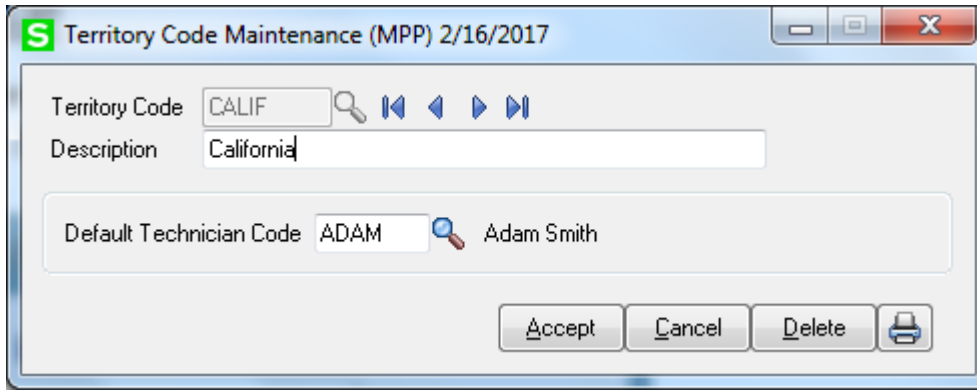
Purge...
Copy...

	Task	Memo Options	Auto Display
4	RMA Inquiry	Show	<input type="checkbox"/>
5	RMA Receipts Entry	Show	<input type="checkbox"/>
6	RMA Data Entry	Show	<input checked="" type="checkbox"/>
7	Contract Inquiry	Show	<input type="checkbox"/>
8	Contract Data Entry	Maintain	<input checked="" type="checkbox"/>
9	Work Order History Inquiry	Show	<input checked="" type="checkbox"/>
10	Work Order Inquiry	Show	<input checked="" type="checkbox"/>
11	Work Order Entry	Show	<input checked="" type="checkbox"/>
12	SO Invoice Data Entry	Show	<input type="checkbox"/>
13	Sales Order Quote/History Inq	Show	<input type="checkbox"/>

Accept Cancel

Territory Code Maintenance

The technician code specified in the **Default Technician Code** field of **Territory Code Maintenance** is the default technician for current territory.



The screenshot shows a software window titled "Territory Code Maintenance (MPP) 2/16/2017". Inside the window, there are three main input fields: "Territory Code" with the value "CALIF", "Description" with the value "California", and "Default Technician Code" with the value "ADAM" and a lookup icon next to it, showing "Adam Smith". To the right of the "Territory Code" field are four navigation buttons: a magnifying glass (Find), a double left arrow (Previous), a single left arrow (Previous), and a double right arrow (Next). At the bottom of the window are four buttons: "Accept", "Cancel", "Delete", and a printer icon.

The Territory Code can then be used as a selection criterion in the Technician Maintenance, Customer Maintenance, Ship to Maintenance, Work Order Entry, Scheduling Board and some other programs in order to match technicians and Work Order job sites with the Territory Code.

Technician Code Maintenance

The **Technician Code Maintenance** program is used to setup technician codes used in the **Material Planning and Production Management** module.

The **Technician Code Maintenance** program is used to enter technicians' qualifications using a set of skill codes and a performance evaluation level (0 to 9) for each skill.

Dispatch Entry uses skill information taken from **Technician Code Maintenance** to match skill requirements with a list of available personnel. This returns a list showing only the qualified personnel available to perform the task.

Technician Code Maintenance (MPP) 2/16/2017

Technician Code: ADAM

Last Name: Adam

First Name: Smith

Labor Cost: 20.00

Billing Rate: 5.00

Territory Code: CALIF California

Sales Account: 111-00-00 Other Receivables

E-mail Address: xxx@gmail.com

Employee No.: ADAM001 Smith Adam

J/C Cost Code Segment Value: 010

Active: ☒

Overtime Exception: ☐

Buttons: Skills..., Accept, Cancel, Delete, Print

Enter new **Technician Code** to add or an existing one to modify data.

Enter the **Last** and **First Names** and **E-mail Address** of the technician in the appropriate fields.

Use the **Labor Cost** field and the **Billing Rate** field to enter hourly cost and price information for a given Technician Code.

Enter the **Territory Code** for the area covered by the technician. The code must have been previously entered in the **Territory Code Maintenance** screen. This code can be used to search for Work Orders and Dispatches elsewhere in the system.

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Sales Acct is used for postings when closing dispatches with labor (based on the priority in **Material Planning & Production Management Setup**).

Employee Number sets the connection between the Technician Code and Employee Number used in the **Payroll** module.

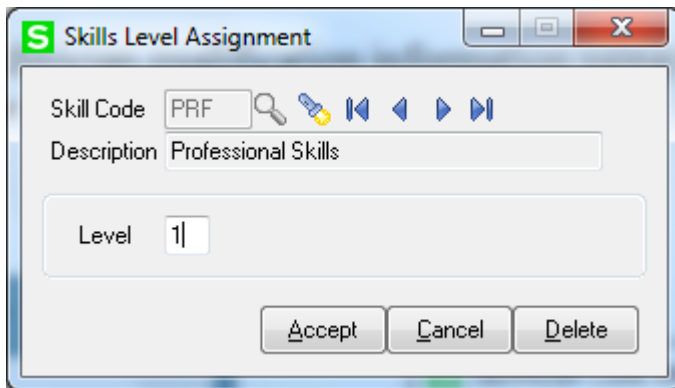
The **J/C Cost Code Segment Value** is used during the import in the **Job Posting Entry**, to substitute the **J/C Cost Code Seg. for Tech Posting** specified in the **Material Planning & Production Management Setup**. This field is enabled if the **J/C Cost Code Seg. for Tech Posting** option is not set to **None**.

Check the **Overtime Exception** box to denote that workday for this technician equals to 10 hours instead of usual 8.

Clear the **Active** check box, if the **Technician** is not available for assigning dispatches. The Technicians with the **Active** option turned off cannot be selected anywhere for new Work Orders and Dispatches. Existing Work Orders and Dispatches of the inactive technician can be still processed.

Press the **Skills** button to submit the technician qualification information using the skills defined in the **Skill Code Maintenance** program.

The following screen will appear.

The screenshot shows a software window titled "Skills Level Assignment". It contains a "Skill Code" field with the value "PRF" and a search icon. Below it is a "Description" field with the value "Professional Skills". There is a "Level" field with the value "1". At the bottom are three buttons: "Accept", "Cancel", and "Delete".

Enter the desired **Skill Code** for the technician.

Enter the **Skill Level Number** representing the technical expertise required for satisfactory task completion. Skill level can be from 0 to 9.

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/Purchase** program is processed at the item level (not at warehouse level).

S Inventory Management Options (MPP) 2/16/2017

1. Main | 2. Additional | 3. Entry | 4. Printing

Require Multiple Warehouses ☒

Reorder by Warehouse ☐

Default Warehouse Code 001

MRP Warehouse Code MRP

Segment Substitution

G/L Segment for Whse Postings Location

Inventory Period

Base Inventory Periods On Calendar Months

Current Calendar Year 2017

Current Period 02

Enable Warranty Tracking ☒

Integrate with

General Ledger ☒

Job Cost ☐

Track Warehouse Transfers as Issues ☐

Calculate Commission by Inventory Item ☒

Include in Quantity Available No POs and WOs

Accept Cancel

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.

Warehouse Code Maintenance (MPP) 2/16/2017

Warehouse Code: 001

Description: EAST WAREHOUSE

Name: ABC CENTRAL WAREHOUSE

Address: 1101W. MACARTHUR BLVD

ZIP Code: 92626

City: Costa Mesa State: CA

Country: USA

Telephone: Ext:

Fax:

E-mail Address:

Contact:

Include In MRP ☒

Post to Location:

Accept Cancel Delete Print 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.

Item Maintenance (MPP) 2/16/2017

Item Code: BEL25
Description: HON 4 DRAWER LETTER FILE 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
Weight:
Volume: 0.0000
Inventory Cycle:
Unit of Measure: Standard EACH
Purchases: EACH No. of EACH: 1
Sales: EACH No. of EACH: 1
OP Warehouse:
Price Code: STD STANDARD QUANTITY PRIC
Default Whse: 000 CENTRAL WAREHOUSE
Planning Code: 001
MFG Priority Code: 1
MFG Code: Made to Stock
Primary Vendor: 01-AIRWAY
Airway Property:
Warranty Code:
Molds Machine:
Sales: Retail Price: 131.000
Standard Price: 131.000
Last Sold:
Purchases: Standard Cost: 861.315
Average Cost: 861.315
Last Receipt: 1/8/2016
Last Costs: Item: 1,047.600
Allocated: .000
Total: 1,047.600
Quantities:

Whse	Description	On Hand	On PO	On SO	On Bk Ord	Committed	On W/O	Req for W/O	A
000	CENTRAL ...	195.00	25.00	200.00	.00	200.00	849.00	.00	
001	EAST WA...	.00	124.00	274.00	.00	274.00	496.00	.00	
MRP	MRP wareh...	.00	.00	.00	.00	.00	.00	.00	

Accept Cancel Delete

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.

Item Molds Machine (MPP) 2/16/2017

Item Code: BEL25 HON 4 DRAWER LETTER FLE W/O LK

Quick Row: 1

	Mold Number	Modified	Prefer Code	Machine Code	Qty Produced Per Hou	Queue Time
1	0000000002	<input type="checkbox"/>	1	M002	5.00	20.00
2	0000000001	<input type="checkbox"/>	2	M001	.00	.00
3		<input type="checkbox"/>			.00	.00

Buttons: Accept, Cancel, Delete

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

Mold Info (MPP) 2/16/2017

Item Code: BEL25 Mold No.: 0000000001

Multiple Items: ☒ Slave ☐ Bin Location

Comment:

Show All: ☐

Work Order No.	Dispatch No.	Item Code
----------------	--------------	-----------

Buttons: Accept, Cancel

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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:

	Work Order No.	Dispatch No.	Item Code
1	0000246	0001	BEL10
2	0000246	0002	BEL10
3	0000247	0001	BEL25
4	0000248	0001	BEL25-VIP
5	0000249	0001	BEL10
6	0000249	0002	BEL10
7	0000252	0001	BEL10
8	0000252	0002	BEL10
9	0000253	0001	BEL10
10	0000253	0002	BEL10
11	0000261	0001	BEL25
12	0000264	0001	BEL25
13	0000265	0001	BEL25

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

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.

The **Dispatch** option added on the Orders tab allows for viewing all active Dispatches where the selected Item is committed.

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Item Maintenance (MPP) 3/10/2017

Item Code: 2480-8-50
Description: DESK FILE 8" CAP 50

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

☐ Purchase Order ☐ Sales Order ☒ Dispatch

Work Order No.	Dispatch No.	Dispatch Date	Whse	Ordered
0000283	0001	2/16/2017	001	635.00
0000283	0002	2/16/2017	001	635.00
0000284	0001	2/16/2017	002	910.00
0000284	0002	2/16/2017	002	910.00
0000378	0001	2/16/2017	000	6.00
0000380	0001	2/16/2017	000	30.00

Ordered: 3,126.00

Accept Cancel Delete

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 the 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	
Order Number	All	

Item Code	Whse	Vendor No.	Qty On Hand	Qty What If	Qty On SO	Qty On BO	Qty On PO	Qty On WO	Qty Req For WO	Qty Avail.	MRP Run F
-----------	------	------------	-------------	-------------	-----------	-----------	-----------	-----------	----------------	------------	-----------

MRP Run Processing Options:

Show Items With Zero Req. Qty- select this checkbox if you want to load the Items with zero quantity required (Calc. Demand) into the material production planning grid.

Calculate Quantity at Item Level – select this checkbox if you want the demand to be calculated at the Item level (instead of warehouse level). Only the warehouses

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flagged as “Include in MRP” in the Warehouse Code Maintenance are included in the 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**, **Technician Code** and **Start Date/Time** options are used for Manufacturing WO/Dispatch generation.

Item Code	Whse	Qty Avail	MRP Run Req	Qty Avail MRP Run order Met	Record Qty	EOR	Max Qty	Calc Demand	Mold Number	Machine Code	Technician	
55	8973	002	111.00	.00	111.00	Max	100.00	300.00	400.00	289.00		
56	ARS-9101	000	21.00	.00	21.00	Econ	50.00	100.00	200.00	100.00		
57	ARS-9101	001	1.00	.00	1.00	Max	10.00	30.00	70.00	71.00		
58	ARS-9101	002	24.00	.00	24.00	Max	10.00	20.00	50.00	26.00		
59	ARS-9201	001	17.00	.00	17.00	Max	10.00	20.00	50.00	67.00		
60	ARS-9201	002	18.00	.00	18.00	Max	10.00	20.00	50.00	32.00		
61	ARS-9301	000	81.00	.00	81.00	Econ	60.00	100.00	200.00	100.00		
62	ARS-9301	001	9.00	.00	9.00	Max	10.00	20.00	50.00	41.00		
63	ARS-9301	002	25.00	.00	25.00	Max	10.00	20.00	50.00	25.00		
64	ARS-9401	001	1.00	.00	1.00	Max	10.00	30.00	40.00	41.00		
65	ARS-9401	002	7.00	.00	7.00	Max	5.00	10.00	20.00	13.00		
66	BEL10	MRP	500.00	.00	500.00	None	.00	.00	.00	500.00	0000000002	M002
67	BEL10-VIP	001	4,381.50	.00	4,381.50	Max	.00	.00	100.00	4,481.50		
68	BEL10-VIP	MRP	.00	625.00	625.00	None	.00	.00	.00	625.00		
69	BEL25	000	343.00	.00	343.00	Econ	.00	.00	.00	343.00	0000000002	M002
70	BEL25	001	2,826.00	.00	2,826.00	Max	.00	.00	100.00	2,852.00	0000000002	M002
71	BEL25-VIP	000	343.00	.00	343.00	Econ	.00	.00	.00	343.00	0000000002	M002
72	BEL25-VIP	001	2,852.00	.00	2,852.00	Econ	.00	.00	.00	2,852.00	0000000002	M002
73	D1000	001	352.00	.00	352.00	Econ	.00	.00	.00	352.00		
74	D1000-BB%	001	1.00	.00	1.00	Econ	.00	.00	.00	1.00		

The following selection options may be applied:

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

- 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 What If** – quantity representing the item's supposed demand based on which the Calc. Demand field value is recalculated upon pressing the **What If Scenario** button.
- **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:
$$QAVL = QOH - SOQ - BOQ + POQ + WOQ - QRWO$$
- **MRP Run Req** - 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 **MRP Run Req** 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:
$$MRPQ = QAVL - MRP \text{ Run Req}$$
- **Reorder Method** – MAX, ROP or EOQ.
- **Reorder Qty** – is the minimum available quantity at which to reorder this item. This field value is defaulted from the Item Reorder Maintenance.
- **EOR** – Economic Order quantity is the quantity normally reordered when the available stock falls to or below the reorder point. This field value is defaulted from the Item Reorder Maintenance.
- **Max Qty**- If Maximum Stock Level is selected in the Reorder Method field, enter the maximum level for this item. This field value is also defaulted from the Item Reorder Maintenance.
- **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 Number**- this field is defaulted to the Mold Number setup for an Item in the Item Mold Maintenance and can be changed here. If there are several Molds setup, the Mold Number with the highest Prefer Code (for example from 001, 003, 005 the one with 001 will be loaded). The user is not allowed entering the Mold Number 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:

- **What If Scenario**
- **Recalculate/Relink**
- **Auto Scheduling**
- **Generate Manufacturing**
- **Generate PO**

What If Scenario – this button allows for calculating the **Calc Demand** quantity taking into account the **Qty What If** field value instead of the **Qty On SO**.

The **What If Scenario** button is enabled if the **Calculate Qty at Item Level** option is turned off.

Here is an example of Calc Demand quantity calculation based on the What If Qty entered:

The Calc Demand is calculated as Reorder Qty or EOR or Max Qty (based on the Reorder Method selected) – Qty Avail MRP Run.

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Item Code	W/hs	y On Ha	Qty What If	Qty On S	ty On B	ty On PC	On Req For	Qty Avail	RP Run R	y Avail MRP R	Reorder Method	Reord. Qty	EOB	Max Qty	Calc. Demand	M
1 NEW1	000	.00	.00	.00	.00	.00	.00	.00	.00	.00	Economic Qt	.00	.00	.00	.00	
2 NEW1	001	.00	.00	.00	.00	.00	.00	.00	.00	.00	None	.00	.00	.00	.00	
3 NEW2	000	.00	.00	.00	.00	.00	.00	.00	.00	.00	Economic Qt	.00	.00	.00	.00	
4 NEW2	001	.00	.00	.00	.00	.00	.00	.00	.00	.00	None	.00	.00	.00	.00	
5 TSET_BILL	000	.00	100.00	.00	.00	.00	.00	100.00	.00	100.00	Economic Qt	30.00	25.00	20.00	125.00	
6 TSET_BILL	001	.00	200.00	.00	.00	.00	.00	200.00	.00	200.00	None	.00	.00	.00	200.00	

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 BEL25 for warehouse code: "MRP".

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S 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
Technician Code

Select Field	Operand	Value
Item Code	Equal to	BEL25
Material Planning Code	All	
Machine Code	All	
Order Number	All	

Item Code	Whse	Qty Avail	MRP Run Req	Qty Avail MRP Run	order Meth	Reord. Qty	EOR	Max Qty	Calc. Demand	Mold Number	Machine Code	Technician
-----------	------	-----------	-------------	-------------------	------------	------------	-----	---------	--------------	-------------	--------------	------------

Proceed Clear Hide/Show What If Scenario Recalculate/Relink Auto Scheduling Gen. Manufacturing Generate PO Accept Cancel

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

S 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
Technician Code

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

em Cod	Whse	Qty Avail	MRP Run Req	Qty Avail MRP Run	order Meth	Reord. Qty	EOR	Max Qty	Calc. Demand	Mold Number	Machine Code	Technician	Include	
1	1001-H MRP	.00	17,236.00	17,236.00	Econk	.00	.00	.00	17,236.00				<input type="checkbox"/>	HON
2	230-1E MRP	.00	417.00	417.00	Econk	.00	.00	.00	417.00				<input type="checkbox"/>	HON
3	BEL10 MRP	134.00	.00	134.00	Max S	.00	.00	.00	134.00				<input type="checkbox"/>	HON
4	BEL25 MRP	5.00	.00	5.00	Econk	.00	.00	.00	5.00	000000002	M002		<input checked="" type="checkbox"/>	HON
5	FINST MRP	2,340.00	.00	2,340.00	Econk	.00	.00	.00	2,340.00				<input type="checkbox"/>	DESK
6	PLS-TI MRP	139.00	.00	139.00	Econk	.00	.00	.00	139.00				<input type="checkbox"/>	HON
7	SLBMT MRP	6,432.00	.00	6,432.00	Econk	.00	.00	.00	6,432.00				<input type="checkbox"/>	Dora
8	TIP MRP	5.00	.00	5.00	Econk	.00	.00	.00	5.00				<input type="checkbox"/>	HON

Proceed Clear Hide/Show What If Scenario 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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The **Hide/Show** button allows to show/hide columns in the screen.

The screenshot shows the 'Calculate Quantity to Produce/Purchase' window. It features a top section with various filters and a bottom section with a large table. The 'Hide/Show' button is located at the bottom of the window, highlighted with a red box.

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

Item Code	Whse	Qty Avail.	MRP Run Req	Qty Avail MRP Run	Order Mth	Reord. Qty	EOR	Max Qty	Calc. Demand	Mold Number	Machine Code	Technician	Include
-----------	------	------------	-------------	-------------------	-----------	------------	-----	---------	--------------	-------------	--------------	------------	---------

Buttons: Proceed, Clear, **Hide/Show**, What If Scenario, Recalculate/Relink, Auto Scheduling, Gen. Manufacturing, Generate PO, Accept, Cancel

The following screen appears after the **Hide/Show** button has been clicked:

The screenshot shows the 'Default Values' dialog box. It contains a table with 'Column Heading' and 'Hidden' columns. The 'Hidden' column has checkboxes for various fields, with 'Reorder Method' checked.

Column Heading	Hidden
Item Code	<input type="checkbox"/>
Whse	<input checked="" type="checkbox"/>
Vendor No.	<input checked="" type="checkbox"/>
Qty On Hand	<input checked="" type="checkbox"/>
Qty What If	<input type="checkbox"/>
Qty On SO	<input type="checkbox"/>
Qty On BO	<input type="checkbox"/>
Qty On PO	<input type="checkbox"/>
Qty On WO	<input type="checkbox"/>
Qty Req For WO	<input type="checkbox"/>
Qty Avail.	<input type="checkbox"/>
MRP Run Req	<input type="checkbox"/>
Qty Avail MRP Run	<input type="checkbox"/>
Reorder Method	<input checked="" type="checkbox"/>
Reord. Qty	<input type="checkbox"/>
EOR	<input type="checkbox"/>
Max Qty	<input type="checkbox"/>

Buttons: OK, Cancel

Select the columns to which should be hidden in the screen and press **OK**.

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Item Code	Description	Qty On SO	Qty On BO	Qty On PO	Qty On W/O	Calc. Demand	Qty Avail.	Product Line	MRP Rlt.
1 1001-HON-H252LK	HON 2 DRAWER LETTER FLE W/L	14.00	.00	.00	16.00	1,705.00	10.00	WF&A	1.8
2 1001-HON-H254	HON 4 DRAWER LETTER FLE W/O	.00	.00	12,783.00	.00	7,567.96	6,426.00	WF&A	13.9
3 1001-HON-H254	HON 4 DRAWER LETTER FLE W/O	25.00	2.00	38.00	.00	565.00	20.00	WF&A	1.8
4 1001-HON-H254LK	HON 4 DRAWER LETTER FLE W/L	.00	.00	.00	.00	60.00	52.00	WF&A	
5 1001-HON-H254LK	HON 4 DRAWER LETTER FLE W/L	8.00	.00	.00	.00	19.00	1.00	WF&A	
6 1001-HON-H254LK	HON 4 DRAWER LETTER FLE W/L	3.00	2.00	.00	.00	24.00	4.00	WF&A	
7 200-230	PRINTER STAND W/ BASKET	119.00	.00	143.00	.00	22,734.00	3,638.00	PS&A	19.0
8 200-230	PRINTER STAND W/ BASKET	.00	.00	7.00	.00	9,508.96	6,435.00	PS&A	13.9
9 230-182-Z	HON 4 DRAWER LETTER FLE W/O	.00	.00	84.00	.00	12,364.00	1,886.00	WF&A	14.2
10 230-182-Z	HON 4 DRAWER LETTER FLE W/O	.00	.00	1,930.00	.00	9,503.97	1,954.00	WF&A	10.4
11 2480-8-50	DESK FILE 8" CAP 50	10,000.00	.00	.00	.00	125,903.00	32,035.00	FD&A	92.9
12 2480-8-50	DESK FILE 8" CAP 50	.00	.00	.00	.00	39,052.92	35.00	FD&A	38.2
13 2480-8-50	DESK FILE 8" CAP 50	100.00	20.00	.00	.00	2,040.00	90.00	FD&A	1.7
14 2481-5-50	DESK FILE 5 1/4" CAP 50	.00	.00	250.00	.00	374.00	326.00	FD&A	
15 2481-5-50	DESK FILE 5 1/4" CAP 50	75.00	.00	100.00	.00	635.00	165.00	FD&A	
16 2551-3-50	DESK FILE 3 1/2" CAP 50	.00	.00	.00	.00	916.00	84.00	FD&A	
17 2551-3-50	DESK FILE 3 1/2" CAP 50	.00	5.00	.00	.00	585.00	165.00	FD&A	
18 2568-3-25	DESK FILE 3 1/2" CAP 25	.00	.00	.00	.00	775.00	225.00	FD&A	
19 2568-3-25	DESK FILE 3 1/2" CAP 25	.00	.00	.00	.00	565.00	435.00	FD&A	
20 4886-18-14-3	PAPER CADDY 18"W 14"D 3"H	.00	.00	.00	.00	150.00	94.00	PS&A	
21 4886-18-14-3	PAPER CADDY 18"W 14"D 3"H	1.00	.00	.00	.00	51.00	1.00	PS&A	

Note: *Item Code and Calc. Demand fields can't be hidden. The selection is done by the user level. Each user should select columns and hide/show for himself.*

The **Mold Number** and **Machine Code** with **Prefer Code 1** setup for current Item in the Item Molds Machine entry are automatically loaded in the grid.

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 (SM_ItemsQtyToProduce) used for generating Work Orders from Production Scheduling 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# BEL25 by the **Gen Manufacturing WO** button:

Material Planning & Production Management 60

Work Order Entry (MPP) 2/16/2017

Work Order No. 0000328 MFG Door Defaults...

1. Header 2. Address 3. Dispatches User Useriig

Order Date 2/16/2017 Order Time 02:20 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 0000000002

Preferred Tech.

Item Number BEL25 HON 4 DRAWER LETTER FLE W/C

Lot/Serial No.

Production Lot/Batch Size 0

Plant Code

Production Increment 0

Territory

Cust PO

Schedule Date 2/16/2017 Time 02:20 PM

Due Date 2/16/2017 Time 02:20 PM

Contract No.

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 61

Work Order Entry (MPP) 2/16/2017

Work Order No. 0000328 MFG Door Defaults...

1. Header 2. Address 3. Dispatches User Useriig

Dispatch No.	Dispatch Date	Machine	Machine Name	Status
0001	2/16/2017	M002	Machine #2 M2	Open

Quick Print Accept Cancel Delete

BOM components are loaded into the WO Dispatch Transaction.

Material Planning & Production Management 62

Dispatch Data Entry (MPP) 2/16/2017

Work Order No 0000328 MFG Door

Dispatch No. 0001

1. Header 2. Lines 3. Production User Useriig

Quick Row 1

Serial No. Add New Increment

	Item Code	Ordered	Unit Price	Extension	Comment
1	BEL25	20.00	121.830	2,436.60	
2	BEL25-VIP	20.00	125.550	2,511.00	
3	PLS-TRAY	20.00	125.550	2,511.00	
4	TIP	20.00	121.830	2,436.60	
5	/MISC_CHARGE1	100.00	.000	80.00	

Description HON 4 DRAWER LETTER FLE W/O LK

Warehouse MRP

Unit Of Measure EACH

Price Level

Total Amount 9,975.20

Quick Print Manufacturing Labor Accept Cancel Delete

Daily Production entry transactions are created upon closing Manufacturing Dispatches.

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 63

S 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 ☐

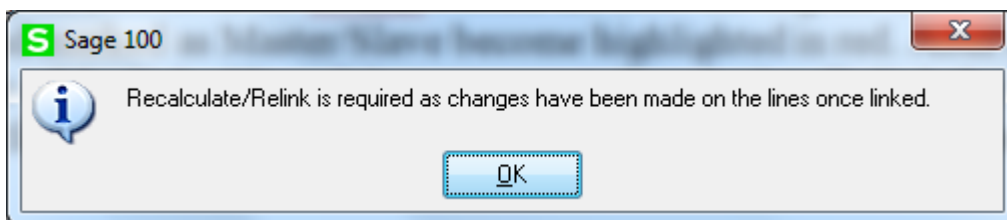
Machine Code Start Date Time
 Technician Code

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

Item Code	Whse	Qty On Hnd	Qty On Sfty	Qty On Bldg	Qty On Pkty	Qty On W/Req	For	Avail	MRP	Run	Re/Avail	MRP	der	Miscord	G	EOR	ax	Qalc	Dema	Mold Number	chine	Technician	Col	Include
1	1001-HON-H	000	0	86.00	.00	.00	.00	5.60	80.40	1,244.00	1,163.60	Ec	30.00	100.00	.00	1,263.60								<input type="checkbox"/>
2	1001-HON-H	001	0	19.00	.00	.00	.783.00	.00	376.60	25.40	23,630.40	7,205.00	M	10.00	20.00	.00	7,255.00							<input type="checkbox"/>
3	1001-HON-H	MRP	0	.00	.00	.00	.00	.00	.00	.00	12.00	12.00	N	.00	.00	.00	12.00							<input type="checkbox"/>
4	230-182-Z	000	0	63.00	.00	.00	84.00	.00	366.00	45.00	933.00	3,978.00	Ec	.00	.00	.00	3,978.00							<input type="checkbox"/>
5	230-182-Z	001	0	24.00	.00	.00	.330.00	.00	12.00	66.00	17,722.80	5,756.80	Ec	.00	300.00	.00	6,756.80							<input type="checkbox"/>
6	230-182-Z	MRP	0	.00	.00	.00	.00	.00	.00	.00	9.00	9.00	N	.00	.00	.00	9.00							<input type="checkbox"/>
7	2480-8-50	001	0	165.00	.00	.00	.00	.00	.00	65.00	47,260.80	7,095.80	M	.00	300.00	.00	7,895.80							<input type="checkbox"/>
8	2480-8-50	MRP	0	.00	.00	.00	.00	.00	.00	.00	24.00	24.00	N	.00	.00	.00	24.00							<input type="checkbox"/>
9	BEL10	000	0	270.00	560.00	.00	.00	329.60	33.60	6.00	.00	6.00	Ec	.00	.00	.00	311.00	0000000002	A1				<input type="checkbox"/>	
10	BEL10	MRP	0	.00	3.00	.00	.00	.00	.00	3.00	.00	3.00	N	.00	.00	.00	3.00	0000000002	A1				<input type="checkbox"/>	
11	BEL10-VIP	001	0	84.00	11.00	.00	212.00	1.00	391.60	407.60	.00	5,807.60	M	.00	.00	.00	5,907.60							<input type="checkbox"/>
12	BEL25	000	0	5.00	.00	.00	25.00	308.00	.00	138.00	.00	338.00	Ec	.00	.00	.00	311.00	0000000002	M002				<input type="checkbox"/>	
13	BEL25	MRP	0	.00	10.00	.00	.00	10.00	.00	.00	.00	.00	N	.00	.00	.00	3.00	0000000002	M002				<input type="checkbox"/>	
14	BEL25-VIP	000	0	7.00	8.00	.00	.00	2.00	308.00	111.00	.00	311.00	Ec	.00	.00	.00	311.00	0000000002	M002				<input type="checkbox"/>	

Proceed Clear Hide/Show What If Scenario Recalculate/Relink Auto Scheduling Gen. Manufacturing Generate EO 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

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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:
 Technician Code:

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

Item Code	Where	Qty On Hnd	Qty On Stk	Qty On Bldg	Qty On Pkty	Qty On W/Reg	For Qty	Avail	MRP Run	Re/Avail	MRP	der	Misc	Q	EOR	ax	Qalc	Demand	Mold Number	chine	Technician	Cox	Include
1	1001-HON4	000	0	86.00	.00	.00	.00	5.60	80.40	1,244.00	1,163.60	Ec	30.00	100.00	.00	1,263.60							<input type="checkbox"/>
2	1001-HON4	001	0	19.00	.00	.00	.783.00	.00	376.60	25.40	23,630.40	M	10.00	20.00	.00	7,255.00							<input type="checkbox"/>
3	1001-HON4	MRP	0	.00	.00	.00	.00	.00	.00	.00	12.00	Nr	.00	.00	.00	12.00							<input type="checkbox"/>
4	230-182-Z	000	0	63.00	.00	.00	84.00	.00	366.00	145.00	933.00	Ec	.00	.00	.00	3,978.00							<input type="checkbox"/>
5	230-182-Z	001	0	24.00	.00	.00	.930.00	.00	12.00	466.00	17,722.80	Ec	.00	300.00	.00	6,756.80							<input type="checkbox"/>
6	230-182-Z	MRP	0	.00	.00	.00	.00	.00	.00	.00	9.00	Nr	.00	.00	.00	9.00							<input type="checkbox"/>
7	2480-8-50	001	0	165.00	.00	.00	.00	.00	.00	65.00	47,260.80	M	30.00	300.00	.00	7,895.80							<input type="checkbox"/>
8	2480-8-50	MRP	0	.00	.00	.00	.00	.00	.00	.00	24.00	Nr	.00	.00	.00	24.00							<input type="checkbox"/>
9	BEL10	000	0	270.00	560.00	.00	.00	329.60	33.60	6.00	.00	Ec	.00	.00	.00	320.00	0000000002	A1	ADAM			<input checked="" type="checkbox"/>	
10	BEL10	MRP	0	.00	3.00	.00	.00	.00	.00	3.00	.00	Nr	.00	.00	.00	20.00	0000000002	A1				<input type="checkbox"/>	
11	BEL10-VIP	001	0	84.00	11.00	.00	.00	212.00	1.00	391.60	107.60	M	.00	.00	.00	5,907.60							<input type="checkbox"/>
12	BEL25	000	0	5.00	.00	.00	25.00	308.00	.00	38.00	.00	Ec	.00	.00	.00	320.00	0000000002	M002				<input checked="" type="checkbox"/>	
13	BEL25	MRP	0	.00	10.00	.00	.00	10.00	.00	.00	.00	Nr	.00	.00	.00	20.00	0000000002	M002	EVA			<input type="checkbox"/>	
14	BEL25-VIP	000	0	7.00	8.00	.00	.00	2.00	308.00	111.00	.00	Ec	.00	.00	.00	320.00	0000000002	M002				<input checked="" type="checkbox"/>	

Proceed Clear Hide/Show What If Scenario Recalculate/Relink Auto Scheduling Gen. Manufacturing Generate PD 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.

Dispatch Data Entry (MPP) 2/16/2017

Work Order No 0000337 Install Temp Control / Heat Pa

Dispatch No. 0001

1. Header 2. Lines 3. Production User Useriig

Dispatch Date 2/16/2017 Dispatch Status 0 Open

Starting Date 2/16/2017 Starting Time 03:16 PM Commit Quantity ☒

Ending Date 2/16/2017 Ending Time 03:39 PM

Machine M002 Machine #2 M2 Mold Number 0000000002

Technician

MFG Item Code BEL10 Lot/Serial No.

Quantity on WO 320.00

Outside Processing

Send Out... Receive...

Quick Print Manufacturing Labor Accept Cancel Delete

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

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Mold Info (MPP) 2/16/2017

Item Code: BEL10 Mold No.: 0000000002

Multiple Items: ☒ Slave: ☒ Bin Location:

Comment:

Show All: ☐

	Work Order No.	Dispatch No.	Item Code
1	0000246	0001	BEL10
2	0000246	0002	BEL10
3	0000249	0001	BEL10
4	0000249	0002	BEL10
5	0000252	0001	BEL10
6	0000252	0002	BEL10
7	0000253	0001	BEL10
8	0000253	0002	BEL10
9	0000267	0001	BEL10
10	0000267	0002	BEL10
11	0000269	0002	BEL10
12	0000271	0002	BEL10
13	0000272	0001	BEL10
14	0000272	0002	BEL10
15	0000337	0001	BEL10

Accept Cancel

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

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Mold Info (MPP) 2/16/2017

Item Code: BEL10 Mold No.: 0000000002

Multiple Items: ☒ Slave: ☒ Bin Location:

Comment:

Show All: ☒

	Work Order No.	Dispatch No.	Item Code
9	0000253	0001	BEL10
10	0000253	0002	BEL10
11	0000261	0001	BEL25
12	0000264	0001	BEL25
13	0000265	0001	BEL25
14	0000267	0001	BEL10
15	0000267	0002	BEL10
16	0000268	0001	BEL25
17	0000269	0002	BEL10
18	0000271	0002	BEL10
19	0000272	0001	BEL10
20	0000272	0002	BEL10
21	0000328	0001	BEL25
22	0000337	0001	BEL10

Accept Cancel

Once Work Orders/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:

Sage 100

Mold Number "0000000002" is planned for the following Item/WO(s):

- BEL10 0000246 0001
- BEL10 0000246 0002
- BEL10 0000249 0001
- BEL10 0000249 0002
- BEL10 0000252 0001
- BEL10 0000252 0002
- BEL10 0000253 0001
- BEL10 0000253 0002
- BEL10 0000267 0001
- BEL10 0000267 0002
- BEL10 0000269 0002
- BEL10 0000271 0002
- BEL10 0000272 0001
- BEL10 0000272 0002
- BEL10 0000337 0001
- BEL25 0000247 0001
- BEL25 0000261 0001
- BEL25 0000264 0001
- BEL25 0000265 0001
- BEL25 0000268 0001
- BEL25 0000328 0001
- BEL25-VIP 0000248 0001

WO for item "BEL25" will be scheduled after completion of planned WO for mold "0000000002".
Do you want to bypass creating WO(s) for mold "0000000002"?

Bypass Schedule Bypass All Schedule All

Work Order Generation

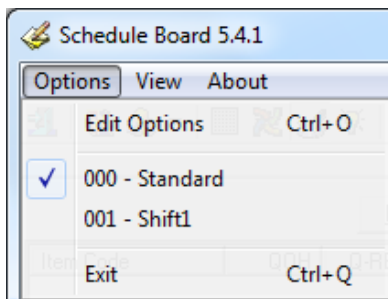
Production Scheduling Board

The **Scheduling 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 WO by type, Mold Setup, Production, etc. using view selection grid
- Managing daily functions by right clicking on a work order

The **Dispatch Board** displays tasks in cells with task dates and technicians placed vertically on the board or horizontally across the top of the board.

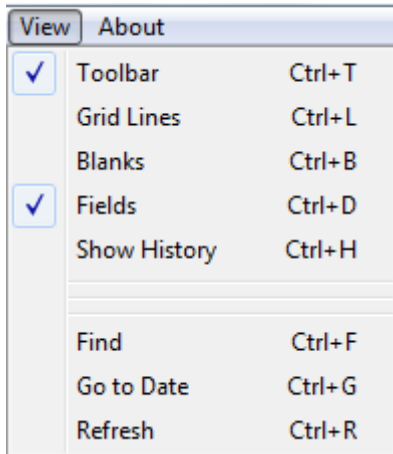
The **main menu** located in the upper left corner of the Dispatch Board screen, contains the following submenus.



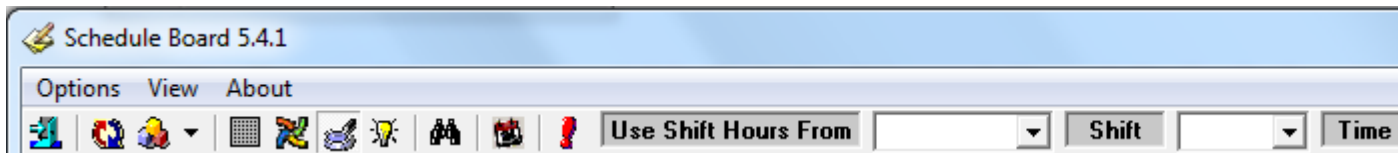
In the **Options** menu, you can select an existing **Options Type**, and **Edit Options** in the **Options for User** dialog box (described later). Current Options Type is indicated with a checkmark.

In the **View** menu, you can select to Show/Hide **Toolbar**, **Grid Lines**, **Fields**, **Blanks** (blank rows and columns), **Show History**, **Refresh** the Dispatch Board view, **Find** a specific WO or Dispatch and go to the preferred date on the Board.

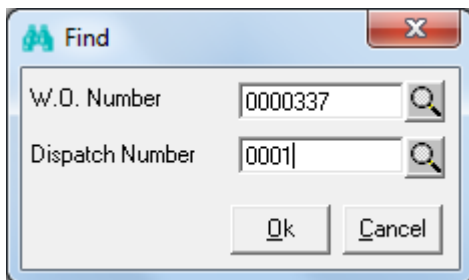
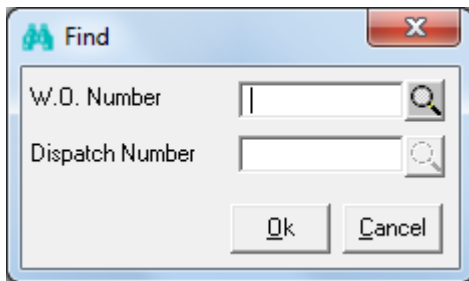
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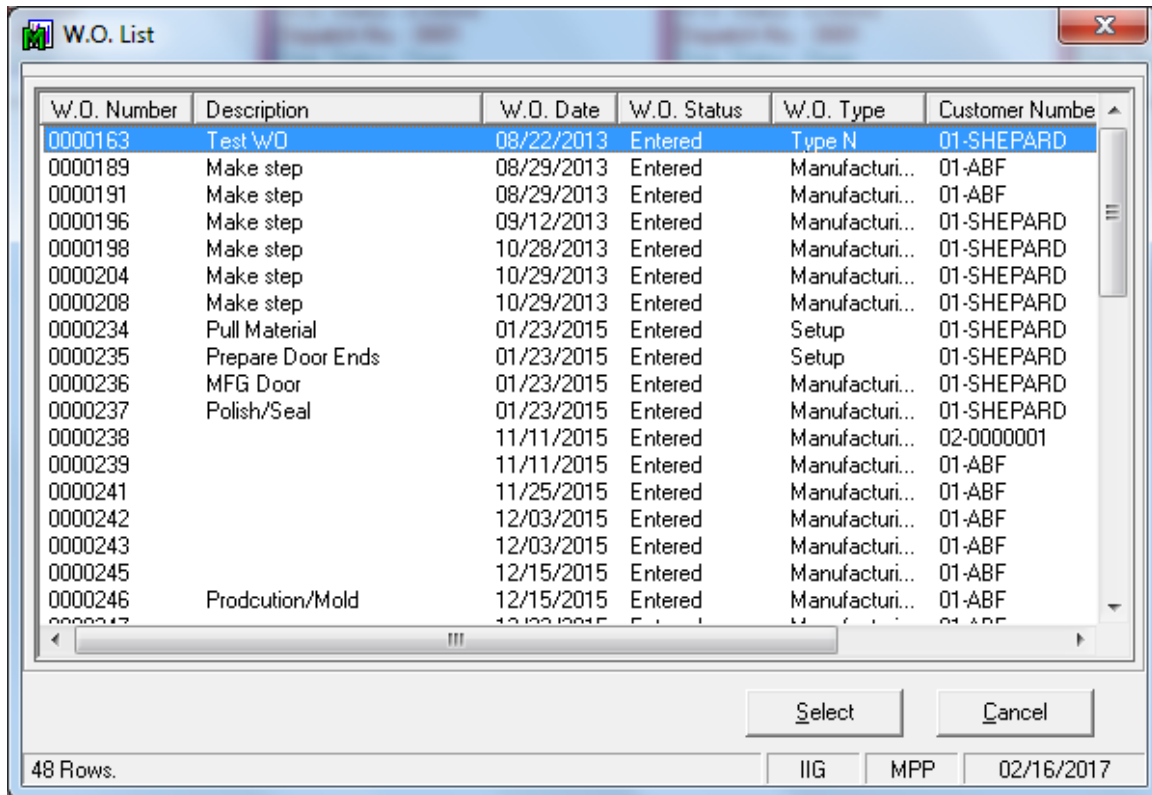


The Toolbar enables you to quickly Exit the Dispatch Board, Refresh the view, Edit Options, select Options Type, Show/Hide Grid Lines, Blanks, Fields, Show/Hide History, Find WO/Dispatch, etc.



Find allows searching a specific task/dispatch on the Board. When a task has dispatches you will be prompted to enter also the dispatch number. A Task Number cannot be found and displayed when it doesn't exist or options should be changed in order to display it.





W.O. Number	Description	W.O. Date	W.O. Status	W.O. Type	Customer Number
0000163	Test WO	08/22/2013	Entered	Type N	01-SHEPARD
0000189	Make step	08/29/2013	Entered	Manufacturi...	01-ABF
0000191	Make step	08/29/2013	Entered	Manufacturi...	01-ABF
0000196	Make step	09/12/2013	Entered	Manufacturi...	01-SHEPARD
0000198	Make step	10/28/2013	Entered	Manufacturi...	01-SHEPARD
0000204	Make step	10/29/2013	Entered	Manufacturi...	01-SHEPARD
0000208	Make step	10/29/2013	Entered	Manufacturi...	01-SHEPARD
0000234	Pull Material	01/23/2015	Entered	Setup	01-SHEPARD
0000235	Prepare Door Ends	01/23/2015	Entered	Setup	01-SHEPARD
0000236	MFG Door	01/23/2015	Entered	Manufacturi...	01-SHEPARD
0000237	Polish/Seal	01/23/2015	Entered	Manufacturi...	01-SHEPARD
0000238		11/11/2015	Entered	Manufacturi...	02-0000001
0000239		11/11/2015	Entered	Manufacturi...	01-ABF
0000241		11/25/2015	Entered	Manufacturi...	01-ABF
0000242		12/03/2015	Entered	Manufacturi...	01-ABF
0000243		12/03/2015	Entered	Manufacturi...	01-ABF
0000245		12/15/2015	Entered	Manufacturi...	01-ABF
0000246	Production/Mold	12/15/2015	Entered	Manufacturi...	01-ABF
0000247		12/15/2015	Entered	Manufacturi...	01-ABF

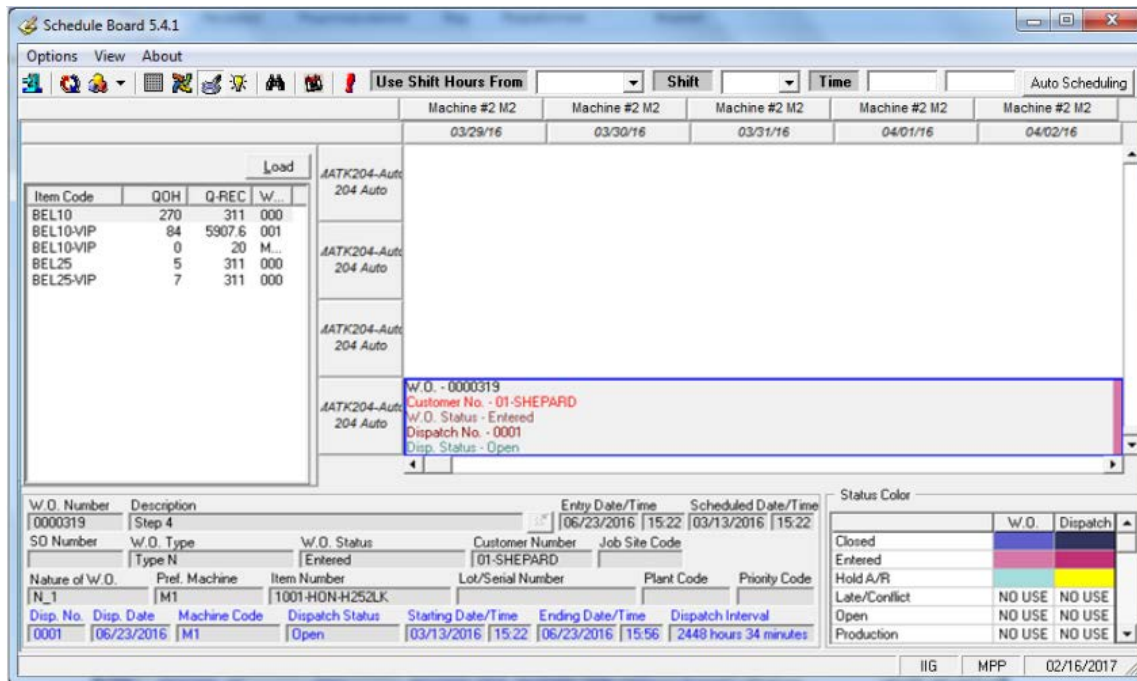
48 Rows. IIG MPP 02/16/2017

The **Go To** button allows the user to easily locate the cell with respective date on the board.

Upon clicking **Go To** button the calendar is opened with the dispatch board view starting date selected. A message will prompt the user to check the options in case the selected **Go To Date** falls out of the View Date Range specified in the Board Options.

User specified information for each Work Order or dispatch is displayed in a cell or span of cells. Each type of data in the cell (e.g., Customer, WO Number, WO Status, Dispatch Number) can be color-coded for easier visibility. Also display names of data fields can be changed (for example, shortened). Color bars for WO/Dispatch Statuses can be displayed in each cell. Displaying the cell in a color different from other dispatches can highlight an Overdue Dispatch. The user can also filter the tasks by requesting only those tasks with data falling in certain ranges.

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To see the details of a Work Order/Dispatch in the lower part of the screen, click on the cell containing that Work Order/Dispatch.

You can place Machine Names or Dates horizontally across the top or vertically on the board. Also you can view duplicates of technician codes or dates if several tasks/dispatches have been assigned to the same technician and should be done on the same period of time.

You can also view the duration of each WO. The span of the cells displays the Scheduled and Due Date/Time of the Work Order or the Starting and Ending Date/Time of the Dispatch.

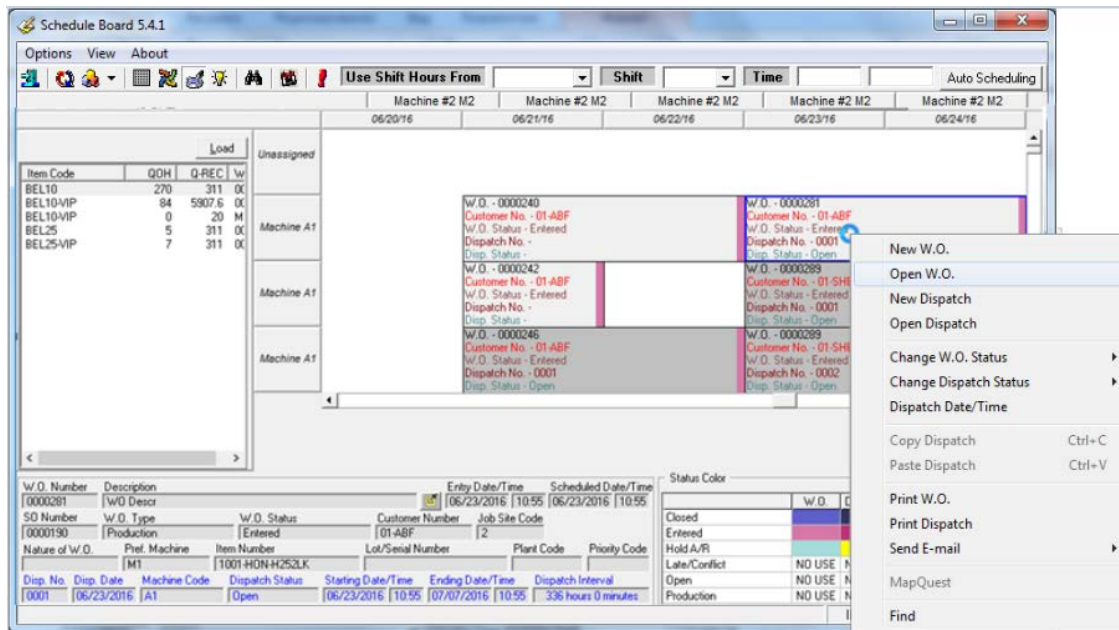
You may change the width of the cells. Click anywhere between the names of Machines at the top of the board, and drag the mouse to the right to increase the width or to the left to decrease it. A cell can be dragged to another date or machine, and the system will update the corresponding dispatch.

Cells can be selected using keyboard Arrows, Page Up, Page Down keys.

Pressing Enter from the keyboard opens the selected WO in the **Work Order Entry** screen. Pressing Enter when an empty cell is selected displays the **Work Order Entry** screen ready for new WO entry.

Right-clicking on a cell displays popup menu, from which you can quickly run some programs.

Material Planning & Production Management 72



New W.O. - opens the **Work Order Entry** screen ready for new task entry. The **Next Task Number** is selected, the Task Date is populated with current date and the **Scheduled Date/Time** is set equal to the Date/Time of the selected cell. The **Technician** of the selected cell is loaded.

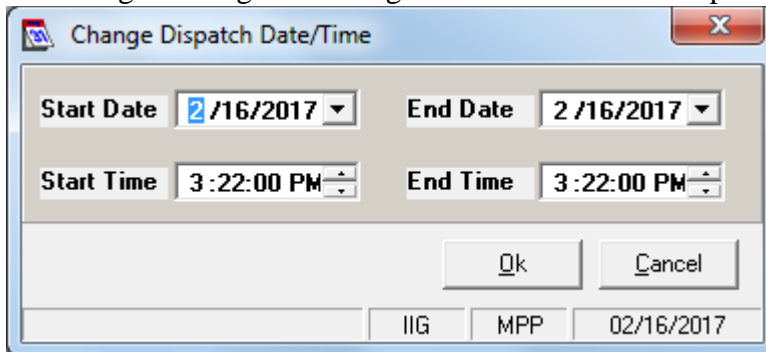
Open W.O. - opens the Work Order Entry screen for selected cell. You can also open the Work Order Entry by double clicking on the cell. If there is a dispatch for current W.O. pressing the CTRL key and double clicking on the cell will open the **Dispatch Data Entry**.

New Dispatch- opens the Dispatch Data Entry screen ready for new dispatch entry for current W.O.

Open Dispatch displays the Dispatch Data Entry screen for the current dispatch. If the Dispatch Status is closed, the Dispatch Inquiry screen is displayed instead.

You can **Change W.O./Dispatch Status**. If the program cannot change the status, a message appears explaining the problem. (For example, you cannot close a task that has open dispatches.)

Dispatch Date/Time displays the **Change Dispatch Date/Time** dialog box where you can change starting and ending date and time of the dispatch.



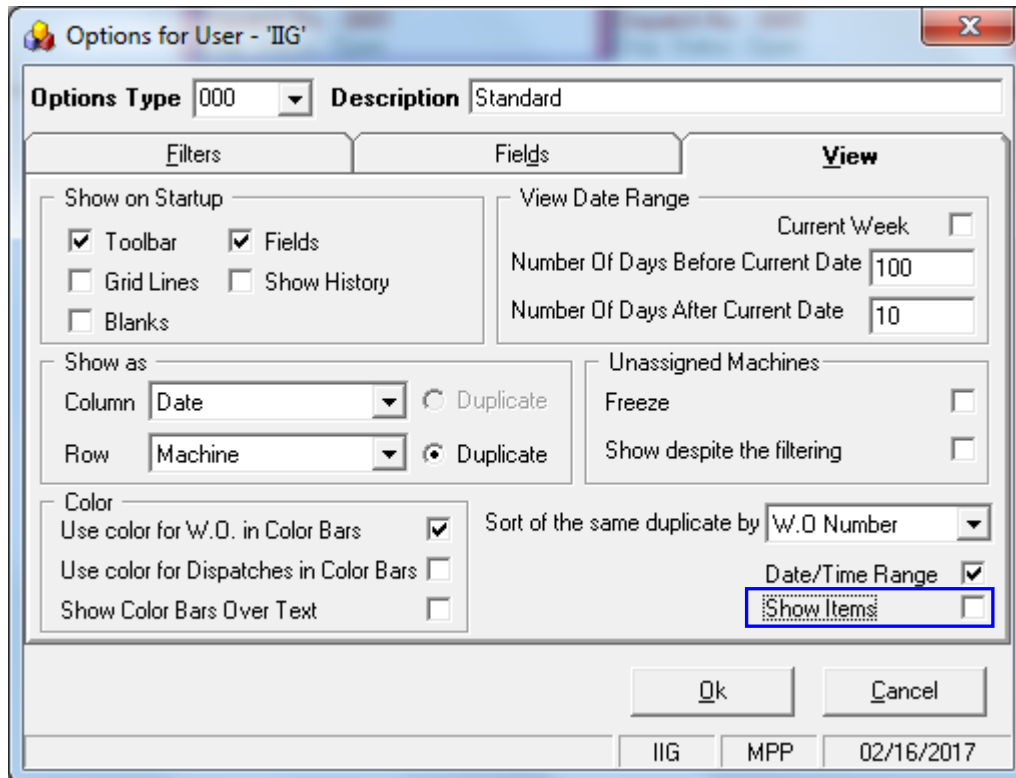
Material Planning & Production Management 73

Print WO and **Print Dispatch** commands run respectively the Task and Dispatch Crystal Report Printings.

Send E-mail allows sending emails to Technician, Customer, or Both.

The **Schedule Board** is automatically refreshed when Accepting changes in the Work Order and Dispatch Data Entries, closing Work Orders, creating new WOs and dispatches.

To control which data fields appear in the cells (and their colors), select the **Edit Options** submenu from the **Options** menu.



Select the **Show Items** checkbox if you want the Items selected for Manufacturing WO/Dispatch generation in the **Calculate Quantity to Produce/Purchase** program to be loaded in the Item list. Upon pressing Load button the Items with Include checkbox selected are loaded in the list:

Material Planning & Production Management 74

Schedule Board 5.4.1

Options View About

Use Shift Hours From [] Shift [] Time [] Auto Scheduling

Item Code	QOH	Q-REC	Whse
BEL10	270	311	000
BEL10/VIP	84	5907.6	001
BEL10/VIP	0	20	MRP
BEL25	5	311	000
BEL25/VIP	7	311	000

Machine A1

W.O. - 0000255
Customer No. - 01-SHEPA
W.O. Status - Entered
Dispatch No. -
Disp. Status -

W.O. - 0000256
Customer No. - 01-SHEPA
W.O. Status - Entered
Dispatch No. -
Disp. Status -

W.O. - 0000257
Customer No. - 01-SHEPA
W.O. Status - Entered
Dispatch No. -
Disp. Status -

W.O. - 0000258
Customer No. - 01-SHEPARD
W.O. Status - Entered
Dispatch No. - 0001
Disp. Status - Open

W.O. - 0000297
Customer No. - 01-SHEPA
W.O. Status - Entered
Dispatch No. - 0004
Disp. Status - Open

W.O. - 0000297
Customer No. - 01-SHEPA
W.O. Status - Entered
Dispatch No. - 0005
Disp. Status - Open

W.O. - 0000298
Customer No. - 01-SHEPA
W.O. Status - Entered
Dispatch No. -
Disp. Status -

W.O. - 0000310
Customer No. - 01-AVNET
W.O. Status - Entered
Dispatch No. - 0001
Disp. Status - Open

W.O. Number Description Entry Date/Time Scheduled Date/Time Status Color

0000257 Install Motor / Pump 06/22/2016 18:00 06/21/2016 18:00

SO Number W.O. Type W.O. Status Customer Number Job Site Code

Manufacturing 01-SHEPARD

Nature of W.O. Pref. Machine Item Number Lot/Serial Number Plant Code Priority Code

Disp. No. Disp. Date Machine Code Dispatch Status Starting Date/Time Ending Date/Time Dispatch Interval

W.O. Dispatch

Closed Entered Hold A/R Late/Conflict Open Production

NO USE NO USE NO USE NO USE

IIG MPP 02/16/2017

Options for User - IIG

Options Type [001] Description [Shift1]

Filters Fields View

W.O. - Field Value1
Customer No. - Field Value2
Start Date - Field Value3
End Date - Field Value4
Dispatch No. - Field Value5

Time Interval [4 hour]

Open Time [8 hours]
Close Time [4 hour]
2 hour
1 hour
30 minutes
20 minutes
10 minutes
None

✓ Show W.O. Number
✓ Show Division - Customer Number
✓ Show Start Date/Time
✓ Show End Date/Time
✓ Show Dispatch Number

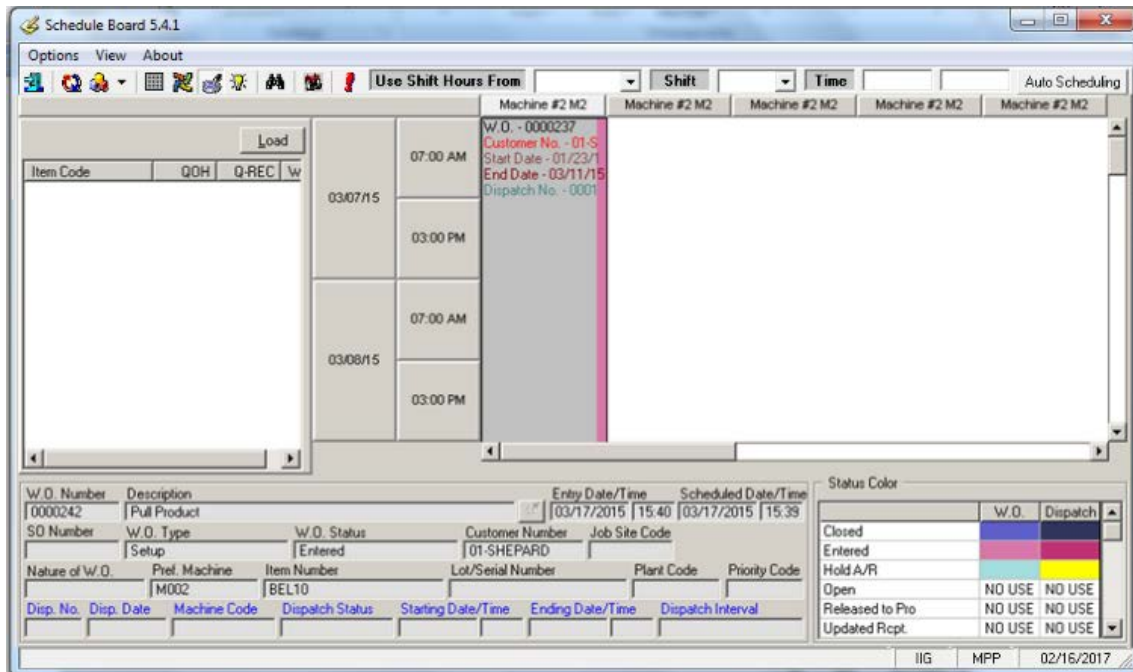
Past Due W.O.

Ok Cancel

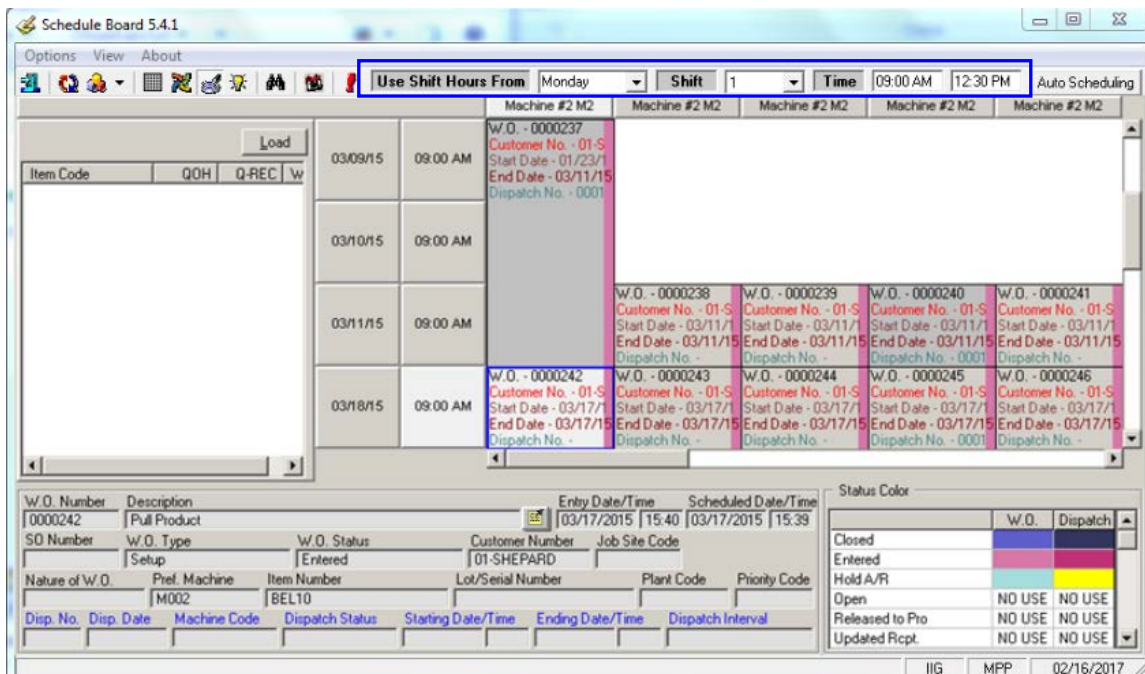
IIG MPP 02/16/2017

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 75



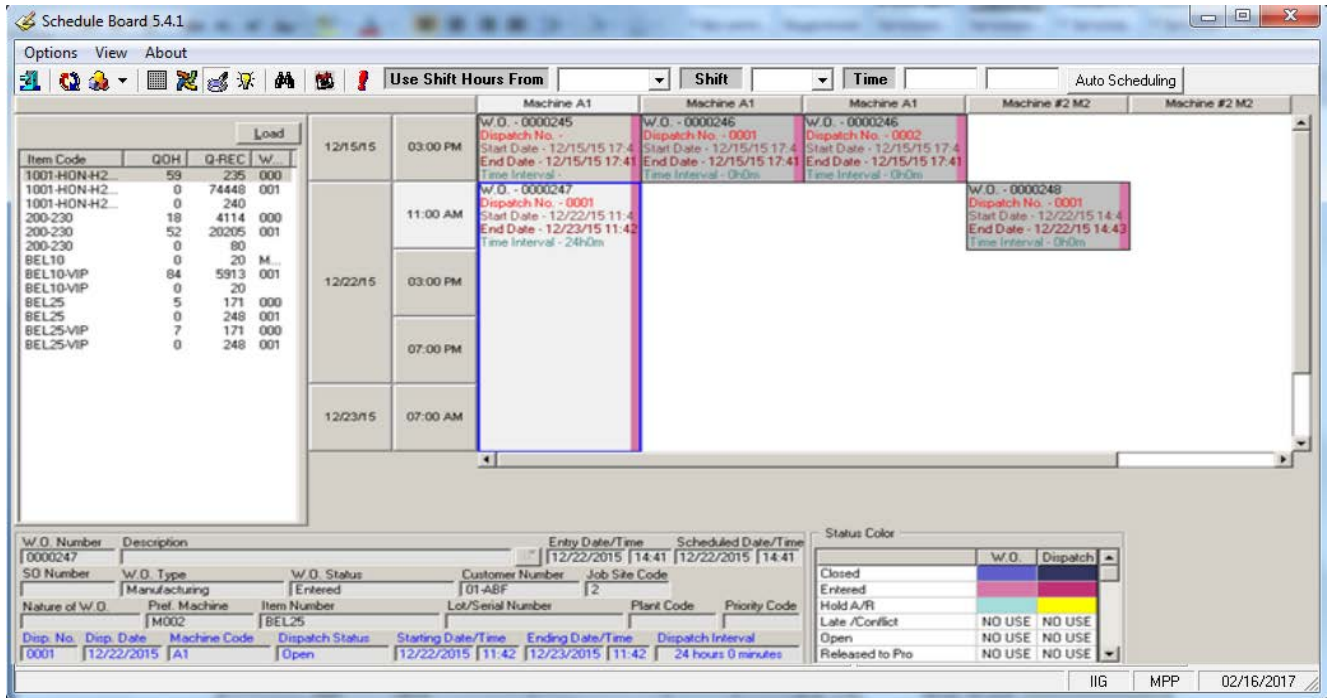
Use Shift Hours From drop down allows the user to select a day (Monday, Tuesday, etc.) and specify the Shift for that day. Upon selecting a day with respective shift the starting/ending times are automatically loaded from Shift Maintenance. The Schedule Board is refreshed automatically to show only the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

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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.



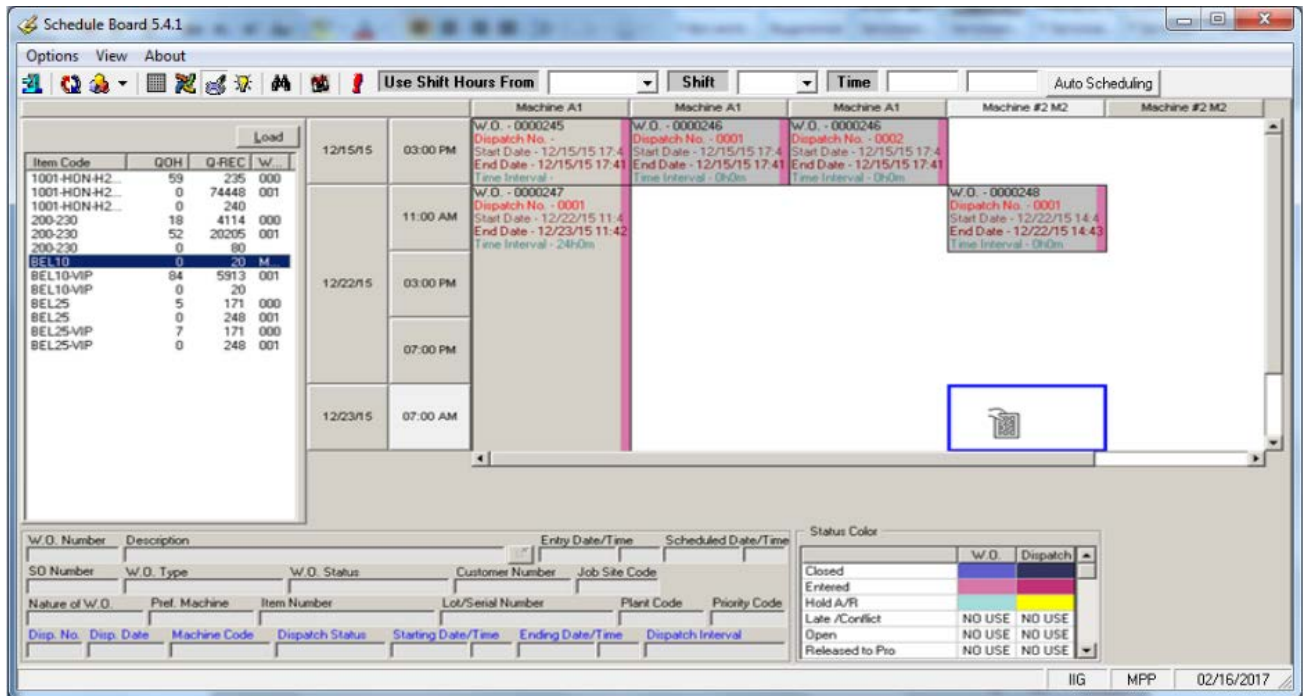
Work Order Generation can be processed also from **Schedule Board**. The Columns of the **Board** display dates and the **Rows** are Machine Codes setup in the system:

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.

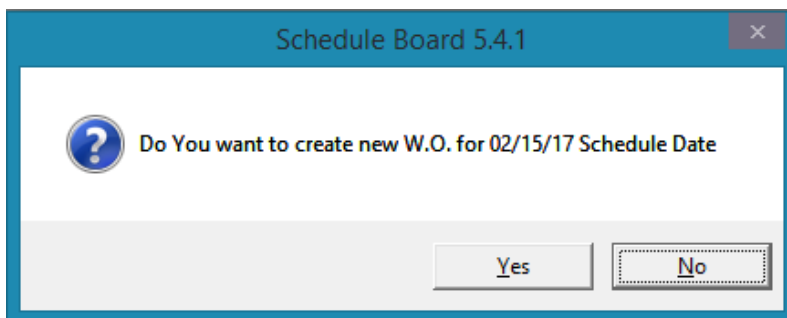
Production Scheduling Board Views can be setup to display machines in a given Plan, Machine Type, or Work Orders for a specific shift. If needed a Board View can be setup to Show the hours of Operation on the Board.

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

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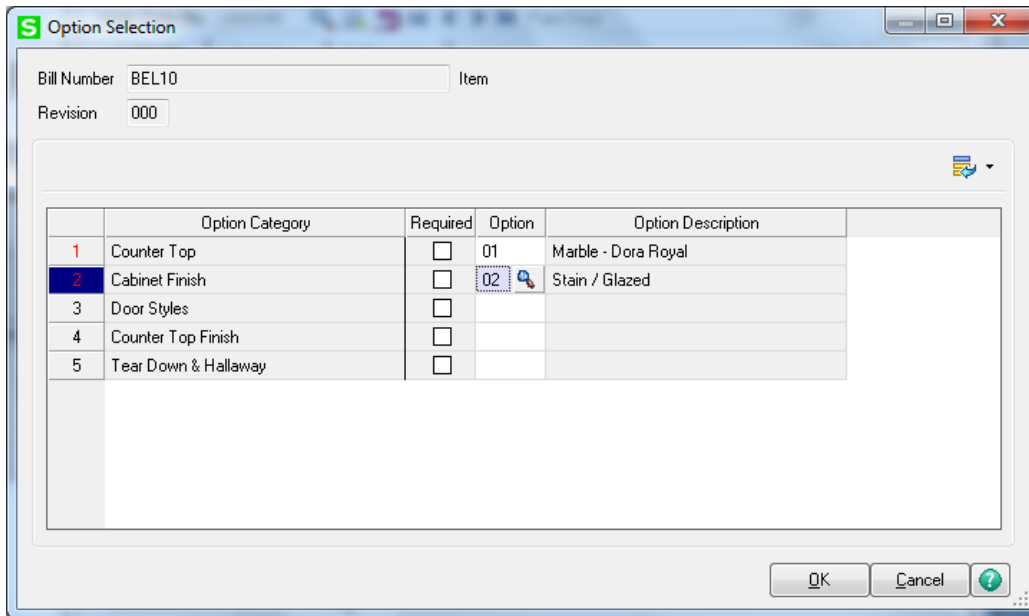


The following message appears for the user to confirm new Work Order generation for current Date and Machine code:



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

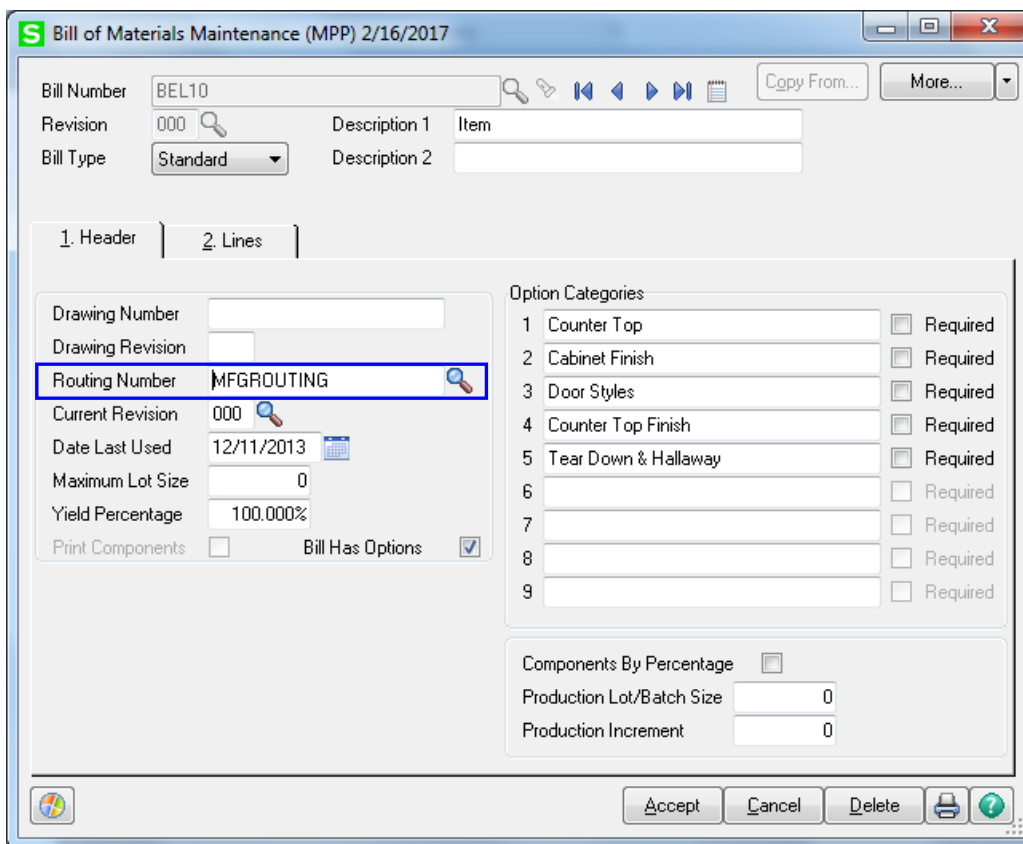
Material Planning & Production Management 78



The 'Option Selection' dialog box is shown. It contains fields for 'Bill Number' (BEL10) and 'Revision' (000). Below these is a table with columns: Option Category, Required, Option, and Option Description. The table lists five options: Counter Top, Cabinet Finish, Door Styles, Counter Top Finish, and Tear Down & Hallaway. The 'Cabinet Finish' row is highlighted, and its 'Option' field is set to '02'.

	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"/>		
4	Counter Top Finish	<input type="checkbox"/>		
5	Tear Down & Hallaway	<input type="checkbox"/>		

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



The 'Bill of Materials Maintenance (MPP) 2/16/2017' dialog box is shown. It contains fields for 'Bill Number' (BEL10), 'Revision' (000), 'Description 1' (Item), and 'Description 2'. Below these is a section for 'Option Categories' with a list of options: Counter Top, Cabinet Finish, Door Styles, Counter Top Finish, Tear Down & Hallaway, and several empty rows. The 'Routing Number' field is highlighted and set to 'MFGROUTING'. Other fields include 'Drawing Number', 'Drawing Revision', 'Current Revision' (000), 'Date Last Used' (12/11/2013), 'Maximum Lot Size' (0), 'Yield Percentage' (100.000%), 'Print Components' (unchecked), and 'Bill Has Options' (checked). At the bottom, there are fields for 'Components By Percentage' (unchecked), 'Production Lot/Batch Size' (0), and 'Production Increment' (0).

Option Categories	Required
1 Counter Top	<input type="checkbox"/>
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"/>
6	<input type="checkbox"/>
7	<input type="checkbox"/>
8	<input type="checkbox"/>
9	<input type="checkbox"/>

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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 flagged as Mfg.

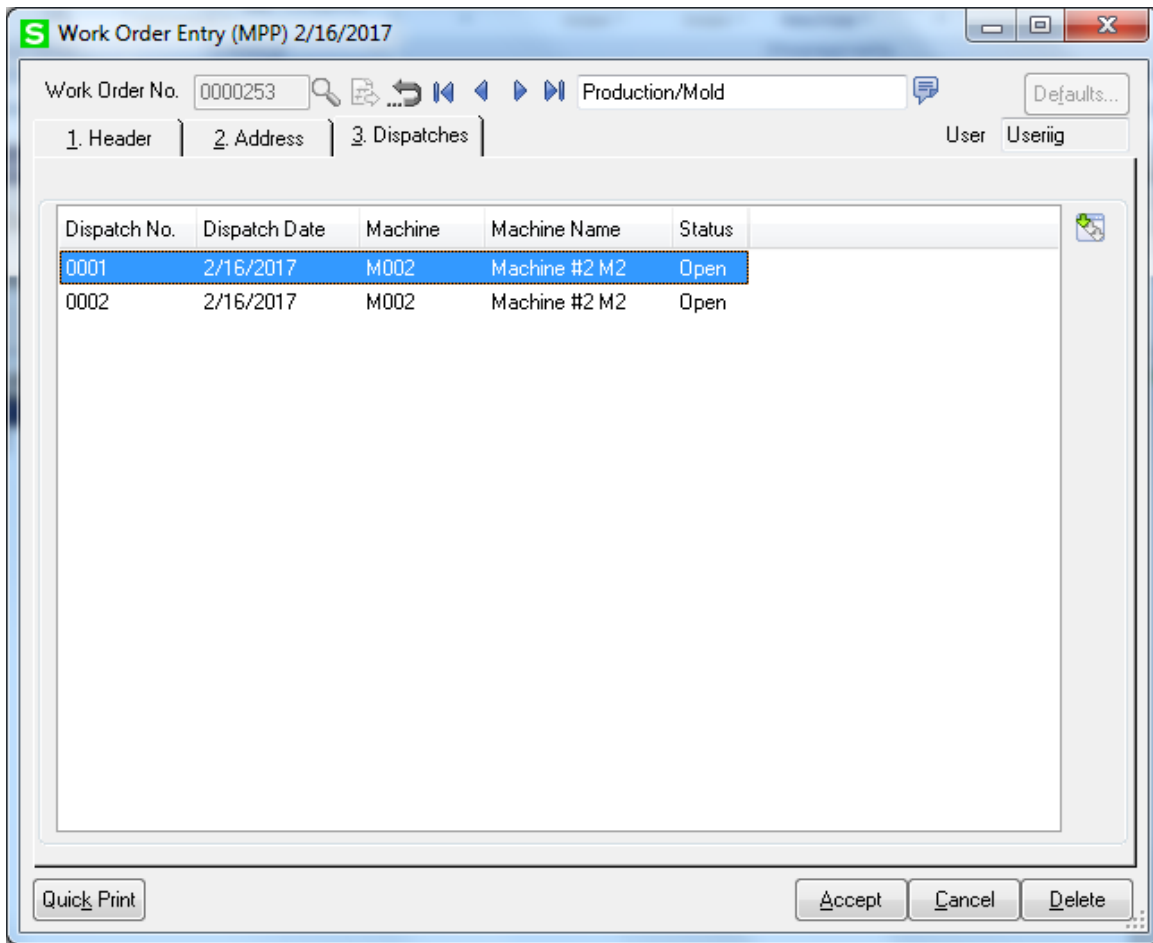
	Step No.	Description	Req. Hours	Gen. W.O.	W.O. Type	Nature Of W.O.	Mfg	Labor Code	Technician	Machine
1	0010	Pull Product	3.00	<input checked="" type="checkbox"/>	S		<input type="checkbox"/>			
2	0030	Assemble Case / Enclosure	5.00	<input checked="" type="checkbox"/>	M	ASSEMBLY	<input type="checkbox"/>			
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	ADAM	M1
5			.00	<input type="checkbox"/>			<input type="checkbox"/>			

If the **Routing Number** is marked as **Steps by Dispatch**, a single Work Order is generated with respective Dispatches created for each Step of the Routing Number flagged as Mfg.

	Step No.	Mfg	Labor Code	Technician	Machine	Dispatch Description
1	0010	<input checked="" type="checkbox"/>	LAB1	ADAM	M001	Material Selection
2	0020	<input checked="" type="checkbox"/>	LAB2	ADAM	M002	Tooling Project Management
3		<input type="checkbox"/>				

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

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Work Order Entry (MPP) 2/16/2017

Work Order No. 0000253

Production/Mold

1. Header | 2. Address | 3. Dispatches

User Useriig

Dispatch No.	Dispatch Date	Machine	Machine Name	Status
0001	2/16/2017	M002	Machine #2 M2	Open
0002	2/16/2017	M002	Machine #2 M2	Open

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.*

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Work Order No. 0000253 Production/Mold Defaults...

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

Dispatch No.	Dispatch Date	Machine	Machine Name	Status
0001	2/16/2017	M002	Machine #2 M2	Open
0002	2/16/2017	M002	Machine #2 M2	Open

Dispatching/ Material Labor/ Transaction

Quick Print Accept Cancel Delete

Press the Dispatching button to open the Dispatch Data Entry:

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The screenshot shows the 'Dispatch Data Entry (MPP) 2/16/2017' window. It features a header section with tabs for '1. Header', '2. Lines', and '3. Production'. The 'Header' tab is active. Fields include 'Work Order No' (0000253), 'Dispatch No.' (0001), 'Production/Mold', 'Material Selection', 'User' (Useriig), and 'Dispatch Date' (2/16/2017). A 'Dispatch Status' section shows a status of 0 and an 'Open' button. Below this, 'Starting Date' and 'Ending Date' are both 2/16/2017, and 'Starting Time' and 'Ending Time' are both 03:38 PM. A 'Commit Quantity' checkbox is checked and highlighted with a blue box. The 'Machine' section shows 'M002' (Machine #2 M2) and 'Mold Number' (0000000002). The 'Technician' section shows 'ADAM' (Adam Smith). The 'MFG Item Code' is 'BEL10' and 'Lot/Serial No.' is empty. The 'Quantity on W/O' is 20.00. At the bottom, there are buttons for 'Quick Print', 'Labor', 'Accept', 'Cancel', and 'Delete'. The word 'Manufacturing' is displayed in red.

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.

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Dispatch Data Entry (MPP) 2/16/2017

Work Order No: 0000253 Production/Mold
Dispatch No: 0001 Material Selection

1. Header 2. Lines 3. Production User: Usernig

Quick Row: 1

Serial No. Add New Increment

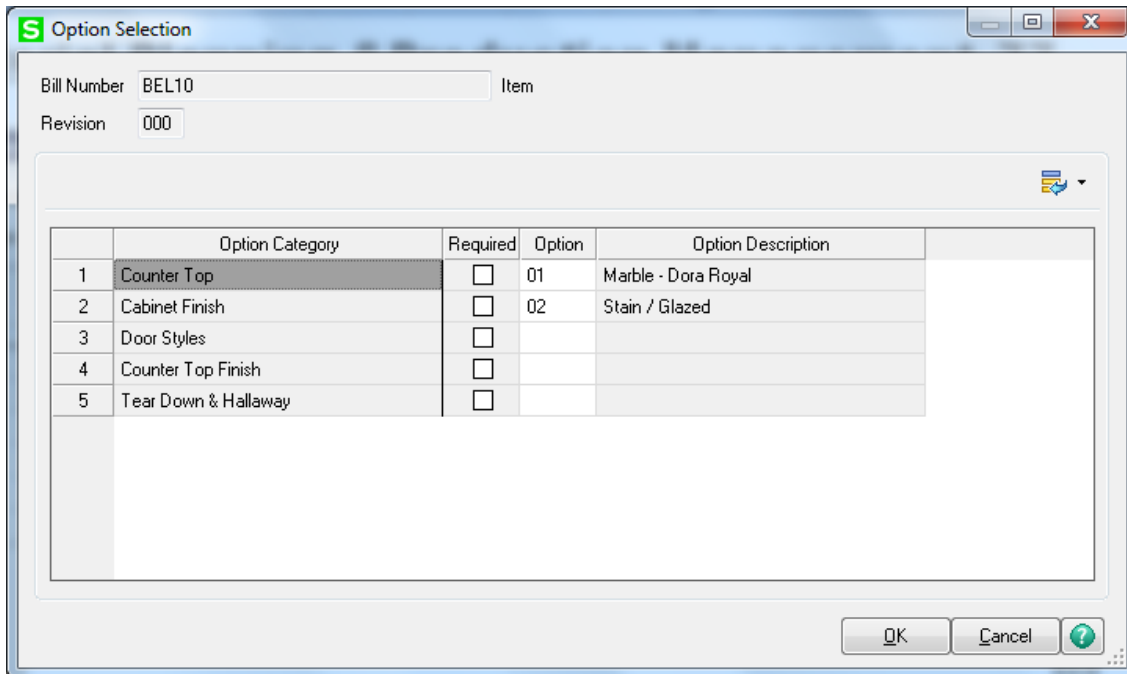
	Item Code	Ordered	Unit Price	Extension	Comment
1	BEL10	20.00	78.120	1,562.40	
2	BEL10-MIP	20.00	121.830	2,436.60	
3	FINSTNGLAZE	360.00	.000	.00	
4	PLS-TRAY	20.00	125.550	2,511.00	
5	SLBMDR	960.00	.000	.00	
6	TIP-VI	20.00	121.830	2,436.60	

Description Item
Warehouse MRP
Unit Of Measure EACH
Price Level

Total Amount: 9,051.60

Quick Print Manufacturing Labor Accept Cancel Delete

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



The image shows a software window titled "Option Selection". At the top, there are two input fields: "Bill Number" with the value "BEL10" and "Item" which is empty. Below these is a "Revision" field with the value "000". The main area of the window contains a table with five columns: an index column, "Option Category", "Required", "Option", and "Option Description". The table has five rows of data. The first row is highlighted. At the bottom right of the window are three buttons: "OK", "Cancel", and a help button with a question mark icon.

	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"/>		
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:

The screenshot shows the 'Item Maintenance (MPP) 2/16/2017' window. The 'Item Code' is BEL10 and the 'Description' is Item. The window is divided into several tabs: 1. Main, 2. Additional, 3. Quantity, 4. History, 5. Transactions, 6. Orders, and 7. Cost Detail. The 'Main' tab is active, showing various fields for item configuration.

Product Line: WF&A WORKSTATION FURN & ACCESS
Product Type: Finished Good
Valuation: FIFO
Procurement: Make
Weight: 35
Volume: 0.0000
Inventory Cycle: 8

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

Price Code: STD STANDARD QUANTITY PRIC
Default Whse: 000 CENTRAL WAREHOUSE
Planning Code: 001
MFG Priority Code: 1
MFG Code: Made to Order

Primary Vendor: 01-CONT Container Corporation Of Usa
Warranty Code: 30 DAY 30 days from shipment
Molds Machine:

Sales:
 Retail Price: 84.000
 Standard Price: 84.000
 Last Sold:

Purchases:
 Standard Cost: 32.750
 Average Cost: 1,776.063
 Last Receipt: 1/8/2016

Last Costs:
 Item: 251.500
 Allocated: .000
 Total: 251.500

Quantities Table:

Whse	Description	On Hand	On PO	On SO	On Bk Ord	Committed	On W/O	Req...	Available
000	CENTRAL ...	270.00	.00	560.00	.00	560.00	1,660.00	.00	290.00
001	EAST WA...	39.00	.00	3,128.00	.00	3,128.00	6,090.00	.00	3,089.00
MRP	MRP wareh...	.00	.00	25.00	.00	25.00	134.00	.00	25.00

At the bottom of the window are buttons for Accept, Cancel, Delete, and a help icon.

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 be used for creation of Work Orders and manufacturing dispatches.

Work Order Entry (MPP) 2/16/2017

Work Order No. 0000254

1. Header | 2. Address | 3. Dispatches

User Userig

Order Date 2/16/2017 Order Time 04:13 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

Preferred Tech.

Item Number BEL25 HON 4 DRAWER LETTER FLE W/C

Lot/Serial No.

Plant Code

Territory

Cust PO

Schedule Date 2/16/2017 Time 04:13 PM

Due Date 2/16/2017 Time 04:13 PM

Contract No.

Mold Number 0000000002

Priority Code

Production Lot/Batch Size 0

Production Increment 0

MFG Dispatch Generation

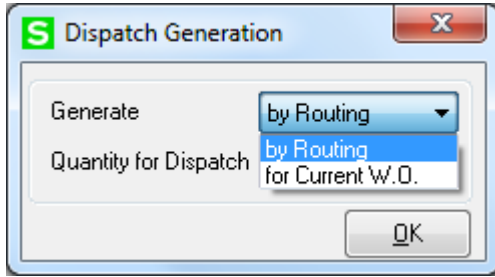
Quick Print Accept Cancel Delete

The **MFG Dispatch Generation** button added on the header tab of **Work Order Entry** allows for generating manufacturing dispatch for a Bill Item (having at least one component) directly during WO Entry.

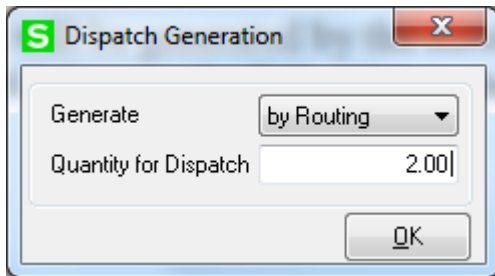
Two options are provided for generation:

- **by Routing**
- **for Current W.O.**

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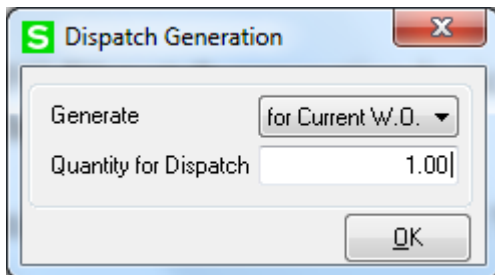


If **by Routing** is selected the Dispatch will be generated by the Routing (having a step marked as MFG) assigned to current Bill Item in the **Bill of Materials Maintenance**.

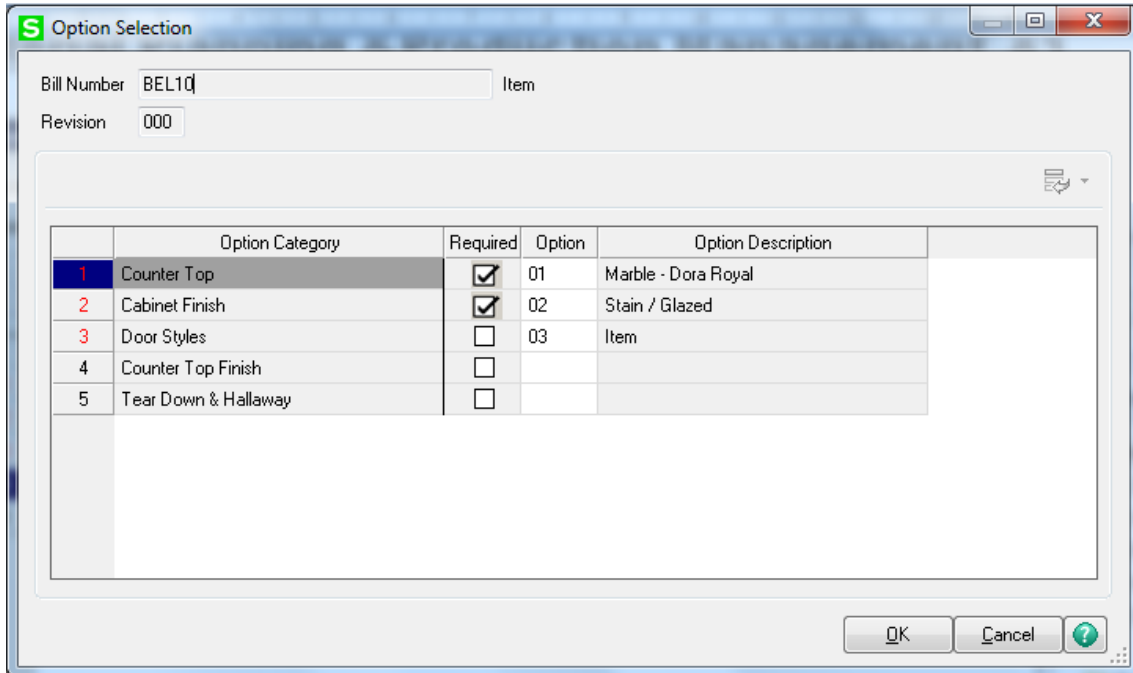


For this option the **Work Order-> MFG Dispatch** generation logic is the same as from **Calculate Quantity to Produce/Purchase** program.

2. Here is the MFG dispatch generation by the second: **for Current W.O.** option:



After entering the **Quantity for Dispatch** and pressing **Ok** button the Option Selection screen is opened allowing the user to specify Bill Options.



The image shows a software window titled "Option Selection". At the top, there are two input fields: "Bill Number" with the value "BEL10" and "Revision" with the value "000". Below these is a table with five rows. The first two rows are selected, indicated by red numbers 1 and 2 in the first column. The table has columns for "Option Category", "Required", "Option", and "Option Description". The first row is "Counter Top" with "Required" checked, "Option" 01, and "Option Description" "Marble - Dora Royal". The second row is "Cabinet Finish" with "Required" checked, "Option" 02, and "Option Description" "Stain / Glazed". The third row is "Door Styles" with "Required" unchecked, "Option" 03, and "Option Description" "Item". The fourth row is "Counter Top Finish" with "Required" unchecked. The fifth row is "Tear Down & Hallaway" with "Required" unchecked. At the bottom right of the window are buttons for "OK", "Cancel", and a help icon.

	Option Category	Required	Option	Option Description
1	Counter Top	<input checked="" type="checkbox"/>	01	Marble - Dora Royal
2	Cabinet Finish	<input checked="" 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"/>		

In this case manufacturing dispatch is created for current WO. Bill Options are not displayed on the WO Header. Bill Options can be changed on the Dispatch line as is shown above for WO generation "By Routing" option.

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. If the size of the Lot/Serial No field being generated is more than 15 characters, it will be truncated from left.

Work Order Entry (MPP) 2/16/2017

Work Order No. 0000257

1. Header | 2. Address | 3. Dispatches

Order Date 2/16/2017 Order Time 04:12 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 M1 MATK204-Auto 204 Auto

Prefer. Tech.

Item Number 2480-8-50

Lot/Serial No. 573960000000001

Plant Code

Territory

Cust PO

Schedule Date 2/16/2017 Time 04:12 PM

Due Date 2/16/2017 Time 04:12 PM

Contract No.

Mold Number 0000000001

Priority Code

DESK FILE 8" CAP 50

Production Lot/Batch Size 0

Production Increment 0

Lot/Serial Number Generation

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 90

Production Generation

B/M Production is automatically generated upon closing a Manufacturing Dispatch.

Dispatch Data Entry (MPP) 2/16/2017

Work Order No 0000254

Dispatch No. 0003

Make step

1. Header 2. Lines 3. Production

User Useriig

Dispatch Date 2/16/2017

Dispatch Status Open

Close Dispatch and Generate Production.

Starting Date 2/16/2017

Starting Time 04:13 PM

Ending Date 2/16/2017

Ending Time 04:13 PM

Commit Quantity ☒

Machine M002 Machine #2 M2

Mold Number 0000000002

Technician

MFG Item Code BEL25

Lot/Serial No.

Quantity on WO 1.00

Outside Processing

Send Out... Receive...

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**.

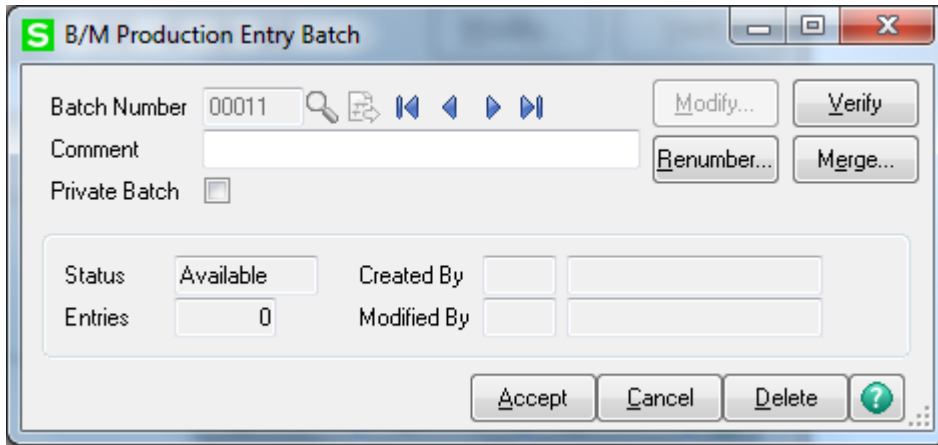
Production Generation

Quantity Produced 200

OK

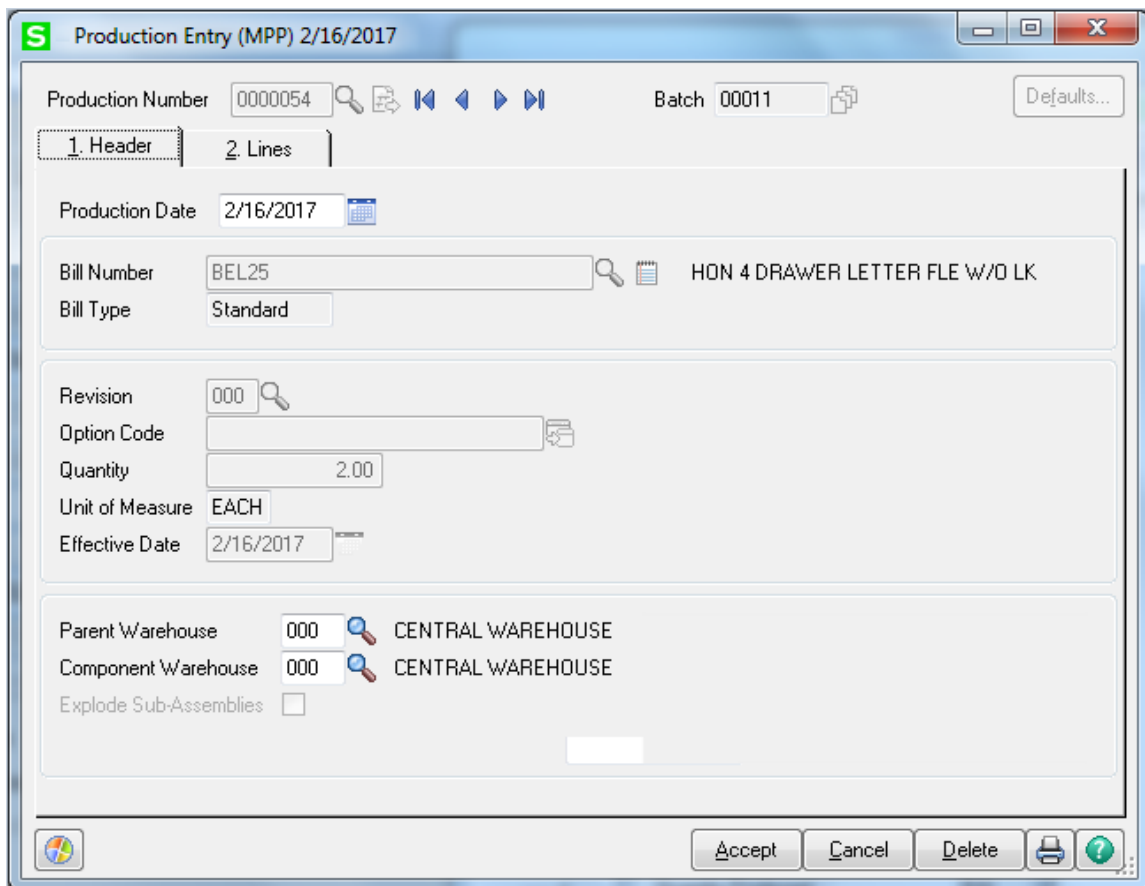
Material Planning & Production Management 91

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



The 'B/M Production Entry Batch' window features a title bar with a green 'S' icon and standard window controls. The main area contains several input fields and buttons. At the top, there's a 'Batch Number' field with '00011', a search icon, and navigation arrows. Below it is a 'Comment' field and a 'Private Batch' checkbox. To the right are buttons for 'Modify...', 'Verify', 'Renumber...', and 'Merge...'. Further down, there are fields for 'Status' (set to 'Available'), 'Created By', 'Entries' (set to '0'), and 'Modified By'. At the bottom, there are 'Accept', 'Cancel', 'Delete', and a help icon button.

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



The 'Production Entry (MPP) 2/16/2017' window has a title bar with a green 'S' icon and standard window controls. It includes tabs for '1. Header' and '2. Lines'. The 'Header' tab is active, showing fields for 'Production Number' (0000054), 'Batch' (00011), 'Production Date' (2/16/2017), 'Bill Number' (BEL25), 'Bill Type' (Standard), 'Revision' (000), 'Option Code', 'Quantity' (2.00), 'Unit of Measure' (EACH), and 'Effective Date' (2/16/2017). There are also fields for 'Parent Warehouse' and 'Component Warehouse', both set to '000' and 'CENTRAL WAREHOUSE', and an 'Explode Sub-Assemblies' checkbox. At the bottom, there are 'Accept', 'Cancel', 'Delete', a printer icon, and a help icon button.

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Production Entry (MPP) 2/16/2017

Production Number: 0000054 Batch: 00011 Defaults...

1. Header 2. Lines

Quick Row: 1

Lot/Serial Number:

	Component Item Code	Quantity/Bill	Extended Quantity	Comment
1	BEL25-VIP	1.00	2.00	
2	PLS-TRAY	1.00	2.00	
3	TIP	1.00	2.00	
4	/MISC_CHARGE1	5.00	10.00	
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 93

Dispatch Data Entry (MPP) 2/16/2017

Work Order No: 0000254
Dispatch No: 0003

2. Lines | 3. Production | User: Useriig

Dispatch Date: 2/16/2017 | Dispatch Status: C Closed

Starting Date: 2/16/2017 | Starting Time: 04:13 PM | Commit Quantity: ☐
Ending Date: 2/16/2017 | Ending Time: 04:13 PM

Machine: M002 Machine #2 M2 | Mold Number: 0000000002
Technician:
MFG Item Code: BEL25 | Lot/Serial No:
Production 0000054 | Quantity on W/O: 2.00

Outside Processing
Send Out... Receive...

Quick Print Manufacturing Labor OK

Upon pressing **Production** button the Production Entry Lines tab is opened:

Production Entry (MPP) 2/16/2017

Production Number: 0000054 Batch: 00011

1. Header 2. Lines

Quick Row: 1

Lot/Serial Number:

	Component Item Code	Quantity/Bill	Extended Quantity	Comment
1	BEL25-VIP	1.00	2.00	
2	PLS-TRAY	1.00	2.00	
3	TIP	1.00	2.00	
4	/MISC_CHARGE1	5.00	10.00	
5		.00	.00	

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

Accept Cancel Delete

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 **Standard Run Type** option selected for the **MFG Step** in the Routing Maintenance.

If **Mold** is selected the duration of dispatch is calculated based on the information entered for each mold/machine combination (**Calc. Demand 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.

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S Dispatch Data Entry (MPP) 2/16/2017

Work Order No. 0000260 Prepare Door Ends
Dispatch No. 0003

1. Header | 2. Lines | 3. Production | User Userrig

Dispatch Date 2/16/2017 [Dispatch Status](#) 0 Open

Starting Date 2/16/2017 Starting Time 10:00 AM Commit Quantity ☒
Ending Date 2/26/2017 Ending Time 11:08 AM

[Machine](#) M002 Machine #2 M2 Mold Number 0000000002
[Technician](#)
MFG Item Code BEL25 Lot/Serial No.
Quantity on WO 343.00

Outside Processing

Manufacturing

S Week Shifts Maintenance (MPP) 2/16/2017

Week Day Friday

Quick Row 1

	Shift	Start Time	End Time
1	1	09:00 AM	01:00 PM
2	2	02:00 PM	06:00 PM
3			

Material Planning & Production Management 96

Here are MFG Dispatches generated by Auto Scheduling button for a Bill Item with Routing Number having different Standard Run Type options selected for each Step:

The screenshot shows the 'Routing Maintenance (MPP) 5/17/2017' window. It contains a table with the following data:

	Step No.	Mfg	Standard Run Type	Req. Hours	Labor Code	Technician	Machine	Dispatch Description
1	0010	<input checked="" type="checkbox"/>	Hours per Operation	.75	LAB1	ADAM	M001	
2	0020	<input checked="" type="checkbox"/>	Fixed Time per Lot	2.50	LAB2	BILL	M002	
3	0030	<input checked="" type="checkbox"/>	Operations per Hour	2.00	LAB2	ADAM	M1	
4		<input type="checkbox"/>		.00				

At the bottom of the window are buttons for 'Accept', 'Cancel', 'Delete', and a printer icon.

Here is the Dispatch generated for the Step with **Standard Run Type** option set to Hours per Operation and 0.75hour required for each operation. The duration of manufacturing dispatch generated for producing 5 units (Quantity On WO) is 3.75 hours.

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Dispatch Data Entry (MPP) 5/17/2017

Work Order No: 0000293
Dispatch No: 0001
Production/Mold:
User: useriig

1. Header | 2. Lines

Dispatch Date: 5/20/2017
Dispatch Status: 0 Open

Starting Date: 5/20/2017
Ending Date: 5/20/2017
Starting Time: 12:00 PM
Ending Time: 03:45 PM
Commit Quantity: ☒

Machine: M001 Machine #1 M1
Technician: ADAM Adam Smith
Mold Number:
MFG Item Code: TEST_BILL1
Lot/Serial No.:
Quantity on WO: 5.00

Outside Processing
Send Out... Receive...

Quick Print Manufacturing Labor Accept Cancel Delete

Here is the MFG Dispatch generated for the step with **Standard Run Type** option set to **Fixed Time per lot** with **Req. Hours- 2.5**. The generated Dispatch Duration is 2.5 hours regardless the **Quantity on WO**.

Material Planning & Production Management 98

Dispatch Data Entry (MPP) 5/17/2017

Work Order No 0000293 Production/Mold

Dispatch No. 0003 User useriig

1. Header 2. Lines

Dispatch Date 5/20/2017 Dispatch Status 0 Open

Starting Date 5/20/2017 Starting Time 12:00 PM Commit Quantity ☒

Ending Date 5/20/2017 Ending Time 02:30 PM

Machine M1 MATK204-Auto 204 Auto Mold Number

Technician ADAM Adam Smith

MFG Item Code TEST_BILL1 Lot/Serial No.

Quantity on WO 5.00

Outside Processing

Send Out... Receive...

Quick Print Manufacturing Labor Accept Cancel Delete

And this is the MFG Dispatch generated for the step with **Standard Run Type** option set to **Operations per Hour** with number of operations per hour set to 2. In this case the Dispatch duration is 2.5 hours as **Quantity On WO** is 5.

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S Dispatch Data Entry (MPP) 5/17/2017

Work Order No 0000293 Production/Mold

Dispatch No. 0002

1. Header 2. Lines User useriig

Dispatch Date 5/20/2017 [Dispatch Status](#) 0 Open

Starting Date 5/20/2017 Starting Time 12:00 PM Commit Quantity ☒

Ending Date 5/20/2017 Ending Time 02:30 PM

[Machine](#) M002 Machine #2 M2 Mold Number

[Technician](#) BILL Smith Bill

MFG Item Code TEST_BILL1 Lot/Serial No.

Quantity on WO 5.00

Outside Processing

Manufacturing

Sales Order Entry

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

	Item Code	Ordered	Back Ordered	Unit Price	Extension	Comment
1	BEL10	5.00	.00	2,750.920	13,754.60	
2		.00	.00	.000	.00	

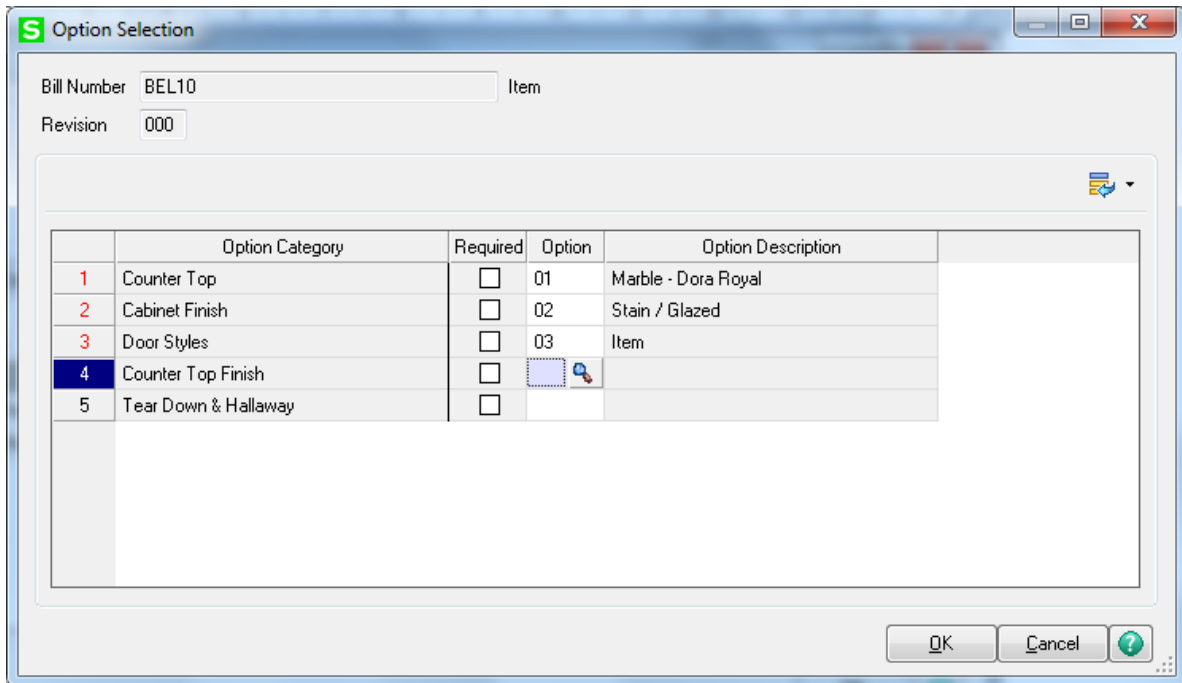
Description	Item
Warehouse	MRP
Unit Of Measure	EACH
Shipped	.00
Cost Code	

Total Amount 13,754.60

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.

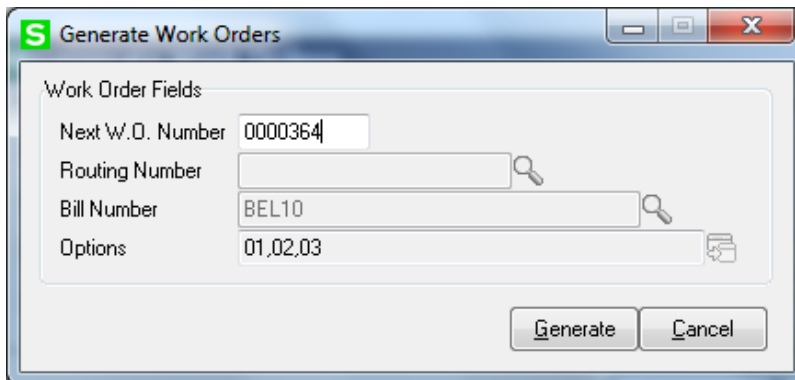
Material Planning & Production Management 101



The 'Option Selection' dialog box is shown. It has a title bar with a green 'S' icon and the text 'Option Selection'. Below the title bar, there are two input fields: 'Bill Number' with the value 'BEL10' and 'Item' which is empty. Below these is a 'Revision' field with the value '000'. The main area contains a table with the following columns: 'Option Category', 'Required', 'Option', and 'Option Description'. The table has five rows. The first row is 'Counter Top' with 'Required' checkbox unchecked, 'Option' '01', and 'Option Description' 'Marble - Dora Royal'. The second row is 'Cabinet Finish' with 'Required' checkbox unchecked, 'Option' '02', and 'Option Description' 'Stain / Glazed'. The third row is 'Door Styles' with 'Required' checkbox unchecked, 'Option' '03', and 'Option Description' 'Item'. The fourth row is 'Counter Top Finish' with 'Required' checkbox unchecked, 'Option' field empty, and 'Option Description' empty. The fifth row is 'Tear Down & Hallaway' with 'Required' checkbox unchecked, 'Option' field empty, and 'Option Description' empty. The 'Counter Top Finish' row is highlighted with a blue background. At the bottom right, there are three buttons: 'OK', 'Cancel', and a green question mark icon.

	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



The 'Generate Work Orders' dialog box is shown. It has a title bar with a green 'S' icon and the text 'Generate Work Orders'. Below the title bar, there is a section titled 'Work Order Fields'. Inside this section, there are four input fields: 'Next W.O. Number' with the value '0000364', 'Routing Number' which is empty and has a magnifying glass icon, 'Bill Number' with the value 'BEL10' and a magnifying glass icon, and 'Options' with the value '01,02,03' and a magnifying glass icon. At the bottom right, there are two buttons: 'Generate' and 'Cancel'.

Based on the Routing assigned to current Bill Item the program will generate either a single Work Order with respective MFG dispatches generated for each step flagged as MFG or it will generate Work Orders for all the steps of Routing having the **Gen. W.O** flag set 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, Technician and **Machine Code** specified for that Step of the Routing.

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

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Sales Order Entry (MPP) 2/16/2017

Order Number: 0000192

1. Header | 2. Address | 3. Lines | 4. Totals | 5. Payment | User | Userig

Quick Row: 1

	Item Code	Ordered	Back Ordered	Unit Price	Extension	Comment
1	BEL10	5.00	.00	2,750.920	13,754.60	
2		.00	.00	.000	.00	

Description: Item
Warehouse: MRP
Unit Of Measure: EACH
Shipped: .00
Cost Code:

Available Quantity in this Warehouse is 4980 EACH

Total Amount: 13,754.60

Print Order... Print Pick... Recalc Price Accept Cancel Delete

Generated Work Orders (MPP) 2/16/2017

Sales Order No.: 0000192

Quick Row: 0

	W.O. Number	W.O. Description	W.O. Date	Technician Code	W.O. Ty
1	0000267	Production/Mold	2/16/2017		Manufacturing
2	0000364	Production/Mold	2/16/2017		Manufacturing

Accept Cancel

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

Material Planning & Production Management 103

Sales Order Entry (MPP) 2/16/2017

Order Number: 0000192

1. Header | 2. Address | 3. Lines | 4. Totals | 5. Payment | User: Useriig

	Item Code	Ordered	Back Ordered	Unit Price	Extension	Comment
1	BEL10	5.00	.00	2,750.920	13,754.60	
2		.00	.00	.000	.00	

Quick Row: 1

Item Contract: Ship Date: 2/26/2017, W.O. No.: 0000364, Dispatch No., Starting Date

Total Amount: 13,754.60

Print Order... Print Pick... Recalc Price Accept Cancel Delete

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 Work Orders already generated. In this case a prompt appears about the Work Orders already generated for Sales Order.

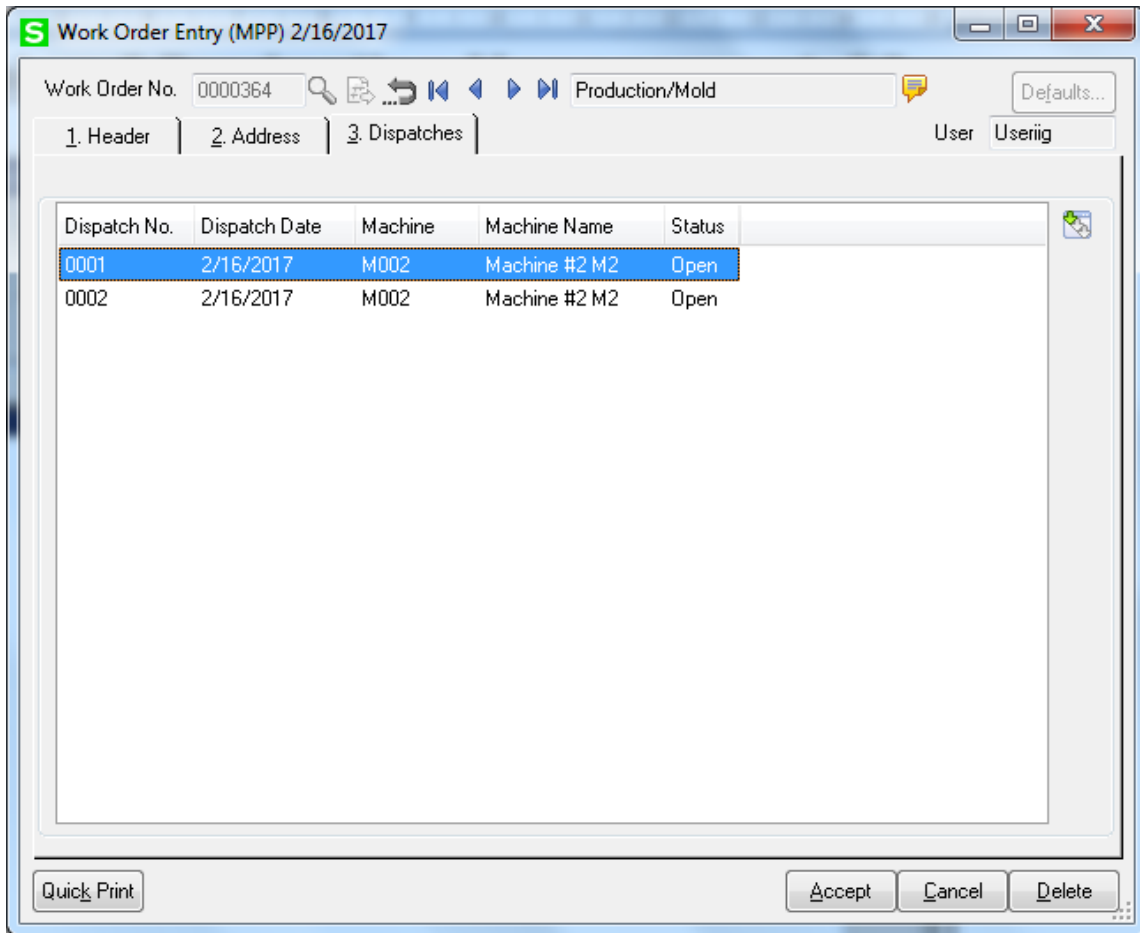
Sage 100

There is/are Work Order(s) already generated for this line.
Do you want to generate again?

Yes No

Here is the Work Order generated with respective MFG Dispatches:

Material Planning & Production Management 104



Work Order No. 0000364 Production/Mold Defaults...

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

Dispatch No.	Dispatch Date	Machine	Machine Name	Status
0001	2/16/2017	M002	Machine #2 M2	Open
0002	2/16/2017	M002	Machine #2 M2	Open

Quick Print Accept Cancel Delete

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

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Work Order No: 0000364
Dispatch No: 0001
Production/Mold
Material Selection
User: Userig

1. Header | 2. Lines | 3. Production

Quick Row: 1

Serial No. Add New Increment

	Item Code	Ordered	Unit Price	Extension	Comment
1	BEL10	5.00	2,750.920	13,754.60	
2	BEL10-VIP	5.00	127.070	635.35	
3	FINSTNGLAZE	90.00	.000	.00	
4	PLS-TRAY	5.00	130.950	654.75	
5	SLBMDR	240.00	.000	.00	

Description: Item
Warehouse: MRP
Unit Of Measure: EACH
Price Level: 1

Total Amount: 15,785.05

Quick Print Manufacturing Labor Accept Cancel Delete

The Item Code description is added to the Work Order Description when selecting Item Code on the Work Order and generating Work Order.

Work Order No: 0000364
Dispatch No: 0001
Production/Mold
Material Selection
User: Userig

1. Header | 2. Lines | 3. Production

Quick Row: 1

Serial No. Add New Increment

	Item Code	Ordered	Unit Price	Extension	Comment
1	BEL10	5.00	2,750.920	13,754.60	
2	BEL10-VIP	5.00	127.070	635.35	
3	FINSTNGLAZE	90.00	.000	.00	
4	PLS-TRAY	5.00	130.950	654.75	
5	SLBMDR	240.00	.000	.00	

Description: Item
Warehouse: MRP
Unit Of Measure: EACH
Price Level: 1

Total Amount: 15,785.05

Quick Print Manufacturing Labor Accept Cancel Delete

Work Order Text Maintenance
Work Order No: 0000364
Production/Mold
Item: MFG Item BEL 10
Time Stamp OK Cancel

Material Planning & Production Management 106

The Labor Code specified in the Routing Maintenance is loaded in the Labor Charge Data Entry line if there is Miscellaneous Charge Item matching that Labor Code setup in the Miscellaneous Item Maintenance.

S Labor Charge Data Entry (MPP) 2/16/2017

Work Order No. 0000364 Dispatch No. 0001 Dispatch Date 2/16/2017 Starting 2/16/2017 10:31 AM
Ending 2/16/2017 10:31 AM

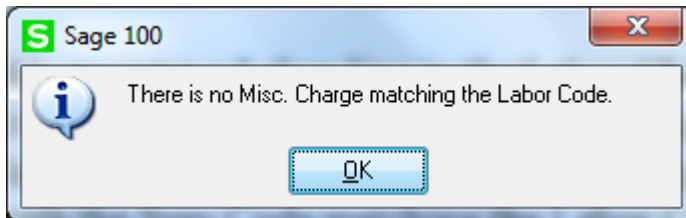
Start Quick Row 1

	Labor/Skill Code	Technician Code	Hours Spent	Billing Rate	Extension
1	LAB1	ADAM	.00	30.000	.00
2			.00	.000	.00

Description Machine#1 Labor
Disc % 0.000
Import To JC ☐
Machine Code M002

Accept Cancel Delete

To be able to enter a Labor line in the Labor **Charge Data Entry** it is necessary to have respective 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:



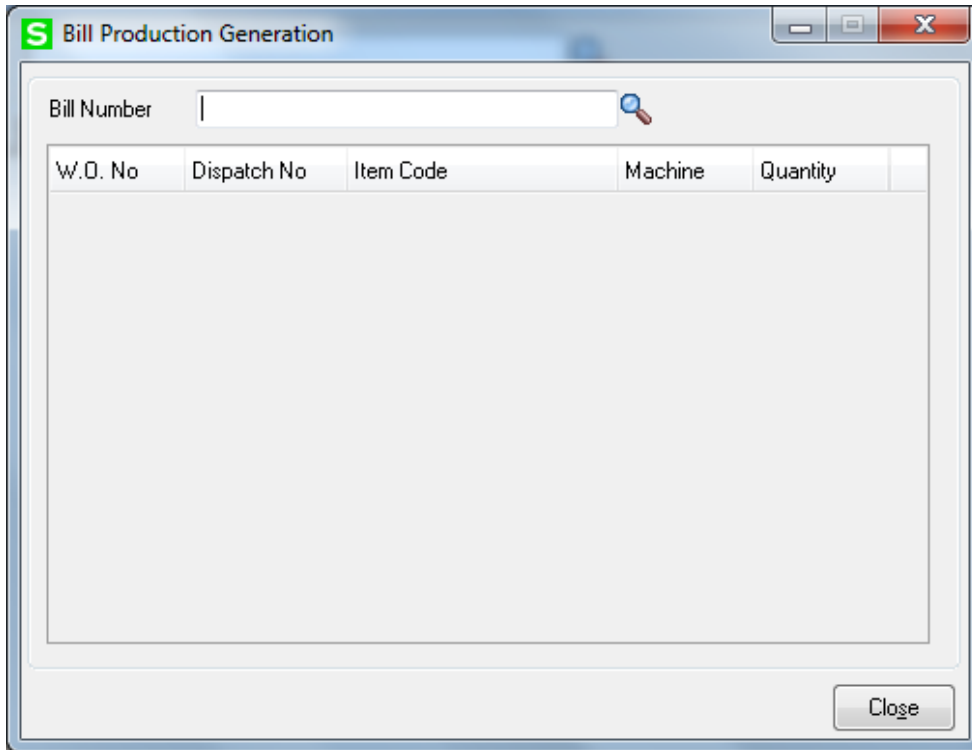
Daily Production entry transactions are created when Dispatch is closed. The Labor line added in the Labor Charge Entry is loaded in the generated Production lines as a **Miscellaneous Charge** line.

Material Planning & Production Management 107

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.

Bill Production Generation

The **Bill Production Generation** program added under the **Material Planning & Production Management-> Main** menu allows for generating Production Entries for a selected WO Number created for current Bill Item.



W.O. No	Dispatch No	Item Code	Machine	Quantity
---------	-------------	-----------	---------	----------

Upon entering a Bill number or selecting it from the Bill Number lookup all Work Orders generated for that Bill number are loaded in the list box.

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Bill Number: BEL10

W.O. No	Dispatch No	Item Code	Machine	Quantity
0000189	0001	BEL10	M001	2.00
0000191	0001	BEL10	M001	2.00
0000196	0001	BEL10	M001	257.00
0000204	0001	BEL10	M001	1,560.00
0000238	0001	BEL10	A1	1.00
0000245	0001	BEL10	A1	3.00
0000245	0002	BEL10	A1	2.00
0000250	0001	BEL10	A1	1.00
0000268	0001	BEL10	M1	2,974.00
0000272	0001	BEL10	M1	2,974.00
0000276	0001	BEL10	M1	2,974.00
0000280	0001	BEL10	M1	2,974.00

Close

Double clicking on a line opens the Production Generation dialogue with the Quantity Produced defaulted to Quantity field value and can be changed if needed. Press Ok to generate production for the quantity entered.

Quantity Produced: 2.00

OK

Auto Close W.O. Selection

The **Auto Close Work Order Selection** program allows closing at once multiple Work Orders not having open Dispatches.

Select Field	Operand	Value
Customer Number	All	
Work Order No.	All	
Work Order Type	All	
Work Order Status	All	

	W.O. Number	W.O. Description	Customer Number	W.O. Status	Contract Number	Include
1	0000234	Pull Material	01-SHEPARD	Entered		<input checked="" type="checkbox"/>
2	0000235	Prepare Door Ends	01-SHEPARD	Entered		<input checked="" type="checkbox"/>
3	0000237	Polish/Seal	01-SHEPARD	Entered		<input checked="" type="checkbox"/>
4	0000239	Pull Product	01-ABF	Entered	000000003	<input checked="" type="checkbox"/>
5	0000240	Assemble Case / Encl	01-ABF	Entered	000000003	<input checked="" type="checkbox"/>
6	0000241	Install Motor / Pump	01-ABF	Entered	000000003	<input checked="" type="checkbox"/>
7	0000243	Pull Product	01-ABF	Entered	000000003	<input checked="" type="checkbox"/>
8	0000244	Assemble Case / Encl	01-ABF	Entered	000000003	<input checked="" type="checkbox"/>

Buttons: Clear, Proceed, Cancel, Close

Work Orders may be selected by Customer Number, Work Order Number, Work Order Type and Work Order Status.

Upon pressing **Proceed** button the Work Orders having dispatches with "C" (closed) status are loaded in the grid with Include checkbox automatically selected. The tasks having at least one open (with status other than "C") Dispatch cannot be selected.

Pressing **Close** button will close all Tasks for which **Include** checkbox is selected. The closed Work Orders will be moved to the Work Order History if **Retain Work Order History** option is turned on in the **Material Planning and Production Setup**.

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.

The screenshot displays the 'Dispatch Data Entry (MPP) 2/16/2017' window. At the top, there are input fields for 'Work Order No' (0000260) and 'Dispatch No' (0003), along with a 'Prepare Door Ends' button. Below these are navigation tabs: '1. Header', '2. Lines', and '3. Production'. The '1. Header' tab is selected, showing three custom fields: 'Custom Field1' with the value 'Test Prod', 'Custom Field2' with the value '200.00', and 'Custom Field3' with the value '2/16/2017'. At the bottom of the window, there is a 'Quick Print' button, the word 'Manufacturing' in red, and a row of buttons: 'Labor', 'Accept' (highlighted with a blue border), 'Cancel', and 'Delete'.

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 112

BM Production Header : Edit Field

Field Name: UDF_CUSTOM_FIELD1 [Locked]
Description: Custom Field1
Control Type: ☒ Multi-Line [Locked]
☐ Drop-Box
☐ List-Box
☐ Check-Box

Field in Use: Yes
Bytes Used: 281 of 20,000
Name Space Used: 552

Bytes Used is the sum of the lengths of all columns in the table. Name Space Used is bytes-used plus the lengths of all column names.

1. Attributes | 2. Validation | 3. Data Sources

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

OK Cancel

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.

Material Planning & Production Management 113

*** Production Entry (MPP) 2/16/2017**

Production Number Batch Defaults...

1. Header 2. Lines

Production Date

Bill Number HON 4 DRAWER LETTER FLE W/O LK
Bill Type

Revision
Option Code
Quantity
Unit of Measure
Effective Date

Parent Warehouse CENTRAL WAREHOUSE
Component Warehouse CENTRAL WAREHOUSE
Explode Sub-Assemblies ☐

Custom Field1
Custom Field2
Custom Field3

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:

Field Name: UDF_CUSTOM_FIELD1
Description: Custom Field1
Control Type: ☒ Multi-Line, ☐ Drop-Box, ☐ List-Box, ☐ Check-Box
Field in Use: No
Bytes Used: 11,883 of 20,000
Name Space Used: 1,707
Bytes Used is the sum of the lengths of all columns in the table. Name Space Used is bytes-used plus the lengths of all column names.

1. Attributes | 2. Validation | 3. Data Sources

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

OK Cancel

Here is the SM_Dispatch Worktable with the UDF fields populated:

S Data File Display and Maintenance

File Name: D:\MAS\MAS540\MPP\MAS90\MAS_MPP\SMMP\SM_Dispatch\WrkIIG022315852096.M

Key Size: N/A Rcd Size: 12,160 Rcd Count: 9 Company: MPP Type: Keyed






0.....10.....20.....30.....40.....50.....60.....70..



116	OvertimeStartDate\$.....	[]
117	OvertimeStartTime\$.....	[]
118	Overtime\$.....	[]
119	ImportToJC\$.....	[]
120	HoursSpent.....	.00
121	BillingRate.....	.00
122	RetainerFactor.....	.00
123	OvertimeFactor.....	.00
124	GeneratedProductionNo\$.....	[]
125	TaskMachineCode\$.....	[M002]
126	TaskMachineName\$.....	[Machine #2 M2]
127	DispatchMachineCode\$.....	[M002]
128	DispatchMachineName\$.....	[Machine #2 M2]
129	DispatchDescription\$.....	[]
130	DispatchExtDescriptionKey\$....	[]
131	DispatchExtDescriptionText\$...	[]
132	UDF_CUSTOM_FIELD1\$.....	[Test Prod]
133	UDF_CUSTOM_FIELD2.....	200.00
134	UDF_CUSTOM_FIELD3\$.....	[2071602]

Key Scan and Display Options

Key Column Separator: Key Scan Filter: ☐ Formatted Display: ☒

Key No.:

Key:     

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.

MRP Inquiry (MPP) 2/16/2017

Item Code U/M

Description On Hand .00

Type	Document No.	Required Date	Demand	Supply	Proj. On Hand
------	--------------	---------------	--------	--------	---------------

OK

Material Planning & Production Management 117

MRP Inquiry (MPP) 2/16/2017

Item Code: BEL10 U/M: EACH On Hand: 5,309.00

Description: Item

	Type	Document No.	Required Date	Demand	Supply	Proj. On Hand
26	WO	0000267/0001	1/8/2016	.00	5.00	9,491.00
27	WO	0000267/0002	1/8/2016	.00	5.00	9,491.00
28	WO	0000270/0003	1/13/2016	.00	4.00	9,495.00
29	WO	0000272/0001	8/30/2016	.00	5.00	9,500.00
30	SD	0000195	2/16/2017	5.00	.00	9,495.00
31	SD	0000196	2/16/2017	5.00	.00	9,490.00
32	SD	0000197	2/16/2017	5.00	.00	9,485.00
33	SD	0000199	2/16/2017	2.00	.00	9,483.00
34	SD	0000199	2/16/2017	1.00	.00	9,482.00
35	SD	0000200	2/16/2017	5.00	.00	9,477.00
36	WO	0000253/0001	2/16/2017	.00	20.00	9,497.00
37	WO	0000253/0002	2/16/2017	.00	20.00	9,517.00
38	WO	0000254/0004	2/16/2017	.00	2.00	9,519.00
39	WO	0000273/0001	2/16/2017	.00	25.00	9,544.00
40	WO	0000274/0001	2/16/2017	.00	25.00	9,569.00
41	WO	0000275/0001	2/16/2017	.00	320.00	9,889.00
42	WO	0000276/0001	2/16/2017	.00	320.00	10,209.00
43	WO	0000337/0001	2/16/2017	.00	320.00	10,529.00

Order Zoom

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.

Bill of Materials Inquiry (MPP) 2/16/2017

Bill Number: BEL25
 Revision: 000
 Bill Type: Standard
 Unit of Measure: EACH
 Routing Number: MFG_WINDOW
 Option Code:
 Current Revision: 000
 Description 1: HON 4 DRAWER LETTER FLE W/O LK
 Description 2:
 Date Last Used: 2/16/2017
 Effective Date: 2/16/2017
 Detail to Display: Include All Detail

☒ Single-Level ☐ Indented ☐ Summarized ☐ Single-Level Without Phantom Blow-Through

Component Item Code	Revision	Type	Description	Quantity/Parent	U/M	Comment
BEL25-VIP	000	Standard	HON 4 DRAWER LETTER ...	1.00	EACH	
PLS-TRAY			HON 4 DRAWER LETTER ...	1.00	EACH	
TIP			HON 4 DRAWER LETTER ...	1.00	EACH	
/MISC_CHARGE1			Charge 1	5.00		

Item Inquiry
MRP Inquiry

OK

Material Planning & Production Management 119

S Item Inquiry (MPP) 2/16/2017

Item Code: BEL25-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
Sales EACH

Price Code: STD STANDARD QUANTITY PRIC
Default Whse: 000 CENTRAL WAREHOUSE
Planning Code: 11 MFG Priority Code: 2 MFG Code:

Primary Vendor: 01-AIRWAY
Warranty Code:

Sales: Retail Price 135.000
Standard Price 135.000
Last Sold:

Purchases: Standard Cost 86.500
Average Cost 653.600
Last Receipt: 7/1/2013

Last Costs: Item 653.600
Allocated .000
Total 653.600

Quantities

Whse	Description	On Hand	On PO	On SO	On Bk Ord	Committed	On WD	Req for WD	A
000	CENTRAL ...	526.00	.00	8.00	.00	8.00	.00	28,165.00	
001	EAST WA...	.00	122.00	.00	.00	.00	.00	10,220.00	
MRP	MRP wareh...	.00	.00	.00	.00	.00	.00	135.00	

OK Print ?

Material Planning & Production Management 120

MRP Inquiry (MPP) 2/16/2017

Item Code: BEL25-VIP
Description: HON 4 DRAWER LETTER FLE W/O LK
U/M: EACH
On Hand: 526.00

	Type	Document No.	Required Date	Demand	Supply	Proj. On Hand
4	WO	0000336/0001	8/2/2012	3,366.00	.00	26,248.00
5	WO	0000340/0001	8/6/2012	45.00	.00	26,293.00
6	WO	0000341/0001	8/9/2012	45.00	.00	26,338.00
7	SO	0000177	1/22/2013	8.00	.00	26,346.00
8	PO	0010018	3/20/2013	.00	122.00	26,224.00
9	WO	0000236/0002	1/23/2015	123.00	.00	26,347.00
10	WO	0000248/0001	12/22/2015	.00	2.00	26,345.00
11	WO	0000247/0001	12/23/2015	2.00	.00	26,347.00
12	WO	0000268/0001	1/11/2016	5.00	.00	26,352.00
13	WO	0000261/0001	1/28/2016	346.00	.00	26,698.00
14	WO	0000264/0001	2/5/2016	248.00	.00	26,946.00
15	WO	0000265/0001	2/13/2016	248.00	.00	27,194.00
16	WO	0000260/0004	2/16/2017	200.00	.00	27,394.00
17	WO	0000288/0001	2/16/2017	1,055.00	.00	28,449.00
18	WO	0000289/0001	2/16/2017	1,055.00	.00	29,504.00
19	WO	0000292/0001	2/16/2017	374.00	.00	29,878.00
20	WO	0000293/0001	2/16/2017	374.00	.00	30,252.00
21	WO	0000296/0001	2/16/2017	5.00	.00	30,257.00

OK

Production Release Status

Change Manufacturing Dispatches Status/Date

The **Change Manufacturing Dispatches Status/Date** program added under the **Material Planning and Production Management ->Main** menu allows for 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 121

S Change Manufacturing Dispatches Status/Date (MPP) 2/16/2017

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 all Dispatches meeting the selection criteria:

S Change Manufacturing Dispatches Status/Date (MPP) 2/16/2017

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 Date	Disp. St.	Start Date	Include	
75	0000358	0001	BEL25	000	792.00-	2.00	01-ABF	2/16/2017	0	2/16/2017	<input type="checkbox"/>
76	0000361	0001	BEL25	000	792.00-	3.00	01-ABF	2/16/2017	0	2/16/2017	<input type="checkbox"/>
77	0000362	0001	BEL25	000	792.00-	3.00	01-ABF	2/16/2017	0	2/16/2017	<input type="checkbox"/>
78	0000364	0001	BEL10	MRP	.00	5.00	01-ABF	2/16/2017	0	1/8/2016	<input type="checkbox"/>
79	0000364	0002	BEL10	MRP	.00	5.00	01-ABF	2/16/2017	0	1/8/2016	<input type="checkbox"/>
80	0000365	0001	BEL10	MRP	.00	5.00	01-ABF	2/16/2017	0	2/16/2017	<input type="checkbox"/>
81	0000365	0002	BEL10	MRP	.00	5.00	01-ABF	2/16/2017	0	2/16/2017	<input type="checkbox"/>
82	0000366	0001	BEL10	MRP	.00	5.00	01-ABF	2/16/2017	0	2/16/2017	<input type="checkbox"/>
83	0000366	0002	BEL10	MRP	.00	5.00	01-ABF	2/16/2017	0	2/16/2017	<input type="checkbox"/>
84	0000367	0001	BEL10	001	.00	2.00	01-ABF	2/16/2017	0	2/16/2017	<input type="checkbox"/>
85	0000367	0002	BEL10	001	.00	2.00	01-ABF	2/16/2017	0	2/16/2017	<input type="checkbox"/>
86	0000368	0001	BEL10	MRP	.00	5.00	01-ABF	2/16/2017	0	2/16/2017	<input type="checkbox"/>
87	0000368	0002	BEL10	MRP	.00	5.00	01-ABF	2/16/2017	0	2/16/2017	<input type="checkbox"/>
88	0000370	0001	BEL10	000	792.00-	3.00	01-ABF	2/16/2017	0	2/16/2017	<input type="checkbox"/>
89	0000370	0002	BEL10	000	792.00-	3.00	01-ABF	2/16/2017	0	2/16/2017	<input type="checkbox"/>

Clear Select Cancel Proceed

Material Planning & Production Management 122

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 ($\text{Qty Ordered} \leq \text{Qty Avail}$) 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 ($\text{Qty Ordered} > \text{Qty Avail}$) 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.D. Type	All	
Nature of W.D.	All	
Customer Number	All	
Dispatch Status	All	
Dispatch Date	All	

	W.D. No.	Dispatch No.	Item Code	Whse Code	Qty Avail	Qty Ord.	Customer No.	Dispatch Date	Disp. St.	Start Date	Include
75	0000358	0001	BEL25	000	792.00	2.00	01-ABF	2/16/2017	O	2/16/2017	<input type="checkbox"/>
76	0000361	0001	BEL25	000	792.00	3.00	01-ABF	2/16/2017	O	2/16/2017	<input type="checkbox"/>
77	0000362	0001	BEL25	000	792.00	3.00	01-ABF	2/16/2017	P	2/16/2017	<input checked="" type="checkbox"/>
78	0000364	0001	BEL10							1/8/2016	<input type="checkbox"/>
79	0000364	0002	BEL10							1/8/2016	<input type="checkbox"/>
80	0000365	0001	BEL10							2/16/2017	<input type="checkbox"/>
81	0000365	0002	BEL10							2/16/2017	<input type="checkbox"/>
82	0000366	0001	BEL10							2/16/2017	<input type="checkbox"/>
83	0000366	0002	BEL10							2/16/2017	<input type="checkbox"/>
84	0000367	0001	BEL10	001	.00	2.00	01-ABF	2/16/2017	O	2/16/2017	<input type="checkbox"/>
85	0000367	0002	BEL10	001	.00	2.00	01-ABF	2/16/2017	O	2/16/2017	<input type="checkbox"/>
86	0000368	0001	BEL10	MRP	.00	5.00	01-ABF	2/16/2017	O	2/16/2017	<input type="checkbox"/>
87	0000368	0002	BEL10	MRP	.00	5.00	01-ABF	2/16/2017	O	2/16/2017	<input type="checkbox"/>
88	0000370	0001	BEL10	000	792.00	3.00	01-ABF	2/16/2017	O	2/16/2017	<input type="checkbox"/>
89	0000370	0002	BEL10	000	792.00	3.00	01-ABF	2/16/2017	O	2/16/2017	<input type="checkbox"/>

Clear Select Cancel Proceed

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) needed to be produced together.

Bill of Materials Maintenance (MPP) 2/16/2017

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

1. Header | 2. Lines

Quick Row: 1

	Component Item Code	Revision	Step No.	Quantity/Bill	Co
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 124

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
Technician Code

	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-H252UJ	MRP	186.00		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	230-182-Z	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-VI	MRP	15.00		15.00	Economic Qty	.00	.00	.00	15.00			<input type="checkbox"/>

Proceed Clear Hide/Show What If Scenario Recalculate/Relink Auto Scheduling Gen. Manufacturing Generate PO Accept Cancel

Here are 2 Dispatches generated for current Bill Item:

Material Planning & Production Management 125

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	2/16/2017	M002	Machine #2 M2	Open
0002	2/16/2017	M002	Machine #2 M2	Open

Quick Print Accept Cancel Delete

This is the Dispatch generated for main Bill:

Material Planning & Production Management 126

S Dispatch Data Entry (MPP) 2/16/2017

Work Order No: 0000281 Install Temp Control / Heat P

Dispatch No: 0001

1. Header | 2. Lines | 3. Production | User: Useriig

Dispatch Date: 2/16/2017 [Dispatch Status](#): 0 Open

Starting Date: 2/16/2017 Starting Time: 06:55 PM ☐ Commit Quantity: ☒

Ending Date: 2/16/2017 Ending Time: 06:58 PM

[Machine](#): M002 Machine #2 M2 [Mold Number](#): 0000000002

[Technician](#):

MFG Item Code: BEL10 Lot/Serial No.:

Quantity on W/O: 5.00

Outside Processing:

Manufacturing

Material Planning & Production Management 127

Dispatch Data Entry (MPP) 2/16/2017

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

1. Header | 2. Lines | 3. Production | User Userrig

Quick Row 1

Serial No. Add New ☐ Increment ☐

	Item Code	Ordered	Unit Price	Extension	Comment
1	BEL10	5.00	2,750.920	13,754.60	
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	
		nn	nnn	nn	

Description Item
Warehouse MRP
Unit Of Measure EACH
Price Level 1

Total Amount 15,705.05

Quick Print Manufacturing Labor Accept Cancel Delete

Here is the second dispatch generated for component Bill:

Material Planning & Production Management 128

S Dispatch Data Entry (MPP) 2/16/2017

Work Order No: 0000281 Install Temp Control / Heat P

Dispatch No: 0002

1. Header | 2. Lines | 3. Production | User: Useriig

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
S		nn	nnn	nn	

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

Total Amount: 16,873.60

Quick Print Manufacturing Labor Accept Cancel Delete

S Production Generation






Quantity Produced:

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 129

S Production Entry (MPP) 2/23/2017


Production Number     Batch  Defaults...


1. Header | 2. Lines

Production Date 

Bill Number   HON 4 DRAWER LETTER FLE W/O LK


Bill Type


Revision 


Option Code 

Quantity




Unit of Measure

Effective Date 

Parent Warehouse  MRP warehouse

Component Warehouse  MRP warehouse

Explode Sub-Assemblies ☐

Material Planning & Production Management 130

S Production Entry (MPP) 2/23/2017

Production Number Batch Defaults...

1. Header | 2. Lines

Quick Row

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 131

Production Entry (MPP) 2/23/2017

Production Number 0000057 Batch 00006 Defaults...

1. Header 2. Lines

Production Date 2/23/2017

Bill Number BEL10 Item

Bill Type Standard

Revision 000

Option Code

Quantity 5.00

Unit of Measure EACH

Effective Date 2/23/2017

Parent Warehouse MRP MRP warehouse

Component Warehouse MRP MRP warehouse

Explode Sub-Assemblies ☐

Accept Cancel Delete

Material Planning & Production Management 132

S Production Entry (MPP) 2/23/2017

Production Number Batch Defaults...

1. Header | 2. Lines

Quick Row

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.

Dispatch Data Entry (MPP) 2/16/2017

Work Order No: 0000374 Item: HON 4 DRAWER LETTER FILE

Dispatch No: 0001 User: Useriig

1. Header 2. Lines 3. Production

Dispatch Date: 2/16/2017 Dispatch Status: 0 Open

Starting Date: 2/16/2017 Starting Time: 07:51 PM Commit Quantity: ☒

Ending Date: 2/16/2017 Ending Time: 07:51 PM

Machine: M002 Machine #2 M2 Mold Number: 0000000002

Technician: MFG Item Code: BEL10-VIP Lot/Serial No. Quantity on W/O: 15.00

Outside Processing

Send Out... Receive...

Quick Print Manufacturing Labor Accept Cancel Delete

The Outside processing is performed by the following steps:

- sending Items for outside processing
- 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.

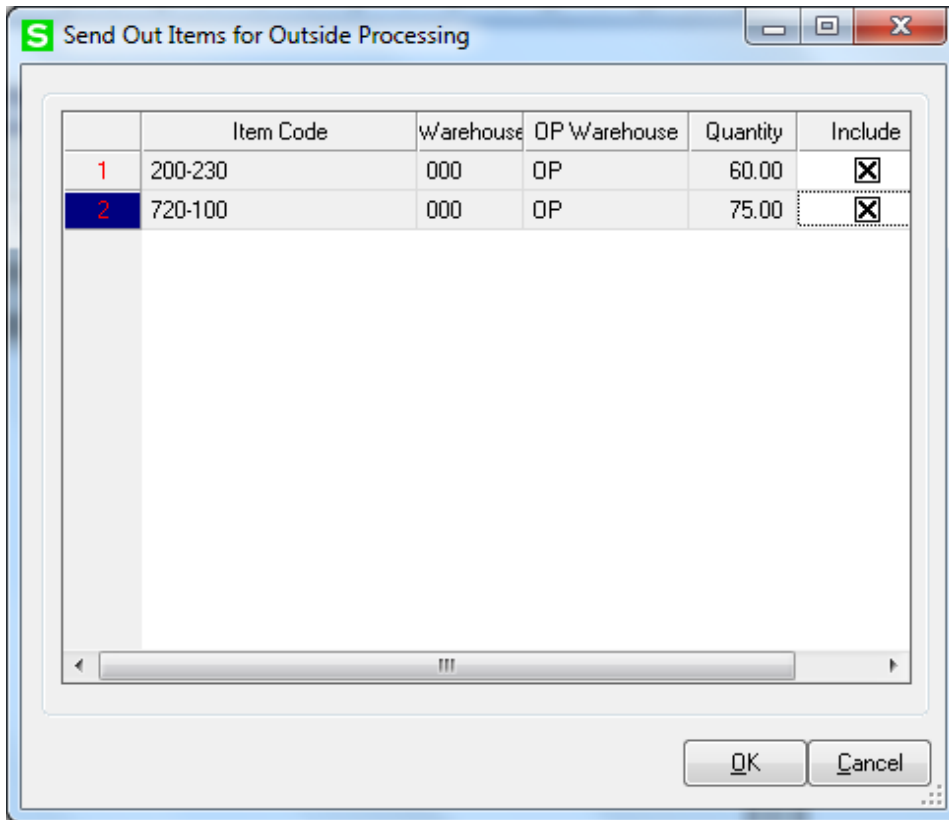
Material Planning & Production Management 134

	Item Code	Warehouse	OP Warehouse	Quantity	Include
1	200-230	000	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.

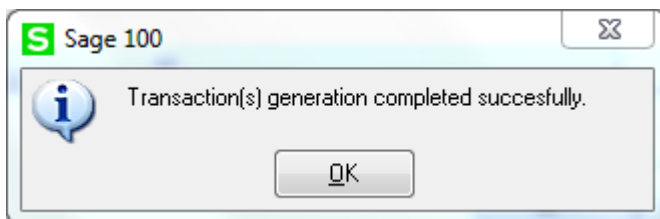
Material Planning & Production Management 135



The dialog box titled "Send Out Items for Outside Processing" contains a table with the following data:

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

At the bottom right of the dialog box are "OK" and "Cancel" buttons.



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

Material Planning & Production Management 136

Transaction Entry (MPP) 2/16/2017

Transaction Type: Transfers

Entry Number: 00000001

1. Header | 2. Lines

Transaction Date: 2/16/2017

Transfer From Warehouse: 000 CENTRAL WAREHOUSE

Transfer To Warehouse: OP Outside Processing Whse

Comment: SM Outside Processing

Accept Cancel Delete

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:

Dispatch Data Entry (MPP) 2/16/2017

Work Order No. 0000374 Item: HON 4 DRAWER LETTER FLE

Dispatch No. 0001

1. Header | 2. Lines | 3. Production User Useriig

Quick Row 3

Serial No. Add New Increment

	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

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 138

S Receive Items from Outside Processing

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

OK Cancel

S Receive Items from Outside Processing

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

OK Cancel

Dispatch Data Entry (MPP) 2/16/2017

Work Order No: 0000374 Item: HON 4 DRAWER LETTER FLE

Dispatch No.: 0001

User: Useriig

1. Header | 2. Lines | 3. Production

Quick Row: 2

Serial No.	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

Description: HON 4 DRAWER LETTER FLE W/O LK
Warehouse: 000
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.

I/M Transaction Entry Batch

Batch Number: 00001

Comment: SM Outside Processing

Private Batch: ☐

Status: Available Created By: IIG 2/24/2017 11:08:10 am

Entries: 2 Modified By: IIG 2/24/2017 11:08:36 am

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.

Dispatch Data Entry (MPP) 2/16/2017

Work Order No: 0000378 MFG Product: []

Dispatch No: 0001

1. Header | 2. Lines | 3. Production | User: Userig

Quick Row: 3

Serial No. []

	Item Code	Ordered	Unit Price	Extension	Comment
1	TEST_BILL	2.00	84.000	168.00	
2	1001-HON-H252	2.00	84.000	168.00	
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: 1,063.41

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	9,697.00	2.00
2	JAN10	323.00	2.00
3	MAR10	848.00	2.00
4		.00	.00

Distribution Balance: .00

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.

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Dispatch Data Entry (MPP) 2/16/2017

Work Order No 0000378 MFG Product

Dispatch No. 0001

1. Header | 2. Lines | 3. Production | User Useriig

Quick Row 5

Serial No. 55-127 Add New ☒ Increment ☐

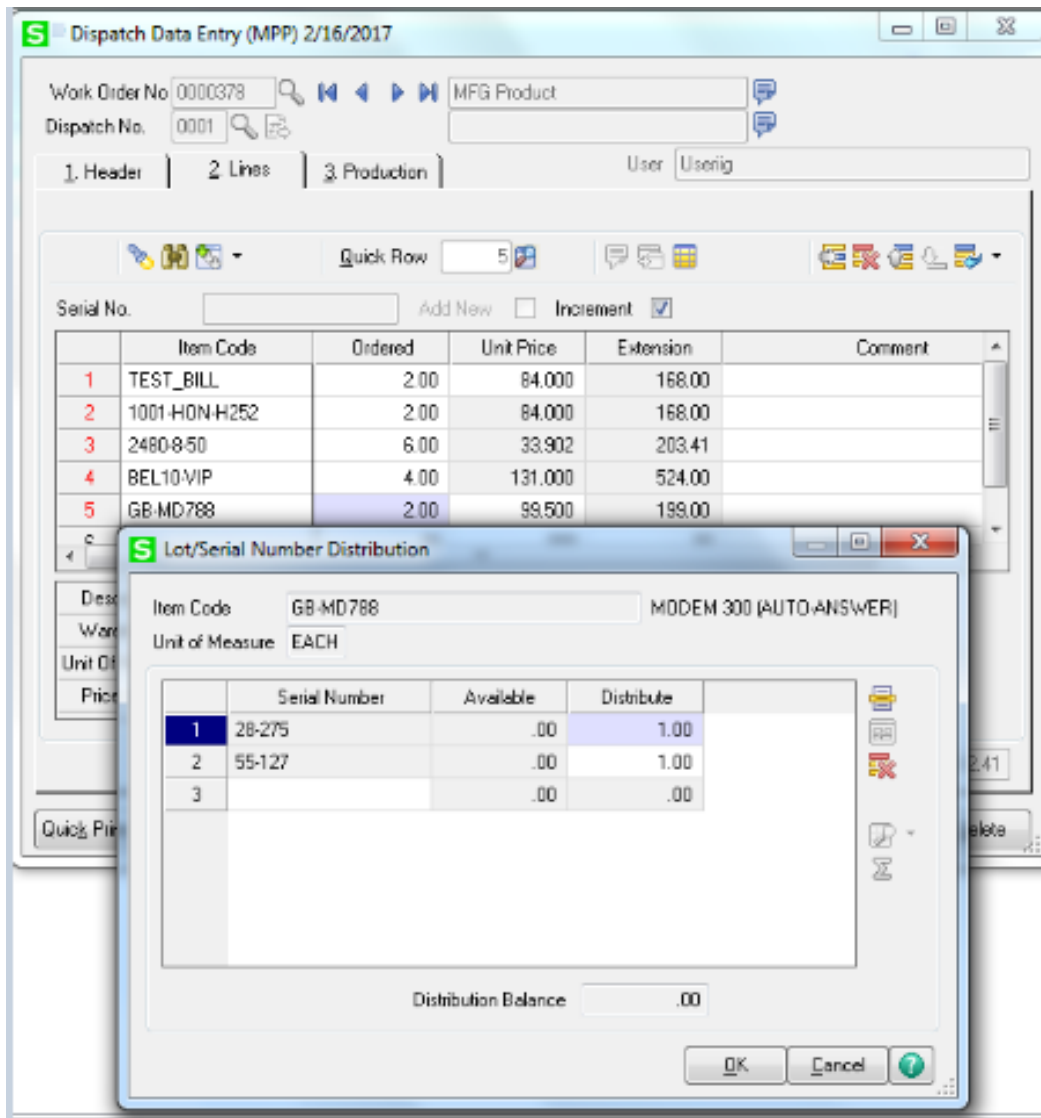
	Item Code	Ordered	Unit Price	Extension	Comment
1	TEST_BILL	2.00	84.000	168.00	
2	1001-HON-H252	2.00	84.000	168.00	
3	2480-8-50	6.00	33.902	203.41	
4	BEL10-VIP	4.00	131.000	524.00	
5		.00	.000	.00	

Description
Warehouse
Unit Of Measure
Price Level

Total Amount 1,063.41

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.



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**.

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.

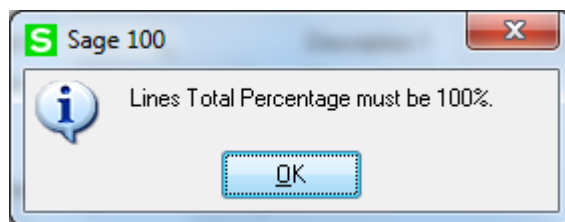
The **Production Increment** field is intended for determination of the optimum production lot/batch size of a product and the ordering quantities of associated raw materials together.

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	Component Item Code	Revision	Percentage	Step No.	Co
1	1001-HON-H252		50.00	0010	
2	BEL10-VIP	*	20.00	0030	
3	2480-8-50	*	30.00	0050	
4			.00		

Description	HON 4 DRAWER LETTER FILE W/O LK
Find No.	
Scrap Percent	0.000%
Unit Of Measure	EACH

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:

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Dispatch Data Entry (MPP) 2/16/2017

Work Order No. 0000286

Dispatch No. 0001

1. Header | 2. Lines | 3. Production

User Useriig

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-H252	.50	84.000	42.00	
3	2480-8-50	.30	34.950	10.49	
4	BEL10-MIP	.20	131.000	26.20	
5		.00	.000	.00	

Description Item

Warehouse 000

Unit Of Measure EACH

Price Level

Total Amount 162.69

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:

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Work Order Entry (MPP) 2/16/2017

Work Order No. 0000196

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

User Useriig

Order Date 2/16/2017 Order Time 04:48 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

Preferred Tech.

Item Number TEST_BILL Item

Lot/Serial No.

Plant Code

Territory

Cust PO

Schedule Date 2/16/2017 Time 09:00 AM

Due Date 2/16/2017 Time 09:00 AM

Contract No.

Mold Number 0000000002

Priority Code

Production Lot/Batch Size 5

Production Increment 2

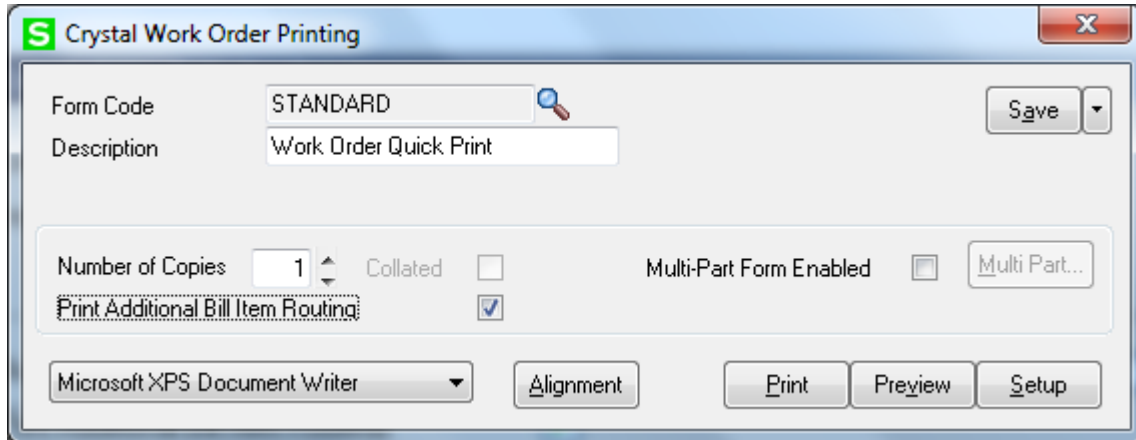
Quick Print

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 'Crystal Work Order Printing' dialog box. It has a title bar with a green 'S' icon and a close button. The main area contains several fields and controls: 'Form Code' is set to 'STANDARD' with a search icon; 'Description' is 'Work Order Quick Print'; 'Number of Copies' is '1' with up/down arrows; 'Collated' is an unchecked checkbox; 'Multi-Part Form Enabled' is an unchecked checkbox with a 'Multi Part...' button; 'Print Additional Bill Item Routing' is a checked checkbox; a printer selection dropdown is set to 'Microsoft XPS Document Writer'; and buttons for 'Alignment', 'Print', 'Preview', and 'Setup'. A 'Save' button with a dropdown arrow is in the top right.

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.

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Work Order Printing

1 / 1

Main Report

Work Order Printing **MPP demo company (MPP)**

Work Order Number: 0000380	Preferred Mach: Machine #2 M2
Work Order Date: 2/16/2017	Preferred Tech:
Customer Number: 01-ABF	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: Pull Product
Item: Item

Dispatch No.	Dispatch Date	Dispatch Mach.	Dispatch Tech.
0001	2/16/2017	Machine #2 M2	

Dispatch Description:

TEST_BILL	Item	5.00	81.480	0.000	407.40
1001-HON-H252	HON 2 DRAWER LETTER FLE W/O LK	10.00	78.120	0.000	781.20
2480-8-50	DESK FILE 8" CAP 50	30.00	31.455	0.000	943.65
BEL10-VIP	HON 4 DRAWER LETTER FLE W/O LK	20.00	121.830	0.000	2,436.60
Dispatch Total :					4,568.85

When ready for invoicing, please sign and turn into accounting department.

W.O. Total :	4,568.85
---------------------	-----------------

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

Work Order Additional Printing

MATERIAL PRODUCTION PLANNING WORK ORDER ADDITIONAL PRINTING

Microsoft XPS Document Writer

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**.

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Work Order Additional Printing

MPP demo company (MPP)

Work Order Number: 0000163
W.O. Description: Test WO

Item Code: BEL10
Routing Number: MFGROUTING MFG Routing
Steps By Dispatch: Yes

W. O. Type: M
Nature of W.O.: MANUF
Routing W.O. Desc.:

Step Number: 0010	Manufacturing: Yes	Labor Code: LAB1	
	Technician Code: ADAM	Machine Code: M001	Disp. desc.: Material Selection
Step Number: 0020	Manufacturing: Yes	Labor Code: LAB2	
	Technician Code: ADAM	Machine Code: M002	Disp. desc.: Tooling Project Management

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

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

Work Order Additional Printing

MPP demo company (MPP)

Work Order Number: 0000380
W.O. Description: Pull Product
Item: Item

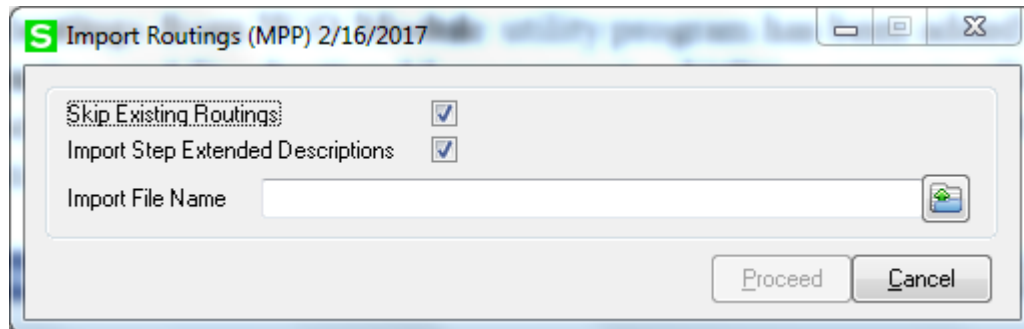
Item Code: TEST_BILL
Routing Number: MFG Production / Mold
Steps By Dispatch: No

Step No.	Description	Req. Hours	Gen. W.O.	W.O. Type	Nature Of W.O	Mfg	Labor Code	Tech. Code	Mach. Code
0005	Pull Product	1.00	Yes	M		Yes			M2
						Disp. desc.:			
0008	Paint	2.00	No			No			
						Disp. desc.:			
0010	MFG Product	2.00	Yes			Yes			M1
						Disp. desc.:			

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

Import Routings from W/O Module

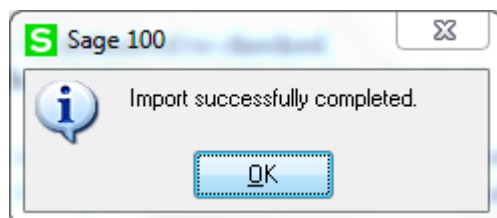
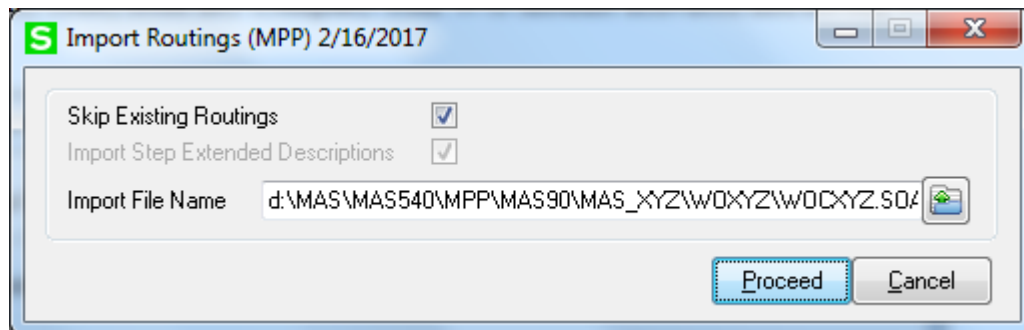
The **Import Routings from W/O Module** utility program has been added under the **Material Planning and Production Management-> Utilities** menu to allow importing the Routings setup in W/O module of any Company (with W/O module activated) to the Material Planning and Production Management-> Routing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



Cost Calculation

Dispatch Data Entry

The **Recalc. Cost** button added on the Dispatch Lines tab allows for recalculation of Inventory Items Cost for manufacturing Dispatches. This button is visible only for Manufacturing Dispatch.

Dispatch Data Entry (MPP) 5/17/2017

Work Order No: 0000293 Production/Mold

Dispatch No: 0002 User: useriig

1. Header 2. Lines

Quick Row: 1

	Item Code	Ordered	Cost	Unit Price	Extension	Com
1	TEST_BILL1	5.00	417.050	81.480	407.40	
2	1001-HON-H252LK	10.00	37.150	80.910	809.10	
3	1001-HON-H254	15.00	83.500	121.830	1,827.45	
4	1001-HON-H254LK	5.00	87.250	130.950	654.75	
5		.00	.000	.000	.00	

Description: Item
Warehouse: MRP
Unit Of Measure: EACH
Price Level:

Recalc. Cost

Total Amount: 3,698.70

Quick Print Manufacturing Labor Accept Cancel Delete

Production Entry

The **Recalc. Cost** button added on the Lines tab of the Production Entry allows the user to recalculate the component items cost prior to running the Production Entry Register.

The screenshot shows the 'Production Entry (MPP) 5/17/2017' window. The 'Production Number' is 0000045. The 'Lines' tab is active, showing a table of component items. The table has columns for 'Component Item Code', 'Quantity/Bill', 'Unit Cost', and 'Extended Quantity'. The first row is selected, showing '1001-HON-H252LK' with a quantity of 2.00 and a unit cost of .000. Below the table, there is a 'Recalc. Cost' button. The window also includes a 'Quick Row' dropdown set to 1, a 'Lot/Serial Number' field, and a 'Defaults...' button.

	Component Item Code	Quantity/Bill	Unit Cost	Extended Quantity
1	1001-HON-H252LK	2.00	.000	10.00
2	1001-HON-H254	3.00	.000	15.00
3	1001-HON-H254LK	1.00	.000	5.00
4	/LAB2	.50	.000	2.50
5		.00	.000	.00

Below the table, the following details are visible:

Description	HON 2 DRAWER LETTER FLE W/ LCK
Revision	000
Warehouse	MRP
Unit Of Measure	EACH

The 'Recalc. Cost' button is located at the bottom right of the table area. At the bottom of the window, there are buttons for 'Accept', 'Cancel', 'Delete', and a help icon.

Pressing the **Recalc Cost** button will recalculate the Component Items (only inventory items) Costs based on the cost calculation logic applied when running Production Entry Register.

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Production Entry (MPP) 5/17/2017

Production Number: 0000045

1. Header | 2. Lines

Quick Row: 3

Lot/Serial Number:

	Component Item Code	Quantity/Bill	Unit Cost	Extended Quantity	
1	1001-HON-H252LK	2.00	37.150	10.00	
2	1001-HON-H254	3.00	83.500	15.00	
3	1001-HON-H254LK	1.00	87.250	5.00	
4	/LAB2	.50	10.000	2.50	Labor De
5		.00	.000	.00	

Description: HON 4 DRAWER LETTER FLE W/ LCK
Revision:
Warehouse: MRP
Unit Of Measure: EACH

Recalc. Cost

Accept Cancel Delete

Production Entry Register
Journal Posting Date: 5/17/2017
Register Number: BM-000008

MP demo (MPP)

Production Number	Production Date	Bill Number	Revision	Options	Type	Effective Date	Quantity	Unit of Measure	Yield	Whse	Lot/Serial Number
0000045	5/17/2017	TEST_BILL1	000		STD	5/17/2017	5.00	EACH	100.000%	MRP	
				BASE	Item						

Component Item Code	Description	Revision	Measure	Whse	Quantity Per Bill	Extended Quantity	Unit Cost	Extended Cost	G/L Account
1001-HON-H252LK	HON 2 DRAWER LETTER FLE W/ LCK	000	EACH	MRP	2.00	10.00	37.150	371.50	115-00-03
1001-HON-H254	HON 4 DRAWER LETTER FLE W/O LK		EACH	MRP	3.00	15.00	83.500	1,252.50	115-00-03
1001-HON-H254LK	HON 4 DRAWER LETTER FLE W/ LCK		EACH	MRP	1.00	5.00	87.250	436.25	115-00-03
/LAB2	Labor 2 charge		BOX		0.50	2.50	10.000	25.00	115-01-00

Comment: Labor Description: Machine#002 Labor; Machine Code

Total for 5 TEST_BILL1: 417.050 2,085.25

Report Total: 2,085.25

Current Page No.: 1 Total Page No.: 1 Zoom Factor: 150%

Process MFG

Item Maintenance

The **MFG Item Type** drop-down has been added on the Main tab of the Item Maintenance to allow setting the MFG Item type.

The following types are available:

- None
- Ingredient
- Brine
- Label
- Package

Item Maintenance (ABX) 6/28/2017

Item Code: BOTTLE250
Description: Bottle for 250 g

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

Product Line: ACC Accessories
Product Type: Finished Good
Valuation: Average Cost
Procurement: Buy

Unit of Measure: Standard EACH
Purchases EACH
Sales EACH

Price Code: 000
Default Whse: 000 Main Irvine Warehouse
Planning Code: MFG Priority Code: 0 MFG Code: Made to Stock MFG Item Type: Package

Sales: Retail Price 179.0000, Standard Price 179.0000, Last Sold
Purchases: Standard Cost 79.9500, Average Cost .0000, Last Receipt
Last Item: None, Ingredient, Brine, Label, Package

Whse	Description	On Hand	On PO	On SO	On Bk Ord	Committed	On WO	Req for WO	A
000	Main Irvine...	.0000	.0000	.0000	.0000	.0000	.0000	80.2222	

Accept Cancel Delete

Bill Of Material Maintenance

In the system with **Process MFG** enabled in the **Material Planning and Production Setup**, the **Bill of Material Maintenance** is adapted for entry of Recipes.

Recipes are entered as Bill Items with respective **Bill Status**.

Bill Numbers (recipes) may have the following statuses:

- None
- Current/Production
- Sample
- R&D
- Obsolete.

The screenshot displays the 'Bill of Materials Maintenance (ABX) 6/30/2017' window. The 'Header' tab is selected, showing the following fields and values:

- Bill Number: TOMATO PASTE
- Revision: 000
- Description 1: Tomato Paste
- Bill Type: Standard
- Description 2: (empty)
- Bill Status: Current/Production

The 'Header' tab contains several sub-sections:

- Drawing Information:** Drawing Number, Drawing Revision, Routing Number (R3), Current Revision (000), Date Last Used, Maximum Lot Size (0).
- Print Components:** (checkbox)
- Bill Has Options:** (checkbox)
- Process MFG:** Default Kettle Batch Size (50.0000), Default Drained Wt (30.0000), # of Batches (2), Equivalent Case (20.0000), Process Method (Cook in a Large Pot).
- Option Categories:** A list of 9 categories, each with a 'Required' checkbox.
- Components By Percentage:** (checkbox)
- Production Lot/Batch Size:** (2)
- Production Increment:** (5)

The bottom of the window features buttons for 'Accept', 'Cancel', 'Delete', and a help icon.

Bill Numbers with **Current/Production** status indicates active recipes that can be normally used in MFG processing (Work Order->Production generation).

Sample status indicates recipes entered in advance for future use.

Only the users having respective security rights may generate MFG Dispatches for Bill Items with sample status.

MFG Dispatches can be generated for the Bill Items with Current/Production status. For the Bills with R&D and Obsolete statuses MFG Dispatch generation is not allowed.

The **Process MFG** section with respective fields has been added on the Bill of Material Maintenance Header tab.

Default Kettle Batch Size, # of Batches, Equivalent Case and Process Method are informational fields.

Default Drained Wt (Weight) is used for calculating components (Ingredients) quantity when Components by percentage checkbox is selected and a Percent is entered for an ingredient. The Ingredient quantity will be calculated as: **Default Drained Wt * Percentage/100*Conversion factor** if the ingredient's U/M doesn't match the U/M specified for **Default Drained Wt. on the Header.**

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U/M can be specified for the **Default Drained Weight** (displayed in the field next to the **Default Drained Weight** field) and can be changed, if there is no line entered. The **U/M** of the **Total Quantity** will be set to the same **U/M**, and cannot be changed.

If no **U/M** is specified, the **Total Quantity** can have its own **U/M** specified.

Lines

Ingredient **Percents** can be entered instead of entering **Quantities**, which will be calculated automatically, as a percent of the **Default Drained Weight**.

	Component Item Code	U/M	Unit Cost	Yield	Percentage	Step No.	Quantity/Bill	Comment
1	FRESH TOMATO	KG	79.9500	1.0000	91.000		27.3000	
2	/C		.0000	1.0000	0.000		.0000	Bring the tomatoes to a boil c
3	/C		.0000	1.0000	0.000		.0000	Add about 1/2 cup of the oli
4	OIL	1LTR	50.9500	1.0000	2.750		.8250	
5	SALT	EACH	10.9500	1.0000	2.000		.6000	
6	WATER	EACH	5.9500	1.0000	2.250		.9750	

Description	Tomatoes
Find No.	
Cost Account	
Add Change No.	

Default Drained Wt: 30.0000

Quantity/Bill Total: 30.0000

Percentage Total: 100.0000

When the **Default Drained Weight** is entered, the program automatically recalculates the **Quantities** according to the **Percents** of the lines. The **Totals** are displayed below respectively in **Quantity/Bill Total** and **Percentage Total** fields. If there are **Quantities** changed after the last automatic recalculation, so that the **Total Quantity** is different from the **Default Drained Weight**, the **Total Quantity** is displayed in red. If the **Total Percent** is different from 100, it is displayed in red.

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Bill of Materials Maintenance (ABX) 6/30/2017

Bill Number: TOMATO PASTE
Revision: 000
Description 1: Tomato Paste
Description 2:
Bill Type: Standard
Bill Status: Current/Production

1. Header | 2. Lines | 3. Prod Data | 4. Notes | 5. Labor/Spec | 6. Finish Good | 7. Totals

MFG Item Type: All Quick Row: 1

	Component Item Code	MFG Line Type	U/M	Unit Cost	Yield	Percentage	Step No.
1	FRESH TOMATOES	Ingredient	KG	79.9500	1.0000	91.250	
2	/C	None		.0000	1.0000	0.000	
3	/C	None		.0000	1.0000	0.000	
4	OIL	Ingredient	1LTR	50.9500	1.0000	2.750	
5	SALT	Ingredient	EACH	10.9500	1.0000	2.000	
6	WATER	Ingredient	EACH	5.9500	1.0000	2.250	

Description: Tomatoes
Find No.:
Cost Account:
Add Change No.:

Default Drained Wt: 30.0000 1LTR

Quantity/Bill Total: 30.0750
Percentage Total: 100.2500

Accept Cancel Delete

If there is **U/M** specified for the **Total** (on the Header tab), all the Inventory Ingredients should be entered in **U/Ms** convertible to the **U/M** of the **Total**.

The **Description** and **U/M** of Inventory Ingredients are loaded from the **Inventory Maintenance** and cannot be changed.

The **MFG Line Type** is defaulted from the Item Maintenance and can be changed here. The quantities entered for **Packaging, Brine** and **Label MFG Line** types are not taken into account when calculating the **Drained Weight**.

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For Inventory Ingredients, the **Standard Cost** of the **Item** (specified in the **Inventory Maintenance**) is loaded as the line's Unit Cost, and cannot be changed here.

Component Item Code	MFG Line Type	U/M	Unit Cost	Yield	Percentage	Step No.
1 FRESH TOMATOES	Ingredient	KG	79.9500	1.0000	91.000	1
2 /C	None		.0000	1.0000	0.000	2
3 /C	None		.0000	1.0000	0.000	3
4 OIL	Ingredient	1LTR	50.9500	1.0000	2.750	4
5 SALT	Ingredient	EACH	10.9500	1.0000	2.000	5
6 WATER	Ingredient	EACH	5.0500	1.0000	2.250	6

The **Group** and **Subtotal** columns are used for grouping non-Inventory rows by the group letter and indicating the rows for which the subtotal of the corresponding group should be printed on the **Kettle Ingredient Checklist Report**.

The **Yield** is entered to calculate the extended cost of the Item (taking into account expected loss during production). The Unit Cost is multiplied by the Yield and Quantity/Bill to form the extended cost. The **Yield** is defaulted to 1 (no loss).

Note: As in Production Entry the lines of Bill Item with the same Item code are summarized, it is not recommended using same Item Code for different MFG Line Types (ingredient, label, brine).

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Prod Data

This tab contains informational fields, to be used on the reports.
The **Product Info** fields group allows entering only numeric data.

Bill of Materials Maintenance (ABX) 6/28/2017

Bill Number: TOMATO PASTE
Revision: 000
Bill Type: Standard
Bill Status: Current/Production

Description 1: Tomato Paste
Description 2:

1. Header | 2. Lines | 3. Prod Data | 4. Notes | 5. Labor/Spec | 6. Finish Good | 7. Totals

Production Notes

Date: 6/28/2017
Cases:
Batches:
Lot Code:
Other:

Product Info

Size: 12 Jars 15.50 Ounces
Drained Weight: 11.6250 Lbs/Case
Std Wt/Case: 21.0000 Lbs
Cubic Feet: 0.3800

Lab Specs

Equalized: <4.20
Cover Brine:
pH:
Acid:
Salt:
Brix:
Bostwick:
SO2:

QC Sampling: 4 PER CODE
Vacuum: CHECK
Hot Fill: 195 H MINIMUM
Internal Temp: 195 H MINIMUM
Product Code: TOMP

Drain Wt:
Net Wt: label-15.5 oz=426 gr
Stack Pattern: 11x7=77
CASES PER PAILLE:

Accept Cancel Delete

Notes

The **Notes** tab is intended for entering special notes regarding current product. The information of Prod. Data, Notes and Labor/Spec tabs are carried over to the Work Order generated for current Bill Item.

Material Planning & Production Management 162

Bill of Materials Maintenance (ABX) 6/28/2017

Bill Number: TOMATO PASTE
Revision: 000
Description 1: Tomato Paste
Bill Type: Standard
Description 2:
Bill Status: Current/Production

1. Header | 2. Lines | 3. Prod Data | 4. Notes | 5. Labor/Spec | 6. Finish Good | Z. Totals

Kettle Ingredient Checklist Notes

1. Chop the Tomatoes
If you want to reduce the paste in the oven, preheat an oven to 300F (see Step 5 for more details).
Bring the tomatoes to a boil over high heat. Cook, stirring, just until tomatoes soften, about 2 minutes. This brief cooking helps break the tomatoes down a bit and makes them easier to run through a food mill or sieve.

Run the cooked tomatoes through a food mill or push them through a large sieve with a flexible spatula. Why are you doing this? To turn the tomatoes into a pulp while also removing the skins and seeds.

Accept Cancel Delete ?

Labor /Spec.

This tab is intended for entry of Labor Cost, Overhead info and also Special Instructions that will be loaded to the Work Order Entry.

Material Planning & Production Management 163

Bill of Materials Maintenance (ABX) 6/28/2017

Bill Number: TOMATO PASTE
Revision: 000
Description 1: Tomato Paste
Bill Type: Standard
Description 2:
Bill Status: Current/Production

1. Header | 2. Lines | 3. Prod Data | 4. Notes | 5. Labor/Spec | 6. Finish Good | Z. Totals

Labor

Hours	.0000
Rate	.0000
Labor Cost	25.0000
Overhead	1.2500
Total Labor	26.2500

Special Instructions

JAR CODE: PRODUCT CODE/JULIAN DATE/YEAR/LOT#
BEST BEFORE MM?DD/YEAR + 2

Accept Cancel Delete

Finished Good

On the **Finished Good** tab you may enter the **Finished Good** Items to be produced for current Recipe (Bill Item). For example we have a Bill Item for which we need to have finished good Items produced in different packages.

The **U/M** of the **Finished Goods** selected should be convertible to the **Produced U/M**. For example:

Unit of Measure Conv Maint (ABX) 6...

Unit of Measure: 1LTR

Conversion	Unit of Measure	Factor
1	M750	1.330
2	M500	2.000
3	M250	4.000
4	M100	10.000
5		

Accept Cancel Delete

Material Planning & Production Management 164

The actual cost of the Finish Goods item is calculated as the sum of the Materials and Labor Cost divided into the Finish Goods Quantity.

The Finished Good Items must be defined as items in the Item Maintenance before you can create a bill of material. They are set up as inventoried items at the production facility. The Finished Good Item may contain only Package and Label type components .

Bill of Materials Maintenance (ABX) 6/30/2017

Bill Number: TOMATO PASTE 250 L
Revision: 000
Bill Type: Standard
Bill Status: Current/Production
Description 1: Tomato Paste Small
Description 2:

1. Header | 2. Lines | 3. Prod Data | 4. Notes | 5. Labor/Spec | 6. Finish Good | 7. Totals

MFG Item Type: All | Quick Row: 1

	Component Item Code	MFG Line Type	U/M	Unit Cost	Yield	Step No.	Quantity/Bill
1	BOTTLE250	Package	EACH	2.9500	1.0000		1.0000
2	LABEL250	Label	EACH	1.9500	1.0000		1.0000
3				.0000	0.0000		.0000

Description: Bottle for 250 g
Find No.:
Cost Account:
Add Change No.:

Default Drained Wt: .0000
Quantity/Bill Total: .0000

Accept Cancel Delete

Here is an example of Bill of Materials Entry used for production of Finished Goods (Tomato Paste packed in 250 and 500 L jars) :

Material Planning & Production Management 165

S Bill of Materials Maintenance (ABX) 6/30/2017

Bill Number: TOMATO PASTE
Revision: 000
Bill Type: Standard
Bill Status: Current/Production

Description 1: Tomato Paste
Description 2:

1. Header | 2. Lines | 3. Prod Data | 4. Notes | 5. Labor/Spec | 6. Finish Good | 7. Totals

Quick Row: 1

	Finish Good Item Code	Quantity/Prod	Factor	Total	Percent
1	TOMATO PASTE 250 L	10.0000	0.2500	2.5000	33.3333 %
2	TOMATO PASTE 500 L	10.0000	0.5000	5.0000	66.6667 %
3		.0000	0.0000	.0000	.0000 %

Description: Tomato Paste Small
Unit Of Measure: M250

Accept Cancel Delete

S Bill of Materials Maintenance (ABX) 6/30/2017

Bill Number: TOMATO PASTE 250 L
Revision: 000
Bill Type: Standard
Bill Status: Current/Production

Description 1: Tomato Paste Small
Description 2:

1. Header | 2. Lines | 3. Prod Data | 4. Notes | 5. Labor/Spec | 6. Finish Good | 7. Totals

Cost Totals

Ingredients	.0000
Brine	.0000
Packaging	2.9500
Labeling	1.9500
Total Labor	.0000

Total Extended Cost: 4.9000

Accept Cancel Delete

Material Planning & Production Management 166

Totals

The **Totals** tab displays information on **Cost Totals** by separate tabs and for the entire Bill.

Bill of Materials Maintenance (ABX) 6/30/2017

Bill Number: TOMATO PASTE
Revision: 000
Bill Type: Standard
Bill Status: Current/Production

Description 1: Tomato Paste
Description 2:

Copy From... More...

1. Header | 2. Lines | 3. Prod Data | 4. Notes | 5. Labor/Spec | 6. Finish Good | 7. Totals

Cost Totals

Ingredients	2,240.0401
Brine	.0000
Packaging	.0000
Labeling	.0000
Total Labor	26.2500

Total Extended Cost: 2,266.2901

Accept Cancel Delete ?

The **Cost Total** for Ingredients, Brine, Packaging, Labeling is calculated as the respective line's Unit Cost * Quantity * Yield.

The **Total Labor** is loaded from the **Labor/Spec** tab.

Work Order Entry

The Process MFG information from the **Bill of Materials Header** is loaded into respective fields on the Work Order Header. The **Prod. Data**, **Notes** and **Labor/Spec** information is loaded from respective tabs of the **Bill of Material Maintenance**.

Work Order Entry (ABX) 6/30/2017

Work Order No. 0000098 Item: Tomato Paste

1. Header | 2. Address | 3. Dispatches | 4. Prod Data | 5. Notes | 6. Labor/Spec | User: useriig

Order Date: 6/30/2017 Order Time: 12:01 PM Order Type: S Type S

Customer No. 01-AVNET Avnet Processing Corp

W.O. Status: E Entered

Job Site Code:

Job Site Contact: Tony Schultz

Nature of W.O.:

Prefer. Machine: M2 Machine 22 Mold Number:

Preferred Tech: EVA Eva Brown Priority Code:

Item Number: TOMATO PASTE Tomato Paste

Lot/Serial No.:

Plant Code:

Territory:

Cust PO:

Schedule Date: 6/30/2017 Time: 12:01 PM

Due Date: 6/30/2017 Time: 12:01 PM

Contract No.:

Production Lot/Batch Size: 2

Production Increment: 5

Default Kettle Batch Size: 50.0000

Default Drained Wt: 30.0000

of Batches: 2 1LTR

Equivalent Case: 20.0000

Process Method: Cook in a Large Pot

Buttons: Quick Print, Accept, Cancel, Delete

Press **MFG Dispatch Generation** button to have Dispatches generated for the Finished Good Items specified on the Finished Goods tab of the Bill of Material Maintenance. If there is no Finished Good Item specified on the Bill of Materials Maintenance the Dispatch will be generated only for the Bill Item.

Material Planning & Production Management 168

S Finish Goods Dispatch Generation

Generate for Current W.O. ▼

	Finish Good Item Code	Quantity/Prod
1	TOMATO PASTE 250 L	10.0000
2	TOMATO PASTE 500 L	10.0000

Proceed Cancel

S Work Order Entry (ABX) 6/30/2017

Work Order No. 0000098 Item: Tomato Paste Defaults...

1. Header | 2. Address | 3. Dispatches | 4. Prod Data | 5. Notes | 6. Labor/Spec | User useriig

Dispatch No.	Dispatch Date	Machine	Machine Name	Status
0001	6/30/2017	M2	Machine 22	Open
0002	6/30/2017	M2	Machine 22	Open

Quick Print Accept Cancel Delete

Dispatch Data Entry

During MFG Dispatch generation the Bill Item comment lines are loaded into the Dispatch Lines based on the **Load Comment Lines During MFG Dispatch Gen.** option. If this checkbox is not selected in the **Material Planning and Production Setup** the comment lines will not be loaded. It is necessary to check the **Load Comment Lines During MFG Dispatch Gen.** option to load the Comment lines of the Bill Item into the Dispatch lines.

Here is the generated Dispatch:

The screenshot shows the 'Dispatch Data Entry (ABX) 6/30/2017' window. It contains the following fields and controls:

- Work Order No:** 0000098
- Dispatch No:** 0001
- Item:** Tomato Paste
- User:** useriig
- Dispatch Date:** 6/30/2017
- Dispatch Status:** 0 (Open)
- Separate Productions:** ☐
- Starting Date:** 6/30/2017
- Starting Time:** 12:01 PM
- Ending Date:** 6/30/2017
- Ending Time:** 12:02 PM
- Commit Quantity:** ☒
- Machine:** M2 (Machine 22)
- Technician:** EVA (Eva Brown)
- Mold Number:** (empty)
- MFG Item Code:** TOMATO PASTE
- Lot/Serial No.:** (empty)
- Quantity on W/O:** 10.00
- Outside Processing:** Send Out..., Receive...
- Buttons:** Quick Print, Labor, Accept, Cancel, Delete

The Finished Good Item entered on the Finished Goods tab of the Bill of Material Maintenance is loaded in the Dispatch Lines as Bill parent Item with 0 quantity and the Cost loaded from Item Maintenance. The Bill Item (Recipe) Ingredient type Lines are loaded as components of the Finished Good item with Recipe Quantity calculated based on the Bill components percentage and the finished good Item Qty Produced . The Package and Label type lines are loaded from the Lines of Finished Good Item.

Material Planning & Production Management 170

Dispatch Data Entry (ABX) 6/30/2017

Work Order No. 0000098 Item: Tomato Paste
Dispatch No. 0001 User: userig

1. Header 2. Lines

Quick Row 1

	Item Code	Recipe Quantity	Yield	U/M	Cost	Ordered	Comment
1	TOMATO PASTE 25	.0000	1.0000	M250	79.5680	10.0000	
2	BOTTLE250	10.0000	1.0000	EACH	2.9500	10.0000	
3	CHILI PEPPER	.1000	1.0000	EACH	10.0000	.1000	
4	FRESH TOMATOES	9.1000	1.0000	KG	79.9500	9.1000	
5	LABEL250	10.0000	1.0000	EACH	1.9500	10.0000	
6	OIL	.2750	1.0000	1LTR	50.9498	.2750	
7	SALT	.2000	1.0000	EACH	10.9500	.2000	
8	WATER	.3250	1.0000	EACH	5.9499	.3250	
9	/C	.0000	1.0000		.0000	.0000	Bring the tomatoes to a boil over high heat
10	/C	.0000	1.0000		.0000	.0000	Add about 1/2 cup of the olive oil and 1 ...

Description	Tomato Paste Small
Warehouse	000
Unit Price	179.0000
Extension	1,790.00
Price Level	1
Tax Class	TX
Discountable	<input type="checkbox"/>

Recalc. Cost

Total Amount 7,146.86

Quick Print Manufacturing Labor Accept Cancel Delete

The **Recipe Quantity** column displays the quantity of each component when the dispatch is created. The user cannot change the **Recipe Quantity**, only the quantity **Ordered** can be changed. Upon changing the quantity Ordered the components' quantities are updated accordingly.

Material Planning & Production Management 171

Dispatch Data Entry (ABX) 6/30/2017

Work Order No: 0000098 Item: Tomato Paste
Dispatch No: 0001 User: userig

1. Header 2. Lines

Quick Row: 1

	Item Code	Yield	U/M	Cost	Ordered	Comment
1	TOMATO PASTE 250 L	1.0000	M250	79.5680	8.0000	
2	BOTTLE250	1.0000	EACH	2.9500	8.0000	
3	CHILI PEPPER	1.0000	EACH	10.0000	.0800	
4	FRESH TOMATOES	1.0000	KG	79.9500	7.2800	
5	LABEL250	1.0000	EACH	1.9500	8.0000	
6	OIL	1.0000	1LTR	50.9500	.2200	
7	SALT	1.0000	EACH	10.9500	.1600	
8	WATER	1.0000	EACH	5.9500	.2600	
9	/C	1.0000		.0000	.0000	Bring the tomatoes to a boil over high heat
10	/C	1.0000		.0000	.0000	Add about 1/2 cup of the olive oil and 1 ...

Description	Tomato Paste Small
Warehouse	000
Unit Price	179.0000
Extension	1,432.00
Price Level	1
Tax Class	TX
Discountable	<input type="checkbox"/>

Recalc. Cost

Total Amount: 5,717.48

Quick Print Manufacturing Labor Accept Cancel Delete

When the Manufacturing Dispatch for a Finished Good item is closed into Production the Dispatch lines' Bill Item is loaded on the Production Header with respective Unit of Measure and quantity ordered.

Material Planning & Production Management 172

Production Entry (ABX) 6/30/2017

Production Number 0000015 Batch 00010 Defaults...

1. Header 2. Lines

Production Date 6/30/2017

Bill Number TOMATO PASTE 250 L Tomato Paste Small

Bill Type Standard

Revision 000 Include In Update ☒

Option Code

Quantity 8.0000

Unit of Measure M250

Effective Date 6/30/2017

Parent Warehouse 000 Main Irvine Warehouse

Component Warehouse 000 Main Irvine Warehouse

Explode Sub-Assemblies ☒

Accept Cancel Delete

The Component Lines are loaded into the Lines with respective quantity and 0 Unit Cost. Press the **Recalc. Cost** button to have the component Items costs recalculated and the actual cost displayed.

Material Planning & Production Management 173

S Production Entry (ABX) 6/30/2017

Production Number 0000015 Batch 00010 Defaults...

1. Header 2. Lines

Quick Row 1

Lot/Serial Number

	Component Item Code	Quantity/Bill	Extended Quantity	Unit Cost	Comment
1	BOTTLE250	1.0000	8.0000	2.9500	
2	CHILI PEPPER	.0100	.0800	10.0000	
3	FRESH TOMATOES	.9100	7.2800	79.9500	
4	LABEL250	1.0000	8.0000	1.9500	
5	OIL	.0275	.2200	50.9500	
6	SALT	.0200	.1600	10.9500	
7	WATER	.0325	.2600	5.9500	

Description Bottle for 250 g
Revision
Warehouse 000
Unit Of Measure EACH

Recalc. Cost

Accept Cancel Delete

After the Production is updated the Quantities and Last Cost for the Finished Good Item are updated in the Item Maintenance.

S
_ □ ×

Production Entry Register

1

/1

Main Report

Production Entry Register
Journal Posting Date: 6/30/2017
Register Number: BM-000004
Batch Number: 00010

American Business Expressions (ABX)

Production Number	Production Date	Bill Number	Options	Revision	Type	Effective Date	Quantity	Unit of Measure	Yield	Whse	Lot	Serial Number
0000015	6/30/2017	TOMATO PASTE 250 L		000	STD	6/30/2017	8.0000	M250	100.000 %	000		
			BASE	Tomato Paste Small								

Component Item Code/Description	Revision	Unit of Measure	Whse	Quantity Per Bill	Extended Quantity	Unit Cost	Extended Cost	G/L Account
BOTTLE250		EACH	000	1.0000	8.0000	2.9500	23.60	12100-01-000-000-000
Bottle for 250 g								
CHILI PEPPER		EACH	000	0.0100	0.0800	10.0000	0.80	12100-01-000-000-000
Chilly Pepper								
FRESH TOMATOES		KG	000	0.9100	7.2800	79.9500	582.04	12100-01-000-000-000
Tomatoes								
LABEL250		EACH	000	1.0000	8.0000	1.9500	15.60	12100-01-000-000-000
Label for 250								
OIL		1LTR	000	0.0275	0.2200	50.9500	11.21	12100-01-000-000-000
Oil								
SALT		EACH	000	0.0200	0.1600	10.9500	1.75	12100-01-000-000-000
Salt								
WATER		EACH	000	0.0325	0.2600	5.9500	1.55	12100-01-000-000-000
water								
/C Bring the tomatoes to a boil over high heat /C Add about 1/2 cup of the olive oil and 1 teaspoon								
Total for 8 TOMATO PASTE 250 L:						79.5688	636.55	
Report Total:							636.55	

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

Material Planning & Production Management 175

S Item Maintenance (ABX) 6/30/2017

Item Code: TOMATO PASTE 250 L
Description: Tomato Paste Small

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

Product Line: ACC Accessories
Product Type: Finished Good
Valuation: Average Cost
Procurement: Buy
Weight:
Volume: 0.0000
Inventory Cycle:

Unit of Measure:
 Standard: M250
 Purchases: M250 No. of M250: 1.000
 Sales: M250 No. of M250: 1.000
OP Warehouse:

Price Code:
Default Whse: 000 Main Irvine Warehouse
Primary Vendor:
Warranty Code:

Planning Code: **MFG Priority Code:** 0 **MFG Code:** **Made to Stock:** ☐ **MFG Item Type:** **Label:** **Molds Machine:**

Sales:
 Retail Price: 179.0000
 Standard Price: 179.0000
 Last Sold:

Purchases:
 Standard Cost: 79.9500
 Average Cost: 79.5683
 Last Receipt: 6/30/2017

Last Costs:
 Item: 79.5688
 Allocated: .0000
 Total: 79.5688

Quantities:

Description	On Hand	On PO	On SO	On Bk Ord	Committed	On W/O	Req for ...	Available	In S
Main Irvine...	18.0000	.0000	.0000	.0000	.0000	30.0000	.0000	18.0000	

Accept Cancel Delete

Batch Processing Reports

The following Reports have been added under the **Material Planning and Production Management -> Batch Processing Reports** menu:

- Recipe Listing
- Recipe Detail Report
- Kettle Ingredient Checklist
- Standard Batch Spec Sheet
- Standard Cost Worksheet
- Variance From Standards Report
- Production Usage Sheet
- Production Time Sheet
- Where Item Used Report
- Where Lot Used Report
- Variance Summary Report
- Item in W/O Used Report

Recipe Listing

Use Recipe Listing report to list Bill Items (Recipes) and bill-related information. You can enter a selection of recipe numbers, recipe descriptions, product lines and product line descriptions. By entering these selections, you can obtain a listing that displays information about the Recipe Number, Recipe Description, the Status of the recipe and the Product line Description.

Recipe Listing (ABX) 6/30/2017

Report Setting: STANDARD [Search Icon] [Save]

Description: Recipe Listing

Setting Options:

- Type: Public [v]
- Print Report Settings: ☐
- Number of Copies: 1 [up/down]
- Default Report: ☒
- Three Hole Punch: ☐
- Collated: ☒

Sort Report By: Recipe Number [v] Recipe Type to Print: All [v]

Product Types to Print:

- All Types: ☒
- Finished Goods: ☒
- Raw Materials: ☒
- Discontinued: ☒

Procurement Types to Print:

- All Types: ☒
- Make: ☒
- Buy: ☒
- Subcontract: ☒

Selections:

Select Field	Operand	Value
Recipe Number	All [v]	
Recipe Description	All [v]	
Product Line	All [v]	
PL Description	All [v]	

Keep Window Open After:

Adobe PDF [v] Print ☐ Preview ☐ [Print] [Preview] [Setup]

You can list all Recipes, define a Recipe Number range, and produce listings by product line or product type.

Additional filtering can be applied by selecting the **Recipe Type to Print**.

Here is an example of printout:

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Recipe Listing
Sorted by Recipe Number

Recipe Number	Description	Status	Product Line Description
TOMATO PASTE	Tomato Paste	Current/Production	Accessories
TOMATO PASTE 250 L	Tomato Paste Small	Current/Production	Accessories
TOMATO PASTE 500 L	Tomato Paste Small	Current/Production	Accessories

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

The report can be printed sorted by the **Recipe Number**, **Product Line** or **Recipe Description**.

Recipe Detail Report

The **Recipe Detail Report** provides detail information about the selected recipes.

Recipe Detail Report (ABX) 6/30/2017

Report Setting: STANDARD

Description: Recipe Detail Report

Setting Options:

Type: Public Print Report Settings: ☐ Number of Copies: 1

Default Report: ☒ Three Hole Punch: ☐ Collated: ☒

Recipe Type to Print: All Print Additional Info: ☒

Product Types to Print:

All Types: ☒ Finished: ☐ Discontinued: ☒ Kits: ☒

Procurement Types to Print:

All Types: ☒ Make: ☒ Buy: ☒ Subcontract: ☒

Selections:

Select Field	Operand	Value
Recipe Number	All	
Recipe Description	All	
Product Line	All	
PL Description	All	

Keep Window Open After:

Adobe PDF Print ☐ Preview ☐

Material Planning & Production Management 180

</

This report prints the information entered on all tabs of Bill Item Maintenance. Check the **Print Additional Info** checkbox if you need the **Group** and **Subtotal** fields (from Bill Of Materials Maintenance lines) to be shown on the report. Here is an example of the printout with the **Print Additional Info** checkbox selected:

S

Recipe Detail Report

Main Report |

Recipe Detail Report											
American Business Expressions (ABX)											
Recipe Number		TOMATO PASTE									
Description		Tomato Paste									
General Information											
Date Created	6/28/2017	Default Batch Size	50.0000	Status	Current/Production						
Date Last Modified	6/30/2017	Default Drained Wt	30.00	Product Line	Accessories						
Changed By	IIG	# Of Batches	2	Equivalent Case	20.0000						
Date Last Produced				Process Method	Cook in a Large Pot						
Raw Product Information											
Grp	Sub	Item Code	Description	Ingredients	Percentage	Yield	Quantity	UM	Cost	Extended	
A	FRESH TOMATOES	Tomatoes			91.0000	1.00	27.3000	KG	79.9500	2,182.6350	
A	OIL	Oil			2.7500	1.00	0.8250	1LTR	50.9500	42.0338	
A	SALT	Salt			2.0000	1.00	0.6000	EACH	10.9500	6.5700	
A	WATER	water			3.2500	1.00	0.9750	EACH	5.9500	5.8013	
A	CHILI PEPPER	Chilly Pepper			1.0000	1.00	0.3000	EACH	10.0000	3.0000	
					100.0000		30.00	1LTR		2,240.0400	
Labor										25.0000	
Labor Overhead										1.2500	
										26.2500	
Total Cost											2,266.2900
Notes:											
Special Instructions: JAR CODE: PRODUCT CODE/JULIAN DATE/YEAR/LOT# BEST BEFORE MM?DD/YEAR + 2											

< >

Kettle Ingredient Checklist

The **Kettle Ingredient Checklist** report prints the ingredient checklist.

Kettle Ingredient Checklist (ABX) 6/30/2017

Report Setting: STANDARD

Description: Kettle Ingredient Checklist

Setting Options

Type: Public ☐ Print Report Settings ☐ Number of Copies: 1

Default Report: ☒ Three Hole Punch: ☐ Collated: ☒

Recipe Type to Print: All

Product Types to Print

All Types: ☒ Finished: ☐ Discontinued: ☒ Kits: ☒

Procurement Types to Print

All Types: ☒ Make: ☒ Buy: ☒ Subcontract: ☒

Selections

Select Field	Operand	Value
Recipe Number	All	
Recipe Description	All	
Product Line	All	
PL Description	All	

Adobe PDF

Keep Window Open After ☐ Print ☐ Preview ☐

Here is an example of printout:

Kettle Ingredient Checklist

Main Report

Kettle Ingredient Checklist

			American Business Expressions (ABX)																																				
			Description:	Tomato Paste																																			
			UPC Code:	TOMATO PASTE																																			
Date:	Batch Size:	50.0000	Kettle	<table border="1" style="width: 100%; height: 20px;"> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>																																			
Line#	# Of Batches:	2	Initials	<table border="1" style="width: 100%; height: 20px;"> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>																																			
Shift	Process Method	Cook in a Large Pot																																					

Item Code	Ingredient Description	Lbs/Batch	Actual	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.Chop the Tomatoes																		
FRESH TOMATOES	Tomatoes	45.5000																
OIL	Oil	1.3750																
SALT	Salt	1.0000																
WATER	water	1.6250																
CHILI PEPPER	Chilly Pepper	0.5000																
Run the cooked tomatoes through a food mill or push them through a large sieve with a flexible																		
Cook(s)																		
Comments/Changes																		

INFORMATION INTEGRATION GROUP
457 PALM DRIVE
GLENDALE, CA 91202

877.475.4092
WWW.IIGSERVICES.COM

Standard Batch Spec Sheet

The **Standard Batch Spec. Sheet** report provides information about the selected Recipe Numbers (Bill Item) from Bill of Material Maintenance.

S

Standard Batch Spec Sheet (ABX) 6/30/2017

Report Setting

STANDARD

Save

Description

Standard Batch Spec Sheet

Setting Options

Type

Public

Print Report Settings

Number of Copies

1

Default Report

Three Hole Punch

Collated

Qty of Labels on Carton

Effective Date

6/30/2017

Production Notes

Date

Friday, June 30, 2017

Batches

Cases

Lot Code

LOT30062017

Other

Recipe Type to Print

All

Product Types to Print

All Types

Finished Goods

Raw Materials

Discontinued

Kits

Procurement Types to Print

All Types

Make

Buy

Subcontract

Selections

Select Field	Operand	Value
Recipe Number	Equal to	TOMATO PASTE
Recipe Description	All	
Product Line	All	
PL Description	All	

Adobe PDF

Keep Window Open After

Print

Preview

Setup

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S Standard Batch Spec Sheet

Main Report

Standard Batch Spec Sheet

American Business Expressions (ABX)

Item: Tomato Paste
 Size: 12 Jars 15.50 Ounces
 Drained Weight: 30.0000
 Batch Size: 50.0000

Effective Date: 6/30/2017
 UPC Code: TOMATO PASTE
 Std. WT./Case: 21.0000 Lbs
 Cubic Feet: 0.3800

Item Code	Raw Product	%	Lbs
FRESH TOMATOES	Tomatoes	91.0000	45.5000
WATER	water	3.2500	1.6250
OIL	Oil	2.7500	1.3750
SALT	Salt	2.0000	1.0000
CHILI PEPPER	Chilly Pepper	1.0000	0.5000
Total Raw Product		100.0000	50.0000

Information

Quantity Of Labels On Carton
 (Please Remember To Attach Labels)

Date: Friday, June 30, 2017
 Code: LOT30062017
 Other:

Cases:
 Batches:

Equalized	Cover Brine
Acid:	
Salt:	
pH: <4.20	
Brix:	
Bostwick:	
SO2:	
QC Sampling: 4 PER CODE	
Vacuum: CHECK	
Hot Fill: 195 H MINIMUM	
Internal Temp: 195 H MINIMUM	
Product Code: TOMP	
Drained Weight Per Jar:	
Net Weight Per Jar: label-15.5 oz=426 gr	
Stack Pattern: 11x7=77	
	CASES PER PALLET

Special Instructions
 JAR CODE PRODUCT CODE/JULIAN DATE/YEAR/LOT#
 BEST BEFORE MM/TOD/YEAR + 2

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

The information of **Prod Data** and **Labor/Spec** tabs is printed below the components list.

Standard Cost Worksheet

The **Standard Cost Worksheet** report provides information for the selected Recipe numbers by printing the Percentage for Ingredient type components, the Cost and Yield for other type components.

Standard Cost Worksheet (ABX) 6/30/2017

Report Setting: STANDARD

Description: Standard Cost Worksheet

Setting Options

Type: Public ☐ Print Report Settings: ☐ Number of Copies: 1

Default Report: ☒ Three Hole Punch: ☐ Collated: ☒

Recipe Type to Print: All

Product Types to Print: All Types ☒ Finished ☐ Discontinued ☒ Kits ☒

Procurement Types to Print: All Types ☒ Make ☒ Buy ☒ Subcontract ☒

Selections

Select Field	Operand	Value
Recipe Number	All	
Recipe Description	All	
Product Line	All	
PL Description	All	

Keep Window Open After: ☐ Print ☐ Preview ☐

Here is an example of printout:

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S
Standard Cost Worksheet
— □ ×

1
/1

Main Report

Standard Cost Worksheet

American Business Expressions (ABX)

Item: Tomato Paste

Size: 12 Jars 15.50 Ounces

Drained Weight: 11.6250 Lbs/Case

Effective Date: 6/30/2017

UPC Code: TOMATO PASTE

Std. WT./Case: 21.0000 Lbs

Cubic Feet: 0.3800

Item Code	Raw Product	%	Cost	Yield	Lbs	Cost/CS
FRESH TOMATOES	Tomatoes	91.0000	79.9500	1.0000	10.5788	845.7711
WATER	water	3.2500	5.9500	1.0000	0.3778	2.2480
OIL	Oil	2.7500	50.9500	1.0000	0.3197	16.2881
SALT	Salt	2.0000	10.9500	1.0000	0.2325	2.5459
CHILI PEPPER	Chilly Pepper	1.0000	10.0000	1.0000	0.1163	1.1625
Total Raw Product		100.0000			11.6250	868.0155
Labor						25.0000
Labor Overhead Costs						1.25
Standard Product Cost Per Case						894.2655

Date:

Code:

Other:

Cases:

Batches:

Equalized
Cover Brine

Acid:

Salt:

pH: <4.20

Brix:

Bostwick:

SO2:

QC Sampling: 4 PER CODE

Vacuum: CHECK

Hot Fill: 195 H MINIMUM

Internal Temp: 195 H MINIMUM

Product Code: TOMP

Drained Weight Per Jar:

Net Weight Per Jar: label-15.5 oz=426 gr

Stack Pattern: 11x7=77
CASES PER PAILLET

*****Special Instructions*****

JAR CODE: PRODUCT CODE/JULIAN DATE/YEAR/LOT#
BEST BEFORE MM/TOD/YEAR + 2

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

Variance From Standards Report

The **Variance From Standard Report** provides information about the variances from planned costs.

Variance From Standards Report (ABX) 6/30/2017

Report Setting: STANDARD

Description:

Setting Options:

Type: Public Print Report Settings: ☐ Number of Copies: 1

Default Report: ☒ Three Hole Punch: ☐ Collated: ☒

Product Types to Print:

All Types ☒ Finished Goods ☒ Raw Materials ☒ Discontinued ☒ Kits ☒

Procurement Types to Print:

All Types ☒ Make ☒ Buy ☒ Subcontract ☒

Selections:

Select Field	Operand	Value
Entry Number	All <input type="button" value="v"/>	
Recipe Number	All <input type="button" value="v"/>	
Recipe Description	All <input type="button" value="v"/>	
Product Line	All <input type="button" value="v"/>	
PL Description	All <input type="button" value="v"/>	

Keep Window Open After:

Adobe PDF Print ☐ Preview ☐

Here is an example of printout:

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Variance From Standards Report											
American Business Expressions (ABX)											
Lot Number:						Work Order: 0000013					
UPC Code: TOMATO PASTE 250 L						Date Packed: 6/30/2017					
Size: 0.00 Jars 0.00 Ounces						Qty Packed: 8.00					
Product Line: ACC						Eq Qty Packed: 0.00					
Item Code	Cost Per Case			Total Quantity				Total Cost			
	Std	Act	Var	Std	Act	Var	%	Std	Act	Var	%
SALT	2.19	1.75	0.44	0.20	0.16	0.04	20.00	17.52	14.02	3.50	20.00
OIL	14.01	11.21	2.80	0.28	0.22	0.06	20.00	112.09	89.67	22.42	20.00
WATER	1.93	1.55	0.39	0.33	0.26	0.07	20.00	15.47	12.38	3.09	20.00
CHILI PEPPER	1.00	0.80	0.20	0.10	0.08	0.02	20.00	8.00	6.40	1.60	20.00
FRESH TOMATOES	727.55	582.04	145.51	9.10	7.28	1.82	20.00	5,820.36	4,656.29	1,164.07	20.00
Total Raw Product	746.68	597.34	149.34	10.00	8.00	2.00	20.00	5,973.44	4,778.75	1,194.69	20.00
BOTTLE250	29.50	23.60	5.90	10.00	8.00	2.00	20.00	236.00	188.80	47.20	20.00
LABEL250	19.50	15.60	3.90	10.00	8.00	2.00	20.00	156.00	124.80	31.20	20.00
Total Packaging/Labeling	49.00	39.20	9.80	20.00	16.00	4.00	20.00	392.00	313.60	78.40	20.00
Grand Total	795.68	636.54	159.14	30.00	24.00	6.00	20.00	6,365.44	5,092.35	1,273.09	20.00

Where Item Used Report

The **Where Item Used Report** allows the user to get information about the recipes (Bill Items) where the selected Item Code is used as a component.

Where Item Used Report (ABX) 6/30/2017

Report Setting: STANDARD

Description: Where Item Used Report

Setting Options:

- Type: Public
- Print Report Settings: ☐
- Number of Copies: 1
- Default Report: ☒
- Three Hole Punch: ☐
- Collated: ☒

Selections:

Select Field	Operand	Value	
Item Code	Equal to	CHILI PEPPER	

Keep Window Open After:

Adobe PDF

Print ☐ Preview ☐ Setup

Here is an example of printout:

Material Planning & Production Management 191

The screenshot shows a software window titled "Raw Product Where Used Report". The window has a menu bar with "Main Report" and a toolbar with various icons. The main content area displays the following information:

Raw Product Where Used Report		American Business Expressions (ABX)
Item Code:	CHILI PEPPER	Chilly Pepper
Used In:		
KETCHUP	Current/Production	Tomato Paste
TOMATO PASTE	Current/Production	Tomato Paste

At the bottom of the window, there is a status bar with the following information:

Current Page No.: 1	Total Page No.: 1	Zoom Factor: 100%
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Where Lot Used Report

The **Where Lot Used Report** provides information about the Productions (from History) where the selected Lot number has been used.

Report Setting: STANDARD

Description: Where Lot Used Report

Setting Options:

- Type: Public
- Print Report Settings: ☐
- Number of Copies: 1
- Default Report: ☒
- Three Hole Punch: ☐
- Collated: ☒

Selections:

Select Field	Operand	Value
Complete Date	All	
Item Code	All	
Lot Number	All	

Keep Window Open After: ☐

Adobe PDF ☐ Print ☐ Preview ☐

Here is an example of printout:

Where Lot Used Report

American Business Expressions (ABX)

Lot Number: LOT062917

Work Order	F/G Item\ Description	F/G Lot Number	Whse	Date Cmpl	Item Code\ Description	U/M	Qty Used
0000012	KETCHUP Tomato Paste	00000000000000000000	000	6/30/2017	SPICES Salt	EACH	7.0000

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

Variance Summary Report

The **Variance Summary Report** lists the Bill Numbers that have variances from planned costs. You can print this report for the updated productions.

The report prints positive as well as negative variances.

Variance Summary Report (ABX) 6/30/2017

Report Setting: STANDARD [Search] [Save]

Description: Variance Summary Report

Setting Options:

Type: Public [v] Print Report Settings: ☐ Number of Copies: 1 [v]

Default Report: ☒ Three Hole Punch: ☐ Collated: ☒

Sort Report By: Complete Date [v]

Options:

Print Sub Totals: ☐

Selections:

Select Field	Operand	Value
Bill Number	Equal to [v]	[Search]
Product Line	All [v]	
Complete Date	All [v]	

Adobe PDF [v] Keep Window Open After: Print ☐ Preview ☐ [Print] [Preview] [Setup]

Here is an example of printout with **Print Sub Totals** and **Avg. Per Case** options applied:

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S Variance Summary Report

Main Report

Variance Summary Report
Sorted by Bill Number

American Business Expressions (ABX)

Date	Bill No. Description	Pr Ln	Act Case	Eq Case	Std RPS	Std BR\$	Std Pkg\$	Std Lab\$	Total Std	Act RP\$	Act BR\$	Act Pkg\$	Act Lab\$	Total Act	Variance	Std Lbs	Act Lbs
5/1/2015	9264-1247-3547-ABCD-ACC Bookcase, 7 shelf		1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/30/2017	TOMATO PASTE 250 L ACC Tomato Paste Small		10.00	0.00	0.00	0.00	49.00	0.00	49.00	746.68	0.00	49.00	0.00	795.68	-746.68	0.00	10.01
6/30/2017	TOMATO PASTE 500 L ACC Tomato Paste Small		10.00	0.00	0.00	0.00	82.00	0.00	82.00	1,493.36	0.00	82.00	0.00	1,575.36	-1,493.36	0.00	20.00
Report Totals:			21.00	0.00	0.00	0.00	131.00	0.00	131.00	2,240.04	0.00	131.00	0.00	2,371.04	-2,240.04	0.00	30.01

Current Page No.: 1 Total Page No.: 1 Zoom Factor: 150%

Item in W/O Used Report

The **Item in W/O Used Report** allows for printing the Production Entries where the selected Item is used.

Item in W/O Used Report (ABX) 6/30/2017

Report Setting: STANDARD

Description: Item in W/O Used Report

Setting Options:

- Type: Public
- Print Report Settings: ☐
- Number of Copies: 1
- Default Report: ☒
- Three Hole Punch: ☐
- Collated: ☒

Selections:

Select Field	Operand	Value
Item Code	All	
Complete Date	All	

Keep Window Open After:

Adobe PDF ☐ Print ☐ Preview ☐

The report prints information about the Work Order (Production Number) and the Recipe Number (Bill Item), where the selected Item is used as a component.

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The screenshot shows a software window titled 'Item in W/O Used Report'. The window has a menu bar with 'Main Report' and a toolbar with various icons. The report content is as follows:

Item in W/O Used Report					
American Business Expressions (ABX)					
Item Code: CHILI PEPPER					
Work Order	Recipe Number	Recipe Description	W/O Completion Date	Standard Qty	Actual Qty
0000011	TOMATO PASTE 500 L	Tomato Paste Small	6/30/2017	0.2000	0.3000
0000010	TOMATO PASTE 250 L	Tomato Paste Small	6/30/2017	0.1000	0.2000
0000007	TOMATO PASTE 250 L	Tomato Paste Small	6/30/2017	0.1000	0.1000
0000008	TOMATO PASTE 500 L	Tomato Paste Small	6/30/2017	0.2000	0.2000
0000009	KETCHUP	Tomato Paste	6/30/2017	9.0000	9.0000
Total:				9.6000	9.8000

At the bottom of the window, there is a status bar with the following information:

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