Manufacturing Production

Training Manual

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This document has been prepared to conform to the current release version of TRAVERSE Accounting Business Software for Windows. Because of our extensive development efforts and our desire to further improve and enhance the product, inconsistencies may exist between the software and the documentation in some instances. Call your customer support representative if you encounter an inconsistency.

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OVERVIEW

The Production module manages and maintains inventory integrity, gives you a feel for ongoing activities and production order release status, and provides you with variance tools to compare anticipated or planned material and resource use to actual use.

System Information

Additional information about using the system is found in the following sources:

- the *Production User's Help*
- the Training Manuals for other TRAVERSE applications
- the *Developer's Guide* and *Developer's Object Descriptions* manuals
- online help

Customer Support

Open Systems Holdings Corp. has a strong commitment to customer service and product quality. If you need help using any Open Systems product, follow these procedures:

- Consult the user's guide and other TRAVERSE reference materials.
- If you are a subscriber to the TRAVERSE customer support program, you can consult your customer support representative (1-800-320-3088) or e-mail them at traverse_support@osas.com.

ABOUT PRODUCTION

Frequently used functions

The most frequently used functions are on the Production Orders and Reports and Worksheets menus. Use these functions for the following tasks:

- Enter production orders.
- Release production orders
- Edit Released Orders
- Record Production activity.
- Record Labor Time
- Post production orders
- Print production schedules
- Print order travelers

Reports

Reports and worksheets provide a means of seeing the information stored in the system. Use the Reports and Worksheets and History & Variance Reports menu functions to select the information for your reports.

Interactive Views

Production schedules, order statuses, production history and lot and serial information can be displayed through the Interactive View functions.

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Production Setup

OVERVIEW

The Production module manages and maintains inventory integrity, gives you a feel for ongoing activities and Production Order release status, and provides you with variance tools to compare anticipated or planned material and resource use to actual use.

You enter Production Orders and their releases into the system and later release and explode them. The explosion process uses the Production Order release and the Bill of Material (BOM), which represents what you intend to build, and prepares or “explodes” a list of materials and resources that must be available to complete the manufacturing process. This list of requirements becomes a “working BOM,” because it is essentially a BOM with real quantities that match the quantities to be manufactured as you defined them in the Production Order release. You can edit and change the working BOM to meet unique requirements for a particular run. This includes planned material substitutions or any change in the Routing. You handle unplanned substitutions during the actual recording of activity and not in the edit process. Once the working BOM is correct, you can record production activity. This process tells the system the quantity of materials you pulled from stock and the quantity of finished goods you put back into stock. You can also record machine and labor set up and run time. The system offers special optional provisions for Subcontracting and By-Product handling. When you complete the order release, you close it and post it to the history database. History reports show production activity and variance analysis between estimated Machine and Labor Time, Subcontracting expenses, By-Product and Materials, and actual use of these elements.

A major responsibility of the Production module is to accurately maintain the Inventory On Hand, Available, In Use, and On Order as manufacturing activity takes place. The relationship of Production with Inventory is a real time, online system to maintain Inventory accuracy.

A second responsibility is to record the use of other cost factors such as Labor, Machinery, Tooling, and other non-material production factors. This online approach enables you to use software tools to keep abreast of what is happening on the shop floor from a cost and progress standpoint.

SETUP

Before you can use the Production module, follow the setup procedures in this chapter. Follow these procedures carefully. The choices you make determine how the system operates.

Perform these tasks to set up Production

___ Set up Business Rules (Bills of Material, Routing and Resources, and then Production).

___ Set up Variance Codes to record reasons for variances to your work orders

NOTE: Perform the following steps using the Routing and Resources and Bills of Material modules before you set up the Production module.

___ Define Cost Groups (using the Bills of Material module).

___ Set up Employee information (using Payroll or System Manager).

___ Define Media Groups (using the Bills of Material module).

___ Set up Bills of Material (using the Routing information you set up using the Routing and Resources module).

Business Rules

Set up the Business Rules for Bills of Material and Routing and Resources, and then set up the Production Business Rules. The Production Business Rules function allows you to define the following:

- Applications with which you want to interface Production.
- Posting method to General Ledger.
- Whether or not you want to release Production Orders online.
- Default Variance Percentage for variance reports.
- Default Unit of Time to be used throughout the Production module, when the option is available, to record time in Seconds, Minutes, or Hours.

Interfaces

The Production application interfaces to Accounts Payable, Accounts Receivable, General Ledger, Payroll and Sales Order to gather information and write information to these applications.

Bills of Material and Routing and Resources Set Up

This section covers the set up steps that you must complete before you set up the Production module.

Cost Groups

Set up Cost Groups using the Cost Groups function within the Bills of Material module. Use Cost Groups to organize BOM costs into specific assigned areas. Each Cost Group is summarized on the General area of the Bills of Material screen. Each BOM element can be assigned to a unique cost group.

Example: If your company makes cabinets and, for costing purposes, you want to break down your components by Vendor, or you want to break out hardware components from the rest of the wood components, you could assign such Cost Groups as MATLACE001 and MATLCAB001 to separate Vendors, or MATLHWRE and MATLWOODS to break out components by their use.

NOTE: Cost groups are not related to the GL Account references made by the different costing areas within a BOM, although they could be used to track similar information.

Employees

After you define your Cost Groups, set up your Employee information. Use System Manager to store Employee Names, Addresses, and Contact Information. Storing Employee information is especially useful if you have not elected to implement the TRAVERSE Payroll application. If Payroll is installed, use the Employee Information function on the Payroll Setup and Maintenance menu. See the System Manager Training Manual or the Payroll Training Manual for more information on entering Employee information.

Media Groups

Next, set up your Media Groups. Use the Media Groups function within the Bills of Material module to group multimedia documents under one Media Group ID. Rather than assign specific documents to specific Inventory Item IDs, Bills of Material, and Operations, the system enables you to assign those documents to a Media Group ID. You can then assign this ID to a specific Operation, Tool, Component, and so on. This gives you the flexibility to assign a potentially large group of related documents to a process or material requirement.

Schedules

If the Routing and Resources module is installed, you must set up at least one Schedule next. You use the schedule in the Bills of Material and Production modules, although you set it up and maintain it in the Routing and Resources module. Use this calendar to specify the availability of shifts, the hours in each shift, plant closings, special holidays, planned repairs, maintenance, and so on. You can maintain as many Schedules as you would like. You can then assign Shop Calendar IDs to specific Work Centers, Machine Groups, or Labor Types so that you can calculate specific availability or capacity on any of the above. See the Routing and Resources Training Manual for more information.

Routing and Resources Steps

If the Routing and Resources module is installed and interfaced, you must set up the following items next (see Routing and Resources Training Manual for more information.):

- **Tooling** – Set up and define tooling maintenance, method of usage, cost, and so on. Proper tooling for each machine appears on relevant reports and Interactive Views to help you properly set up machinery.
- **Labor Types** – Labor Types define the skill level or grade that can be defined and applied to specific processes. Associated with the Labor Type is a rate by Piece or by the Hour. Later, you'll assign Labor Types to operations to calculate the labor costs involved.
- **Machine Groups** – Define your Machine Groups. These groups can be a single machine or an entire bank of machines. If your machinery, although similar in name, is unique enough that its cost factors differ significantly from machine to machine, or if materials vary from machine to machine, define each machine with its own machine group ID. Group machines by their basic function and cost factors. Like labor, you can assign shop calendars, hourly costs, and so on to Machine Groups. Assign Machine Groups to operations in order to establish a machine related cost.
- **Work Centers** – Use Work Centers to define where work takes place and to provide an area to set up Overhead GL Accounts, Overhead Rates, and methodology. Work Centers play an important part in managing labor and machine resources. Later, you'll assign them to Operations to indicate where the work takes place or what the overhead factors should be for that Operation.
- **Operations** – Use Operations to pull the Tooling, Machine Group, Labor Type, and Work Center together in a defined Operation process. You can also use this function to set up a Subcontracted Operation. Drilling, painting, mixing, and packaging all describe typical internal Operations. If an Operation is internal, use Operations to define the various related times involved in manufacturing. You can define Queue Time, Setup Time, Run Time, Wait Time, and move time in terms of Hours, Minutes, and Seconds.

- **Routings** – Use Routings to define the general flow of an Assembly ID through the plant floor. They are made up of steps that define the Operation performed at each step. Use Routings when you set up the BOM to make the creation of a Routing for a BOM much easier and quicker. If you choose not to set up standard Routings, you must create the Routing steps individually when you set up a BOM.

Bills of Material

Bills of Material (BOMs) consist of two major elements: Material Components and Routing steps or processes. Setting up a BOM makes a connection between the two. You can disregard Routing and process steps completely and create BOMs that are solely Material Components. If you do not have the Routing and Resources module installed and interfaced, you cannot use the Routing features of Bills of Material. See the Bills of Material Training Manual for more information.

PRODUCTION WORKFLOW

Production Tasks

The Production module manages and maintains Inventory integrity, gives you a feel for ongoing activities and Production Order release status, and provides you with variance tools to compare anticipated or planned material and resource use to actual use. The following section discusses the tasks required to prepare for production runs, maintain the Inventory as manufacturing activity is recorded, and to record the use of other factors such as Labor, Machinery, Tooling and other non-material production factors to be performed when you record production activity.

Analyze Production Needs

Depending on your environment, the first step when using the Production module may be to run the **Sales Order Analysis** (page 6-5) report to review the current need for Production Orders based on Sales Orders. Once you establish your Production Order needs, you can either automatically generate the Production Orders using the Generate Orders from Sales function or enter them manually using the Production Orders function.

Generate Orders from Sales

If you want to automatically generate the Production Orders based on existing Sales Orders, use this function. The **Generate Orders from Sales** (page 4-19) function uses the same logic as the Sales Order Analysis report when looking at existing Sales Orders and generating Production Orders from them, except it creates Production Orders instead of just reporting what orders will be created. Only Sales Orders with a status of New, Picked, or Backordered are considered. The Sales Order item must be a legitimate Inventory Item ID and have a Bill of Material (BOM) in the manufacturing BOM master table.

Prepare Production Orders

If you manually enter Production Orders or if you want to review and adjust orders, use the **Production Orders** (page 4-5) function to create new orders or change existing un released orders. TRAVERSE Manufacturing uses a two-tier Production Order process in which you create Production Orders and then release them individually. You do not need to create Production Orders if you used the Generate Orders from Sales function because that function automatically creates them.

Review Production Orders

After you create Production Orders, use the **Production Schedule** report (page 6-9) to review all Production Order releases in the system to insure that specific products are scheduled to be produced, and to review the workload, review start dates, and so on.

Release Production Orders

After you review the Production Order releases, use the **Release Production Orders** (page 4-23) function to explode the releases. The explosion process reads through the BOM and creates records in a series of production tables. It creates a list of all materials and resources needed to produce the Assembly. During the explosion, the system calculates how many Material Components, Machine Hours, Labor Hours, and Subcontracted processes are required. It also calculates the Lead Time and Required Date of each one of the requirements based on the order release Due Date. After you explode Production Orders, you can edit them, record activity information against them, and produce a variety of reports. This is one option to release orders. The other option is to release orders while setting the order up.

Verify Material Availability

Use the **Requirements Availability** (page 6-13) report to review material component availability based on existing demand. Each component appears with the quantity required and a running net available quantity. The Total Quantity needed appears as well as the Quantity on Order, Committed, Sold, and In Production, to give you an idea of what is needed, what is On Order, or what is being made. This report assumes that you need all requirements immediately.

Edit Production Orders

After you release and explode Production Orders, you can record production activity. If you want to change the structure of the release so that it is different from the original BOM (for example, for last minute changes in design or at the request of a Customer looking for a unique twist to a standard product) use the **Edit Released Orders** (page 4-27) function.

Print Lists and Preparatory Reports

Next, use the **Production Picking List** (page 6-17) function to print a list of materials to pull from stock for your upcoming Production Orders. The list is a simple checklist of the Material Components that make up the working BOM. It leaves a free text area open on the right side for recording information such as Quantity Pulled, Quantity Scrapped, Initials, and so on.

Use the **Order Traveler** (page 6-21) to print a list that is Routing or process oriented rather than Materials oriented. This worksheet lists what needs to be done and provides room for recording Time and Quantities as you complete the work. The worksheet is printed in Production Order and Release Number sequence listing each step and the anticipated times respective to each step.

Print the **Subcontract Services Worksheet** (page 6-25) if you use a subcontractor for any step in the Production Order. This report, similar to a Purchase Order, is designed to be sent or faxed to the Subcontractor. The form indicates valid Vendor information as well as the internal Production Order Number and Release, Requirement ID and Routing Step, Quantity of Materials to process, and Notes.

You may set the priority of your released orders using the **Prioritize Order Releases** (page 4-45). The Prioritize Order Releases function allows the user to "sequence" Production Orders in the same manner very similar to the way that we "sequence" production processes in the dispatching process. Upon opening the screen, the user will see all order releases appear on the screen. At that point the user may drag and drop the orders into sequence. Once orders have been moved to a new sequence, the Update button would become activated. Upon clicking on the Update button, the system will reassign the priority based on the sequence viewed on the screen. The field Priority will actually show the results of this process when you open the Production Order screen and review the Order Release.

Use the **Dispatch Production** (page 4-47) function to view and resequence the workload for any specific Work Centers, Machine Groups, or Labor Types. Use this function as a tool to help you determine the sequence in which Production Orders should flow through the selected resource.

If you choose not to use the Dispatch Production function, you may instead want to print the **Dispatch List** (page 6-29) to view upcoming loads for a specific Work Center, Machine Group, or Labor Type and to plan the day's or week's activity.

Print the **Work Centers Load Profile** (page 6-47) report to view the upcoming workload and make necessary preparations to accommodate the size or nature of the process requirements. The information is based solely on Work Center information and shows both current and closed activity within a Work Center.

Print the **Resource Availability** (page 6-51) to compare the hours required to the hours available, according to the associated Routing and Resources calendar. If there are more hours in the day than a process step requires, the report shows that you can begin the next process. If there are fewer hours in the day than a process requires, the process is carried over to the next day, or the next day when hours are available. As a result, some days may reflect many process steps and others only one, depending on the length of the processes.

Record Activity

After you explode Production Orders, release them to production, and edit the working BOM, you can record production activity. Use the **Record Production Activity** (page 4-51) function to tell the system how much of a raw material or stocked subassembly was used, how much scrap was incurred, labor and machine times, subcontracting information, and so on.

Use the **Record Labor Time** (page 4-77) function as another way to record activity. Using this function is optional because you can use the Record Production Activity function to do the same thing–both functions access and write to the same data. Which function you use depends on how you record time ticket information. The Record Labor Time function is quicker and more efficient when you record information in Employee ID sequence (such as a time card or time clock report).

If you record data using other systems (such as portable data collection units and time card systems), use the **Import** Production Activity function to import the data. The information you import should be in an ASCII file, either in a comma-delimited or flat file format. Use this function to greatly increase your efficiency by automating the entry of production activity.

Post Activity

After you record production activity, use the **Post Production Activity** (page 4-95) function to perform these tasks:

- Post activity to General Ledger (if Production interfaces with General Ledger).
- Post transactions stored with closed order releases to the manufacturing history database.
- Clear the Production Order release and related information.
- Clear Production Orders with no releases from the system.
- Post the time recorded for labor to the payroll transactions table (if Production interfaces with Payroll).

REPORTS AND VIEWS

Reference Reports

The Production module includes inquiry functions, reports, and lists that provide you with the manufacturing information you need to analyze your business practices. To make the most of your manufacturing processes, use the functions described below.

Order Status

The **Order Status** (page 6-33) report provides you with the status or progress of a specific Production Order release. It lists the percentage of completion for each of the process steps, the quantity of material components issued to the release, as well as the status of subassembly completion. It shows each Routing step and Component Item in detail as well as the number of partially completed Items at each Routing step.

Work in Process Valuation

The **Work in Process Valuation** (page 6-39) report helps you determine the value of Inventory pulled from stock and currently on the shop floor. As you pull materials from Inventory, the value of Inventory is reduced–an Inventory valuation shows less Inventory than actually exists because pulled Inventory is now Work in Process (which can change its value) and is not reflected in current Inventory. To calculate the true value of Inventory, include the values shown on the Work In Process Valuation report.

Employee Time Log

As you record time and activity information for specific Employees, you may want to print a log that focuses on Employee time rather than production results. The **Employee Time Log** (page 6-43) provides you with the hours worked by each Employee. It also provides a preview of the data that will post to Payroll, if you interfaced it with Production.

History & Variance Reports

The History and Variance reports provide a history of variances that have taken place and give you a way to trace information for old Production Orders that you have already processed.

At first glance, these history reports may appear to be similar. However, although each report uses the same historical data, each has a unique purpose or focus. These reports compare expected production results with actual production results and display different sorts of variances, pointing out problem areas.

Cost Variance Analysis

Use the **Cost Variance Analysis** (page 7-5) report to review past production and analyze situations where the actual production cost was notably different from the expected cost.

Time Variance Analysis

Use the **Time Variance Analysis** (page 7-9) report to review the difference between anticipated time and actual time spent. The report shows each Routing step, its Machine Group or Labor Type, Setup Times, Run Times, Wait Times, and so on.

Production Variance Analysis

The **Production Variance Analysis** (page 7-13) report examines unplanned variances in finished goods. Use this report to compare the quantity you planned to produce against the actual production quantity, and to compare the actual finished good Unit Cost against the Standard Unit Cost. The report serves as a great starting point for locating quantitative or cost-oriented output variances.

Transaction History

Use the **Transaction History** (page 7-17) report to review detailed information relating to past production. This report deals with the use of Materials, Labor, Subcontracting, Machinery, and the finished production. The report is grouped into up to five sections showing material use, process-related time and expense, subcontracted activity, usage or creation of subassemblies, and finished production.

Production History

Use the **Production History** (page 7-21) report to access the results of production runs. The report groups information together for each order, providing production run information for one order release at a time and includes a specific breakdown of the Lot and Serial Numbers created if you are using serialized or lotted Inventory.

Variance Code History

If you use the Variance Code field when you record production activity, Variance Codes are recorded in the production history tables. The **Variance Code History** (page 7-25) report displays manufacturing history based on the Variance Codes grouped by sources such as Materials or Operations.

Interactive Views

The Interactive Views functions give you access to manufacturing information in less detail than a report. The summary nature of views delivers information to you efficiently so you don't have to sort through a lot of additional information.

Scheduling

The **Scheduling** (page 5-27) function provides you with the ability to visually review production orders as scheduled. If you want to add production orders or change the scheduling for them, use the Edit Released Orders function.

Production Schedule

The **Production Schedule View** (page 5-43) is a summary of all Production Order releases in the system. It contains information about each Production Order release, but does not contain any component information.

Dispatched Production

The **Dispatched Production View** (page 5-45) provides a view of the workload for any specific Work Center, Machine Groups or Labor Type. Use the Dispatch Production function within Production Orders to make and save changes to the production sequence.

Order Status

The **Order Status View** (page 5-47) provides you with detailed information about a specific Production Order release and the status of all its elements. It shows the overall percentage of completion as well as specific information on Materials, Labor, Machinery, Subcontracting, and Costs. The tabs on the screen provide progress information in each of the order areas.

Order Activity View

Use the **Order Activity View** (page 5-51) to view, in detail, Production Order activity on a transaction by transaction basis. Using this view you can review all of the transactions which have been recorded against a particular Production Order. You can use the Order Status View to see the current status of each requirement.

Process Requirements View

Use the **Process Requirements View** (page 5-59) to see the detailed Operation Status and quantity requirements for each Component for your Production Orders.

Material Requirements View

Use the **Material Requirements View** (page 5-61) to see the detailed Component Material Status and Quantity requirement information for your Production Orders.

GL WIP Transactions

The **GL WIP Transactions View** (page 5-63) enables you to determine the value of Inventory you pulled from stock and is currently on the shop floor. As you pull Materials from Inventory, the value of Inventory is reduced – Inventory valuation reports show less Inventory than actually exists because pulled Inventory is now Work in Process. To see the full value of existing Inventory, consider the value shown on the WIP Transactions View as well as the Inventory valuation reports.

Production History

Use the **Production History View** (page 5-65) to review and locate information about previous Production Order releases. The Production History View allows you to select ranges of information so you can quickly locate specific history information by defining your search criteria. This allows you to see history information for an Order Number, even if all you know is, for example, the Customer Purchase Order.

Lot Numbers Where Used

Use the **Lot Numbers Where Used View** (page 5-69) find what products a particular Lot Number was used to make. Example: I have a Lot Number that is suspect or known to be defective. Knowing that Lot Number, I want to know what it went into, so I know what finished products might have quality or recall issues.

Serial Numbers Where Used

Use the **Serial Number Where Used View** (page 5-71) to find what products a particular Serial Number was used to make. Example: I have a Serial Number that is suspect or known to be defective. Knowing that Serial Number, I want to know what it went into, so I know what finished products might have quality or recall issues.

Finished Goods Lot Number

Use the **Finished Goods Lot Number** (page 5-73) view to find what Lot Numbers, Serial Numbers, and Part Numbers, went into a given finished good Lot Number, so theoretically the user would know the finished good Lot Number. Example: I have a finished good that's defective. I know the Lot Number. I need to know what went into it because I suspect one of the raw materials was defective.

Finished Goods Serial Number

Use the **Finished Goods Serial Number View** (page 5-75) to find what Lot Numbers, Serial Numbers, and Part Numbers, went into a given finished good Serial Number, so theoretically the user would know the finished good Serial Number. Example: I have a finished good that's defective. I know the Serial Number. I need to know what went into it because I suspect one of the raw materials was defective.

Sales Order Analysis

Use the **Sales Order Analysis View** (page 5-77) when you generate Production Orders based on Sales Orders. If the environment in which you are using TRAVERSE Manufacturing is a make-to-order or job shop environment, in which Production Orders are entered as a direct result of an incoming Sales Order, you may want to automatically generate the Production Orders from the Sales Orders.

3

Setup and Maintenance

OVERVIEW

Before you can use the Production module, follow the setup procedures in this chapter. Follow these procedures carefully. The choices you make determine how the system operates.

Perform these tasks to set up Production

- Set up Business Rules (Bills of Material, Routing and Resources, and then Production).
- Set up Variance Codes to record reasons for variances to your Production Orders.

Business Rules

Set up the **Business Rules** for Bills of Material and Routing and Resources, and then set up the Production Business Rules. The Production Business Rules function allows you to define the following:

- Applications with which you want to interface Production.
- Posting method to General Ledger.
- Whether or not you want to release Production Orders online.
- Default variance percentage for variance reports.
- Default Unit of time to be used throughout the Production module, when the option is available, to record time in Seconds, Minutes, or Hours.
- The Production application interfaces to Accounts Payable, Accounts Receivable, General Ledger, Payroll, and Sales Order to gather information and write information to these applications.

Variance Codes

Use the **Variance Codes** to identify reasons for manufacturing variances such as defective parts, problems with machinery, environment, or worker error. These codes are assigned to transactions as you record manufacturing activity, so that problems can be reviewed at a later time. By grouping these exceptions and problems under a common header such as a variance code, you can view history by a specific code and locate where problems or exceptions are occurring.

BUSINESS RULES

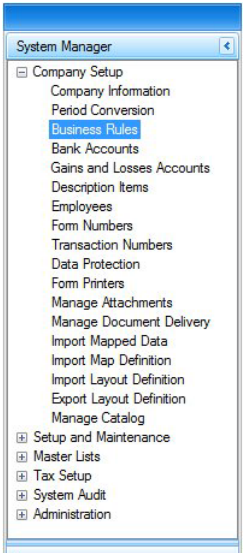
Set up the **Business Rules** for Bills of Material and Routing and Resources, and then set up the Production Business Rules. The Production Business Rules function allows you to define the following:

- Applications with which you want to interface Production.
- Posting method to General Ledger.
- Whether or not you want to release Production Orders online.
- Default variance percentage for variance reports.
- Default Unit of time to be used throughout the Production module, when the option is available, to record time in Seconds, Minutes, or Hours

To set up **Business Rules**, follow these steps:

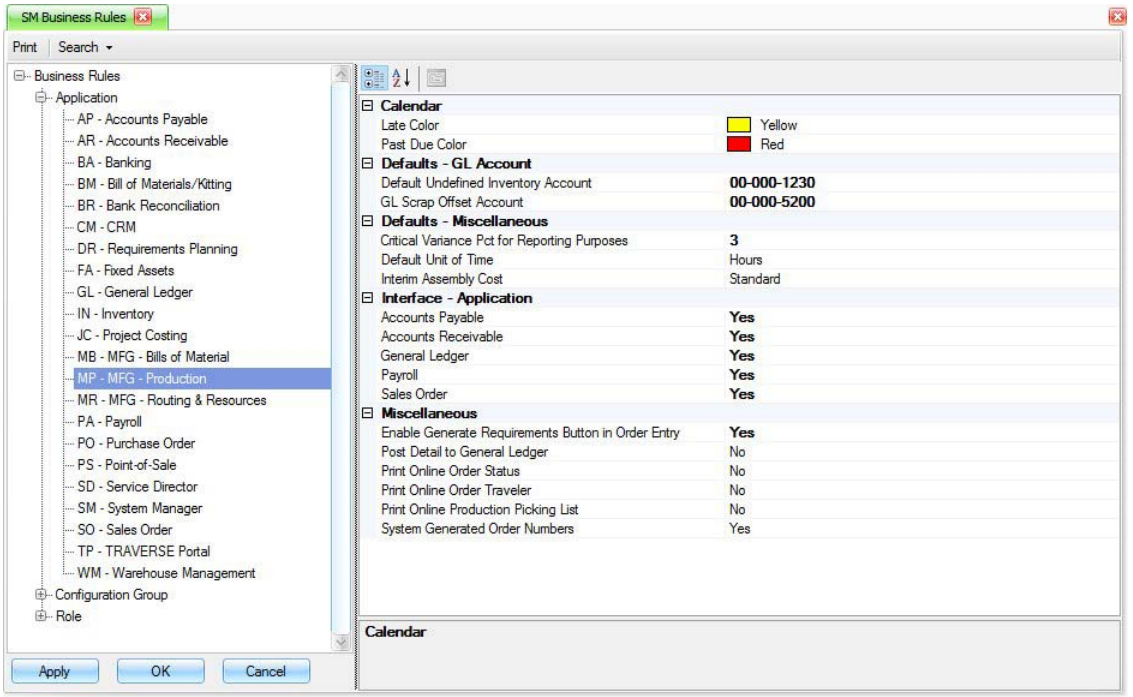
1. Select **Business Rules** from the **System Manager, Company Setup** menu.

Business Rules Menu



2. The **Business Rules** screen appears. Select **MFG - Production**.

Business Rules Screen



Calendar

3. **Late Color**: Select the color to use when the Current Session Date is after the Finished Good's Estimated End Date.
4. **Past Due Color**: Select the color to use when the Current Session Date is after the Finished Good's Estimated Start Date and there is no activity for the production order/release as of the Estimated Start Date.
    - Activity for any requirement of the production order release as of the estimated start date qualifies as progress to defer the "late" status.
    - If a process is scheduled to start on Monday, it cannot be "Late" until Tuesday. If there is no activity recorded on Monday, the process will always be listed as "Late" regardless of the activity recorded on any days after Monday.

Defaults - GL Account

5. **Default Undefined Inventory Account**: Select the account you want to use as your Default Undefined Inventory Account.

   If you add a component to a Bill of Material that isn't a legitimate Inventory Item ID, the system doesn't have an Inventory GL Account ID to work with, since it has no GL Account Code, it will credit this Account ID for the value you assign to that Component.

6. **GL Scrap Offset Account**: If you interface to General Ledger, you must define the GL Scrap Offset Account. This Account ID is only used when you completely scrap a partial or completed Production Order. Select the Account ID you want to debit for Production Orders closed with a finished quantity of zero.

   When you build something and then scrap the whole product, an accounting issue arises because the WIP Account ID is already debited for the raw materials, and the raw material Account ID is already credited. When you close a production order with finished quantities, you would generally credit all the WIP and debit the Finished Goods Account ID for the finished quantity and cost. However, you cannot store any costs in the Inventory system with a Production Order with a quantity of zero. You don't want to debit Finished Goods because doing that would put the actual Inventory value out of sync. In this instance, the GL Scrap Offset Account ID is debited instead.

Defaults - Miscellaneous

7. **Critical Variance Pct for Reporting Purposes**: Enter a default percentage to appear on those report selection screens. The percentage can be overridden when you print the report.
8. **Default Unit of Time**: Select the default unit of time to use when the option is available to define the time in **Seconds**, **Minutes**, or **Hours**.
9. **Interim Assembly Cost**: Select the cost to use when updating Inventory for partial completion of a finished Assembly ID, creation of By-Products, and the movement to stock for Subassemblies; **Standard**, **Average**, or **Last**.

   This is only applicable to the initial updating of on hand quantities when recording production activity.

Interface - Application

10. **Accounts Payable**: Select **Yes** to interface Production with Accounts Payable.

    Interfacing to Accounts Payable will allow you to select the Vendor ID in the edit production orders for Subcontracted Operations.

11. **Accounts Receivable**: Select **Yes** to interface Production with Accounts Receivable.

    Interfacing with Accounts Receivable allows you to select a Customer ID when entering and editing a Production Order to indicate for which Customer ID the Production Order is being made.

12. **General Ledger**: Select **Yes** to interface Production with General Ledger.

    Interfacing with General Ledger will allow you to select valid GL Account IDs where they are needed and when posting production orders entries are made to the General Ledger Journal for those transactions.

13. **Payroll**: Select **Yes** to interface Production with Payroll.

    Interfacing to Payroll allows you to select Employee IDs set up in the Payroll application when you are recording production time. Also you can select Employee IDs as Planners when entering Production Orders.

    If you do not have Payroll installed these Employee IDs would then be selected from the System Manager Employee setup.

14. **Sales Order**: Select **Yes** to interface Production with Sales Order.

    Interfacing to Sales Order will allow you to generate Production Orders from existing Sales Orders for items that are set up as BOMs in the Bills Of Material application.

    When entering a Production Order you may also select an existing Sales Order to associate with the Production Order.

Miscellaneous

15. **Enable Generate Requirements Button in Order Entry**: Select **No** to disable the ability to release Production Orders online; otherwise, select **Yes**.

    This allows users to explode and release orders, and changes their status to In Process online without using the Release Production Orders function.

16. **Post Detail to General Ledger**: Select **Yes** to use the post detail method rather than the summary method when posting to General Ledger; otherwise, select **No**.

    If you post detail, each transaction in manufacturing generates a journal entry in General Ledger. This provides more information if you are tracking down a problem, but the amount of information may be excessive and is usually far more detailed than what you might want for normal processing.

17. **Print Online Order Status**: Select **Yes** to allow printing the Order Status Report online directly from the Record Production Activity screen; otherwise, select **No**.

    If you elect to print online Order Status the **Print** button will bring up a selection screen to print the Order Status report for your selected Production Order.

18. **Print Online Order Traveler**: Select **Yes** to allow printing the Order Traveler Report online directly from the Production Orders entry screen; otherwise, select **No**.

    If you elect to print online Order Traveler the **Print** button will bring up a selection screen to print the Order Traveler report for your selected Production Order.

19. **Print Online Production Picking List**: Select **Yes** to allow printing the Production Picking List online directly from the Production Orders entry screen; otherwise, select **No**.

    If you elect to print online Production Picking Lists the **Print** button will bring up a selection screen to print the Production Picking List report for your selected production order.

20. **System Generated Order Numbers**: Select **Yes** to set your first Production Order Number and have TRAVERSE automatically assign Production Order Numbers for all generated Production Orders. Select **No** to manually enter your Production Order Numbers when entering Production Orders.

21. Click **Print** to preview and print a report showing your selected business rules.

22. Select a command button:

Command Buttons

Name	Description
Apply	Save the changes you have made to the business rules functions. The screen will remain open.
OK	Save the changes and exit the business rules function.
Cancel	Close the business rules screen without saving any changes.
Print	Preview and print a business rules report.

Name	Description
Search	Perform a wildcard search of all existing business rule descriptions. The results will display in a tree-view for easy navigation.

Business Rules Report

Continental Products Unlimited
Business Rules List

Page 1

Application	Group / Description	Current Value	Default Value
MP - MFG - Production			
	Calendar		
	Late Color	Yellow	Yellow
	Past Due Color	Red	Red
	Defaults - GL Account		
	Default Undefined Inventory Account	00-000-1230	-
	GL Scrap Offset Account	00-000-5200	-
	Defaults - Miscellaneous		
	Critical Variance Pct for Reporting Purposes	3	0
	Default Unit of Time	Hours	Hours
	Interim Assembly Cost	Standard	Standard
	Interface - Application		
	Accounts Payable	Yes	No
	Accounts Receivable	Yes	No
	General Ledger	Yes	No
	Payroll	Yes	No
	Sales Order	Yes	No
	Miscellaneous		
	Enable Generate Requirements Button in Order Entry	Yes	No
	Post Detail to General Ledger	No	No
	Print Online Order Status	No	No
	Print Online Order Traveler	No	No
	Print Online Production Picking List	No	No
	System Generated Order Numbers	Yes	Yes

5/27/2017 11:26 AM *** End of Report *** OPEN_SYSTEM S\Kent.Heitkamp

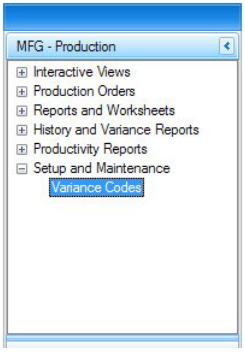
VARIANCE CODES

Use the **Variance Codes** to identify reasons for manufacturing variances such as defective parts, problems with machinery, environment, worker error. These codes are assigned to transactions as you record manufacturing activity so that problems can be reviewed at a later time. By grouping these exceptions and problems under a common header such as a Variance Code, you can view history by a specific code and locate where problems or exceptions are occurring.

To set up **Variance Codes**, follow these steps:

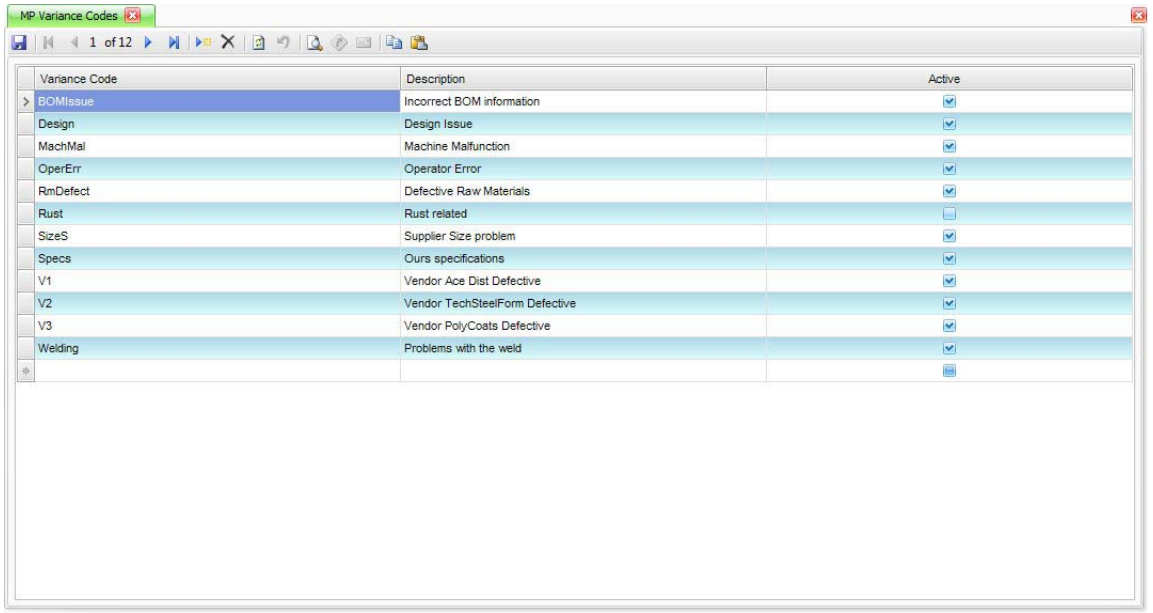
1. Select **Variance Codes** from the **Setup and Maintenance** menu.

Variance Codes Menu



2. The **Variance Codes** screen appears.

Variance Codes Screen



Variance Code	Description	Active
BOMIssue	Incorrect BOM information	☑
Design	Design Issue	☑
MachMal	Machine Malfunction	☑
OperErr	Operator Error	☑
RmDefect	Defective Raw Materials	☑
Rust	Rust related	☐
SizeS	Supplier Size problem	☑
Specs	Ours specifications	☑
V1	Vendor Ace Dist Defective	☑
V2	Vendor TechSteelForm Defective	☑
V3	Vendor PolyCoats Defective	☑
Welding	Problems with the weld	☑

3. Click the **New Record** button on the toolbar to open a blank Variance Code record.
4. Enter a new **Variance Code**.
5. Enter a description of the new Variance Code in the **Description** field.
6. Select the **Active** check box to use the Variance Code as you record manufacturing activity.

   If you do not select the box, you are not able to use that code when recording new transactions, but you can use it when reporting.

Producing a Variance Codes List

To produce a **Variance Codes List**, follow these steps:

1. Select the **Print Preview** button to preview the report for the Variance Codes you have set up.
2. The **Preview Report** screen appears.
3. Select the **Print** button in the toolbar to print your list.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Variance Codes List

Continental Products Unlimited
MP Variance Codes

Page 1

Variance Code	Description	Active
BOMIssue	Incorrect BOM information	☑
Design	Design Issue	☑
MachMal	Machine Malfunction	☑
OperErr	Operator Error	☑
RmDefect	Defective Raw Materials	☑
Rust	Rust related	☐
SizeS	Supplier Size problem	☑
Specs	Ours specifications	☑
V1	Vendor Aca Dist Defective	☑
V2	Vendor TechSteelFarm Defective	☑
V3	Vendor PolyCoats Defective	☑
Welding	Problems with the weld	☑

4

Using Production

OVERVIEW

Use the Production Order functions to enter, record, delete, edit, import, and manage the Production Order entry process. You can generate Production Orders from sales (if the Sales Order module is installed and interfaced) or RP (if the Requirement Planning module is installed and interfaced), or you can enter them manually. Once you enter the Production Order, you can edit each order release to adjust for the changing environment on the shop floor.

- Use the **Production Orders** (page 4-5) function to create orders and enter individual releases against them, as well as to release and explode orders online, if that option is available to you.
- The **Generate Orders from Sales** (page 4-19) function uses the same logic as the Sales Order Analysis report when looking at existing Sales Orders and generating Production Orders from them, except it creates Production Orders instead of just reporting what orders will be created
- Use the **Release Production Orders** (page 4-23) function to explode and release orders to production. This is an optional step to release orders.
- Use the **Edit Released Orders** (page 4-27) function to reconfigure the structure of the Production Order release, which creates a separate working Bill of Material (BOM).
- Use the **Prioritize Order Releases** (page 4-45) function to adjust the sequence of Production Orders in the same manner that you adjust the sequence of production processes in Dispatch Production.
- Use the **Dispatch Production** (page 4-47) function to alter the sequence of production through the various Operational steps that make up the Routing.
- To pull material components from stock and record machine and labor use, use the **Record Production Activity** (page 4-51) function. You can also backflush all or part of any Production Order through this process.
- If you choose to record time ticket information, use the **Record Labor Time** (page 4-77) function, which is based on payroll time cards.
- Use the **Production Activity Journal** (page 4-81) to view production activity sorted by Order/Release Number or Fiscal Year/Period.
- Use the **Post Production Activity** (page 4-95) function to post the production activity information to the manufacturing history system and General Ledger, as well as to clear completed orders. The GL interface is optional.

PRODUCTION ORDERS

The **Production Orders** process enables the user to enter and to a limited extent, change or maintain new Production Orders. There are several ways to get new Production Orders into the system: they can be entered manually as we are about to discuss, they can be generated from Sales Orders automatically using the Generate Orders From Sales function (page 4-19), they can be generated directly from a Sales Order, or they can be generated from the Requirements Planning module (see the Requirements Planning Training Manual for more information).

The Order No, also called the Production Order Number, is automatically generated by the system, if you selected Yes to the System Generated Order Numbers option in Business Rules (page 3-5).

The Assembly ID field is the ID of the Product or Assembly to be made. The user can select from any existing Bill of Material that is not marked as a Planning Bill. Planning Bills are indicated by the Planning Bill check box in the header of the Bill of Material, and are not intended to be produced.

The Revision No field will default to the Default Revision of the above selected Bill of Material, however the user can override this field, selecting another Revision if required. The system will check to make sure this new Revision is not a Planning Bill.

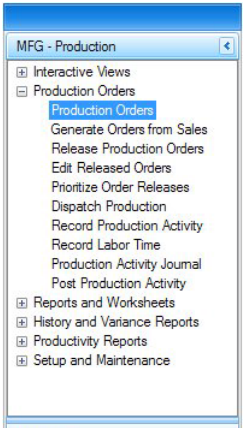
The Location ID indicates where the finished product will end up in terms of an Inventory Location. Any legitimate Location ID, which has been set up in Inventory for this Assembly ID is permitted.

The Planner is not a crucial field, but simply indicates the Employee ID designated as the Planner. If interfaced to Payroll this drop down list shows a list of valid Employee IDs set up in the Payroll system. If the system is not interfaced to Payroll, the drop down is based on System Manager Employees. This field is often left blank.

To use **Production Orders**, follow these steps:

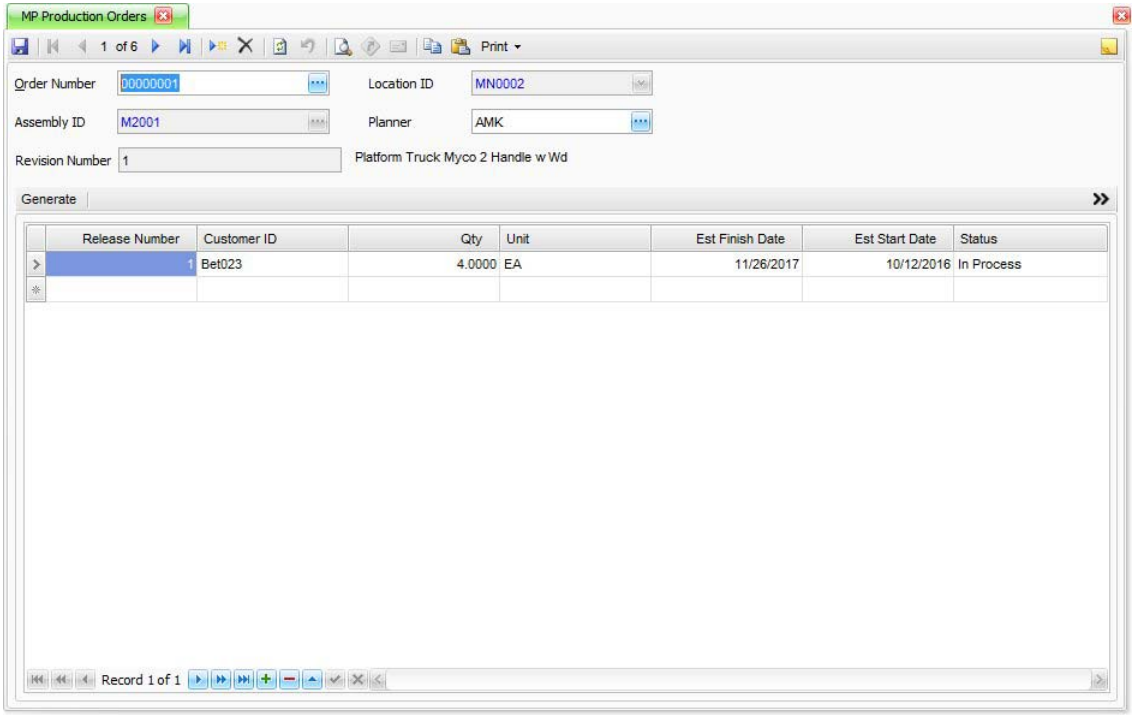
1. Select **Production Orders** from the **Production Orders** menu.

Production Orders Menu



2. The **Production Orders** screen appears.

Production Orders Screen (Summary)



3. Click the **New Record** button  on the toolbar to open a blank Production Order record.

NOTE: An order number automatically generates in the Order Number field, if you selected Yes to the System Generated Order Numbers option in Business Rules (page 3-5).

Maint

4. Enter the Inventory Item ID of the **Assembly ID** to be built. The Assembly ID must have a manufacturing BOM already associated with it.
5. Select the Revision from the **Revision Number** field.
6. The **Description** of the revision is displayed in the field adjacent to the Revision Number field.

NOTE: The Assembly Description automatically appears in this field.

Maint

7. Select the Location ID for the assembly from the **Location ID** field.
8. Select, if applicable, the person responsible for the order from the **Planner** field.
9. Enter or accept the Release Number in the **Release Number** field.

Maint

10. Select, if applicable, the Customer to associate with the release from the **Customer ID** field.
11. Enter the quantity you want to build in the **Qty** field.
12. Select the Unit of Measure for the Assembly ID from the **Unit** field.
13. Select the estimated finish date from the **Est Finish Date** field.

NOTE: The system subtracts the lead time (this field is in Inventory, in terms of days) from that date and creates an Estimated Start Date. The system will calculate the start date automatically and will display it.

14. Select or accept the estimated start date from the **Est Start Date** field.
15. Select, if applicable, the status of the release from the **Status** field;

NOTE: New, Planned, Firm Planned, and Released are used prior to releasing a production order. In Process, Production Hold, and Completed are used after exploding and releasing a Production Order.

- **New** - When order releases are initially entered into the system this status is used, although you can change the status to Released, Planned, or Firm Planned. New order releases are releases that cannot be exploded using the Release Production Orders function.

- **Planned** - When production orders are generated by the Production module, this status is assigned.

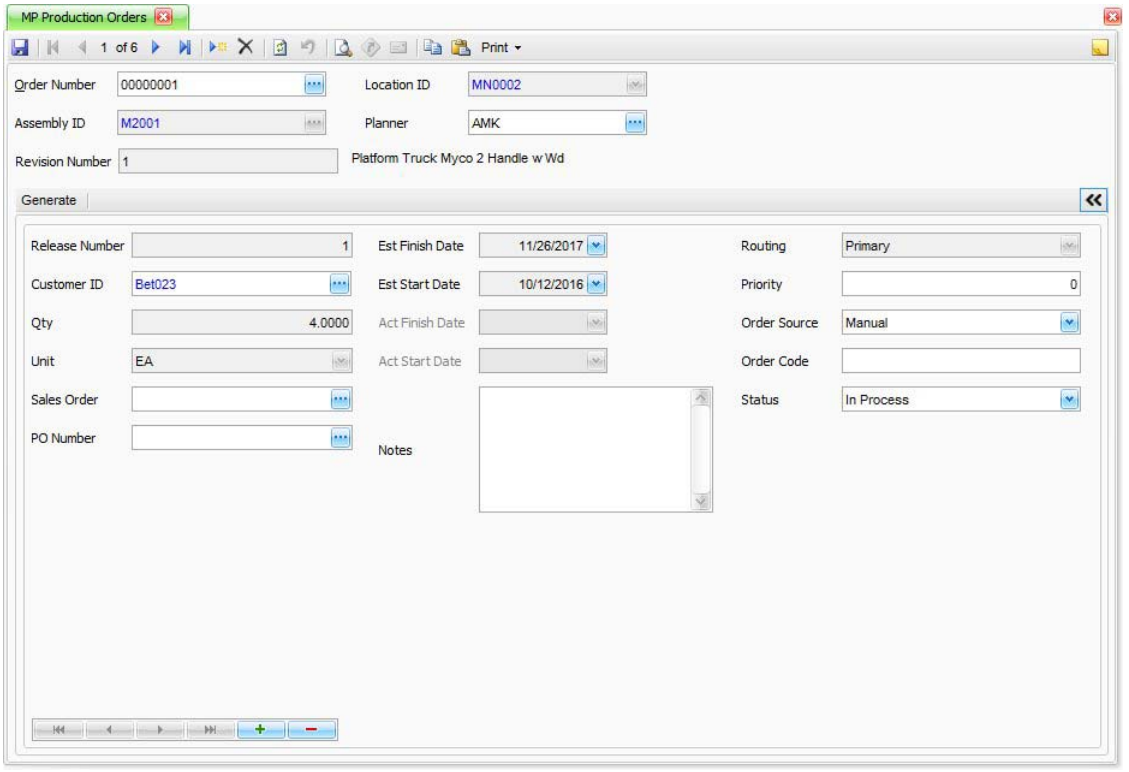
NOTE: A New or Planned status is handled the same way by the system.

- **Firm Planned** - When Planned orders are confirmed to be built, change the status to Firm Planned. Orders with this status do not get recalculated by the order generation process and can only manually be changed to New, Planned, or Released.
- **Released** - This status can be assigned to any New, Planned, or Firm Planned order release at any time. This status indicates that the order release is New, but is ready to be exploded and put in process. Order releases with this status can be Released online or released using the Release Production Orders function.

NOTE: A Firm Planned or Released status is handled the same way by the system.

- **In Process** - This status is assigned to a Production Order release once it has been exploded. All order releases for which you record transaction data such as material use, production, or time must have a status of In Process. In Process order releases can only be changed to Production Hold using the Production Orders function. They can be changed to Production Hold or Completed using the Record Production Activity function.
- **Production Hold** - This status is used when an order release, which is currently In Process, is put on hold because there is something wrong. No further work is normally done on the release until it is changed back to In Process. Production Hold order releases can only be changed to In Process using the Production Orders function. They can be changed to In Process or Completed using the Record Production Activity function.
- **Completed** - Completed order releases are releases that are assumed to be complete and for which no more materials, labor, and machine time will be recorded. You only change the status to Completed using the Record Production Activity function.

Production Orders Screen (Detail)



1. Click the **New Record** button on the toolbar to open a blank Production Orders record.

NOTE: Note: An order number automatically generates in the Order Number field, if you selected Yes to the System Generated Order Numbers option in Business Rules (page 3-5).

Maint

2. Enter the Inventory Item ID of the **Assembly ID** to be built. The Assembly ID must have a manufacturing BOM already associated with it.
3. Select the Revision from the **Revision Number** field.
4. The **Description** of the revision is displayed in the field adjacent to the Revision Number field.

NOTE: The assembly description automatically appears in this field.

Maint

5. Select the Location ID for the Assembly ID from the **Location ID** field.

6. Select, if applicable, the person responsible for the order from the **Planner** field.
7. Click the » button to view the Release information in detail.
8. Enter or accept the Release Number in the **Release Number** field.

Maint

9. Select, if applicable, the Customer to associate with the release from the **Customer ID** field.
10. Enter the quantity you want to build in the **Qty** field.
11. Select the Unit of Measure for the Assembly ID from the **Unit** field.
12. Select the Sales Order number this production order offsets or was created to address from the **Sales Order** field.

NOTE: This field automatically populates if you used the Generate Orders from Sales function and are creating orders on a one-to-one basis with Sales Orders.

13. Select the Customer Purchase Order Number this production order offsets or was created to address from the **PO Number** field.

NOTE: The field automatically populates if you used the Generate Orders from Sales function and are creating orders on a one-to-one basis with Sales Orders, and the Customer PO Number field was filled in on the originating Sales Order.

14. Select the Estimated Finish Date from the **Est Finish Date** field.

NOTE: The system subtracts the Lead Time (this field is in Inventory, in terms of days) from that date and creates an Estimated Start Date. The system will calculate the Start Date automatically and will display it.

15. Select or accept the Estimated Start Date from the **Est Start Date** field.
16. Enter any Notes pertaining to the associated release in the **Notes** field.
17. Select the Routing Type to use from the **Routing** field; **Primary** or **Secondary**.

NOTE: When you release the order, the system automatically generates requirements using the appropriate Routing specified in the Bill of Materials.

18. Enter a priority code from the **Priority** field.

NOTE: A priority code of 1 is considered the highest priority. Currently, this is an information-only field.

19. Select the source of the order from the **Order Source** field; **Manual**, **Imported**, or **Generated**.

NOTE: The default source is Manual.

20. Enter an Order Code in the **Order Code** field.

NOTE: This field is for information use only.

21. Select, if applicable, the Status of the release from the **Status** field;

NOTE: New, Planned, Firm Planned, and Released are used prior to releasing a production order. In Process, Production Hold, and Completed are used after exploding and releasing a Production Order.

- **New** - When order releases are initially entered into the system this status is used, although you can change the status to Released, Planned, or Firm Planned. New order releases are releases that cannot be exploded using the Release Production Orders function.
- **Planned** - When production orders are generated by the Production module, this status is assigned.

NOTE: A New or Planned status is handled the same way by the system.

- **Firm Planned** - When Planned orders are confirmed to be built, change the status to Firm Planned. Orders with this status do not get recalculated by the order generation process and can only manually be changed to New, Planned, or Released.
- **Released** - This status can be assigned to any New, Planned, or Firm Planned order release at any time. This status indicates that the order release is New, but is ready to be exploded and put in process. Order releases with this status can be Released online or released using the Release Production Orders function.

NOTE: A Firm Planned or Released status is handled the same way by the system.

- **In Process** - This status is assigned to a Production Order release once it has been exploded. All order releases for which you record transaction data such as material use, production, or time must have a status of In Process. In Process order releases can only be changed to Production Hold using the Production Orders function. They can be changed to Production Hold or Completed using the Record Production Activity function.

- **Production Hold** - This status is used when an order release, which is currently In Process, is put on hold because there is something wrong. No further work is normally done on the release until it is changed back to In Process. Production Hold order releases can only be changed to In Process using the Production Orders function. They can be changed to In Process or Completed using the Record Production Activity function.
- **Completed** - Completed order releases are releases that are assumed to be complete and for which no more materials, labor, and machine time will be recorded. You only change the status to Completed using the Record Production Activity function.

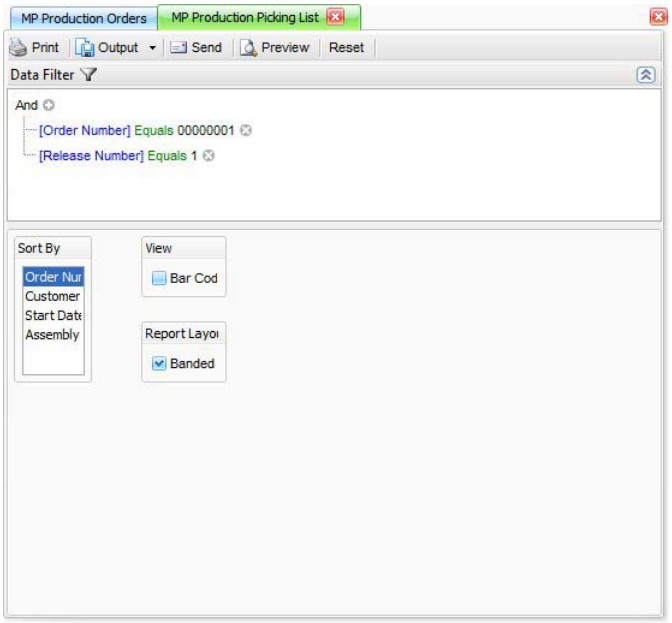
22. Select a command button:

Command Buttons

Name	Description
Save	Save the entered/edited production orders.
Generate	Release the production order.
Print	Print the Production Picking List and the Order Traveler for the displayed order.

23. Click the green plus to add a release number to an existing production order.
24. Click the **Delete Line** button to delete a Release Number from an existing Production Order.
25. Click the **Add Line** button to add a new Release Number for an existing Production Order.
26. Select **Print** and **Production Picking List** to display the print Production Picking List screen.

Production Picking List Screen



27. The **Data Filter** area will fill in the filtering criteria to print the picking list for just the displayed order.

28. Select the sort criteria for the list from the **Sort By** section; **Order Number**, **Customer ID**, **Start Date**, and **Assembly ID**.

29. Select the **Bar Codes** check box, if applicable, to include bar codes in the list.

30. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.

31. Select a command button:

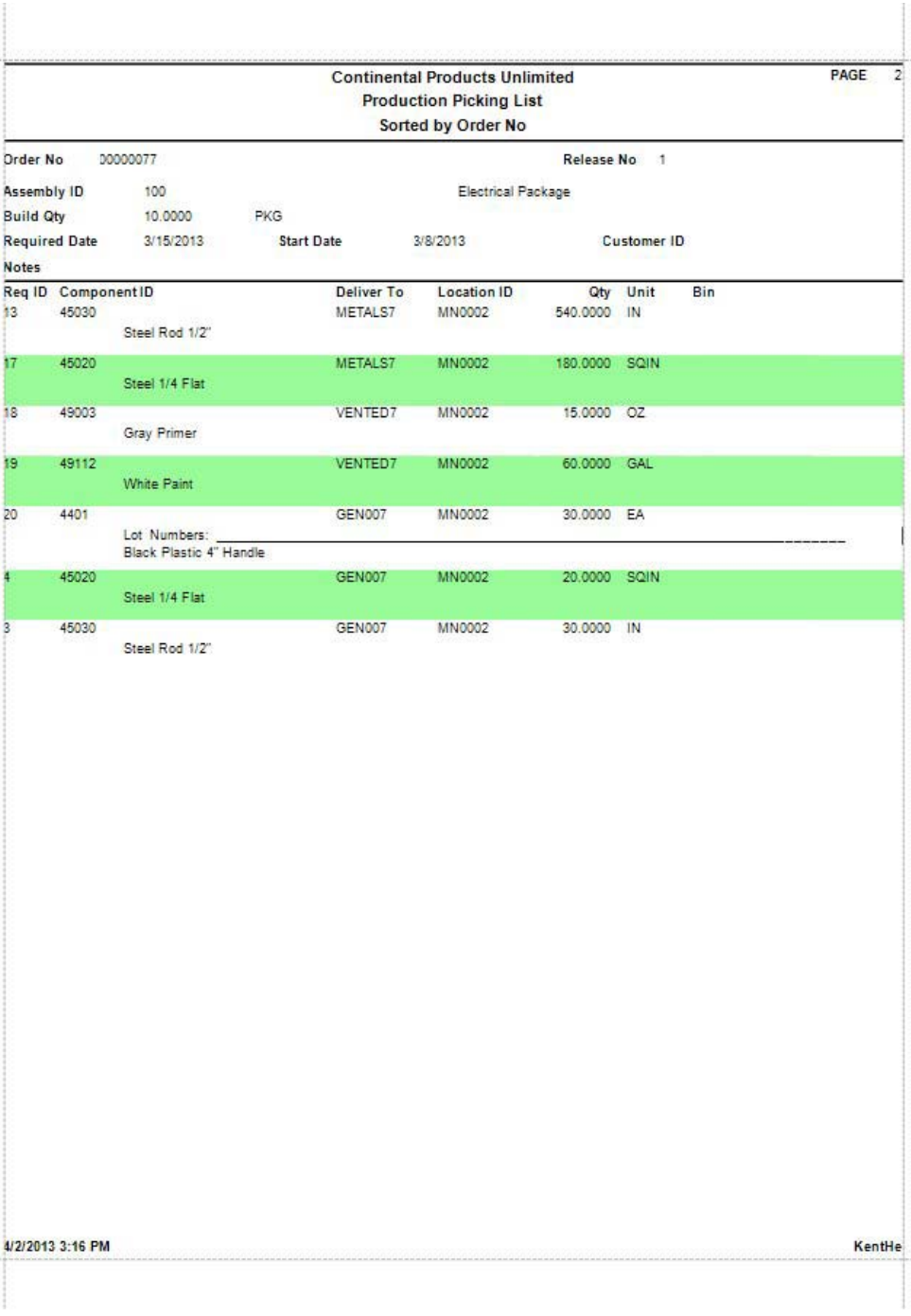
Command Buttons

Name	Description
Reset	Set all fields to their defaults.

Name	Description
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Production Picking List Report



Continental Products Unlimited PAGE 2
Production Picking List
Sorted by Order No

Order No 00000077 Release No 1
Assembly ID 100 Electrical Package
Build Qty 10.0000 PKG
Required Date 3/15/2013 Start Date 3/8/2013 Customer ID
Notes

Req ID	Component ID		Deliver To	Location ID	Qty	Unit	Bin
13	45030	Steel Rod 1/2"	METALS7	MN0002	540.0000	IN	
17	45020	Steel 1/4 Flat	METALS7	MN0002	180.0000	SQIN	
18	49003	Gray Primer	VENTED7	MN0002	15.0000	OZ	
19	49112	White Paint	VENTED7	MN0002	60.0000	GAL	
20	4401	Lot Numbers: _____ Black Plastic 4" Handle	GEN007	MN0002	30.0000	EA	
4	45020	Steel 1/4 Flat	GEN007	MN0002	20.0000	SQIN	
3	45030	Steel Rod 1/2"	GEN007	MN0002	30.0000	IN	

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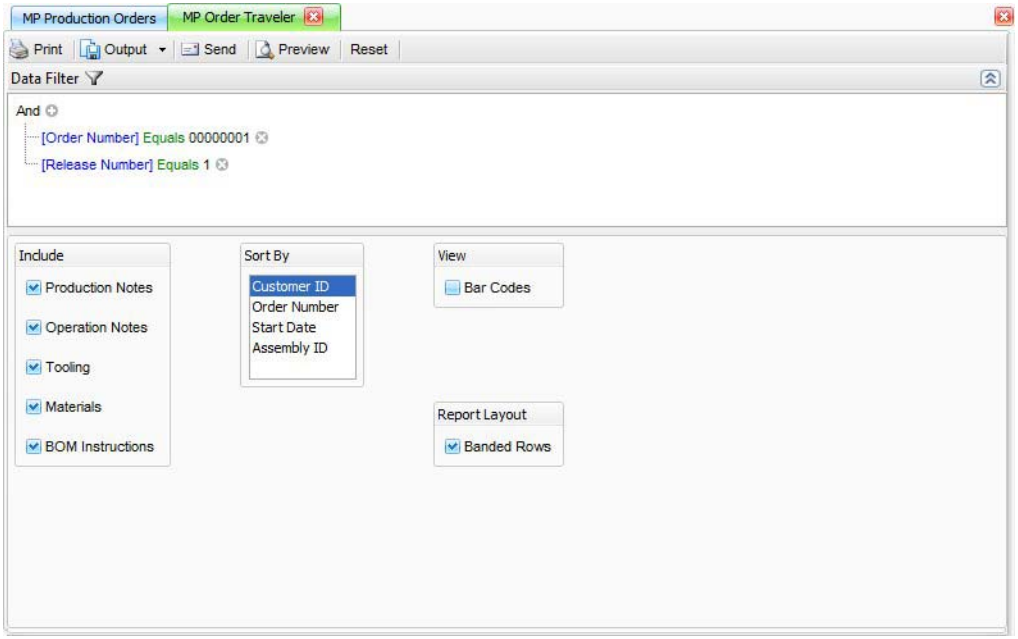
32. Select **Print** and **Order Traveler** to print the Order Traveler for the displayed order.

Order Traveler Screen



33. The **Data Filter** area will fill in the filtering criteria to print the order traveler for just the displayed order.

34. Select options to include in the report from the **Include** section; **Production Notes**, **Operation Notes**, **Tooling**, **Materials**, and **BOM Instructions**. You may select any one or any combination of these check boxes.

35. Select the sort criteria for the report from the **Sort By** section; **Customer ID**, **Order Number**, **Start Date**, and **Assembly ID**.

36. Select the **Bar Codes** check box, if applicable, to include bar codes in the report.

37. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.

38. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Order Traveler Report

Continental Products Unlimited
Order Traveler
Sorted by Customer ID

PAGE 2

Order No 00000077 | Release No 1 | Assembly ID 100 | Qty 10.0000
Customer ID
Start Date 3/8/2013 | Due Date 3/15/2013 | Revision No 001
Sales Order
Instructions
Notes

Req ID	Rtg Step	Operation ID	Machine Group ID	Machine Setup	Machine Run	Pcs				
Parent		Work Center ID	Labor Type ID	Labor Setup	Labor Run					
14	10	CUT7	SAW07	0.500	0.100	30.0000				
9		METALS7	MACHSHOP7	0.500	0.100					
	Component ID		Description		Unit	Planned Usage Qty	Est Scrap	Scrap	Qty Used	Pct Used
	45020		Steel 1/4 Flat		SQIN	180.0000	0.0000	0.0000	0.0000	0.000000
	Tooling ID	Description								
	9-G88	Welding Gloves								
	CLAMP2	2" Spring Clamps								
	CLAMP7	7" C - Clamp								
16	20	DRILL7	DRLPRESS7	0.083	0.250	30.0000				
9		METALS7	MACHSHOP7	0.083	0.250					
15	30	DEBUR7	MACHSHOP7	0.000	0.000	30.0000				
9		METALS7		0.000	0.250					
	Tooling ID	Description								
	9-G88	Welding Gloves								
	CLAMP2	2" Spring Clamps								
	CLAMP7	7" C - Clamp								
12	10	CUT7	SAW07	0.000	0.250	30.0000				
10		METALS7	MACHSHOP7	0.000	0.250					
	Tooling ID	Description								
	9-G88	Welding Gloves								
	CLAMP2	2" Spring Clamps								
	CLAMP7	7" C - Clamp								
11	20	BEND7	BEND07	0.500	2.500	30.0000				
10		METALS7	MACHSHOP7	0.500	2.500					
	Component ID		Description		Unit	Planned Usage Qty	Est Scrap	Scrap	Qty Used	Pct Used
	45030		Steel Rod 1/2"		IN	540.0000	0.0000	0.0000	0.0000	0.000000
	Tooling ID	Description								
	CLAMP2	2" Spring Clamps								
	CLAMP7	7" C - Clamp								
8	1	WELD7	WELDINGM7	0.250	5.000	30.0000				
5		GEN007	WELD7	0.250	5.000					

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GENERATE ORDERS FROM SALES

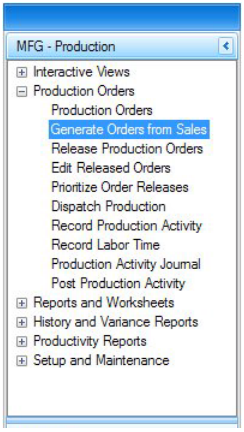
Use **Generate Orders from Sales** function in conjunction with the **Sales Order Analysis** report. If you want to automatically generate Production Orders based on existing Sales Orders, use this function. The Generate Orders from Sales function uses the same logic as the Sales Order Analysis report when looking at existing Sales Orders and generating Production Orders from them, except it creates Production Orders instead of just reporting what orders will be created. Only Sales Orders with a status of **New**, **Picked**, or **Backordered** are considered. The Sales Order Item ID must be a legitimate Inventory Item ID and have a Bill of Material (BOM) in the manufacturing BOM master table.

When Production Orders are created via this process they are assigned a status of “Planned”. An order with a “Planned” status is a tentative order. If the status is not changed to “Firm Planned” or “Release”, the order will be automatically purged the next time the Generate Orders from Sales process is run. The first task of the Generate Orders from Sales function, is to purge all Production Orders with a status of Planned AND that fall within the date range selected, thus it's important that you carefully select the date range OR change the Status to “Firm Planned” or “Release”. If a Production Order is within the selected date range and its status is “Planned”, it will simply get deleted and recreated with a different Production Order Number, however this may or may not be something you want to have happen. Also note that if a given Sales Order contains multiple entries for the same Item ID and the selected date range is broad enough to include these lines of the Sales Order, the production order will get created as one order with multiple releases.

To use **Generate Orders from Sales**, follow these steps:

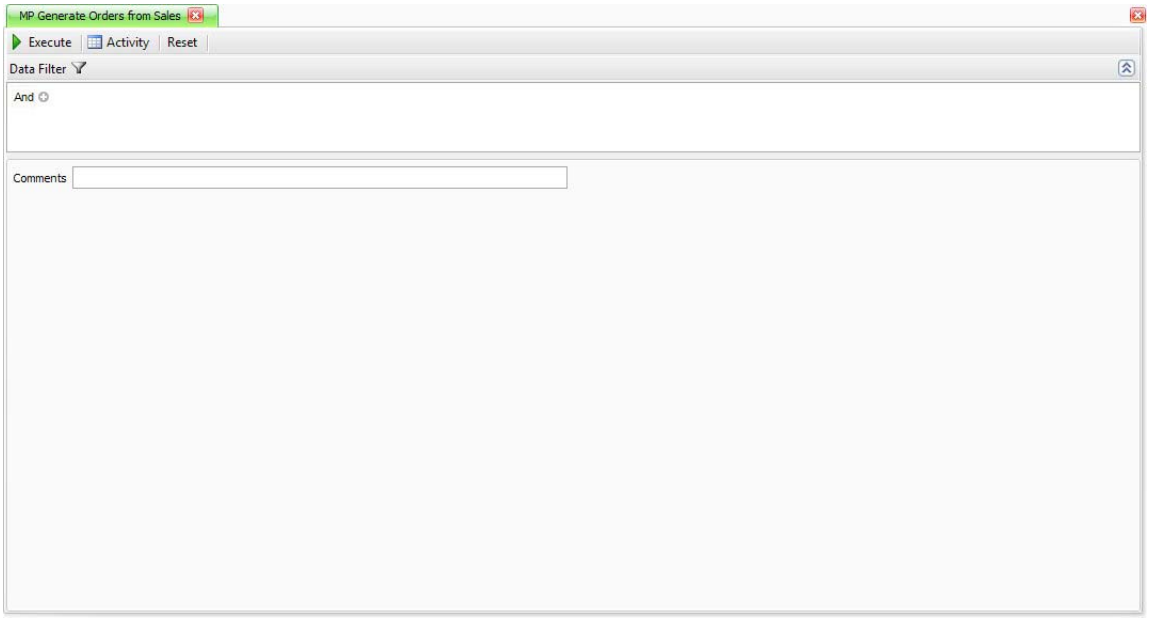
1. Select **Generate Orders from Sales** from the **Production Orders** menu.

Generate Orders from Sales Menu



2. The **Generate Orders from Sales** screen appears.

Generate Orders from Sales Screen

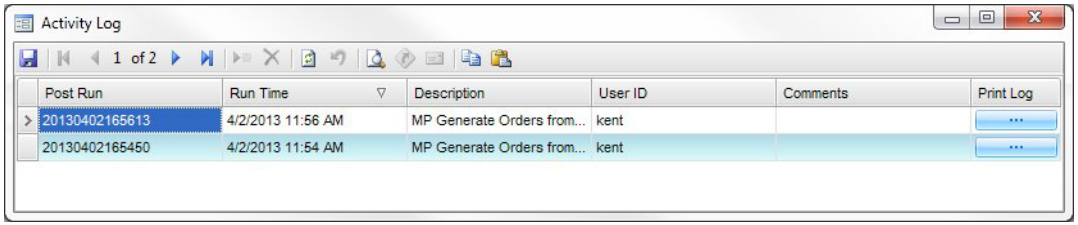


3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Enter any applicable Comments in the **Comments** field.
5. Select a command button:

Command Buttons

Name	Description
Execute	Generate Production Orders using the selected filtering options.
Activity	View the Activity Log for Generating Orders from Sales.
Reset	Set all fields to their default values

Activity Log Dialog Box



The Activity Log dialog box appears when you click **Activity**. The Activity Log dialog box tracks all post activity for administrative purposes. The system assigns each post a run ID.

Post Run - The system generated number used to identify the generate appears.

Run Time - The date and time the generate was made appear.

Description - The generate description appears.

User ID - The user who performed the generate appears.

Comments - Comments entered for the generate appear.

Print Log - to print the generate log from the selected generate.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Generate Orders from Sales Log

Continental Products Unlimited
Generate Orders Log

Page 1

Report Filter
Comments

Order No	Assembly ID	Location ID	Description
00000078	W-601-Z	CA0001	Meter Model 601

Release No	Order Date	Qty Required	Qty to Produce	Unit	SO Order No	Customer ID	PO Order No
1	3/15/2013	95.0000	95.0000	EA	00000040	Bur056	

Order No	Assembly ID	Location ID	Description
00000079	W-601-Z	CA0001	Meter Model 601

Release No	Order Date	Qty Required	Qty to Produce	Unit	SO Order No	Customer ID	PO Order No
1	4/20/2013	12.0000	12.0000	EA	00000041	Bet023	

Order No	Assembly ID	Location ID	Description
00000080	865-006	MN0002	Series 55 Intake Panel Filter

Release No	Order Date	Qty Required	Qty to Produce	Unit	SO Order No	Customer ID	PO Order No
1	1/17/2013	50.0000	50.0000	EA	00000056	Alt008	

Order No	Assembly ID	Location ID	Description
00000081	4517	MN0002	Brake Handle Attachment

Release No	Order Date	Qty Required	Qty to Produce	Unit	SO Order No	Customer ID	PO Order No
1	3/25/2013	80.0000	80.0000	EA	00000061	Pol014	

Order No	Assembly ID	Location ID	Description
00000082	4517	MN0002	Brake Handle Attachment

Release No	Order Date	Qty Required	Qty to Produce	Unit	SO Order No	Customer ID	PO Order No
1	5/1/2013	100.0000	100.0000	EA	00000062	Pol014	

4/2/2013 11:54 AM *** End of Report *** OPEN_SYSTEMS\KenHe

RELEASE PRODUCTION ORDERS

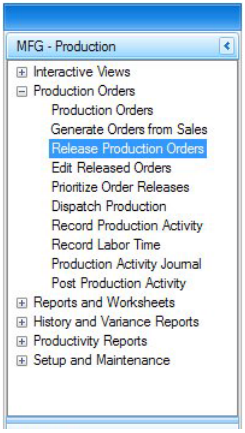
Use the **Release Production Orders** function to explode a group of production order releases at one time rather than exploding them online using the Generate button on the Production Orders screen. The Release Production Orders function allows you to control who performs the explosion of orders, for example; by enabling you to turn off the Allow Online Release of Orders option and password protect the Release Production Orders function.

The explosion process reads through the BOM and creates records in a series of production tables. A list of all materials and resources needed is created and used to produce the Assembly. During the explosion, the system calculates how many Material Components, Machine Hours, Labor Hours, and Subcontracted Operations are required. It also calculates the lead time and required date of each one of the requirements based on the order release due date. Once Production Orders are exploded, you can edit them, record activity information against them, and attain a variety of reports.

To use **Release Production Orders**, follow these steps:

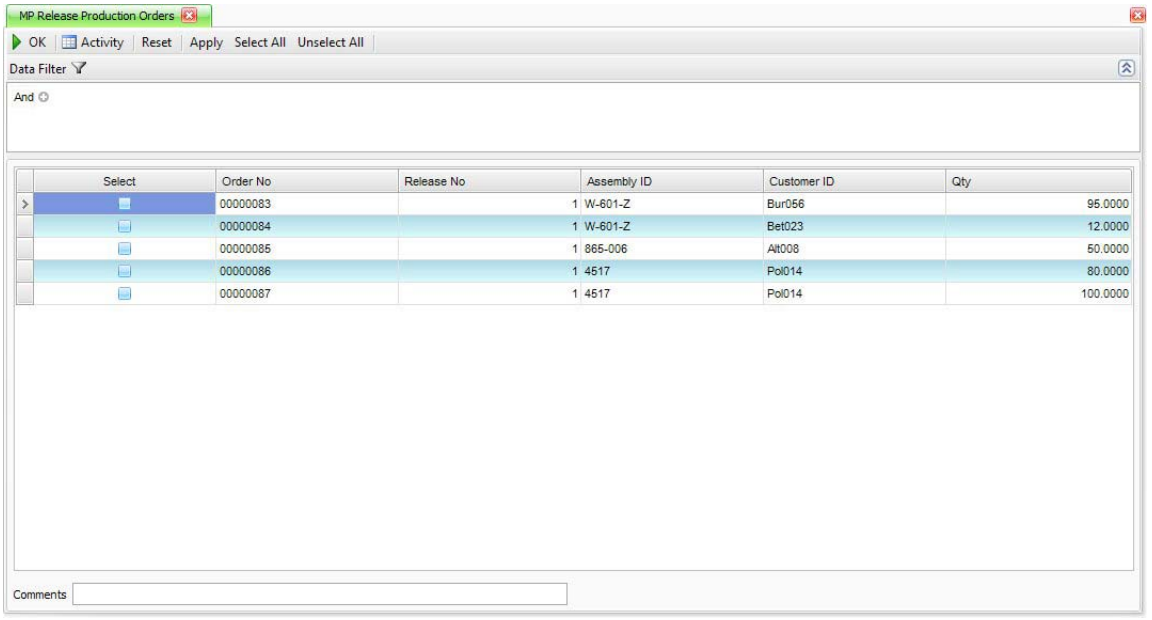
1. Select **Release Production Orders** from the **Production Orders** menu.

Release Production Orders Menu



2. The **Release Production Orders** screen appears.

Release Production Orders Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Click the **Apply** button to display the available orders using the selected filtering options.
5. Select the **Select** check boxes adjacent to the orders you want to release.

NOTE: You can use the Select All or Unselect All buttons to either select all available orders for release or deselect all selected orders for release.

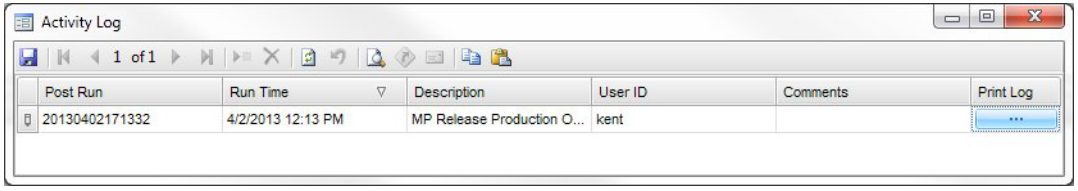
6. Enter any applicable comments in the **Comments** field.

7. Select a command button:

Command Buttons

Name	Description
OK	Begin processing.
Activity	View the Activity Log for releasing production orders.
Reset	Set all fields to their default values
Apply	Apply the filtering selected in the filtering area.
Select All	Select all the production orders displayed to be released.
Unselect All	Uncheck any of the previously selected production orders to be released.

Activity Log Dialog Box



The Activity Log dialog box appears when you click **Activity**. The Activity Log dialog box tracks all post activity for administrative purposes. The system assigns each post a run ID.

Post Run - The system generated number used to identify the release appears.

Run Time - The date and time the release was made appear.

Description - The release description appears.

User ID - The user who performed the release appears.

Comments - Comments entered for the release appear.

Print Log - to print the post log from the selected release.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

EDIT RELEASED ORDERS

Once you explode and Release Production Orders, you can Record Production Activity. If you want to change the structure of the release so that it is different from the original BOM that generated it (for example: for last minute changes in design or at the request of a customer looking for a unique twist to a standard product) use the **Edit Released Orders** function. This function allows you to reconfigure the Production Order release structure, creating a separate "working Bill of Material." Any changes you make to the working BOM are not reflected on the original BOM and vice versa.

The Edit Released Orders function uses a tree concept in a typical Windows Explorer-type view which enables you to view the Routings and Material that make up the BOM. You can drill-down through the BOM to change quantities and times that make up the BOM as well as the actual Routing and Material makeup of the BOM.

NOTE: Once you record production for a process or material requirement, that specific process or requirement may be restricted as to what type of information can be edited.

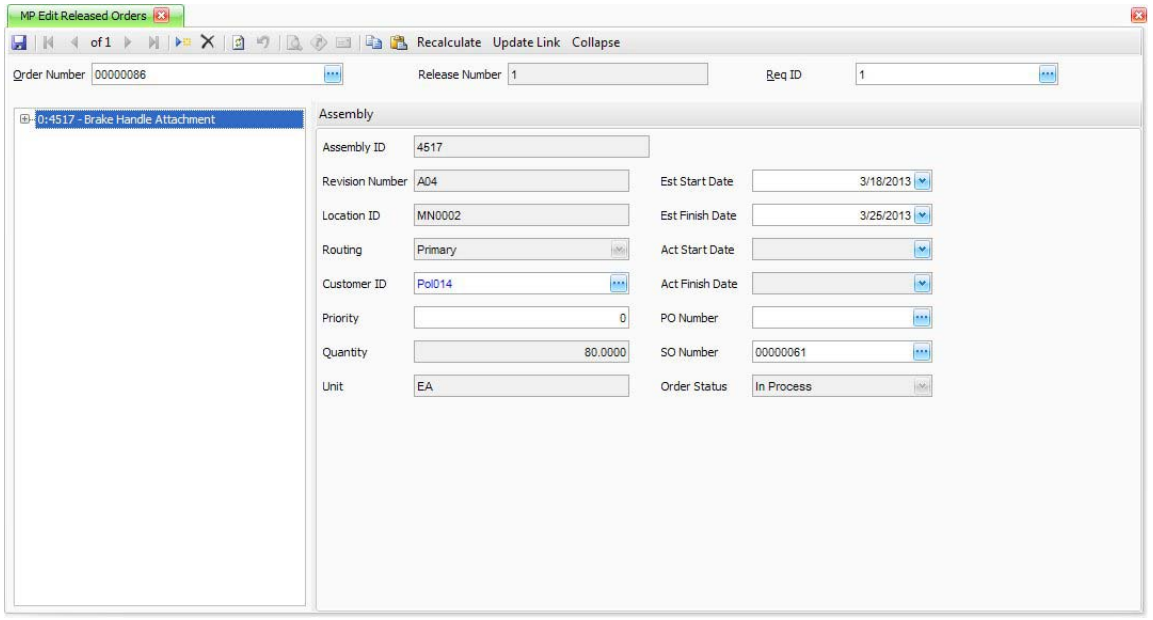
To use **Edit Released Orders**, follow these steps:

1. Select **Edit Released Orders** from the **Production Orders** menu.

Edit Released Orders Menu

2. The **Edit Released Orders** screen appears.

Edit Released Orders Screen (Assembly)



3. Select the order for which you want to edit the released order, from the **Order Number** field.
4. Select the requirement for which you want to edit from the **Req ID** field or the assembly from the left panel.
5. The **Assembly ID** is displayed and cannot be edited.
6. The **Revision Number** is displayed and cannot be edited.
7. The **Location ID** the order is being made for is displayed and cannot be edited.
8. The **Routing** is displayed and cannot be edited.

Maint

9. Edit, if applicable, the Customer from the **Customer ID** field by selecting a Customer ID from the list of AR Customer IDs.
10. Edit, if applicable, the priority number in the **Priority** field.

NOTE: A priority code of 1 is considered the highest priority. Currently, this is an information-only field.

11. The **Quantity** is displayed and cannot be edited.

12. The **Unit** of measure for the assembly is displayed and cannot be edited.
13. Edit, if applicable, the Estimated Start Date from the **Est Start Date** field.
14. Edit, if applicable, the Estimated Finish Date from the **Est Finish Date** field.

NOTE: The system subtracts the Lead Time (this field is in Inventory, in terms of days) from that date and creates an Estimated Start Date. The system will calculate the Start Date automatically and will display it.

15. The **Actual Start Date** is displayed and cannot be edited. This would be the first date activity was recorded for this work order.
16. The **Actual Finish Date** is displayed and cannot be edited. This would be the date the order was completed.
17. Edit, if applicable, the associated Customer Purchase Order Number from the **PO Number** field, this Production Order offsets or was created to address.

NOTE: The field automatically populates if you used the Generate Orders from Sales function and are creating orders on a one-to-one basis with Sales Orders, and the Customer PO Number field is filled in on the originating Sales Order.

18. Edit, if applicable, the sales order number this Production Order offsets or was created to address, from the **Sales Order** field.

NOTE: This field automatically populates if you used the Generate Orders from Sales function and are creating orders on a one-to-one basis with Sales Orders.

19. The **Status** is displayed and cannot be edited.

20. Select a command button:

Command Buttons

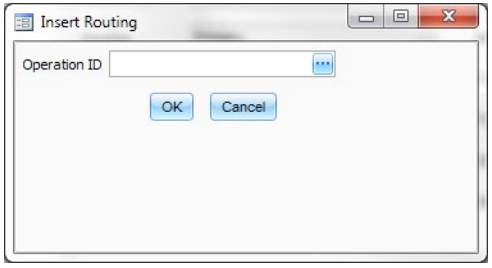
Name	Description
Save	Save the edited released orders.
Recalculate	Reassess the lead times and required dates from the top down and change them accordingly.
Update Link	Refresh, if applicable, the link information on the Production Order.
Expand	Expand the tree to the full detail of the Assembly ID in the Production Order.

A new **Operation** may be added to the current Production Order's Bill of Material that will only effect this Production Order.

To add a new **Operation**, follow these steps:

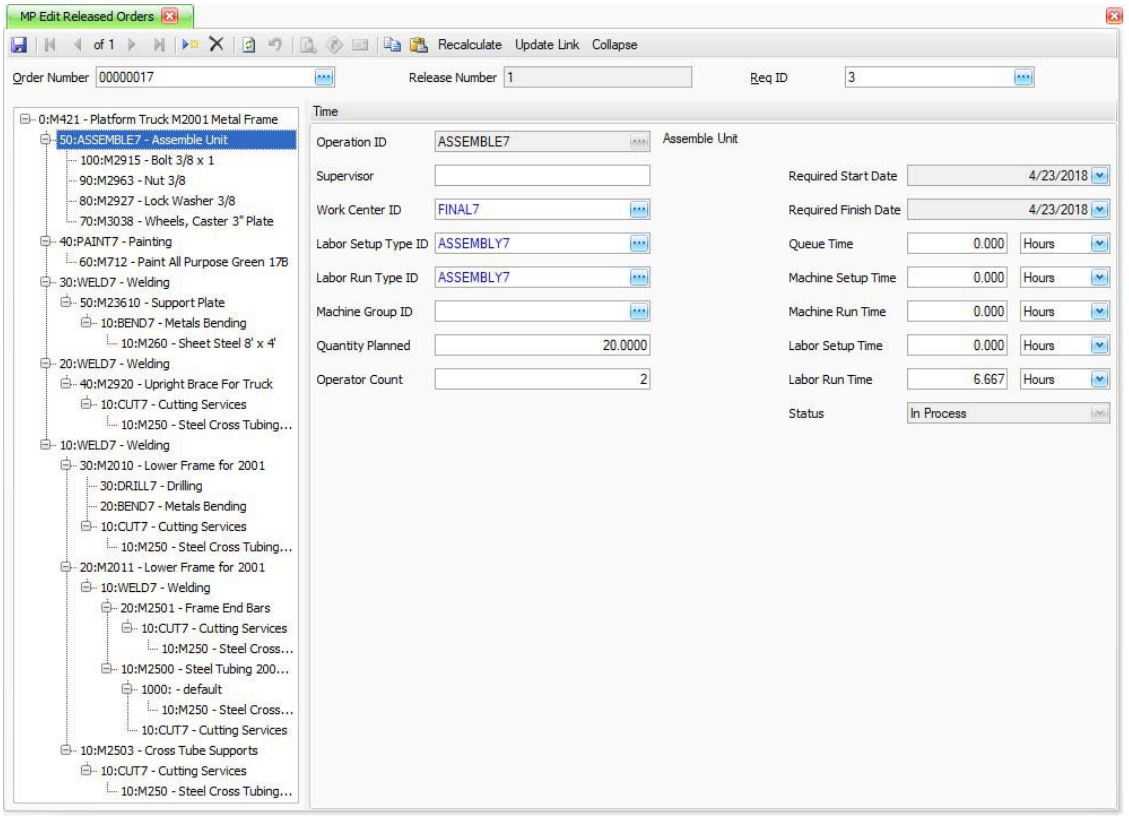
1. Click the **New Record** button on the toolbar to open the Insert Routing screen.

Insert Routing Screen



2. Select the **Operation ID** you would like to insert.
3. Click **OK** to insert the Operation ID.

Edit Released Orders Screen (Operation)



1. Select the Order for which you want to edit the released order, from the **Order Number** field.
2. Select the requirement for which you want to edit from the **Req ID** field or the Assembly ID from the left panel.
3. Select the **Operation ID** from the tree in the left window of the screen.

   The Operation Id is created and set up in the Routing and Resources module. Essentially the Operation ID IS the Subcontracted ID. In the case of the Bill of Material setup process, you will indicate whether the Operation is a Subcontracted Operation BEFORE entering the Operation ID.
4. The **Operation Type** from the Operation setup is displayed at the top of the detail screen.
5. Edit, if applicable, the Supervisor in the **Supervisor** field.

   There is no search box to select an Employee ID, enter any Supervisor name.

Maint 6. Edit, if applicable, the Work Center location from the **Work Center ID** field.

The Work Center ID defines the Work Center where the work is to take place and the Overhead Rate for that given Work Center via the Work Center master.

Maint 7. Edit, if applicable, the Labor Setup Type from the **Labor Setup Type ID** field.

The Labor Setup Type defines the labor skill required for the setup of this Operation.

Maint 8. Edit, if applicable, the Labor Run Type from the **Labor Run Type ID** field.

The Labor Run Type defines the labor skill required to run this Operation.

Maint 9. Edit, if applicable, the Machine Group from the **Machine Group ID** field.

The Machine Group identifies the machine required for this process. It is an optional field.

10. Edit, if applicable, the estimated quantity to produce in the given amount of time in the **Quantity Planned** field.
11. Edit, if applicable, the number of operators that will be applying labor to the Operation in the **Operator Count** field. See the Multiple Operator Overview for more information.
12. The **Required Start Date** is displayed and cannot be edited.
13. The **Required Finish Date** is displayed and cannot be edited.
14. Edit, if applicable, the Queue Time in the **Queue Time** field.

    Queue Time is the time we generally wait for the process to become available. It is not part of the BOM cost algorithm and is more or less a extra buffer time.
15. Edit, if applicable, the Unit of Time to use: **Hours**, **Minutes** or **Seconds**.
16. Edit, if applicable, the Machine Setup Time in the **Machine Setup Time** field.

    Machine Setup Time is the time required to setup the machine for this process.
17. Edit, if applicable, the Unit of Time to use: **Hours**, **Minutes** or **Seconds**.
18. Edit, if applicable, the Machine Run Time in the **Machine Run Time** field.

    Machine Run Time is the time to process one piece.
19. Edit, if applicable, the Unit of Time to use: **Hours**, **Minutes** or **Seconds**.
20. Edit, if applicable, the Labor Setup Time in the **Labor Setup Time** field.

    Labor Setup Time reflects the labor time required to set the process up.
21. Edit, if applicable, the Unit of Time to use: **Hours**, **Minutes** or **Seconds**.
22. Edit, if applicable, the Labor Run Time in the **Labor Run Time** field.

Labor Run Time is the time required in running one unit.

23. The **Status** is displayed and cannot be edited.
24. Click a command button:

Command Buttons

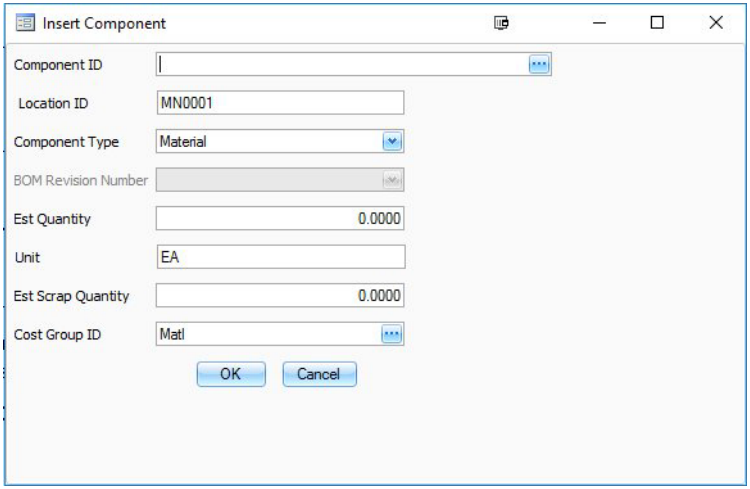
Name	Description
Save	Save the edited released orders.
Recalculate	Reassess the lead times and required dates from the top down and change them accordingly.
Update Link	Refresh, if applicable, the link information on the Production Order.
Expand	Expand the tree to the full detail of the assembly in the work order.

A new **Component** may be added to the current Production Order's Bill of Material that will only effect this Production Order.

To add a new **Component**, follow these steps:

1. Select an Operation from the tree.
2. Click the **New Record** button  on the toolbar to open the Insert Component screen.

Insert Component Screen



3. Select or enter the **Component ID** you would like to insert.
4. Select or enter the **Location ID** from which to use the component.
5. Select the **Component Type** this component will be for this production order; **Non-Stock Assembly**, **Stocked Assembly**, **Material**, and **By-Product**.

    - A **Subassembly** would be an inventory item which also exists as a Bill of Material. In other words it's also an Assembly ID, although it is used as a Subassembly in the building of our current Bill of Material.

        If the Subassembly is built as part of each Production Order, it is simply called a Subassembly or **Non-Stocked Subassembly**.

        If the Subassembly is stocked such that it is built ahead of time in most cases, it could be considered a **Stocked Subassembly**. When Production Orders are created for Stocked Subassemblies, they don't calculate costs or quantities below this Subassembly. They treat the Subassembly almost as if it were a raw material because the assumption is that this Item is “in stock”. If one sets the component up as a Non-Stocked Subassembly, the system more or less ignores the cost and need for this Item, and instead, looks at the components that make it up in calculating costs or building a list of required Items.

    - Components with a Detail Type of **Material** are simply Inventory Item IDs with no Bill of Material. They are considered raw materials or parts. Material Item IDs must be purchased; they are not built.

- Components with a Detail Type of **By-Product** are Inventory Item IDs that are created by the manufacturing process, but are not the intended finished product. An example might be the production of sawdust or wood shavings in a furniture manufacturing operation.

  By-Products must be defined in Inventory and they should be assigned a Standard Cost. By-Products are distinguished from Scrap in that By-Products have tangible value, whereas Scrap is simply lost.

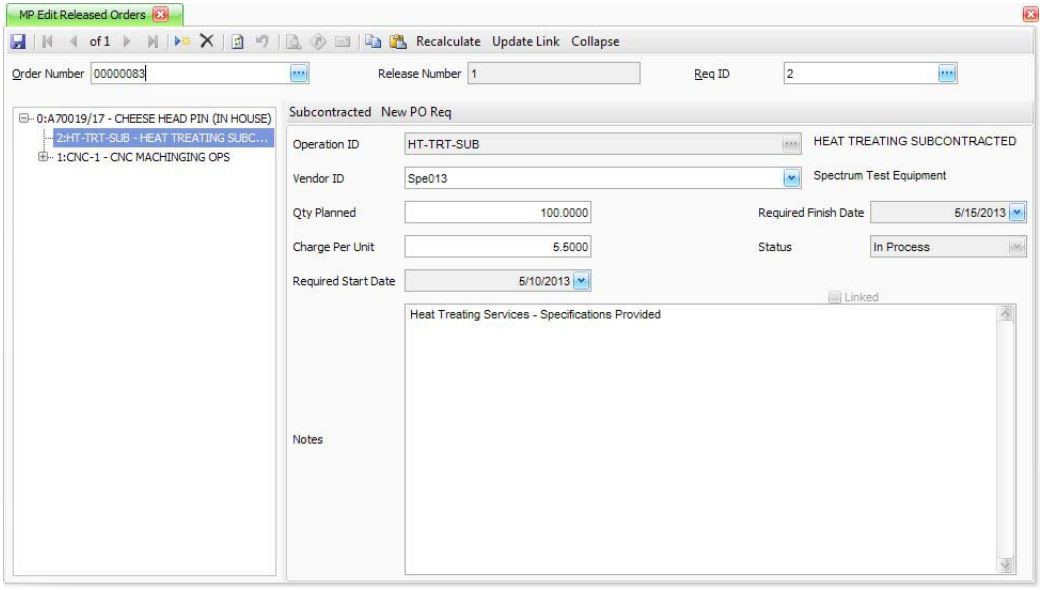
6. If the Component is a Non-Stock Subassembly, select the **BOM Revision Number**.
7. Enter the **Est Qty** for usage in this Bill of Material.

   This field represents the quantity needed to make the quantity in the Production Order, given the Unit of Measure shown. Keep in mind the finished Assembly ID might be one liter, one drum or one ounce so one would need to know the Unit of Measure for the finished product to enter the correct number here. Non-Inventoried Items don't have Units of Measure so you should assume this is simply a multiplier.
8. The **Unit** of measure for the component is displayed, accept the default or edit it.

   The system will default to the inventory default Unit of Measure. Non-inventoried items do not have a unit of measure.
9. Enter the **Est Scrap Quantity** for the quantity of this Component that will end up as Scrap.

   The Estimated Scrap Quantity is calculated from the Scrap Percentage in the BOM setup which indicates the quantity of shrinkage or loss incurred for this component. If the quantity is 70 and the scrap percentage is 2%, the calculated quantity required will be 71.43. If there is a 2% scrap as a percentage of 71.43, approximately 1.43, one would have 70.00 units remaining. The scrap percentage can work in conjunction with the operation yield percentage, but they are actually two different factors.
10. Select the **Cost Group ID** for this Component ID.
11. Click **OK** to insert the Component ID.

Edit Released Orders Screen (Subcontracted)



1. Select the order for which you want to edit the released order from the **Order Number** field.
2. Select the requirement for which you want to edit from the **Req ID** field or the Assembly from the left panel.
3. Select the **Operation ID** from the tree in the left window of the screen.

   The Operation ID is created and set up in the Routing and Resources module. Essentially the Operation ID IS the Subcontracted ID. In the case of the Bill of Material setup process, you will indicate whether the Operation is a Subcontracted Operation BEFORE entering the Operation ID.
4. The **Operation Type** from the Operation setup is displayed at the top of the detail screen.
5. The **Description** from the Operation setup is displayed.
6. The **Vendor ID** from the Operation setup is displayed. Accept this Vendor ID or edit it.

   The Vendor ID is maintained as one of the fields in the Subcontracted Operations. A given Subcontracted Operation could have one or more Vendor IDs associated with it. Each Vendor could dictate different Notes, Costs, G/L Accounts, etc. Generally a Subcontracted Operation will only have one Vendor ID, so once you select a Subcontracted Operation, the system will default to the first Vendor ID record for this Subcontracted Operation.

7. The **Charge Per Unit** from the Operation setup is displayed. Accept this Charge Per Unit or edit it.

   This is the Estimated Cost to process one unit (the unit is the Unit defined in the Bill of Material header) using the Subcontracted Operation. The cost will default based on the cost which was set up in the Subcontracted Operation in the Routing and Resources module. Note: that many times this default cost is meaningless given the wide variety of services a subcontractor could perform.

8. The **Required Start Date** is displayed and cannot be edited.
9. The **Required Finish Date** is displayed and cannot be edited.
10. The **Status** is displayed and cannot be edited.
11. Enter **Notes** that apply to this Operation.

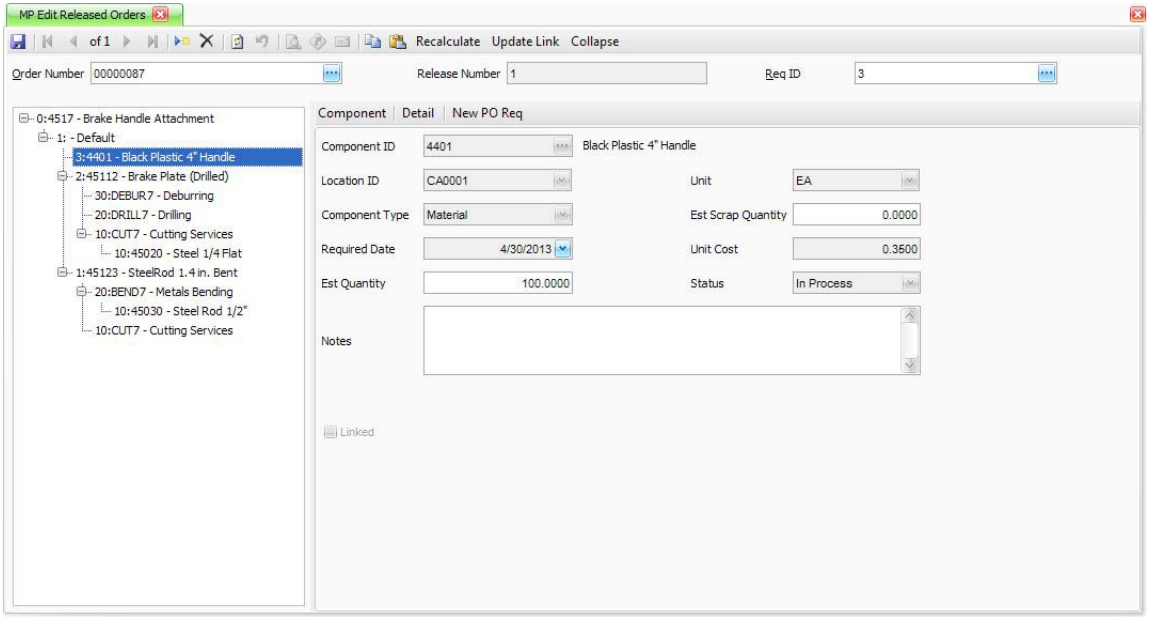
    Additional Notes which will appear on the Subcontractor Worksheets. These may also appear on worksheets sent to the subcontractor in request of work.

12. Select a command button:

Command Buttons

Name	Description
Save	Save the edited released orders.
Recalculate	Reassess the lead times and required dates from the top down and change them accordingly.
Update Link	Refresh, if applicable, the link information on the Production Order.
Expand	Expand the tree to the full detail of the assembly in the work order.

Edit Released Orders Screen (Component)



1. Select the order for which you want to edit the released order, from the **Order Number** field.
2. Select the requirement for which you want to edit from the **Req ID** field or the Assembly from the left panel.
3. Select the **Component ID** from the list of Components in the Assembly from the tree in the left window of the screen.

   The Component ID represents the Inventory Item ID of the Item ID being edited. You may select any Inventory Item ID. You may also choose a Non-Inventory ID. At this point a warning message will display indicating that the Item is not currently in the Inventory system, however these components will be accepted as an actual part of the Bill of Material. You will need to provide a quantity and cost to see impact on the Bill of Material costing. The only required field is the Cost Group Id for Non-Inventory Components.

4. The default **Location ID** from the Inventory Item ID setup is displayed and cannot be edited.

   The Location ID holds the Location associated with the Inventory Item ID entered above.

5. The **Component Type** of component is displayed and cannot be edited.

- A **Subassembly** would be an inventory item which also exists as a Bill of Material. In other words it's also an Assembly ID, although it is used as a Subassembly in the building of our current Bill of Material.

  If the Subassembly is built as part of each Production Order, it is simply called a Subassembly or **Non-Stocked Subassembly**.

  If the Subassembly is stocked such that it is built ahead of time in most cases, it could be considered a **Stocked Subassembly**. When Production Orders are created for Stocked Subassemblies, they don't calculate costs or quantities below this Subassembly. They treat the Subassembly almost as if it were a raw material because the assumption is that this Item is “in stock”. If one sets the component up as a Non-Stocked Subassembly, the system more or less ignores the cost and need for this Item, and instead, looks at the components that make it up in calculating costs or building a list of required Items.

- Components with a Detail Type of **Material** are simply Inventory Item IDs with no Bill of Material. They are considered raw materials or parts. Material Item IDs must be purchased; they are not built.

- Components with a Detail Type of **By-Product** are Inventory Item IDs that are created by the manufacturing process, but are not the intended finished product. An example might be the production of sawdust or wood shavings in a furniture manufacturing operation.

  By-Products must be defined in Inventory and they should be assigned a Standard Cost. By-Products are distinguished from Scrap in that By-Products have tangible value, whereas Scrap is simply lost.

6. The **Required Date** is displayed and cannot be edited.

7. Enter the **Est Qty** for usage in this Bill of Material is displayed and can be edited if desired.

   This field represents the quantity needed to make the quantity in the Production Order, given the Unit of Measure shown. Keep in mind the finished Assembly ID might be one liter, one drum or one ounce so one would need to know the Unit of Measure for the finished product to enter the correct number here. Non-Inventoried Items don't have Units of Measure so you should assume this is simply a multiplier.

8. The **Unit** of Measure for the Component is displayed and cannot be edited.

   The system will default to the Inventory Item ID Default Unit of Measure. Non-Inventoried Items do not have a Unit of Measure.

9. Enter the **Est Scrap Quantity** for the quantity of this Component that will end up as Scrap.

The Estimated Scrap Quantity is calculated from the Scrap Percentage in the BOM setup which indicates the quantity of shrinkage or loss incurred for this Component. If the quantity is 70 and the scrap percentage is 2%, the calculated quantity required will be 71.43. If there is a 2% scrap as a percentage of 71.43, approximately 1.43, one would have 70.00 units remaining. The scrap percentage can work in conjunction with the operation yield percentage, but they are actually two different factors.

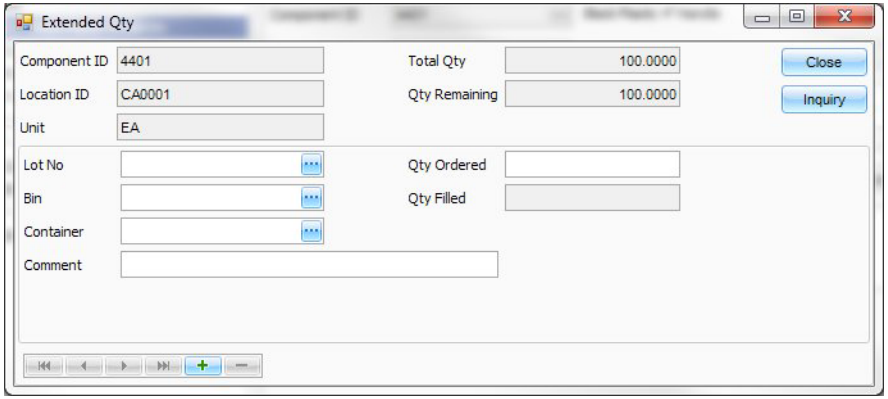
10. The **Unit Cost** is displayed from the selected Inventory Item ID and cannot be edited. If the component is a Non-Inventory Item, enter the Unit Cost for the Component.

11. The **Status** is displayed and cannot be edited.

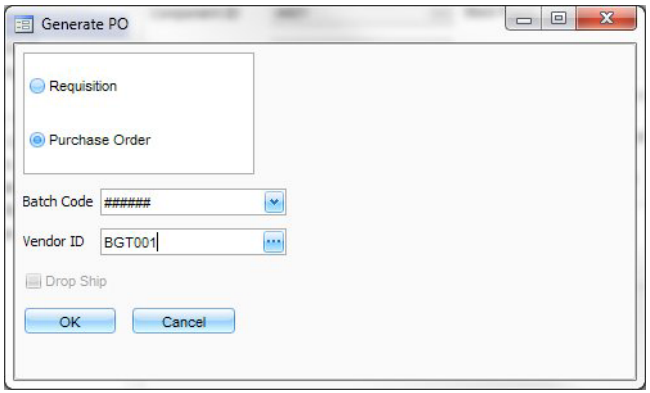
12. Enter **Notes** for additional information about this Component.

    The Notes field is an unlimited length field in which Notes specific to this Component can be entered. These Notes pass through to the Bills of Material, and later appear on the Production Order Worksheets.

13. Click the **Detail** button to display the **Extended Qty** screen to give you the ability to select a Lot number, if applicable, Bin and Container, if applicable and enter comments.



14. Click the **New PO Req** button to display the **Generate PO** screen where you can make a Purchase Requisition of Purchase Order for the selected Component and have the Purchase Order linked to this Production Order.



15. Click a command button:

Command Buttons

Name	Description
Save	Save the edited released orders.
Recalculate	Reassess the lead times and required dates from the top down and change them accordingly.
Update Link	Refresh, if applicable, the link information on the Production Order.
Expand	Expand the tree to the full detail of the assembly in the work order.

Multiple Operators Overview

The Multiple Manufacturing Operator functionality provides the ability to assign multiple Employees to an Operation on a Bill of Material (BOM). This will allow users to see correct cost estimates and accurate scheduling.

A Bill of Material (BOM) can contain any number of Routing Operations. Each Routing identifies the details associated with a specific process or Operation, including a set of time requirements necessary for completing the process. Each of the time values are considered a cumulative value necessary for completing the given process. The cumulative time values are also used to evaluate the costs associated with the relative portions of the Routing (Machine, Labor, etc).

The setup and processing of Manufacturing BOMs support the distribution of Labor Time (labor time = labor setup time + labor run time) across multiple operators. This helps improve the accuracy of Production Order scheduling without compromising the accuracy of the BOM costing.

Before the multiple operators feature was added

When setting up an Operation or BOM Route, a user can enter the actual time it will take X number of employees to complete a task. However, it is more common to enter the total labor for all employees working on the task, which yields more accurate costing but could cause the schedule to be inaccurate.

The ASSEMBLY7 Operation has an Operators Required value of 4.

We set up the BOM with the ASSEMBLY7 Operation, which shows us 1 hour of machine time, 1 hour of labor setup time, and 4 hours of labor run time to account for the 4 operators on the Operations screen.

We place an order to produce two widgets. We know that we will have 2 hours of machine time and 9 hours of labor time (labor setup time + labor run time). When we look at the schedule, we see that our production order is going to take 9 hours to complete. As shown using our example, our production order will run from 3 PM to Midnight. Note that the 4 operators defined for the ASSEMBLY7 operation are not being considered during scheduling.

Since the total labor time is 9 hrs, and we have 4 operators working on the Order, in reality it will only take 2.25 hrs (9 hrs of labor/4 operators = 2.25 hrs) to complete the Order.

To address this, we added a feature to utilize the Operator Count value to calculate the scheduling time. If we had the option to add multiple operators, we would have better visibility into the timing of orders. The Operators Required field that already exists in MR - Setup and Maintenance - Operations will be used in the scheduling.

Utilizing the multiple operators feature

When creating a new BOM, the value from the Operators Required field on the Operations screen will default into the Operator Count field in the Routing section of the BOM. The multiple operators feature presumes that the amount of time each operator uses to perform the labor setup and the labor run is the same.

NOTE: In the Operations setup/maintenance screen, the BOM Item setup/maintenance screen, and the Edit Released Order function, if the total labor time (labor setup time + labor run time) > 0, the operator count must be greater than 0.

With regards to scheduling, the system will use the larger of machine time or labor time. In our example, we ordered 2 widgets, with 2 hours of machine time, 1 hour of labor setup time, and 8 hours of labor run time. If we only use 1 operator (Operator Count = 1), the system will schedule 9 hours for the operation (1 hr setup + (4 hrs / 1 operator * 2 widgets) = 9 hrs; 9 hrs of labor time is greater than 2 hrs of machine time). Remember: Machine Setup and Labor Setup are performed once no matter the quantity of the Item on the Production Order.

If we instead use 4 operators (Operator Count = 4), the system will schedule 2.25 hours for the Operation (note the system always calculates using minutes):

Labor setup time: 60 min setup / 4 operators = 15 minutes (.25 hrs)

Labor run time: 240 minutes / 4 operators * 2 widgets = 120 minutes (2 hrs)

Total labor time = 135 minutes (2.25 hrs); 2.25 hrs of labor time is greater than 2 hrs of machine time.

Changing the operator count after production order release

For example, you release the production order for 2 widgets, utilizing 4 operators. One operator calls in sick, so now only 3 operators are available to work on the production order. The schedule will need to change to accommodate the change in available labor.

To adjust the schedule once a production order is released, use the Edit Released Orders function on the MP -- Production Orders menu. Select the production order affected by the change in available operators, then edit the Operator Count value as necessary.

Click the Recalculate button on the toolbar to recalculate the amount of time to schedule for the order. Also, if you click the Save button, a dialog box pops up and asks if you want to recalculate requirements. Click 'Yes' to recalculate.

You may see a dialog box once the recalculation is complete.

With three operators (Operator Count = 3), the system will now schedule 3 hours for the operation:

Labor setup time: 60 min setup / 3 operators = 20 minutes

Labor run time: 240 minutes / 3 operators * 2 widgets = 160 minutes

Total labor time = 180 minutes (3 hrs); 3 hrs of labor time is greater than 2 hrs of machine time.

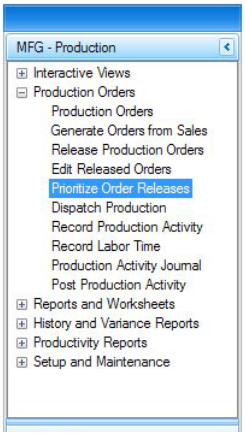
PRIORITIZE ORDER RELEASES

The **Prioritize Order Releases** function allows the user to “sequence” Production Orders in the same manner very similar to the way that we “sequence” production processes in the dispatching process. When the screen opens you will see all order releases on the screen. At that point you could drag and drop the orders into sequence. Once you moved any of the lines, the OK button will become activated. Upon clicking on the OK button, the system would reassign the priority based on the sequence viewed on the screen. The field Priority would actually show the results of this process if one was to open the Production Order screen and review the Order Release.

To use **Prioritize Order Releases**, follow these steps:

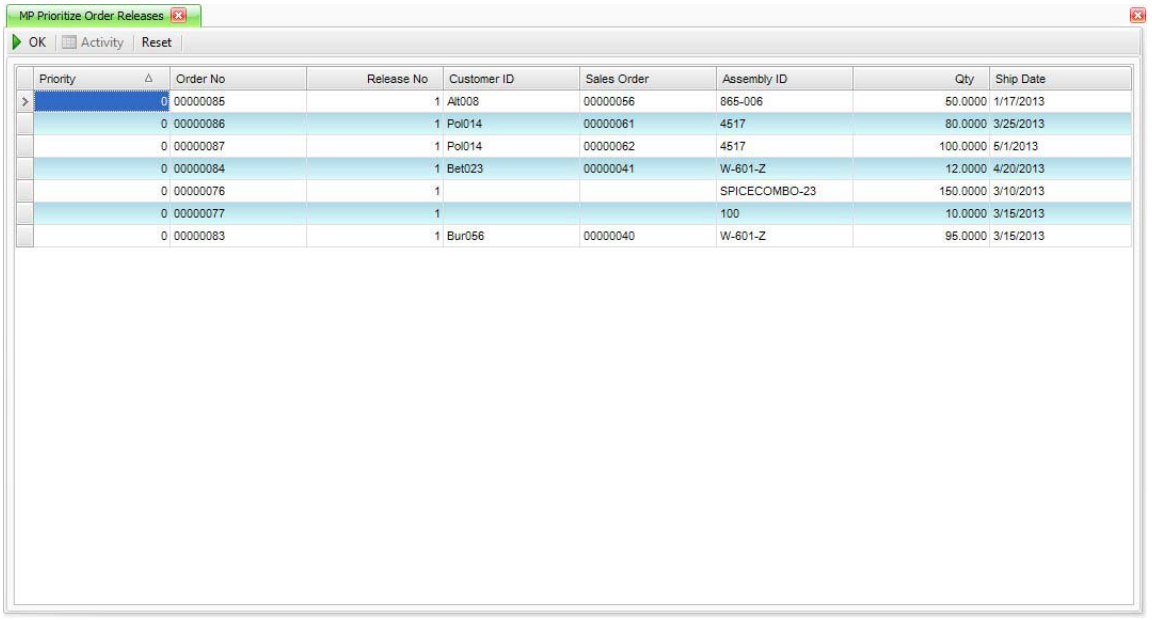
1. Select **Prioritize Order Releases** from the **Production Orders** menu.

Prioritize Order Releases Menu



2. The **Prioritize Order Releases** screen appears.

Prioritize Order Releases Screen



3. Place the production orders in a desired sequence by clicking and dragging the orders up or down to change their **Priority**.

   Initially the Priority for the orders will be zero. When you drag and drop one of the orders to a different position the Priority numbers will change to sequential numbers, starting with 1 at the top.

4. Click **OK** to reassign the prioritization of the Production Orders.

NOTE: You can click the Reset button to bring the list of Orders back to their original sequence when you first opened the Prioritize Order Releases function.

DISPATCH PRODUCTION

Use the **Dispatch Production** function to view and reorder the workload for any specific Work Center, Machine Group, or Labor Type. This function is a tool to help you determine the sequence in which Production Orders should flow through the selected resource. Work Center is the most frequently-used resource selected, showing the upcoming load for that Work Center and enabling the scheduler or foreman to plan the days' or week's activity. The information can also be selected by Machine Group or Labor Type if your planning is centered around either of those two potential bottleneck resources.

NOTE: Changes you make using this function affect both the Dispatch List and the Resource Availability reports on the Reports and Worksheets menu.

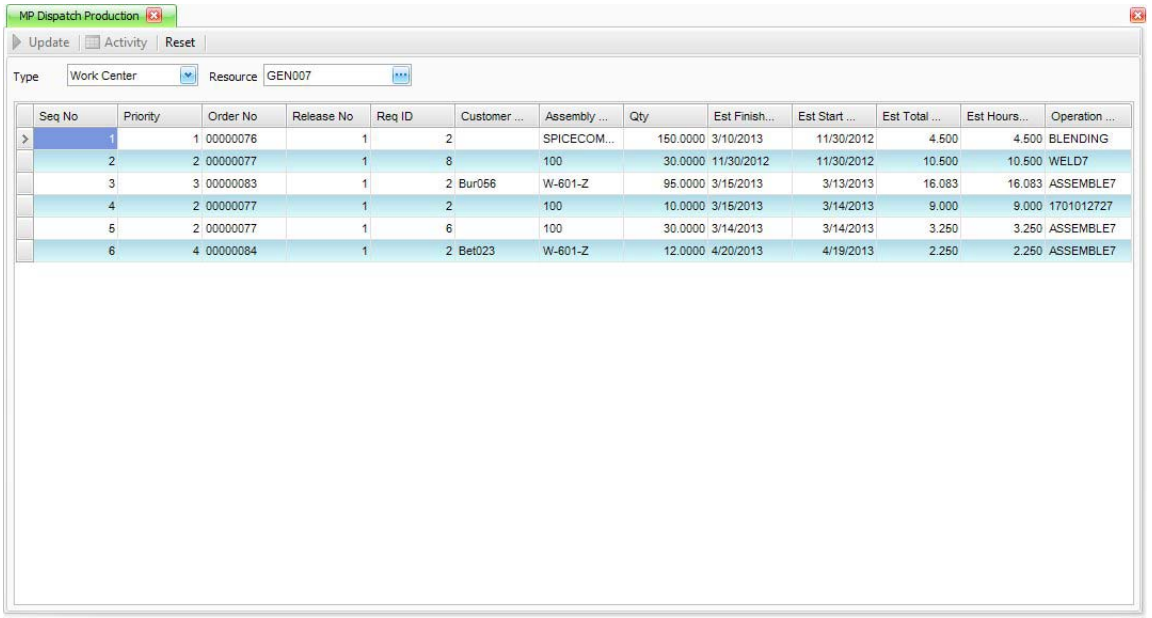
To use **Dispatch Production**, follow these steps:

1. Select **Dispatch Production** from the **Production Orders** menu.

Dispatch Production Menu

2. The **Dispatch Production** screen appears.

Dispatch Production Screen



3. Select the Type of production you want to display from the **Type** field; **Work Center**, **Machine Group**, or **Labor Type**.
4. Select the Resource for which you want to reorder the requirements, from the **Resource** field.

   The choices in the Resources selections will vary depending on which Type you selected.

   When you select Work Centers, you will see all the Work Centers setup in Routing and Resources. When you select Machine Groups you will see all the Machine Groups from Routing and Resources. When you select Labor Types you will see all the Labor Types from Routing and Resources.

   When you select the Resource, all the Production Orders that contain that Resource will be displayed.

5. Place the requirements in your desired sequence by clicking and dragging the requirements up or down to change their **Seq No**.

   All fields in this function are display only. The only way to resequence the order of these Production Orders is to drag and drop them to the desired position.

6. Click **Update** to save any change made to the sequence of the requirements.

NOTE: As you explode new Production Orders, their requirements are placed at the bottom of this list until they are manually moved.

RECORD PRODUCTION ACTIVITY

Once you have exploded and released production orders to production and edited the working Bill of Material, you can **Record Production Activity**. This is how you tell the system how much of a raw material or Stocked Subassembly was used, how much scrap was incurred, labor and machine times, subcontracting information, and so on. You can also use the Record Labor Time function to record specific labor time and the Import Production Activity function to import information from an ASCII file directly into TRAVERSE Production detail tables.

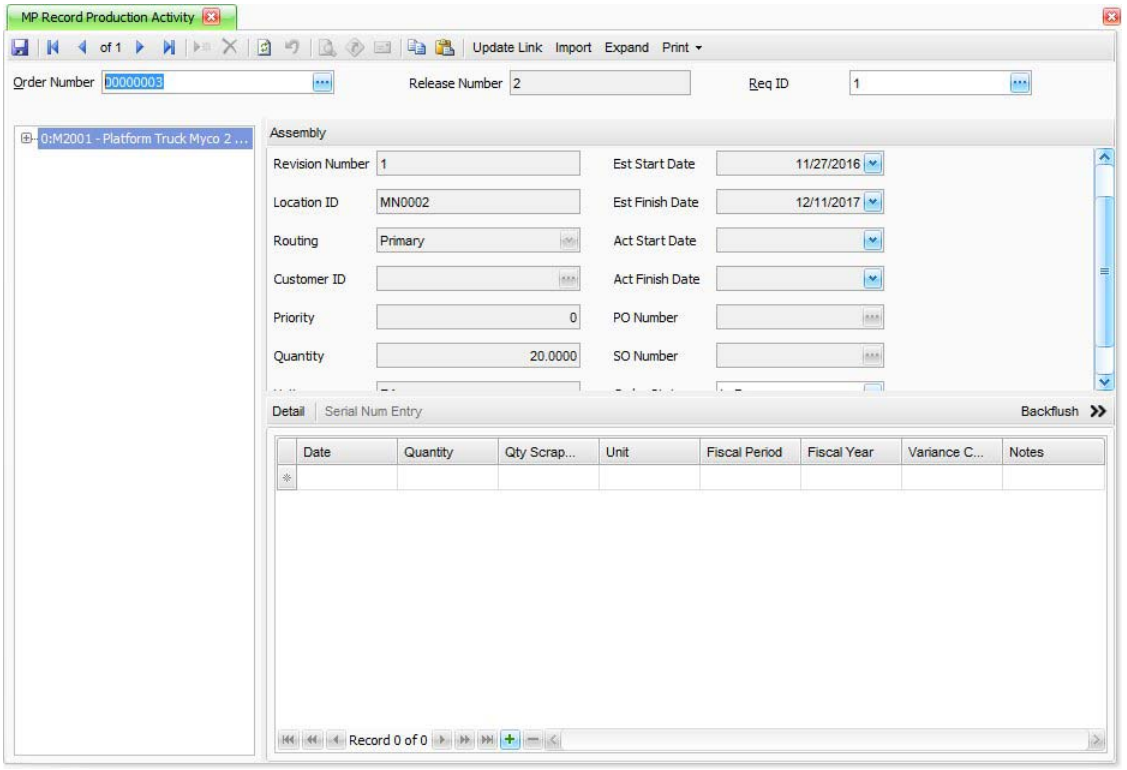
To use **Record Production Activity**, follow these steps:

1. Select **Record Production Activity** from the **Production Orders** menu.

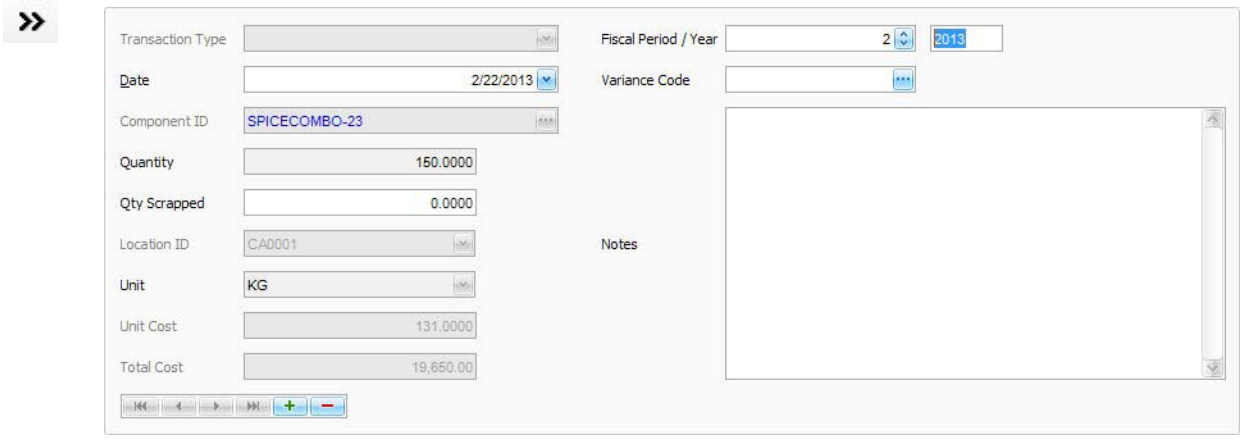
Record Production Activity Menu

2. The **Record Production Activity** screen appears.

Record Production Activity Screen



Record Production Activity Screen (Assembly Quantity Detail)



3. Select the order for which you want to record production activity from the **Order Number** field.
4. Select the **Assembly ID** in the tree box to record quantities for this Assembly ID.

   You may enter your quantity information in either the summary mode or detail mode. See the screens above for both views.

The top half of the screen displays the following fields from the BOM explosion when the order was released, and cannot be edited.

- Revision Number
- Location ID
- Routing
- Customer ID
- Priority
- Quantity
- Unit
- Est Start Date
- Est Finish Date
- Act Start Date
- Act Finish Date
- PO Number
- SO Number

5. Select, if applicable, the date for which you want to assign the activity from the **Date** field.

Maint

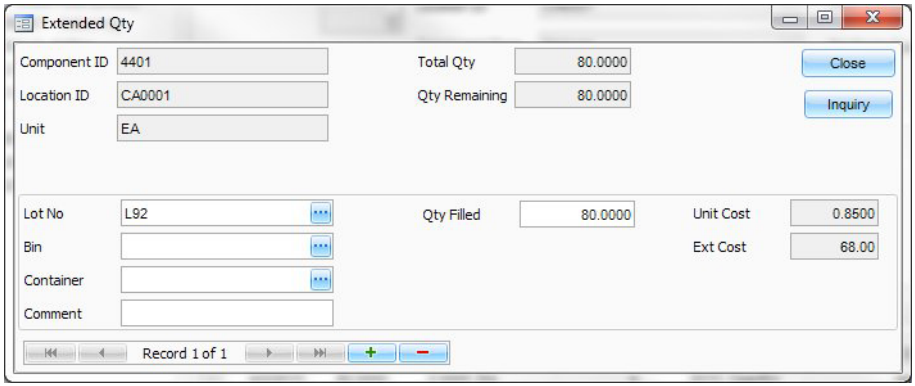
6. The **Component ID** is displayed and cannot be edited. (Detail mode)
7. Enter the quantity of completed assemblies in the **Quantity** completed field.
8. Enter the quantity of assemblies scrapped during production in the **Qty Scrapped** field.
9. The **Location ID** of the component in the assembly is displayed and cannot be edited. (Detail mode)
10. The **Unit** of Measure is displayed, accept the default, or edit it.
11. The **Unit Cost** and **Total Cost** are displayed and cannot be edited. (Detail mode)
12. Edit the **Fiscal Period/Year** if desired, otherwise accept the defaults.

13. Select, if applicable, a Variance Code to indicate a specific code describing a problem or not from the **Variance Code** field.

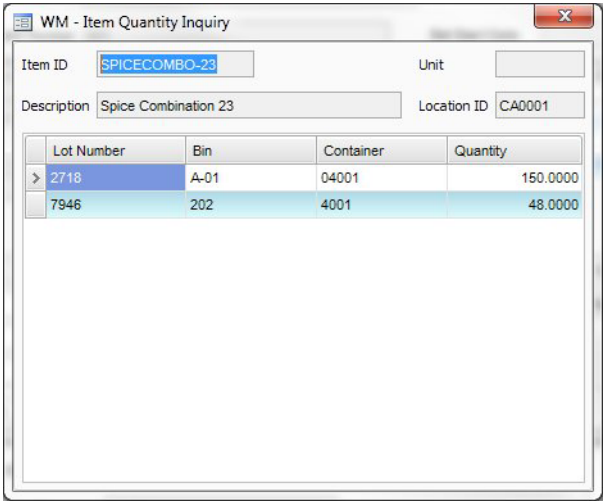
NOTE: This code is recorded in history, which enables you to select production history data based on this code.

14. Enter any applicable Notes or comments in the **Notes** section.

15. Click, if applicable, the **Detail** button to add additional information regarding **Lot No**, **Bin**, **Container**, **Comment**, and **Qty Filled**.



NOTE: You can click the Inquiry button to open the WM Item Quantity View function to locate a specific Item ID and Location ID.



16. Click, if applicable, the **Serial Num Entry** button to add additional information regarding **Serial No** and **Comment**.

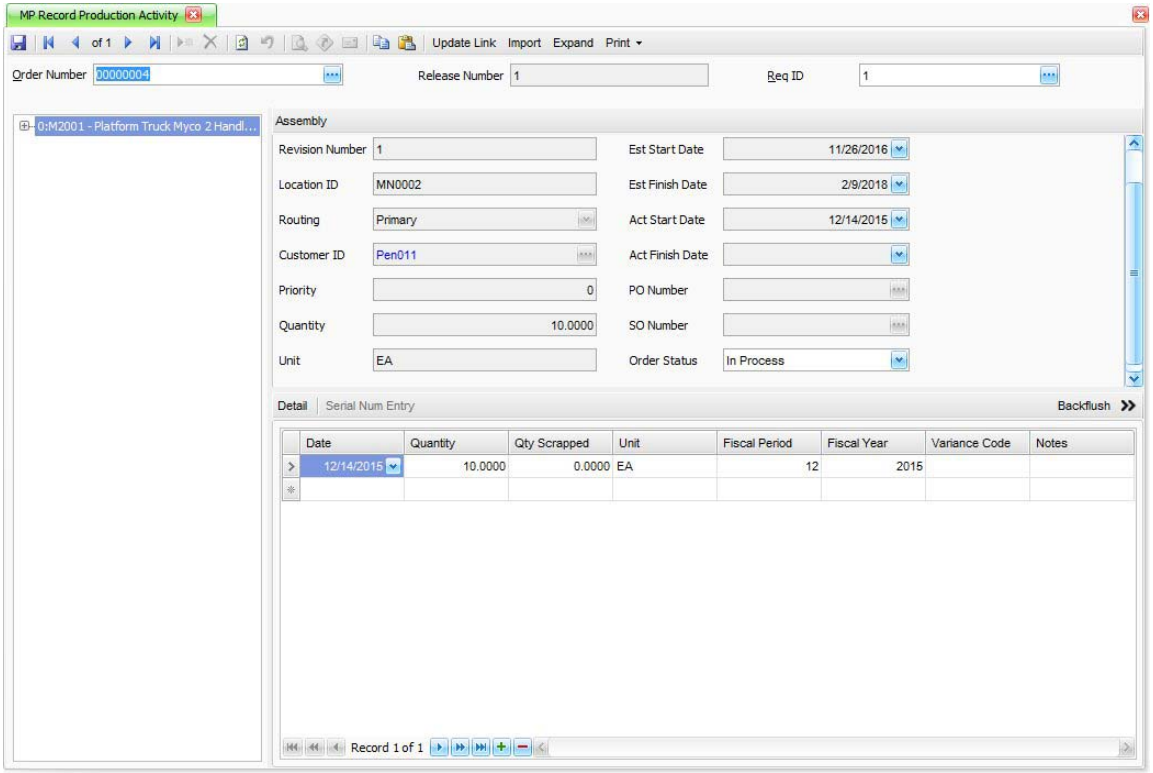
17. Change, if applicable, the status for the assembly from the **Status** field.

NOTE: When you select Completed from this field, the system adds up all of the costs of materials, subcontracting, process, and so on and divides that total by the total completed pieces. This becomes the actual cost of each piece when added to Inventory.

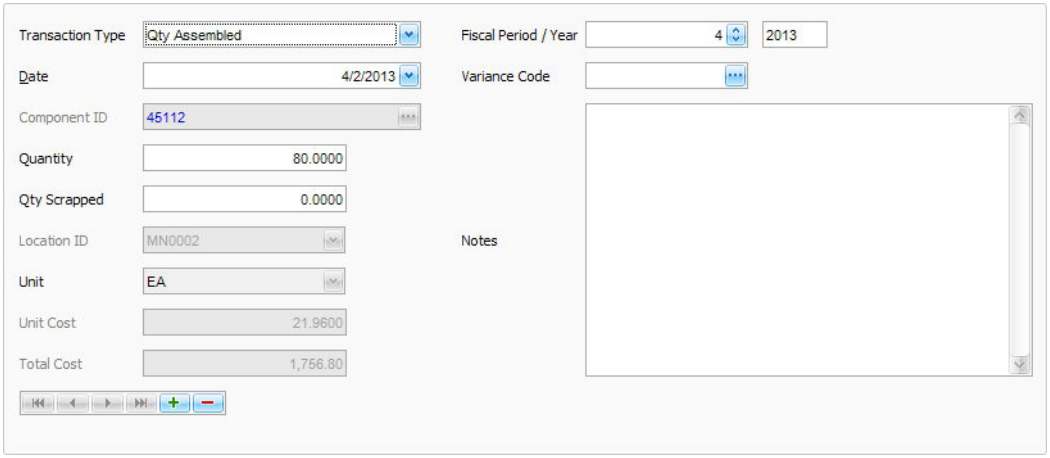
If you do not close the order, new assemblies you record go into Inventory, but do so at Standard Cost. This is because the system does not know what additional costs will need to be recorded and has no way of knowing the correct actual cost. If you are using the Standard Costing Method of Inventory control, this is not an issue. The update to the manufacturing transaction tables takes place at Standard Cost and the order release remains open for further recording of production activity. When the order is finally Completed, the cost is adjusted, if possible, and cost adjustments to GL are created.

18. Click the **Save** button on the toolbar, to save the recorded production activity.

Record Production Activity Screen (Materials - Summary)



Record Production Activity Screen (Materials - Detail)



Record materials used within a production order.

1. Select the order for which you want to record production activity from the **Order Number** field.
2. Select the requirement for which you want to record production activity from the **Req ID** field or from the left panel.
3. Expand the assembly by clicking on the **Plus** (+) next to the **Assembly ID**. Expand a routing by clicking the **Plus** (+) next to a **Routing**, or click the **Expand** button to fully expand the Assembly.
4. Select the **Component** for which you are recording the usage.

The top half of the screen displays the following fields from the BOM explosion when the order was released, and cannot be edited.

- Notes
- Component ID
- Location ID
- Component Type
- Required Date
- Est Quantity
- Unit
- Est Scrap Quantity

- Unit Cost

You may enter your quantity information in either the summary mode or detail mode. See the screens above for both views.

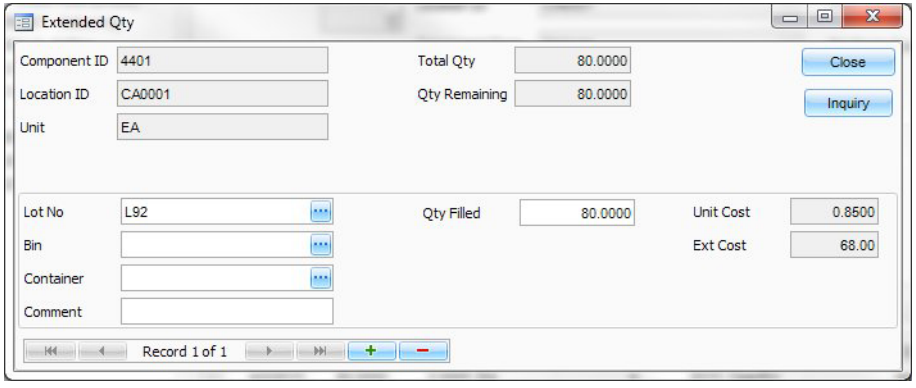
5. Select, if applicable, the date for which you want to assign the activity from the **Date** field.

Maint

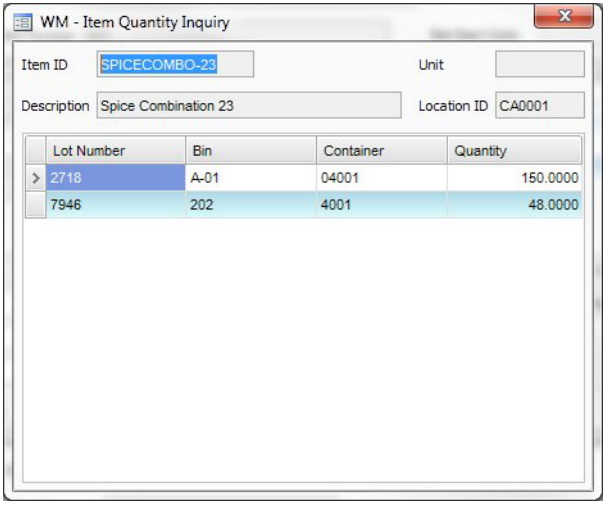
6. The Component selected is displayed in the **Component ID** field.
7. Enter the quantity of completed Components in the **Quantity** field.
8. Enter the quantity of Components scrapped during production in the **Qty Scrapped** field.
9. The Location of the Item ID from the original BOM is displayed in the **Location ID** field.
10. The Unit of Measure of the item from the original BOM is displayed in the **Unit** field.
11. The **Unit Cost** of the Component is displayed.
12. The **Total Cost** of the component for the quantity used is displayed.
13. Edit, if applicable, the Fiscal Period and Year in the **Fiscal Period/Year** fields.
14. Select, if applicable, a Variance Code to indicate a specific code describing a problem or not from the **Variance Code** field.

NOTE: This code is recorded in history, which enables you to select production history data based on this code.

15. Enter any applicable Notes or comments in the **Notes** section.
16. Click, if applicable, the **Detail** button to add additional information regarding **Lot No**, **Bin**, **Container**, **Comment**, and **Qty Filled**.



NOTE: You can click the Inquiry button to open the WM Item Quantity View function to locate a specific item ID and location.



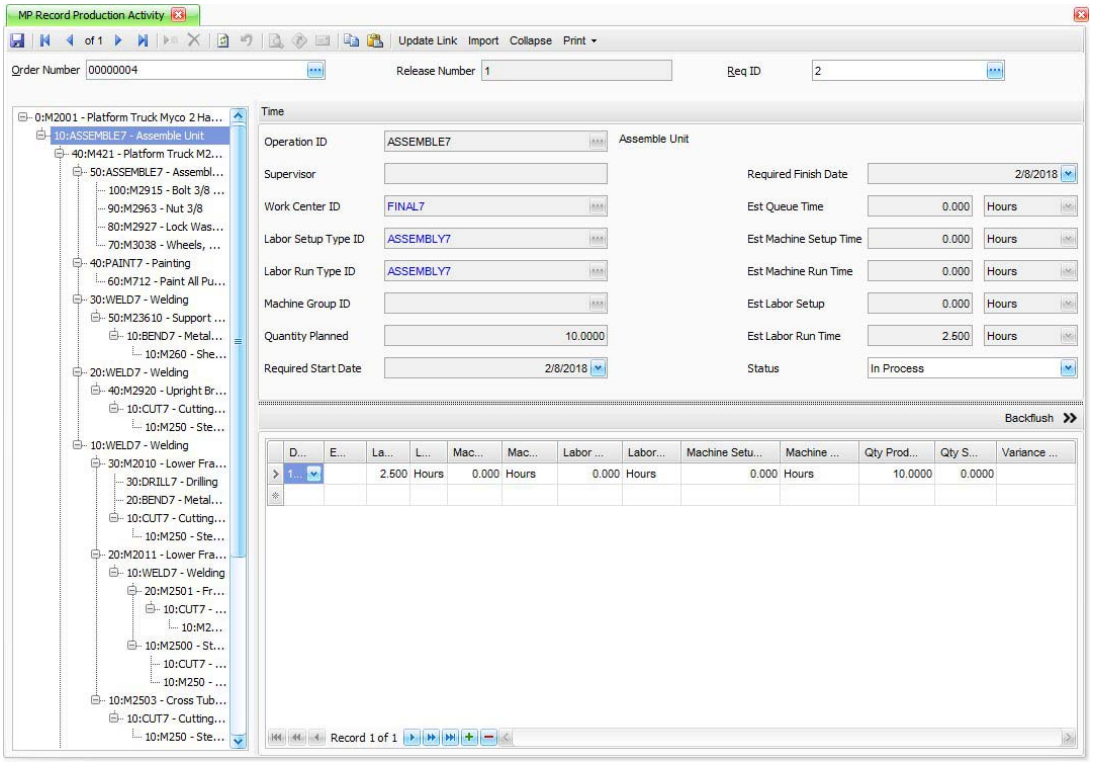
17. Click, if applicable, the **Serial Num Entry** button to add additional information regarding **Serial No** and **Comment**. Click, if applicable, the Serial Num Entry button to add additional information regarding Serial No and Comment.

18. Change, on the top half of the screen, if applicable, the status for the component from the **Status** field.

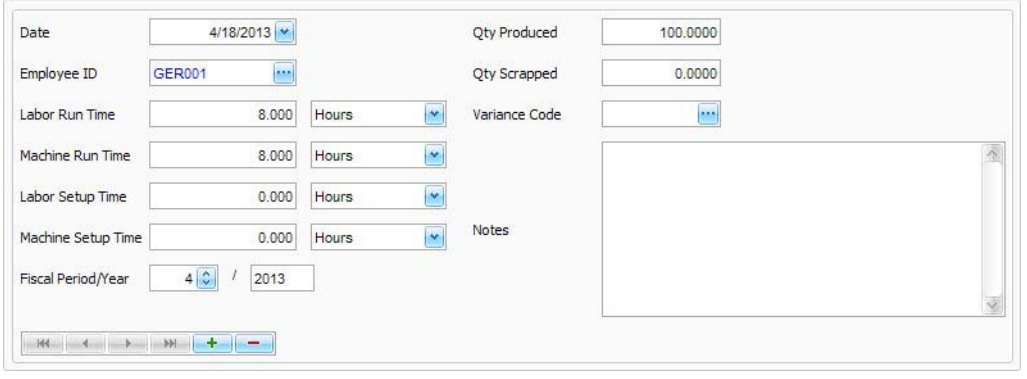
NOTE: If you select Completed, you can not make any additional changes to the component's production activity.

19. Click the **Save** button on the toolbar, to save the recorded production activity.

Record Production Activity Screen (Operation)



Record Production Activity Screen (Operation Time Detail)



1. Select the order for which you want to record production activity from the **Order Number** field.

2. Select the requirement for which you want to record production activity from the **Req ID** field or from the left panel.
3. Expand the Assembly by clicking on the **Plus** (+) next to the **Assembly ID**. Expand a Routing by clicking the **Plus** (+) next to a **Routing**, or click the **Expand** button to fully expand the Assembly.
4. Select the **Operation** in the tree box to record time and quantities for this Assembly.

   You may enter your time and quantity information in either the summary mode or detail mode. See the screens above for both views.

The top half of the screen displays the following fields from the BOM explosion when the order was released, and cannot be edited.

- Operation ID
- Supervisor
- Work Center ID (Maint)
- Labor Setup Type ID (Maint)
- Labor Run Type ID (Maint)
- Machine Group ID (Maint)
- Quantity Planned
- Required Start Date
- Required Finish Date
- Est Queue Time - Time Unit
- Est Machine Setup Time - Time Unit
- Est Machine Run Time - Time Unit
- Est Labor Setup Time - Time Unit
- Est Labor Run Time - Time Unit

5. On the bottom half of the screen edit the following fields:
6. Select, if applicable, the date for which you want to assign the activity from the **Date** field.
7. Optional. Select the **Employee ID** (Maint), if necessary. The list of Employee IDs will show Payroll Employees, if interfaced with Payroll, otherwise it will show System Manager Employees.

The **Machine** and **Labor Time** boxes are optional. Some processes may have labor and no machine time or vice-versa. Entries may be partial, as well, because some companies may record daily progress and others may wait until the process is complete to make an entry.

8. Enter the time it took an employee to run the process in the **Labor Run Time** box. If the person running the machine is running several other processes at the same time, you may want to allocate only a portion of that person's time to this process.
9. Edit, if applicable, the Unit of Time to use: **Hours**, **Minutes** or **Seconds**.
10. Enter the time it took for the machine to run the process in the **Machine Run Time** box.
11. Edit, if applicable, the Unit of Time to use: **Hours**, **Minutes** or **Seconds**.
12. Enter the time it took an Employee to set up the process in the **Labor Setup Time** box.
13. Edit, if applicable, the Unit of Time to use: **Hours**, **Minutes** or **Seconds**.
14. Enter the time it took to set up the machine in the **Machine Setup** box.
15. Edit, if applicable, the Unit of Time to use: **Hours**, **Minutes** or **Seconds**.
16. The **GL Period** and **Year** appear. Change them, if necessary.
17. Enter the quantity in the **Qty Produced** box. This number is used to calculate the per piece portion of the labor cost along with the amount you enter in the **Qty Scrapped** box. The number may also be used by the progress reports and views function as a possible indicator as to how far along a process is.

NOTE: The Qty Produced amount does not effect Inventory quantities it is only used to calculate the per unit cost of labor.

18. Enter the number of items scrapped in the **Qty Scrapped** box.

NOTE: The Qty Scrapped amount does not effect Inventory quantities it is only used to calculate the per unit cost of labor.

Maint

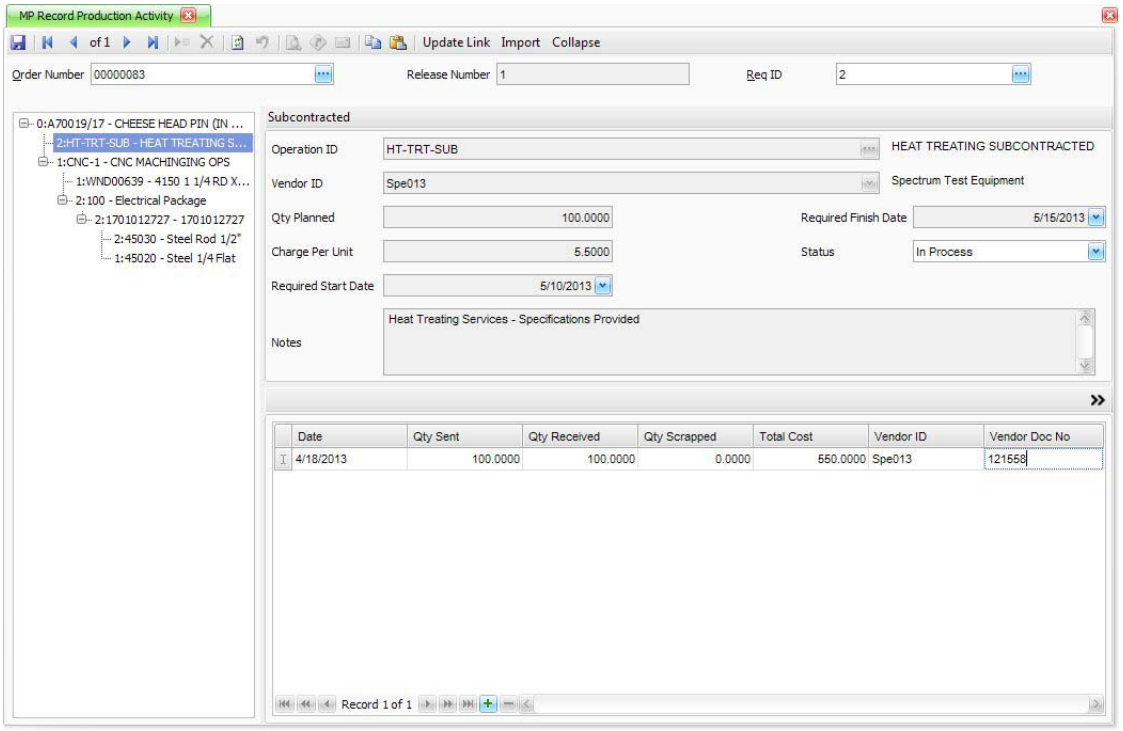
19. Select a **Variance Code** from the box. The Variance Code indicates a specific code describing a problem or Note and is recorded in history, enabling you to select production history data based on this code.
20. Enter any **Notes** in the box provided.

21. Change, on the top half of the screen, if applicable, the status for the component from the **Status** field.

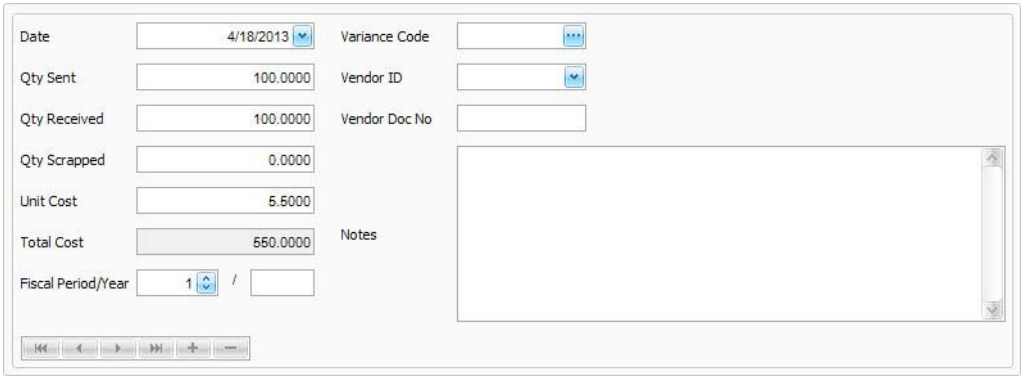
NOTE: If you select Completed, you can not make any additional changes to the operation's production activity.

22. Click the **Save** button on the toolbar, to save the recorded production activity.

Record Production Activity Screen (Subcontracted)



Record Production Activity Screen (Subcontracted Detail)



1. Select the order for which you want to record production activity from the **Order Number** field.
2. Select the requirement for which you want to record production activity from the **Req ID** field or from the left panel.
3. Expand the Assembly ID by clicking on the **Plus** (+) next to the **Assembly ID**. Expand a Routing by clicking the **Plus** (+) next to a Routing, or click the **Expand** button to fully expand the Assembly ID.
4. Select the **Operation** in the tree box to record time and quantities for this Assembly ID.

   You may enter your time and quantity information in either the summary mode or detail mode. See the screens above for both views.

The top half of the screen displays the following fields from the BOM explosion when the order was released, and cannot be edited.

- Operation ID
- Vendor ID
- Quantity Planned
- Charge Per Unit
- Required Start Date
- Required Finish Date
- Notes

5. On the bottom half of the screen edit the following fields:
6. Select, if applicable, the date for which you want to assign the activity from the **Date** field.

7. Enter the number of units sent out to the subcontractor in the **Qty Sent** field.
8. Enter the number of units received in the **Qty Received** field.
9. Enter the quantity of units scrapped by the Subcontractor in the **Qty Scrapped** field.
10. Enter the cost per unit charged by the Subcontractor in the **Unit Cost** field.
11. Edit, if applicable, the total cost for the Subcontracted component in the **Total Cost** field.
12. Edit, if applicable, the Fiscal Period and Year in the **Fiscal Period/Year** fields.

Maint

13. Select, if applicable, a Variance Code to indicate a specific code describing a problem or not from the **Variance Code** field.

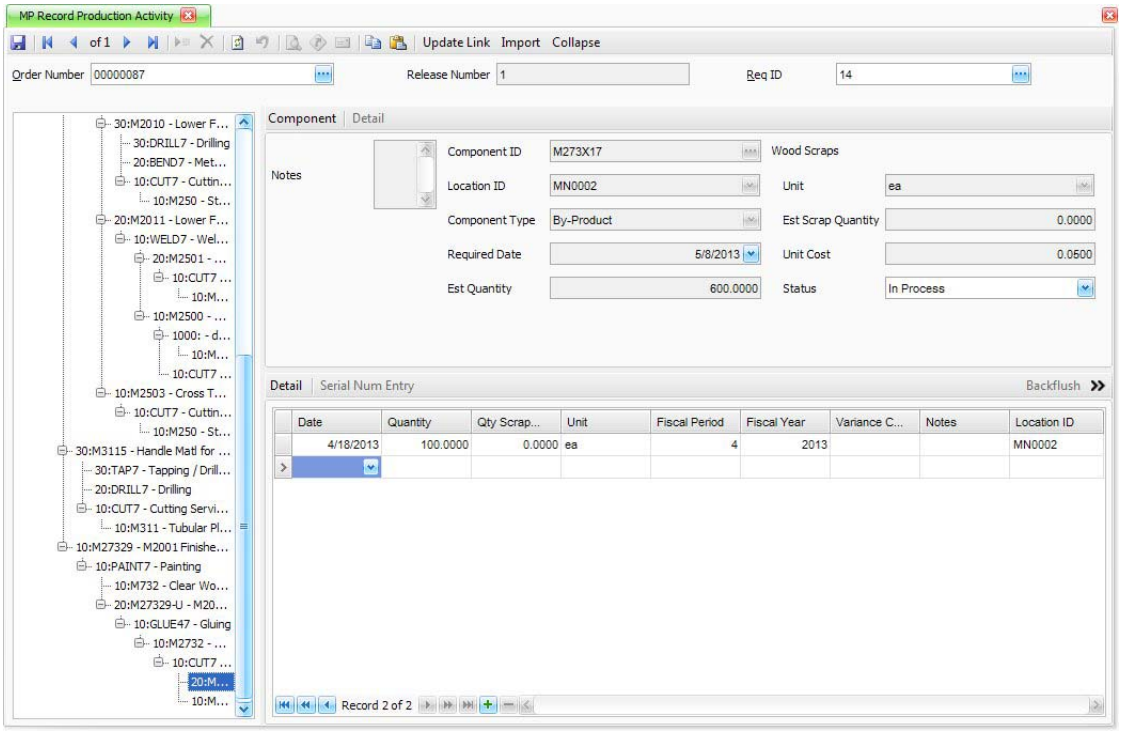
NOTE: This code is recorded in history, which enables you to select production history data based on this code.

14. Select, if applicable, the Vendor who provided the services from the **Vendor ID** field.
15. Enter, if applicable, a Purchase Order Number or related document number that pertains to this transaction in the **Vendor Doc No** field.
16. Enter any applicable Notes or comments in the **Notes** section.
17. Change, if applicable, the status for the component from the **Status** field.

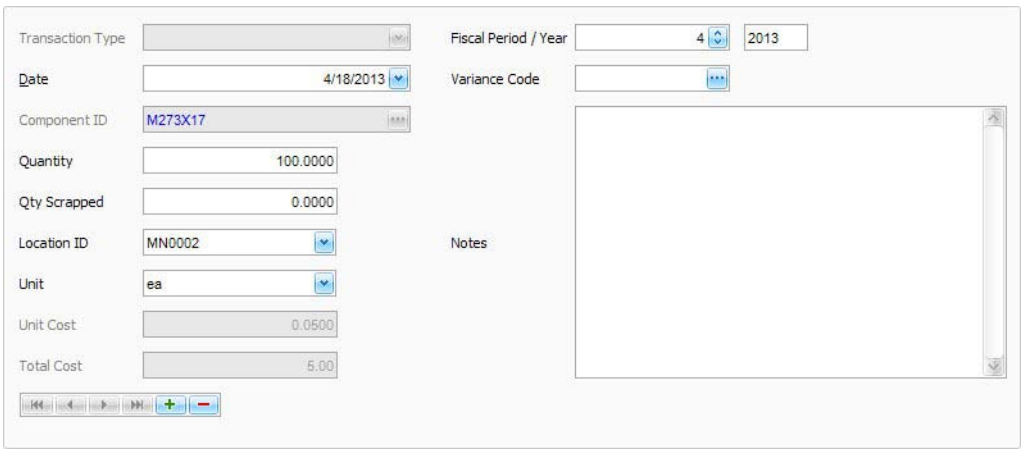
NOTE: If you select Completed, you can not make any additional changes to the Subcontracted production activity.

18. Click the **Save** button  on the toolbar, to save the recorded production activity.

Record Production Activity Screen (By-Product - Summary)



Record Production Activity Screen (By-Product - Detail)



Record By-Products produced within a Production Order.

By-Products, unlike Scrap, have value and their quantities are added back into Inventory as a potentially resalable Item ID. The value in terms of cost of By-Products is used to offset the total production cost. All By-Products are put into stock at Standard Cost.

1. Select the order for which you want to record production activity from the **Order Number** field.
2. Select the requirement for which you want to record production activity from the **Req ID** field or from the left panel.
3. Expand the Assembly by clicking on the **Plus** (+) next to the **Assembly ID**. Expand a Routing by clicking the **Plus** (+) next to a **Routing**, or click the **Expand** button to fully expand the Assembly ID.
4. Select the component for which you are recording the By-Product generation.

The top half of the screen displays the following fields from the BOM explosion when the order was released, and cannot be edited.

- Notes
- Component ID
- Location ID
- Component Type
- Required Date
- Est Quantity
- Unit
- Est Scrap Quantity
- Unit Cost

You may enter your quantity information in either the summary mode or detail mode. See the screens above for both views.

5. Select, if applicable, the date for which you want to assign the activity from the **Date** field.

Maint

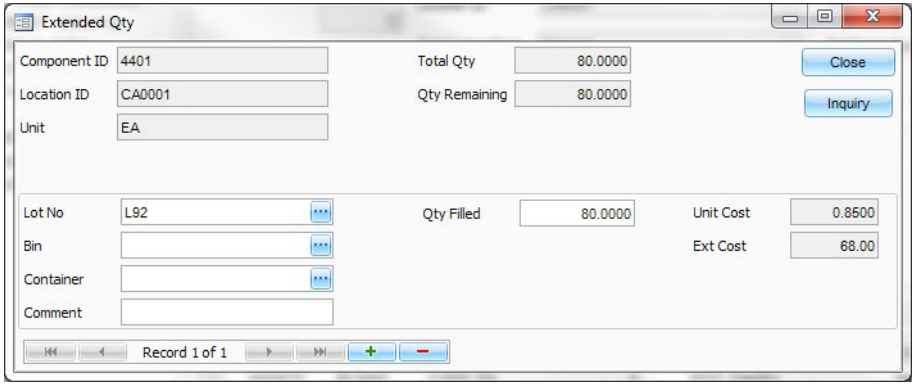
6. The component selected is displayed in the **Component ID** field.
7. Enter the quantity of Components produced during production in the **Quantity** field.
8. Enter the quantity of Components scrapped during production in the **Qty Scrapped** field.
9. Edit, if applicable, the Item ID's default Location from the **Location ID** field.
10. Edit, if applicable, the Item ID's default Unit of Measure from the **Unit** field.

11. Select, if applicable, a Variance Code to indicate a specific code describing a problem or not from the **Variance Code** field.

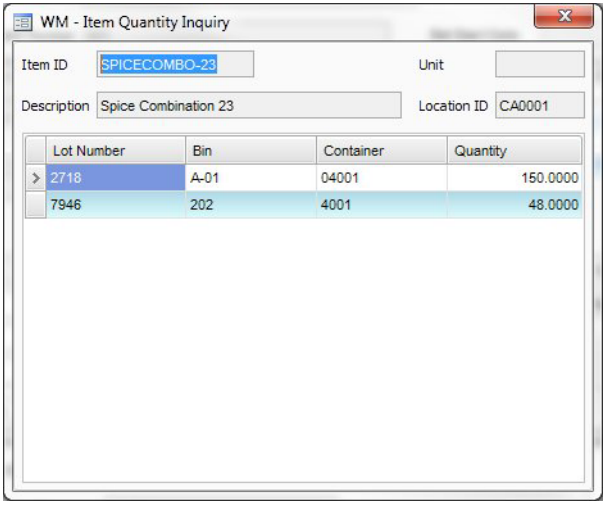
NOTE: This code is recorded in history, which enables you to select production history data based on this code.

12. Enter any applicable Notes or comments in the **Notes** section.

13. Click, if applicable, the **Detail** button to add additional information regarding **Lot No**, **Bin**, **Container**, **Comment**, and **Qty Filled**.



NOTE: You can click the Inquiry button to open the WM Item Quantity View function to locate a specific Item ID and Location.



14. Click, if applicable, the **Serial Num Entry** button to add additional information regarding **Serial No** and **Comment**.

15. Change, on the top half of the screen, if applicable, the status for the component from the **Status** field.

NOTE: If you select Completed, you can not make any additional changes to the By-Product's production activity.

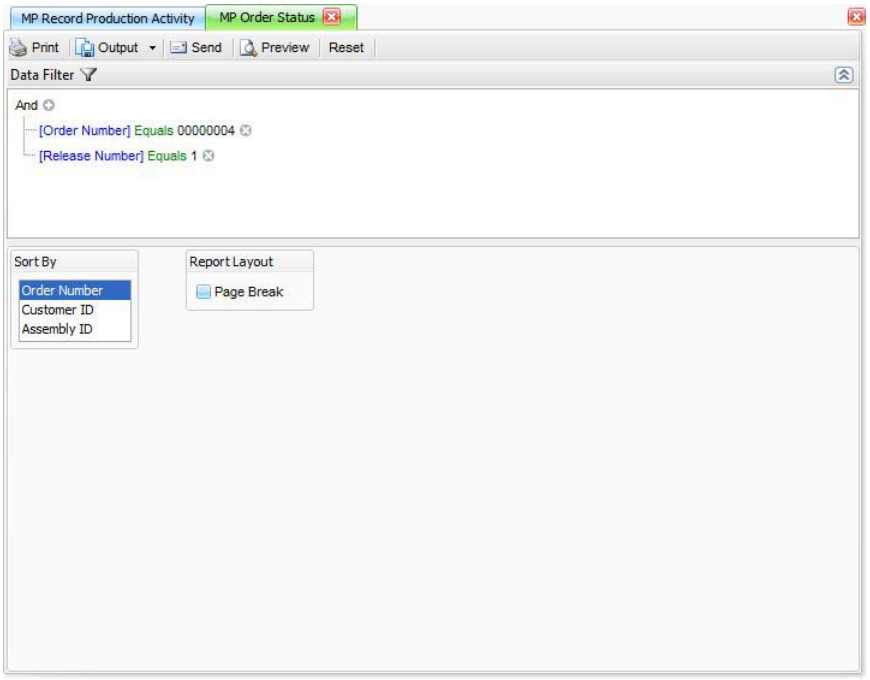
16. Click the **Save** button on the toolbar, to save the recorded production activity.

Command Buttons

Name	Description
Update Link	Update the quantity on a material that has a Purchase Order linked and received.
Import	Import activity from a file using the SM import definition and import transactions functions.
Expand/Collapse	Fully expand or collapse the assembly tree.
Print	Print the Order Status for the production order displayed.

17. Click the **Print** button to print the **Order Status** report for the displayed work order.

Order Status Screen



18. The **Data Filter** area will be filled in with the appropriate filtering information to print the Order Status Report for the displayed order.

19. Select the sort criteria for the report from the **Sort By** section; **Order Number**, **Customer ID**, or **Assembly ID**.

20. Select the **Page Break** check box, if applicable, to include page breaks after each order in the report.

21. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Order Status Report

Continental Products Unlimited PAGE 1
Order Status
Sorted by Order Number

Report Filter Order Number = '00000004' And Release Number = '1'

Order No	00000004	**Release No**	1	**Customer ID**	Pen011	**PO No**			
Assembly ID	M2001	**SO No**		**Order Status**	In Process	**Finish Date**	2/9/2018	**Qty**	10.0000

Material Components

Component ID	Description	Unit	Planned Usage Qty	Est Scrap	Scrap	Qty	Pct
M250	Steel Cross Tubing 3 x 1.5" Unpaint	IN	480.0000	0.0000	0.0000	480.0000	100.00
M250	Steel Cross Tubing 3 x 1.5" Unpaint	IN	520.0000	0.0000	0.0000	520.0000	100.00
M250	Steel Cross Tubing 3 x 1.5" Unpaint	IN	960.0000	0.0000	0.0000	960.0000	100.00
M250	Steel Cross Tubing 3 x 1.5" Unpaint	IN	960.0000	0.0000	0.0000	960.0000	100.00
M250	Steel Cross Tubing 3 x 1.5" Unpaint	IN	1,920.0000	0.0000	0.0000	1,920.0000	100.00
M260	Sheet Steel 8' x 4'	SQIN	1,440.0000	0.0000	0.0000	1,440.0000	100.00
M273	Wood (Pine) 2x4x8	EA	30.0000	0.0000	0.0000	30.0000	100.00
M273X17	Wood Scraps	ea	60.0000	0.0000	0.0000	60.0000	100.00
M2915	Bolt 3/8 x 1	EA	160.0000	0.0000	0.0000	160.0000	100.00
M2927	Lock Washer 3/8	EA	160.0000	0.0000	0.0000	160.0000	100.00
M2943	Lag Bolts 1.5 In	EA	60.0000	0.0000	0.0000	60.0000	100.00
M2963	Nut 3/8	EA	160.0000	0.0000	0.0000	160.0000	100.00
M3038	Wheels, Caster 3" Plate	EA	40.0000	0.0000	0.0000	40.0000	100.00
M311	Tubular Plastic 1.25"	IN	900.0000	0.0000	0.0000	900.0000	100.00
M712	Paint All Purpose Green 17B	OZ	30.0000	0.0000	0.0000	30.0000	100.00
M732	Clear Wood Seal	OZ	40.0000	0.0000	0.0000	40.0000	100.00

Processes

Operation ID / Description	Actual Yield %	Qty Planned / Qty Produced	Qty Scrapped	Reference	Planned Time	Actual Time	Pct Complete	Status
ASSEMBLE7	100.00	10.0000	0.0000					
Assemble Unit		10.0000		**Labor Setup**	0.000	0.000	0.00	In Process
				Labor Run	2.500	2.500	100.00	
				Machine Setup	0.000	0.000	0.00	
				Machine Run	0.000	0.000	0.00	
PAINT7	100.00	10.0000	0.0000					
Painting		10.0000		**Labor Setup**	0.500	0.500	100.00	In Process
				Labor Run	2.500	2.500	100.00	
				Machine Setup	0.000	0.000	0.00	
				Machine Run	0.000	0.000	0.00	

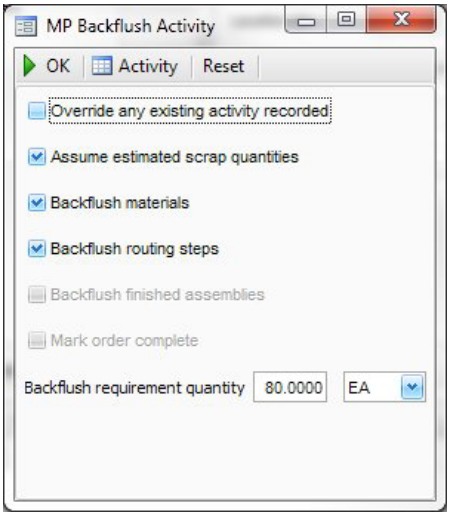
12/14/2015 2:03 PM **Kent.Heitkamp**

Backflushing

Backflushing is used to save the time and work of recording individual requirement activities, and when the production variance from the original working BOM is insignificant or unimportant. If you Backflush an entire Production Order, all of the Production Order's activity at and below the associated assembly, is recorded behind the scenes as being exactly as planned in respect to quantities and time. No further recording of activity is required at this level or below, although other areas may remain unfinished and might be recorded later.

Click the **Backflush** button to open the available **Backflush Activity** options.

Backflush Options Screen



1. Select the check boxes adjacent to the backflush options you want to use.

    - **Override any existing activity recorded** – select the check box so that anything previously recorded is overridden with the originally planned quantity. If you do not select the box, all current quantities and times are left intact and new requirements for which you haven't recorded time or quantities are also included.
    - **Assume estimated scrap quantities** – select the box so that as new transactions are written, scrap quantities are created according to the original plan.
    - **Backflush materials** – select the box so that the system looks at Materials and By-Products when performing the Backflush. If you do not select the box, Materials and By-Products are not affected.

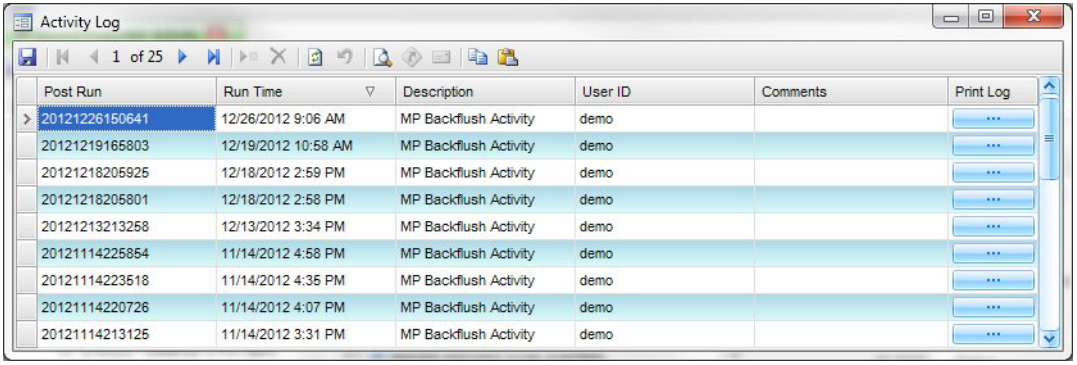
- **Backflush routing steps** – select the box so that the system looks at internal Operations and Subcontracted steps when Backflushing. If you do not select the box, internal Operations and Subcontracted steps are not affected.
- **Backflush finished assemblies** – select the box so that the system looks at the finished Assembly ID when Backflushing. If you do not select the box, the finished Assembly ID is not affected.
- **Mark order complete** – select the box to change the status of the order to Completed; otherwise, clear it to leave the order's status as it is. This check box is available only if you select the Backflush finished assemblies check box.

2. Enter the quantity to use in the **Backflush requirement quantity** field.
3. Select the **Unit** of measure for the quantity.
4. Click a command button:

Command Buttons

Name	Description
OK	Begin the backflush process.
Activity	View the Activity Log for backflushing activity.
Reset	Set all fields to their default values

Activity Log Dialog Box



The Activity Log dialog box appears when you click **Activity**. The Activity Log dialog box tracks all post activity for administrative purposes. The system assigns each post a run ID.

Post Run - The system generated number used to identify the backflush appears.

Run Time - The date and time the backflush was made appear.

Description - The backflush description appears.

User ID - The user who performed the backflush appears.

Comments - Comments entered for the backflush appear.

Print Log - to print the backflush log from the selected backflush.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Backflush Log

Continental Products Unlimited — Page 1

Backflush Log

Override any existing activity recorded	No	Assume estimated scrap quantities	Yes
Backflush Materials	Yes	Backflush Routing Steps	Yes
Backflush Finished Assemblies	No	Mark order complete	No
Backflush Requirement Qty	80.0000	Backflush Requirement Unit	EA

Order No	Release No	Assembly ID	Location ID
00000086	1	4517	MN0002

Req ID	Action	Trans Date / Employee ID	Labor Setup / Labor Run	Machine Setup / Machine Run	Qty Produced / Qty Scrapped
9	Recorded	4/2/2013	0.000 Hrs	0.000 Hrs	80.0000
			0.667 Hrs	0.000 Hrs	0.0000
10	Recorded	4/2/2013	0.250 Hrs	0.250 Hrs	0.0000
			0.000 Hrs	0.000 Hrs	0.0000
11	Recorded	4/2/2013	0.083 Hrs	0.083 Hrs	80.0000
			0.667 Hrs	0.667 Hrs	0.0000

Req ID	Action	Trans Date	Component ID / Location ID	Unit	Qty / Scrap Qty	Unit Cost
4	Recorded	4/2/2013	45112		80.0000	21.9600
			MN0002	EA	0.0000	
12	Recorded	4/2/2013	45020		480.0000	0.2000
			MN0002	SQIN	0.0000	

4/2/2013 12:41 PM *** End of Report *** OPEN_SYSTEMS\KentHe

RECORD LABOR TIME

Use the **Record Labor Time** function as an additional method for recording activity. This function is optional since you could use the Record Production Activity function to do the same function. Both functions access and write to the same data table. The difference between the two is the ease of use depending on how you record time ticket information. The Record Labor Time function is designed to be quicker and more efficient when the information you record is in Employee ID sequence.

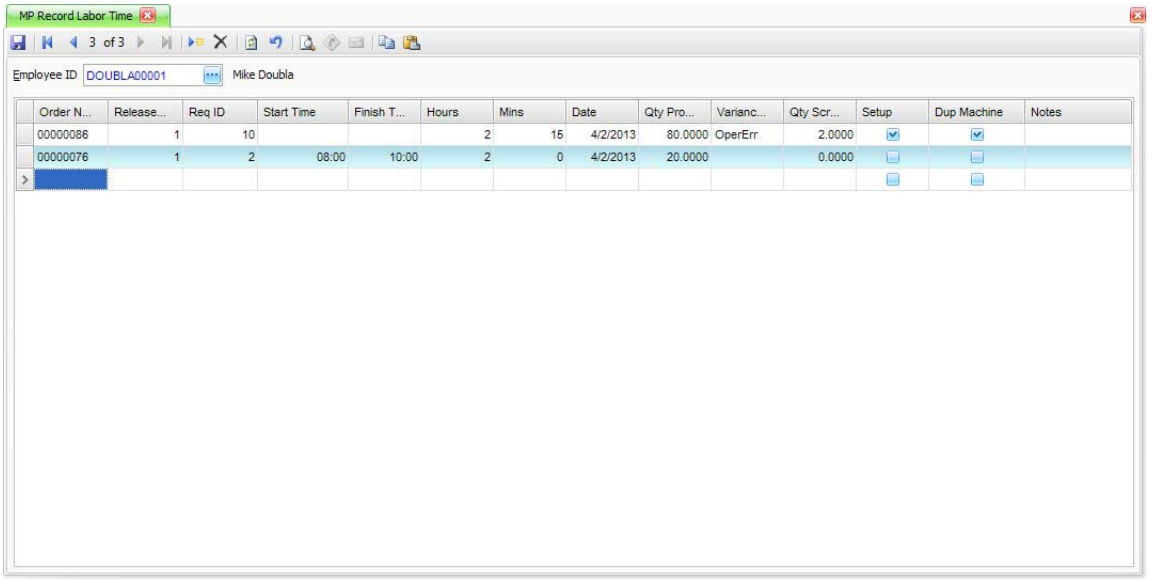
To use **Record Labor Time**, follow these steps:

1. Select **Record Labor Time** from the **Production Orders** menu.

Record Labor Time Menu

2. The **Record Labor Time** screen appears.

Record Labor Time Screen



3. Click the **New Record** button on the toolbar, to open a blank labor time record.
4. Select an Employee ID for whom you want to record labor from the **Employee ID** field. The list of Employee IDs will show Payroll Employee IDs, if interfaced with Payroll, otherwise it will show System Manager Employee IDs.
5. Select the associated Production Order Number from the **Order Number** field.
6. Select the associated Release Number of the selected Production Order Number from the **Release Number** field.
7. Enter the associated Requirements ID in the **Req ID** field. The Operations associated with the selected Production Order Number and Release number will be available in the list.
8. Enter either the Start and End Time in the **Start Time** and **Finish Time** fields or enter the number of hours and minutes in the **Hours** and **Mins** fields.
9. Edit, if necessary, the Date that appears in the **Date** field.
10. Enter the Quantity Produced in the **Qty Produced** field.
11. Select, if applicable, a Variance Code to indicate a specific code describing a problem from the **Variance Code** field.

NOTE: This code is recorded in history, which enables you to select production history data based on this code.

12. Enter the Quantity Scrapped, if applicable, in the **Qty Scrapped** field.
13. Select the **Setup** check box if the labor time you are entering is Labor Setup Time.
14. Select the **Dup Machine** check box if the requirement you are entering uses the same number of Machine Hours as Labor Hours.

NOTE: This saves you entry time, since rather than having to enter the Labor Hours here and the Machine Hours on the Record Production Activity screen, you can simply select this check box and the system assumes that the Machine Time was the same as the Labor Time.

15. Enter any applicable Notes or comments in the **Notes** section.
16. Click the **Save** button  on the toolbar, to save the recorded labor time.

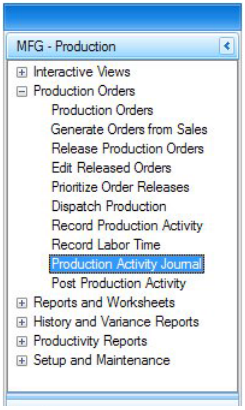
PRODUCTION ACTIVITY JOURNAL

Use the **Production Activity Journal** to view production activity sorted by Order/Release Number or Fiscal Year/Period. This journal will print activity recorded in both the Record Production Activity and the Record Labor Time functions.

To print the **Production Activity Journal**, follow these steps:

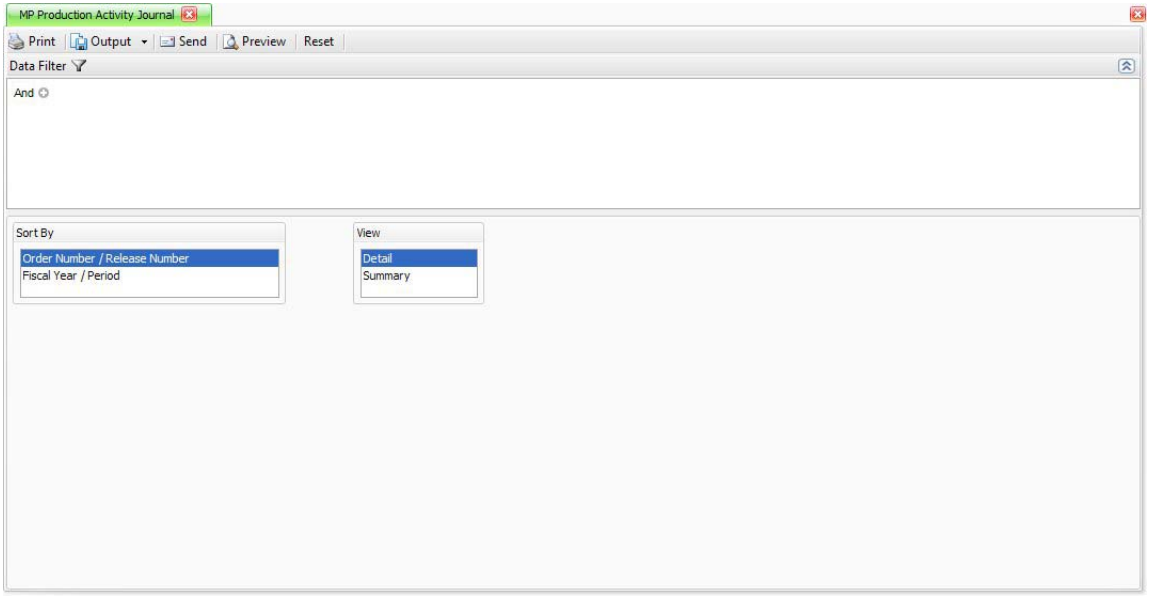
1. Select **Production Activity Journal** from the **Production Orders** menu.

Production Activity Journal Menu



2. The **Production Activity Journal** screen appears.

Production Activity Journal Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Select the sort criteria for the journal from the **Sort By** section; **Order Number/Release Number** and **Fiscal Year/Period**.
5. Select whether to view a **Detail** or **Summary** view of the production activity journal by selecting the appropriate view from the **View** section.

6. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Production Activity Journal Report

Continental Products Unlimited
Production Activity Journal (Detail)
Sorted by Order No / Release No

Report Filter

Order No	Release No / Source	Req ID / Reference	GL Account Debit / GL Account Credit	Pd / Year / Date	Qty / Hours	Unit Cost	Ext Cost
00000076	1	1	000001200	2 / 2013			
	Finished Goods	Spice Combination 23	000001210	2/22/2013	150.0000	131.0000	19,650.0000
00000076	1	2	000001210	4 / 2013			
	Labor	DOUBLA00001	000005030	4/2/2013	2.000	15.0000	30.0000
00000076	1	3	000001210	2 / 2013			
	Inventory	CAJUN-L	000001200	2/22/2013	140.0000	4.7000	658.0000
00000076	1	4	000001210	2 / 2013			
	Inventory	GARLIC-5	000001200	2/22/2013	45.0000	6.2500	281.2500
00000076	1	5	000001210	2 / 2013			
	Inventory	PEPPER-L	000001200	2/22/2013	75.0000	8.3000	622.5000
				Total for Order No / Release No 00000076 / 1			21,241.7500
00000086	1	3	000001210	4 / 2013			
	Inventory	4401	010001220	4/2/2013	80.0000	0.8500	68.0000
00000086	1	9	000001210	4 / 2013			
	Labor		000005030	4/2/2013	0.667	21.9940	14.6700
00000086	1	10	000001210	4 / 2013			
	Labor Setup	DOUBLA00001	000005030	4/2/2013	2.250	22.0000	49.5000
00000086	1	10	000001210	4 / 2013			
	Machine	DOUBLA00001	000005110	4/2/2013	2.250	3.0000	6.7500
00000086	1	10	000001210	4 / 2013			
	Labor Setup		000005030	4/2/2013	0.250	22.0000	5.5000
00000086	1	10	000001210	4 / 2013			
	Machine		000005110	4/2/2013	0.250	3.0000	0.7500
00000086	1	11	000001210	4 / 2013			
	Labor		000005030	4/2/2013	0.667	21.9940	14.6700
00000086	1	11	000001210	4 / 2013			
	Labor Setup		000005030	4/2/2013	0.083	22.0482	1.8300
00000086	1	11	000001210	4 / 2013			
	Machine		000005110	4/2/2013	0.750	4.5067	3.3800
00000086	1	12	000001210	4 / 2013			
	Inventory	45020	000001270	4/2/2013	480.0000	0.2000	96.0000
				Total for Order No / Release No 00000086 / 1			261.0500
Grand Total							21,502.8000

4/2/2013 12:51 PM *** End of Report *** **OPEN_SYSTEMS\KentHe**

POSTING PRODUCTION ACTIVITY

This section pertains specifically to the recording of finished production quantities when the assembly is selected in the Record Production Activity function. The behind the scenes accounting can be simple or quite complicated depending on how you record the production of finished goods.

Although this overview talks in terms of making General Ledger entries, in actuality, the Record Production Activity is creating transactions in a manufacturing table, which are later posted to the G/L Journal via the Post Production Activity function. When these transactions are posted they are flagged as "Posted" internally, but stay in the transaction table. Essentially each record in the transaction table represents one side of a journal transaction. To see the results of this activity, print the Work In Process Valuation report.

There are four general scenarios, which can exist when recording completion of finished goods:

1. You are using Standard Costing and recording multiple transactions for finished goods before completing and closing the order.
2. You are using Standard Costing and as you record the finished quantity, you immediately complete/close the order.
3. You are using an actual costing method, such as LIFO, FIFO or Average Costing and recording multiple transactions for finished goods before completing and closing the order.
4. You are using an actual costing method, such as LIFO, FIFO or Average Costing and as you record the finished quantity you immediately complete/close the order.

Standard Costing Environment

Standard Cost environment with multiple transactions.

When you record the production of Inventory but don't close the Production Order, the cost of the behind the scenes activity, is based on the selection made for the Business Rule, Interim Assembly Cost (page 3-7). The cost used to initially update Inventory will be based on Standard, Average, or Last, as selected for the Business Rule. As finished goods are recorded, WIP is credited and Inventory is debited based on the Business Rule cost selected value of the transaction. In other words, the cost of the updated Inventory quantity will be based on the Standard, Average, or Last cost field, when quantities and costs are updated under the Cost Detail tab, will appear at the Business Rule cost selection, until you mark the order as Completed.

If the selected cost is $60.00 and we create 500 units, we will now see 500 units as $60.00 a piece under the Cost Detail tab in inventory regardless of what the real cost should be or will be.

The GL Inventory Account as determined by the Item ID's Account Code, is debited for $30,000.00.

The WIP account for the Item ID, also as determined by the Item ID's Account Code, is credited for $30,000.00.

Post Production Activity

Inventory		WIP	
30,000			30,000

When you are ready to complete the order . . .

You may enter additional quantities at this time or you may just want to simply close the order release by changing the status to Completed.

If you have recorded additional quantities, Inventory is created and put in stock. Each piece's Unit Cost is set to the Business Rule selected cost of the Item ID.

If, per the previous example, the Business Rule (page 3-7) selected cost is $60.00 and we now are adding an additional 100 units, we will now see 100 additional units at $60.00 a piece under the Cost Detail tab in Inventory.

Again, the GL Inventory Account as determined by the Item ID's Account Code, is debited for $6,000.00 in this case, and again the WIP account for the Item ID, also as determined by the Item ID's Account Code is credited for $6,000.00.

Post Production Activity

Inventory		WIP	
6,000			6,000

At this point, assuming the order has been completed, the system adds up the total actual cost of all Subcontracting, Materials, Time, etc. This total is compared against the total cost of Finished Goods at Standard Cost. If the two amounts are equal, nothing happens. This is almost never the case because material quantities will be more or possibly less than expected, time may vary, costs may have changed, etc. In these cases the WIP Account will need to be adjusted accordingly since the offsetting credit made early won't match the debits made to this Account as costs were incurred, so the system calculates the difference and posts it against the WIP Account to essentially “zero” that Account out for this Order Release. It then posts that same amount to the Item ID's Standard Cost Variance Account as an offset to the WIP entry.

Example: We add our actual Material, Machine, Overhead, Subcontracting and Labor Costs up and come up with $40,000.00 instead of the expected $36,000.00. The $4,000.00 difference is credited against WIP, which was originally debited for $40,000.00 but only credited for $36,000,00 as we saw above. We also debit the Standard Cost Variance account for $4,000.00.

Again, the GL credit Account is the WIP Account of the Item ID. The amount is attained by calculating the difference between the total actual costs and the total Business Rule selected cost.

Post Production Activity

Standard Cost Variance		**WIP**	
4,000			4,000

Standard Cost environment with one transaction per order release.

In this scenario we assume no previous “Completed” transactions have been recorded. This scenario is handled almost exactly the same as completing an order in Scenario 1 except it all takes place at one time.

You will enter quantity produced and complete the transaction by assigning the order release the status of Completed.

Once you do this, Inventory is created and put in stock. Each piece's unit cost is set to the cost selected in Business Rules for the option, Interim Assembly Cost, of the Item ID.

If the Business Rule (page 3-7) selected cost is $60.00 and we now are entering 600 units, we will now see 600 units at $60.00 a piece under the Cost Detail tab in Inventory.

The GL Inventory Account, as determined by the Item IDs Account Code, is debited for $36,000.00. The WIP Account for the Item ID, also as determined by the Item ID's Account Code will credited for $36,000.00, but in addition to the $36,000.00 some further calculations must be done.

Again the system adds up the total cost of all Subcontracting, Materials, Time, etc. This total is compared against the total cost of Finished Goods. Assuming the two amounts are not equal, we will need to adjust the WIP Account accordingly. Again, the system calculates the difference and posts it against the WIP Account to essentially “zero” that Account out for this Order Release. It then posts that same amount to the Item ID's Standard Cost Variance Account as an offset to the WIP entry.

Post Production Activity

Standard Cost Variance		Inventory		WIP	
4,000		36,000			40,000

Actual Costing Environment

Actual Cost (FIFO, LIFO, AVG Cost) environment with multiple transactions.

When you record the production of Inventory but don't close the Production Order, the cost of the behind the scenes activity is based on the selection made for the Business Rule, Interim Assembly Cost (page 3-7). The cost used to initially update Inventory will be based on Standard, Average, or Last, as selected for the Business Rule. As finished goods are recorded, WIP is credited and Inventory is debited based on the Business Rule cost selected value of the transaction. In other words, the cost of the updated Inventory quantity will be based on the Standard, Average, or Last cost field, when quantities and costs are updated under the Cost Detail tab, will appear at the Business Rule cost selection, until you mark the order as Completed.

Let's assume we manufactured 120 units at this point and the Business Rule (page 3-7) selected cost was $100.00. Regardless of the real costs incurred, here's the accounting flow assuming the order release was left In Process.

Post Production Activity

Inventory		WIP	
12,000			12,000

When the order is marked as Completed, the system looks to see if any of the produced Inventory was Sold. If so, the system creates a COGS entry in Inventory for the difference between the Business Rule (page 3-7) selected cost of the Items Sold, and the actual cost of the Items Sold. Then the remaining Inventory unit cost is simply changed to the actual production cost. If the remaining Inventory quantity matches the production quantity, the system simply replaces the previous cost, based on the Business Rule (page 3-7) selection, with the new actual Inventory cost.

From a General Ledger standpoint the previous entry is backed out and a new entry will replace it.

Let's assume in this case that we actually produce and additional 60 units, or 180 units in all and the actual cost results in a cost of $120.00 per unit or $21,600.00 overall. The following entries are made:

Standard Costs

Inventory		WIP	
	12,000	12,000	

Actual Costs

Inventory		WIP	
21,600			21,600

This may look correct but there's a potential issue.

What if we sold 50 units of that first 120 units, prior to completing the order? The sales process would have credited our Inventory Account for $5,000.00 (50 x $100.00) based on the cost at that time.

Now our inventory quantity shows 130 units (180-50) and our unit cost shows $120.00 per unit or $15,600.00. This is the number that appears in Inventory. The issue is that the Inventory GL Account shows $16,600.00. (12,000 initial mfg order - 12,000 reversal - 5,000 sale transaction + 21,600 final mfg trans) This is the number that appears in GL.

However, keep in mind we have a COGS entry which equals the difference between the Business Rule selected cost and the actual cost for the quantity previously sold, or simply $1,000.00. (50*(120.00-100.00) When COGS Adjustments are posted, the system will credit the Inventory Account for $1,000.00 and debit the COGS Adjustment Account for $1,000.00 and Inventory will be back in sync with the GL.

COGS Adjustment

Inventory		COGS Adjustment	
1,000			1,000

Actual Cost (FIFO, LIFO, AVG Cost) environment with one transaction per order release.

In this scenario we assume no previous “completed” transactions have been recorded. This scenario is handled somewhat similar to Scenario 3 except it all takes place at one time. It also assumes you have entered a transaction and completed it by assigning the order release the status of Completed. You have entered the quantity produced at this same time in the same transaction.

Since the product could not have been sold and since no previous partial completions were recorded, the GL results are simple and straight-forward.

Given a scenario similar to the previous scenario, here's what we would see.

Post Production Activity

Inventory		WIP	
21,600			21,600

Labor, Machine Costs, Overhead, Subcontracted and By-Products

When Labor Costs, Machine Groups and Work Centers are set up using the Routing and Resources application, GL Accounts are entered to track Labor Costs, Machine Costs and Overhead Costs.

When an Operation is set up as a Subcontracted Type we need to update GL Accounts with the cost of this Subcontracted amounts.

By-Products are produced and put into Inventory when we record what we produced for By-Products when our production is recorded and GL also will get updated with these amounts added to Inventory.

The following GL Accounts will have journal entries added to GL using the following accounts:

Labor

When labor is posted, either from the Record Production Activity or Record Time Activity the following GL entries are made:

Post Production Activity

WIP		Labor Offset	
DB			CR

The WIP Account will come from the Inventory Account Code assigned to the Assembly Item ID from the Inventory Item ID setup. The Labor Offset Account comes from the Labor Costs setup in Routing and Resources.

Machine Costs

When Machine Costs are posted from entries made using the Record Production Activity function, the following GL entries are made:

Post Production Activity

WIP		Machine Cost Offset	
DB			CR

The WIP Account will come from the Inventory Account Code assigned to the Assembly Item ID from the Inventory Item ID setup. The Machine Cost Offset Account comes from the Machine Groups setup in Routing and Resources.

Overhead

Overhead is calculated using the information entered into the Labor Types setup in Routing and Resources. The Overhead is calculated either as a Percent Over Cost or by an Hourly Rate, indicated in the Labor Types setup.

When Overhead is posted from entries made using the Record Production Activity function, the following GL entries are made:

Post Production Activity

WIP	GL Offset
DB	CR

The WIP Account will come from the Inventory Account Code assigned to the Assembly Item ID from the Inventory Item ID setup. The GL Offset Account comes from the Labor Types setup in Routing and Resources.

Subcontracted

When Subcontracted Items are posted from entries made using the Record Production Activity function, the following GL entries are made:

Post Production Activity

WIP	Subcontract Expense
DB	CR

The WIP Account will come from the Inventory Account Code assigned to the Assembly Item ID from the Inventory Item ID setup. The Subcontract Expense Account comes from the Subcontract Operation setup in Routing and Resources.

By-products

When Material By-Product production is recorded, Inventory is increased for the Components of the Assembly, and GL entries are made to record this addition to Inventory quantities and values.

When Component By-Product production Items are posted from entries made using the Record Production Activity function, the following GL entries are made:

Post Production Activity

WIP		Inventory	
	CR	DB	

The WIP Account and Inventory Account will come from the Inventory Account Code assigned to the Component Item ID from the Inventory Item ID setup.

Raw Materials

When material usage is recorded, Inventory is depleted for the Components of the Assembly and GL entries are made to record this reduction in Inventory quantities and values.

When Component usage Item IDs are posted from entries made using the Record Production Activity function, the following GL entries are made:

Post Production Activity

WIP		Inventory	
DB			CR

The WIP Account and Inventory Account will come from the Inventory Account Code assigned to the finished goods Bill of Material Item ID from the Inventory Item ID setup.

POST PRODUCTION ACTIVITY

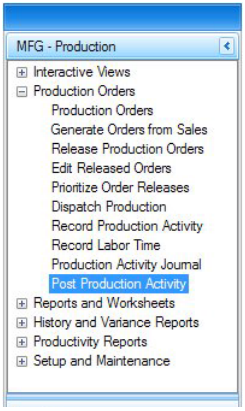
Use the **Post Production Activity** function to perform several tasks:

- If interfaced, post activity to General Ledger.
- If an order release is Completed, post transactions stored with that order release in the manufacturing history database.
- Clear the production order release and related information for Completed order releases.
- If there are no releases for any given production order, clear the order from the system.
- If interfaced with Payroll, post the time recorded for labor to the Payroll transactions table.

To use the **Post Production Activity**, follow these steps:

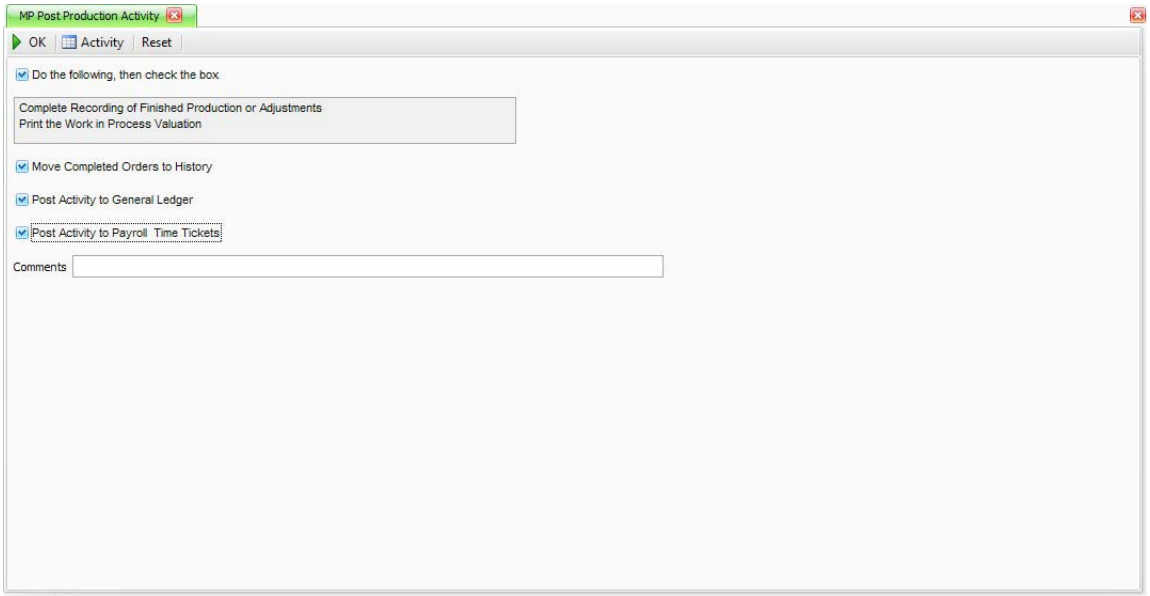
1. Select **Post Production Activity** from the **Production Orders** menu.

Post Production Activity Menu



2. The **Post Production Activity** screen appears.

Post Production Activity Screen



3. Complete recording of finished production or adjustments.
4. Print the **Work in Process Valuation** report (page 6-39).
5. Print, if applicable, the **Employee Time Log** (page 6-43).
6. Select the **Do the following, then check the box** check box.
7. Select the **Move Completed Orders to History** check box, if applicable, to move completed orders to history during posting, otherwise, clear the check box.
8. Select the **Post Activity to General Ledger** check box, if applicable, to post an activity log to General Ledger during posting, otherwise, clear the check box.
9. Select the **Post Activity to Payroll Time Tickets** check box, if applicable, to post an activity log to Payroll Time Tickets, otherwise, clear the check box.
10. Enter any applicable Comments in the **Comments** field.

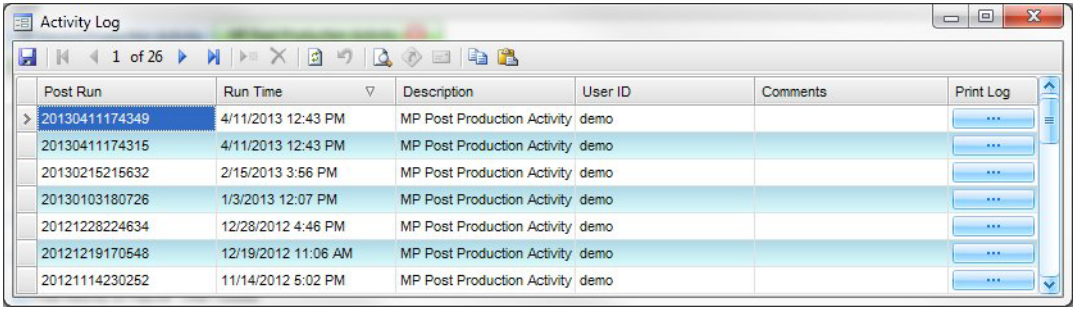
11. Select a command button:

Command Buttons

Name	Description
OK	Begin processing.
Activity	View the Activity Log for posting production orders.
Reset	Set all fields to their default values

- A message appears when the post completes successfully. After you click **OK** to close this message box, the Post Production Activity Log appears.

Activity Log Dialog Box



The Activity Log dialog box appears when you click **Activity**. The Activity Log dialog box tracks all post activity for administrative purposes. The system assigns each post a run ID.

Post Run - The system generated number used to identify the post appears.

Run Time - The date and time the post was made appear.

Description - The post description appears.

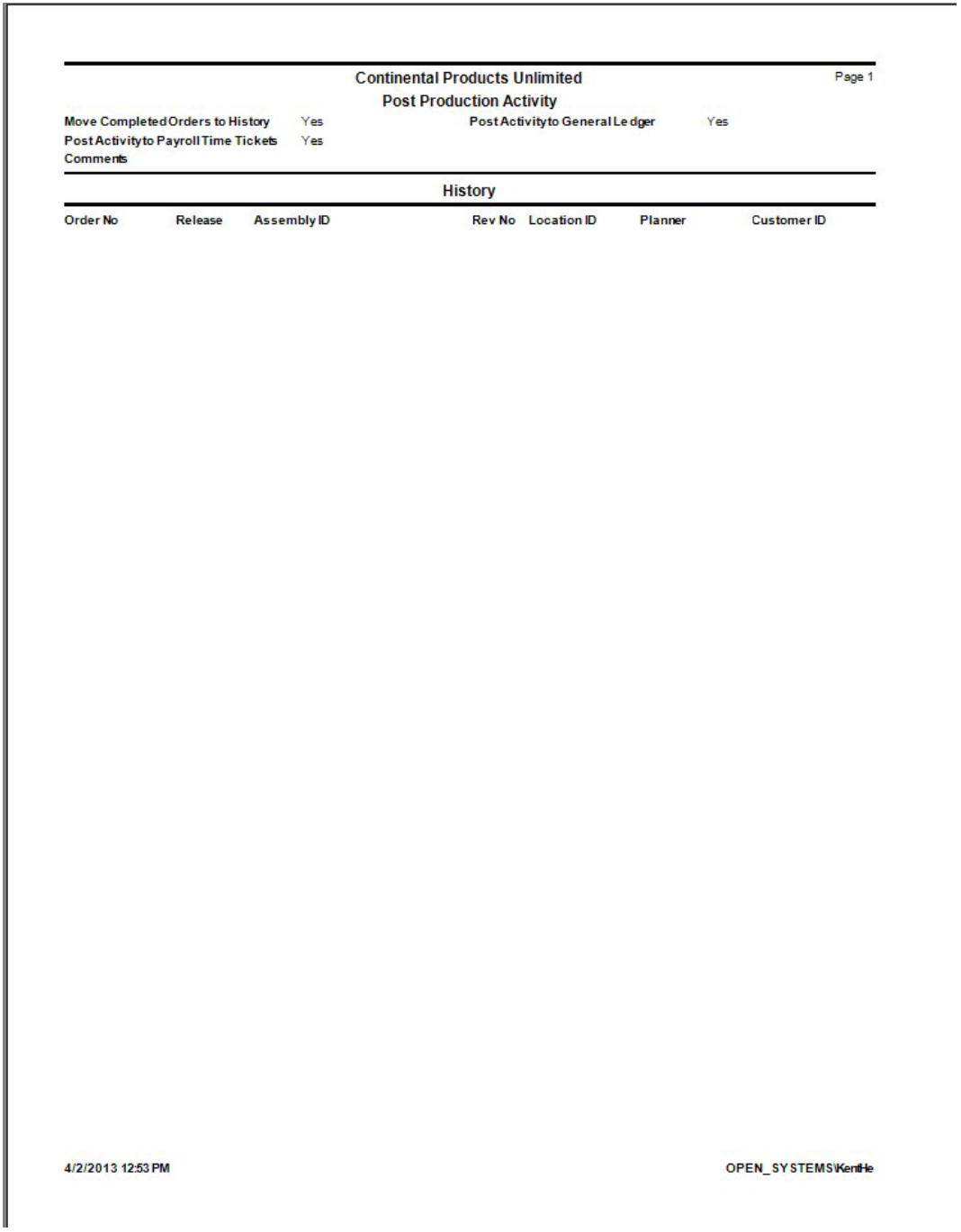
User ID - The user who performed the post appears.

Comments - Comments entered for the post appear.

Print Log - to print the post log from the selected post.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Post Production Activity Log History



Continental Products Unlimited

Page 1

Post Production Activity

Move Completed Orders to History Yes

Post Activity to General Ledger Yes

Post Activity to Payroll Time Tickets Yes

Comments

History

Order No	Release	Assembly ID	Rev No	Location ID	Planner	Customer ID

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Post Production Activity Log GL Entries

Continental Products Unlimited — Page 2
Post Production Activity
GL Entries — 20130402175343

Posted to Fiscal Year 2013
Fiscal Period 2

Reference	Description	GL Account	Debit	Credit
Production	00000076 1 5 571	000001210	622.50	
Production	00000076 1 5 571	000001200		622.50
Production	00000076 1 3 572	000001210	658.00	
Production	00000076 1 3 572	000001200		658.00
Production	00000076 1 4 573	000001210	281.25	
Production	00000076 1 4 573	000001200		281.25
Production	00000076 1 1 574	000001200	19,650.00	
Production	00000076 1 1 574	000001210		19,650.00
	Total for Fiscal Period 2		21,211.75	21,211.75

Fiscal Period 4

Reference	Description	GL Account	Debit	Credit
Production	00000076 1 2 198	000001210	30.00	
Production	00000076 1 2 198	000005030		30.00
Production	00000086 1 10 194	000001210	49.50	
Production	00000086 1 10 194	000005030		49.50
Production	00000086 1 10 194	000001210	6.75	
Production	00000086 1 10 194	000005110		6.75
Production	00000086 1 10 195	000001210	5.50	
Production	00000086 1 10 195	000005030		5.50
Production	00000086 1 10 195	000001210	0.75	
Production	00000086 1 10 195	000005110		0.75
Production	00000086 1 11 196	000001210	14.67	
Production	00000086 1 11 196	000005030		14.67
Production	00000086 1 11 196	000001210	1.83	
Production	00000086 1 11 196	000005030		1.83
Production	00000086 1 11 196	000001210	3.38	
Production	00000086 1 11 196	000005110		3.38
Production	00000086 1 9 197	000001210	14.67	
Production	00000086 1 9 197	000005030		14.67
Production	00000086 1 3 576	000001210	68.00	
Production	00000086 1 3 576	010001220		68.00
Production	00000086 1 12 577	000001210	96.00	
Production	00000086 1 12 577	000001270		96.00
	Total for Fiscal Period 4		291.05	291.05

Grand Total	21,502.80	21,502.80
Exceptions		
Grand Total		

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Post Production Activity Log Time Tickets

Continental Products Unlimited — Page 3
Post Production Activity
PA Time Tickets

Employee ID	Group	Date	Dept	Class	Earning Code	Pieces	Rate	Hours	Amount
DOUBLA00001	1	4/2/2013	500	Prs	SAL	20.0000	4,100.000	2.000	4,100.00
DOUBLA00001	1	4/2/2013	500	Prs	SAL	80.0000	4,100.000	2.250	4,100.00
		Total for Trans Date 4/2/2013				100.0000		4.250	8,200.00
Grand Total						100.0000		4.250	8,200.00

4/2/2013 12:53 PM *** End of Report *** OPEN_SYSTEMS\KenHe

5

Interactive Views

USING THE INTERACTIVE VIEWS MENU

Use the Interactive Views menu functions to view (but not change) the following setup information:

- Production Schedules
- Dispatched Production
- Order Status
- Order Activity
- Process Requirements
- Material Requirements
- GL WIP Transactions
- Production History
- Lot Numbers Where Used
- Serial Numbers Where Used
- Finished Goods Lot Numbers
- Finished Goods Serial Numbers
- Sales Order Analysis

Using Interactive Views you can easily and quickly build and manipulate tables to display information. After selecting from the available criteria to display as filter fields, data items, column fields, or row fields, you can highlight columns and rows to have the selected rows and columns display as a graph below the table. To include multiple rows or columns in the graph, you can use the CTRL+ click (to select multiple rows or columns) and SHIFT+ click (to select all rows or columns between the first and second click) shortcuts, after selecting the first row and column.

Sorting and Filtering

When you arrange the columns to your liking, you can sort, group, or filter the data by the column's contents. To sort and filter the data, right-click a column heading and use the functions outlined in the table below.

Button	Name	Select To
	**Sort Ascending**	Sort the selected column's data in ascending order. **NOTE: You can also accomplish this task by clicking the column heading until appears.**
	**Sort Descending**	Sort the selected column's data in descending order. **NOTE: You can also accomplish this task by clicking the column heading until appears.**
	Clear Sorting	Remove all sorting options and revert to the default view.
	**Group By This Column**	Group the identical entries from this column into a single group. **NOTE: If you group by column entry, you can right-click on the grouped column heading to select from the options outlined in this table, or choose Full Expand to expand all of the grouped entries, Full Collapse to collapse all of the grouped entries, or UnGroup to undo the grouped entry.**
	**Column Chooser**	Open the Customization window. With the Customization window open, you can click and drag columns to the window to remove them from the screen or click and drag columns from the window to place them back onto the screen. **NOTE: You can also remove a column from the form by clicking on the heading of the column and dragging it to the bottom of the screen and releasing it when your cursor changes to an *X*.**
	**Best Fit**	Adjust the selected column to resize the column for the best view of that column's data.
	**Clear Filter**	Remove all filter options and revert to the default view.

Filter Editor	See “Filtering Across All Columns” in the General Information guide for more information.
Best Fit (all columns)	Adjust all columns to resize for the best view all of the data at once.

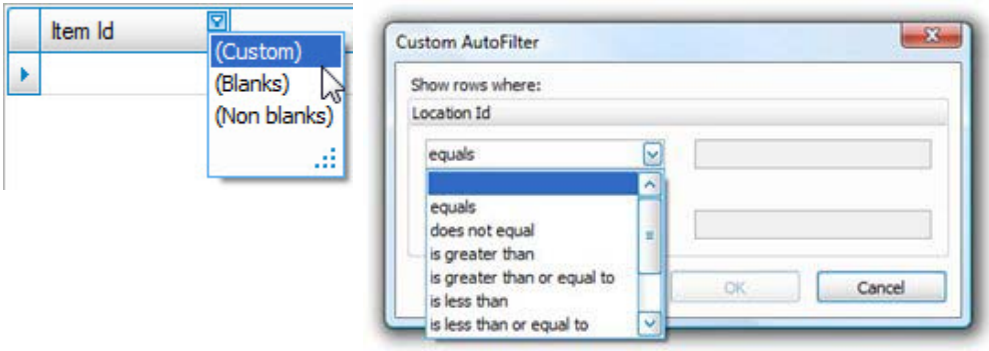
Filtering by an Individual Column

To create a filter for a single column, click the funnel icon that appears once you place the cursor in the associated column and then select a filter option from the drop down menu.

Select	To
	Enter criteria for filtering the selected column.
(Custom)	**NOTE: View the following paragraph for additional information.**
(Blanks)	Display only entries with blank information in the selected column.
(Non blanks)	Display only entries with information in the selected column.

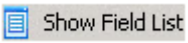
From the drop down menu, you can also select from the entries in the selected column to group the column by the selected entry.

If you select (**Custom**), the Custom AutoFilter function appears. Select up to two filtering criteria for the selected column from the drop down menus, then enter a string of text or numbers to complete the condition and click **OK**.



Sorting and Filtering Pivot Chart Data

Right-click on the pivot table gray area or a field button when in Pivot Chart View for each application, to use the following functions:

Select	To
	Refresh the data in the tables.
	Remove the selected criterion from the table.
	Move the selected criterion to the beginning, left, right, or end of the list of criteria.
	Open the PivotGrid Field List, then click and drag the applicable fields to the desired locations.
	Close the PivotGrid Field List.

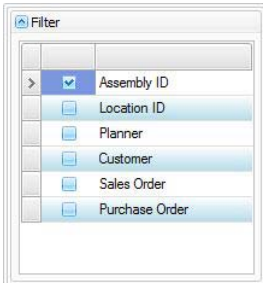
NOTE: Note: See instructions in the "Filtering Across All Columns" section for more information on filtering.

MANUFACTURING PRODUCTION SCHEDULING OVERVIEW

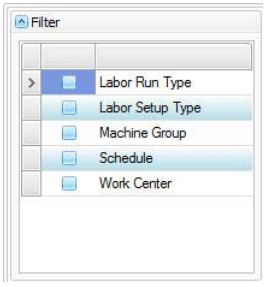
The **Scheduling** function is a planning tool that provides a graphical based calendar to represent different views of the production process for active Production Orders and/or their requirements.

Terminology

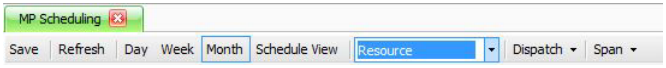
A **Resource Filter** includes any of the following **Filter** value options when **Production** and **Order Detail** types are selected:



When the **Dispatch** type is selected, the following **Filter** value options are available:

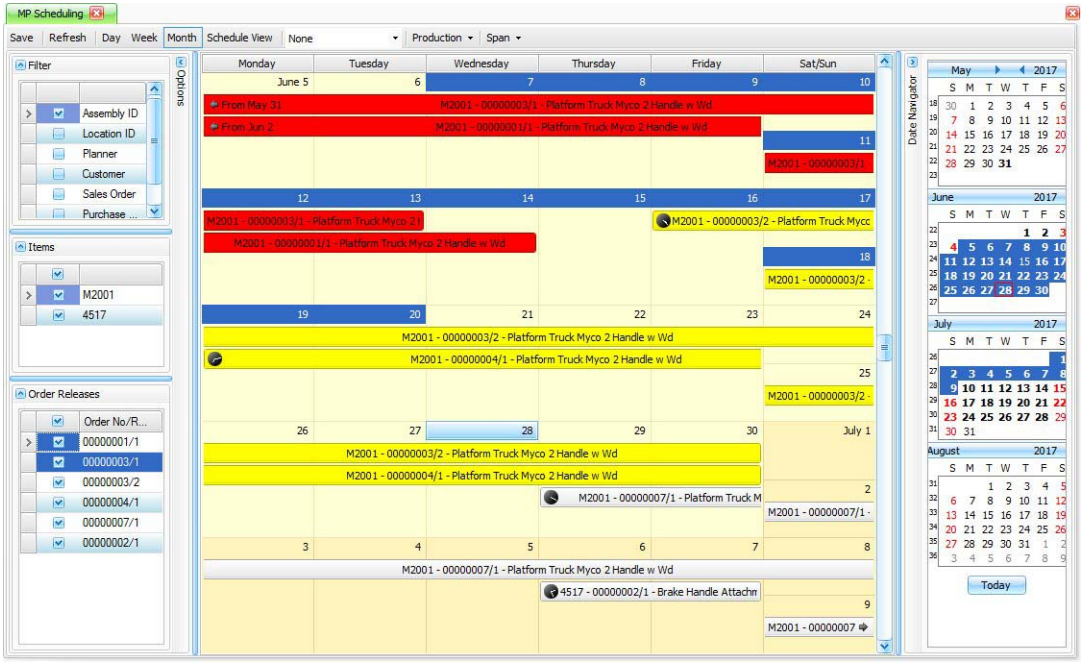


Users are also able to group calendar entries by **Resource**, by **Date**, or no grouping (**None**).



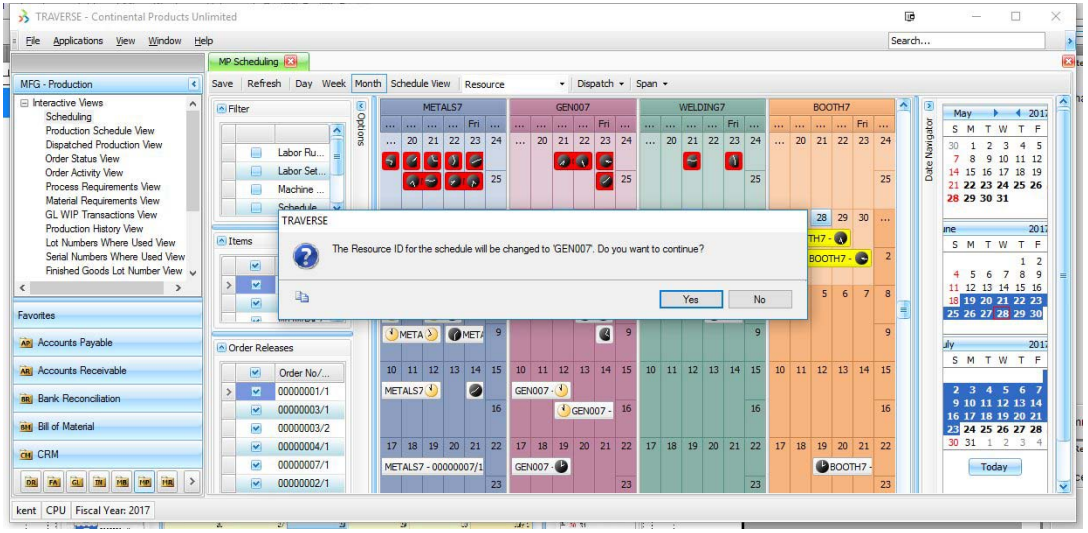
Scheduling Display Options

The Scheduling calendar supports drag-and-drop functionality to move production order finished goods and/or operation entries. When dates change, the system automatically adjusts the finished goods release **Estimated Start** and **Finish Dates** along with the Operations **Required Start** and **Finished Dates**. The system will also change the color indicator if the release or operation is late (yellow) or past due (red).



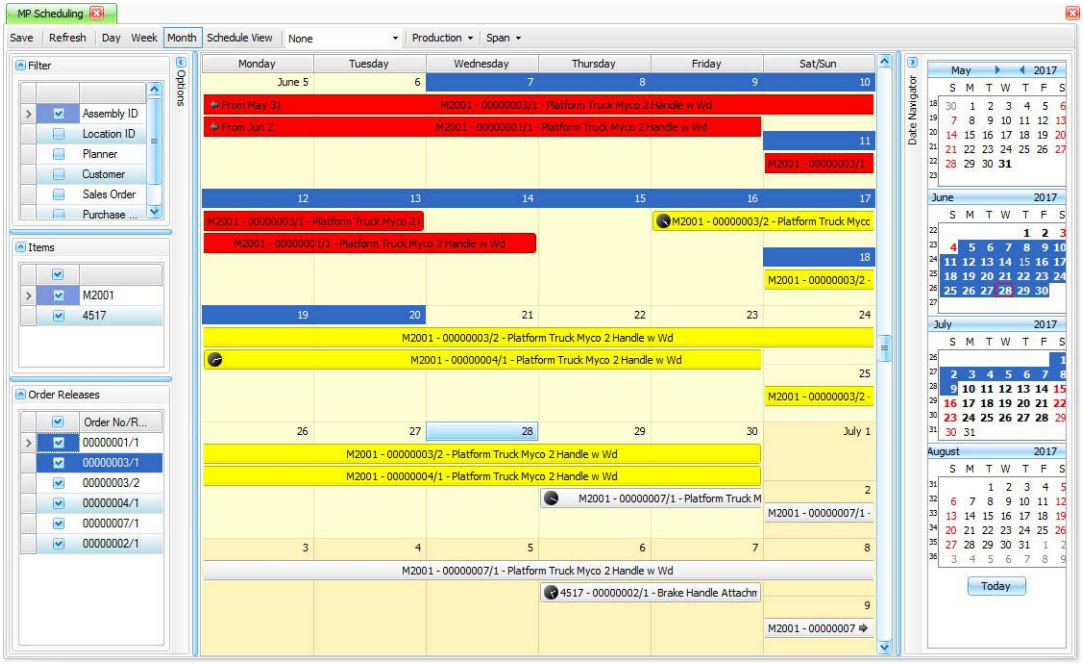
Because the Production system does not include time-specific information, all items presented on the Scheduling calendar are listed with a minimum granularity of a full day. All finished goods and operation entries are presumed to start at the beginning of the given day.

Users are also able to move entries from one resource to another when using the **Dispatch** type view. After selecting **Yes** to continue, the entry will be moved to another resource type. Then when closing the screen, the system will ask “Save changes and close?”. Select **Yes** for the changes to take effect or **No** to disregard any movements.



Calendar Color Indicators

The calendar includes color coded entries that are based on the following criteria:



- **Past Due (Red)**: Current Session Date is after the Finished Good's Estimated End Date.
- **Late (Yellow)**: Current Session Date is after the Finished Good's Estimated Start Date and there is no activity for the production order/release as of the Estimated Start Date.

NOTE: Activity for any requirement of the Production Order release as of the estimated start date qualifies as progress to defer the "late" status.

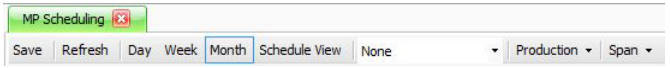
If a process is scheduled to start on Monday, it cannot be "Late" until Tuesday. If there is no activity recorded on Monday, the process will always be listed as "Late"; regardless of the activity recorded on any days after Monday.

- **Default Calendar Color**: Does not meet special criteria for display colors.

Users are able to change the default colors in System Manager, Company Setup, Business Rules – Manufacturing Production under the Calendar heading (page 3-6).

Toolbar Options

The toolbar offers options to view the calendar by Day, Week, Month, or a Schedule View. By default, the system loads the Schedule View and does not load data until the user selects filter options.



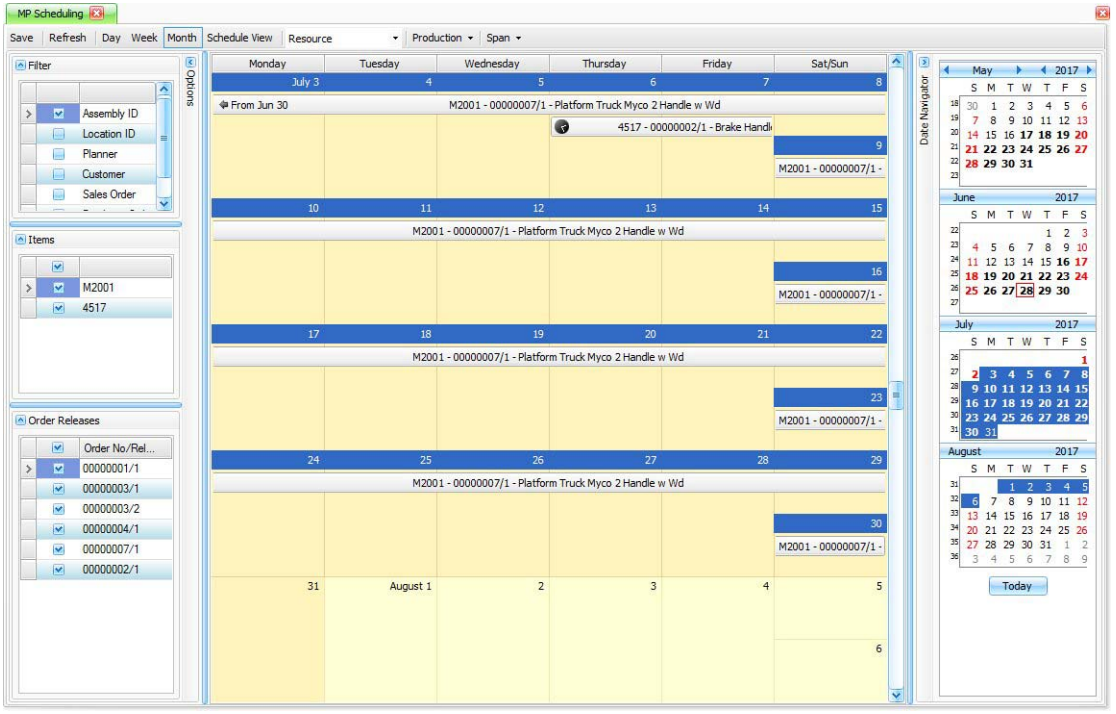
Grouping

Grouping options of **None**, **Date**, or **Resource** are available to help manage the display of calendar information.

After selecting a resource Filter option, the system defaults the grouping to **Resource**. Users are able to switch to **None** or **Date** at any time.

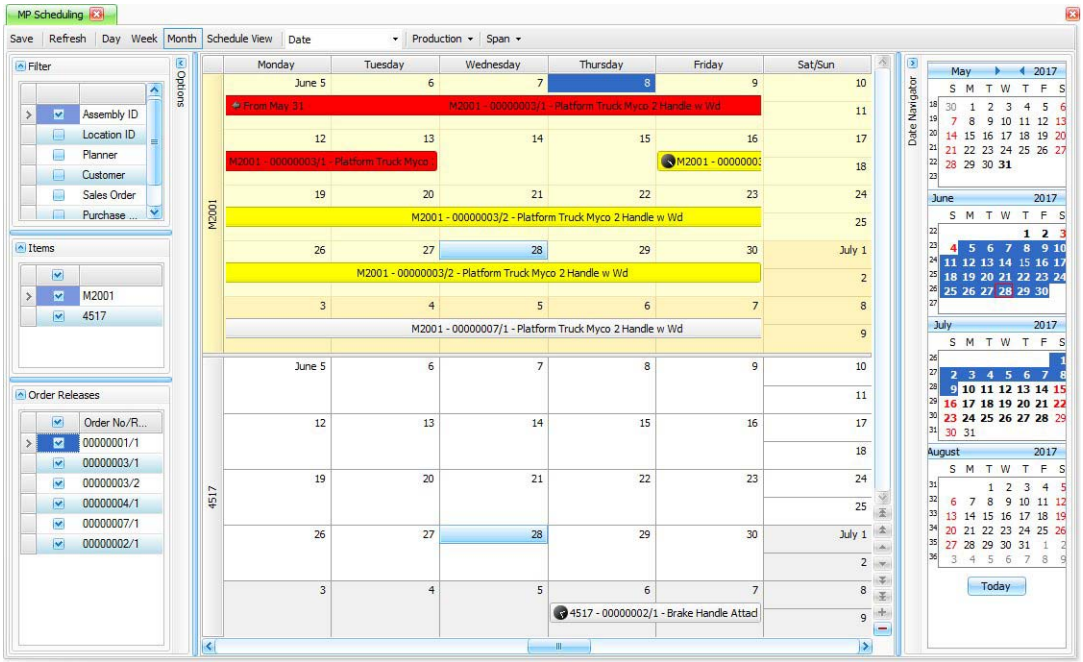
None

When the value of **None** is selected, there is no grouping on the calendar.



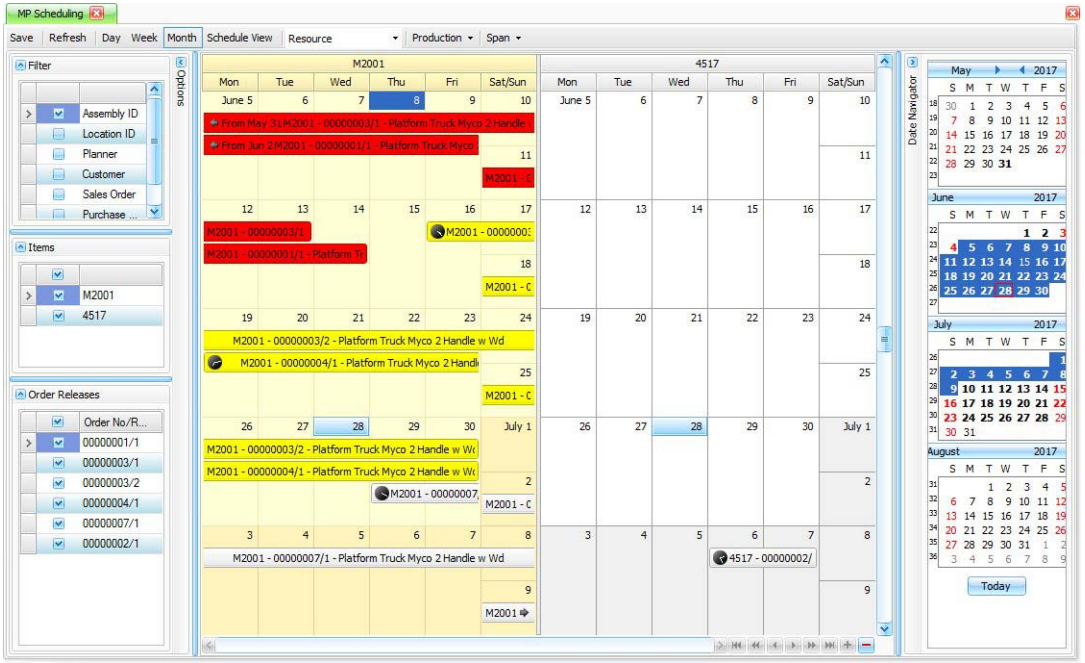
Date

Using the **Month**, **Date** and **Production** settings is another way to view filtered information.



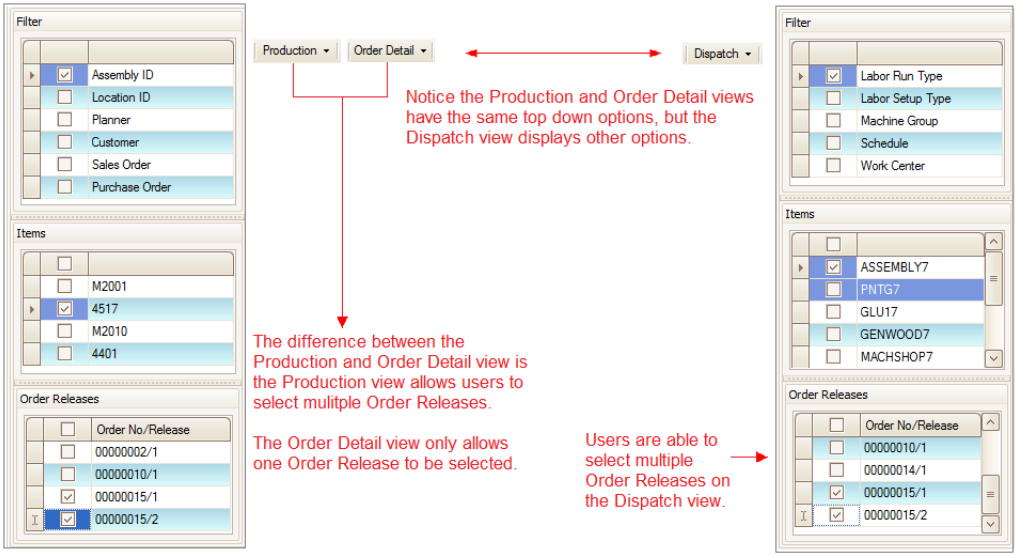
Resource

When **Resource** is selected, information is displayed by the value selected under the resource **Filter**.



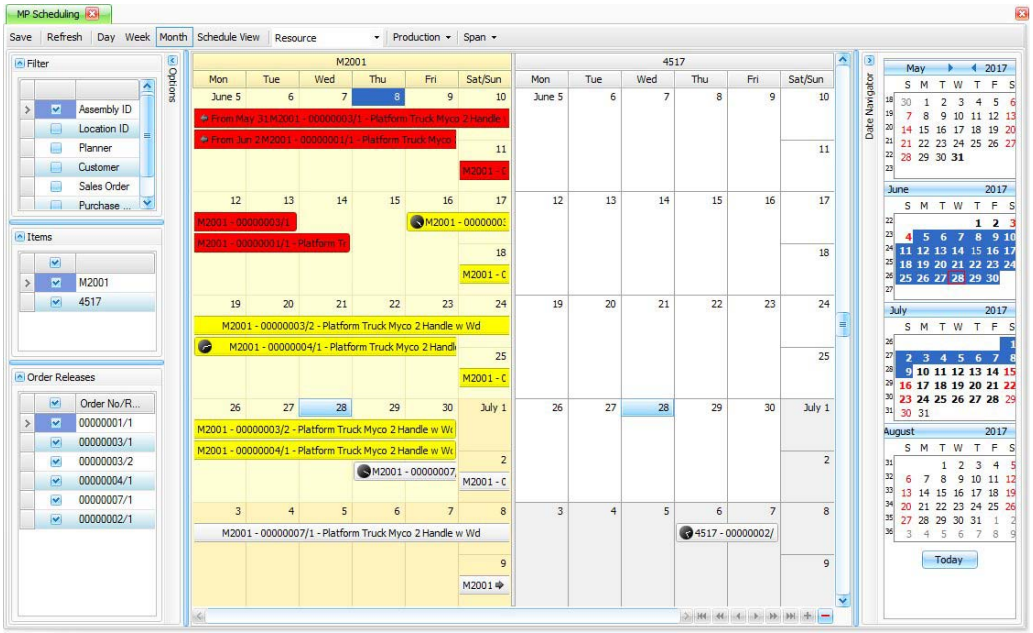
Type

Users have the option to display information by **Production**, **Order Detail**, or by **Dispatch**.



Production

The **Production** type displays a top level overview of **Production Order/Release** information. The dates used for the Finished Good's calendar view is the **Estimated Start** and **Finish Dates**.

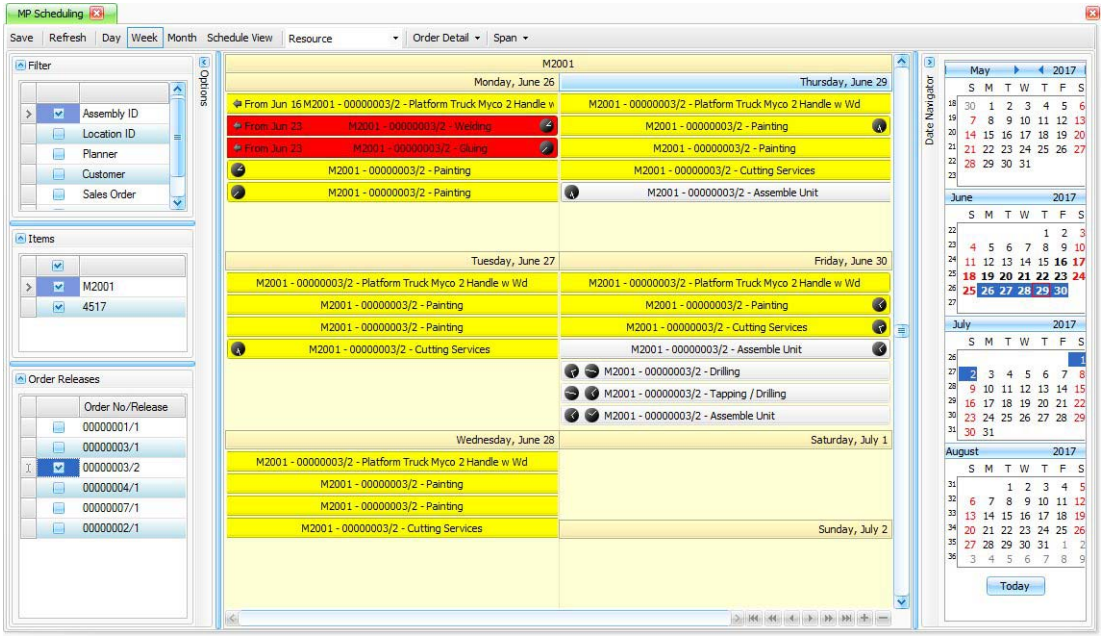


- *Caption Identifier* = The ID of the selected resource Filter value, the Order/Release Number and Description of the specific Requirement
- *Past Due* = Current Session Date is after the Estimated End Date
- *Late* = Current Session Date is after the Estimated Start Date and there is no activity for the order/release as of the Estimated Start Date

Order Detail

The **Order Detail** type displays all operation(s) for the finished good for a single release of an order.

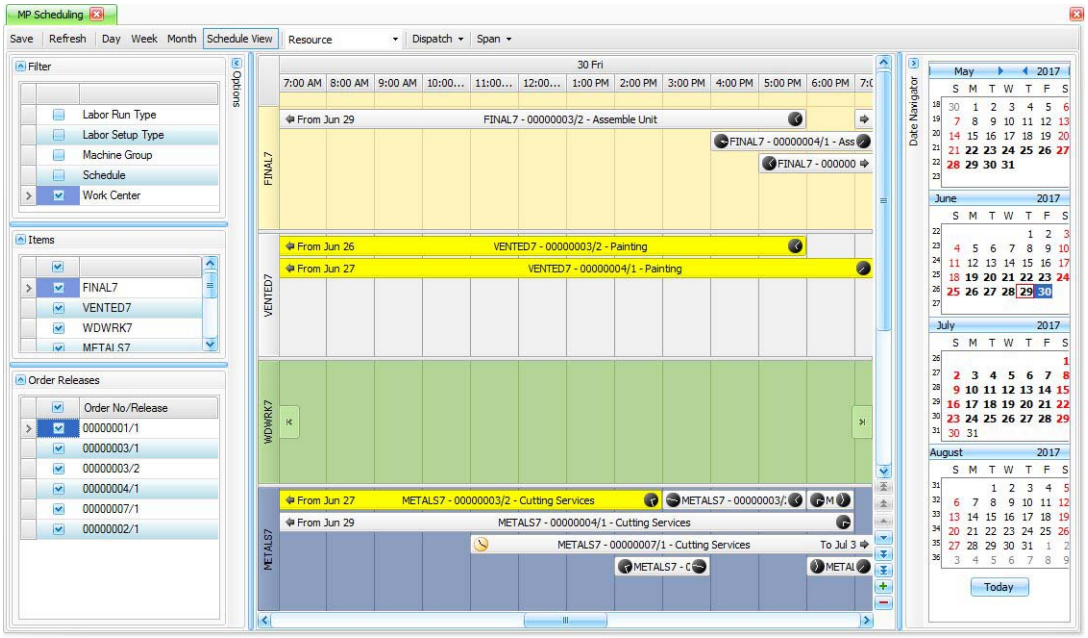
The operation dates are based on the **Required Start** and **Finish Dates**. If these dates need to be adjusted, it must be done by editing the Finished Good's **Estimated Start** and **Finished Dates** in Edit Released Orders.



- *Caption Identifier* = The ID of the selected resource Filter value, the Order/Release Number and Description of the specific Requirement
- *Past Due* = Current Session Date is after the Estimated End Date
- *Late* = Current Session Date is after the Estimated Start Date and there is no activity for the order/release as of the Estimated Start Date

Dispatch

The **Dispatch** type displays subsets of a given requirement type. Labor Run and Labor Setup can be different for a single requirement. Users are able to change the filter type and upon saving, the system will recalculate any child requirements.



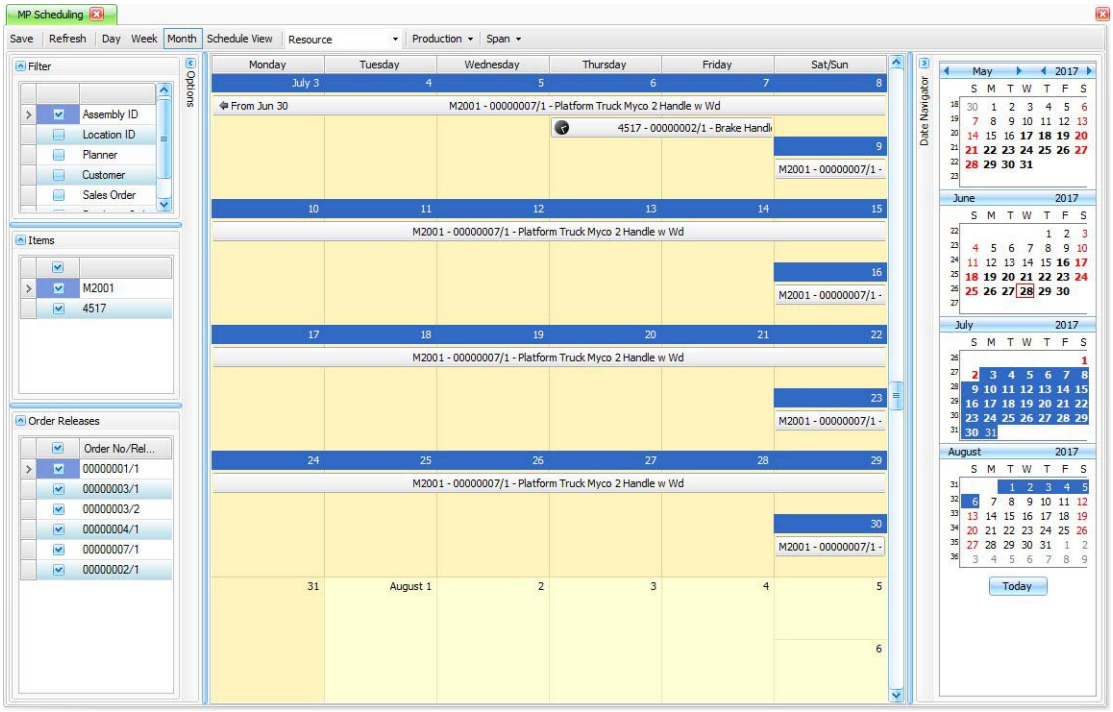
- *Caption Identifier* = The ID of the selected resource Filter value, the Order/Release Number and Description of the specific Requirement
- *Past Due* = Current Session Date is after the Estimated End Date
- *Late* = Current Session Date is after the Estimated Start Date and there is no activity for the order/release as of the Estimated Start Date

Span

Individual entries on the calendar will be presented as an "**End**" point or "**Span**" of time for the date range associated with the entry.

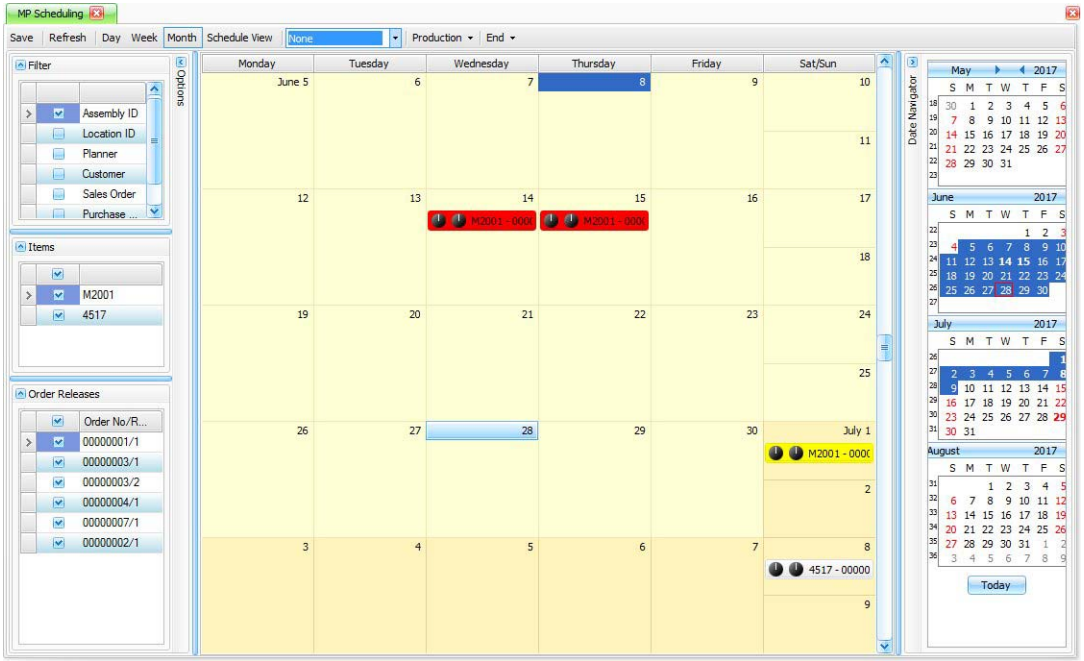
Span

Span displays continuous entries for the full date range of the given entry from start to end.



End

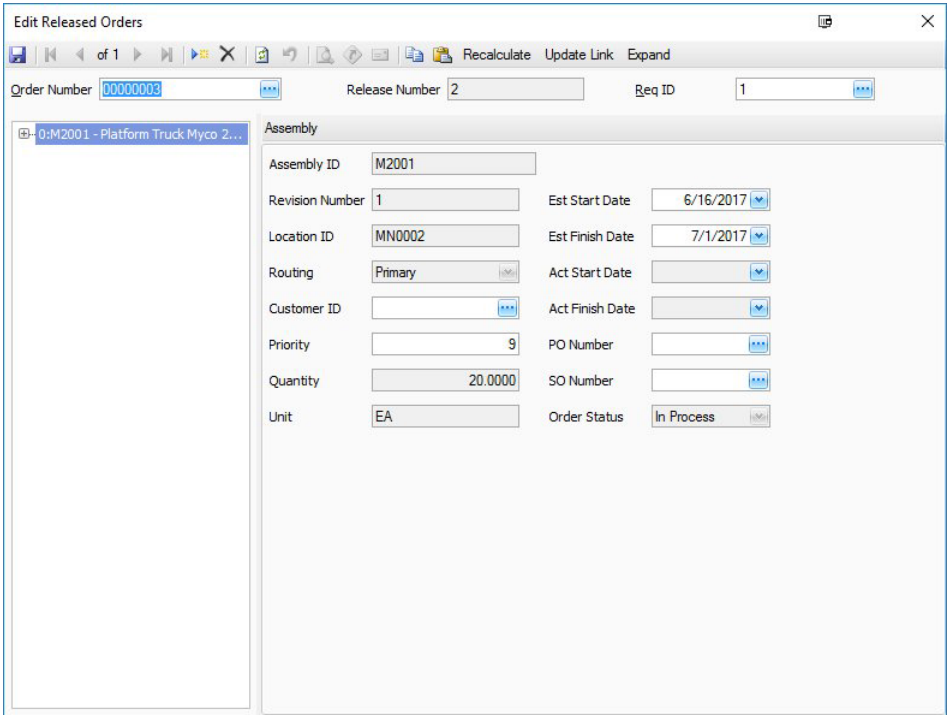
End point displays a single day entry on the end date of the entry.



Workflow

When viewing the Scheduling calendar, only production orders with an active order/release status are displayed. Orders/releases that have not been released (New, Planned, Firm Planned) into the production process or have already been finished (Completed) are not included on the calendar.

Users are able to double click and drill into a calendar entry to make a change to the Finished Good Release information within the Edit Released Orders function, which is only available if users have permission to this function. Upon making changes, users must save an order for the changes to take effect.



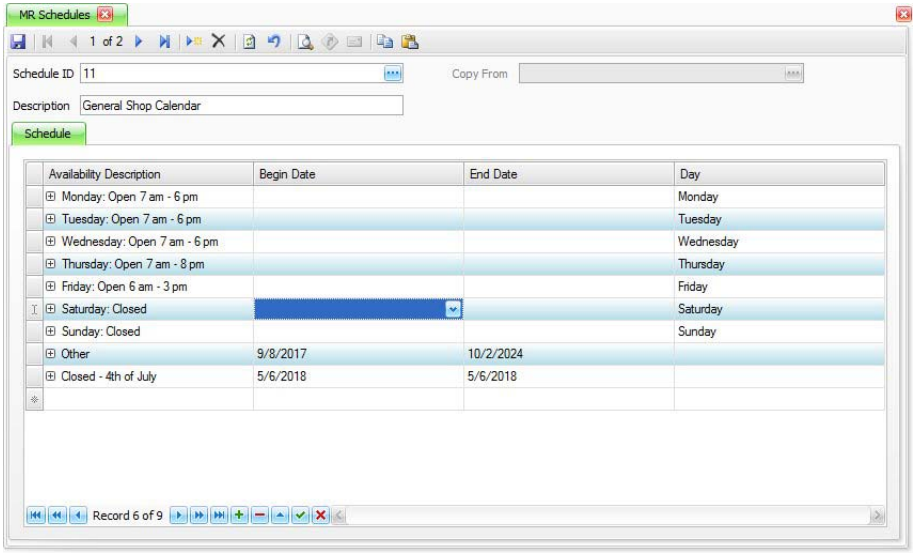
Bulk Lead Time (BLT) for each requirement is used to evaluate the time required to complete the task based on the **Estimated Finish Date** for the entire production order. The BLT is compared to the schedules associated with each operation to determine the earliest date that can satisfy the time required for the process. The evaluation only considers that time available on the given date, it does not consider the start, stop or breakdown of the individual time slots.

Identifying the actual value of the Estimated Finish Date for the order/release may require an incremental change of one day at a time until the desired change is achieved for the requirement being moved. This is necessary in order to properly consider variations due to overlap and multiple schedules used for a given production order/release.

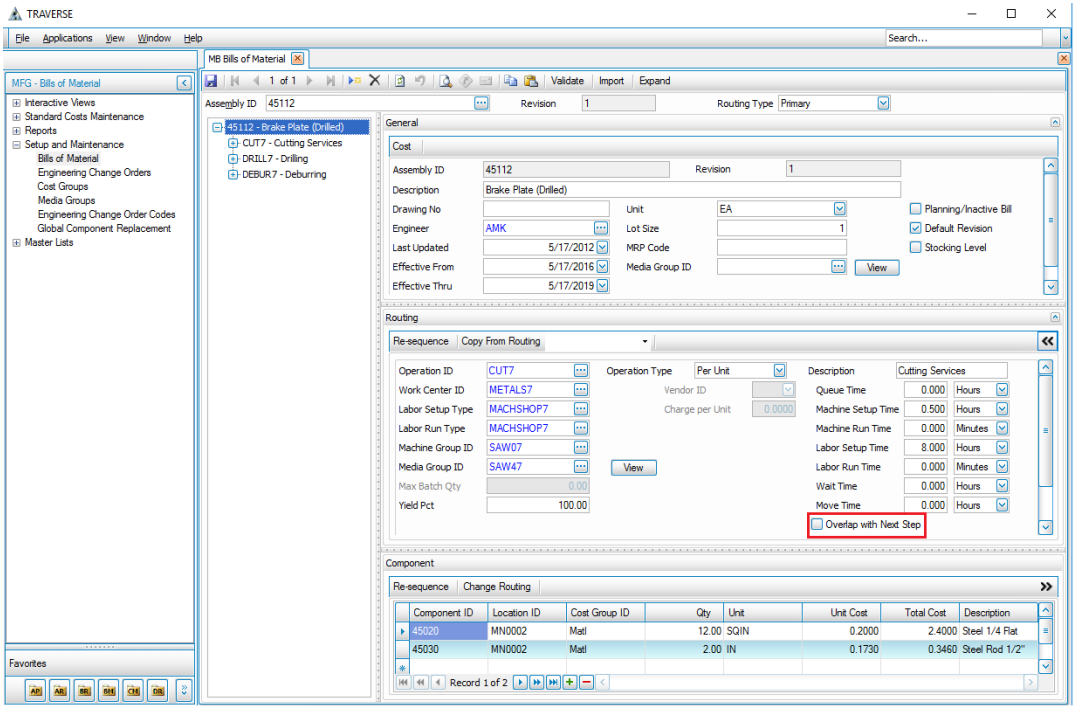
Depending upon the Schedules used by the order/release, it may not be possible to relocate the requirement as requested. For these cases, the order/release should be moved so that the requirement is placed on the first available date prior to the requested date.

Scheduling Process for a Manufacturing Production Order

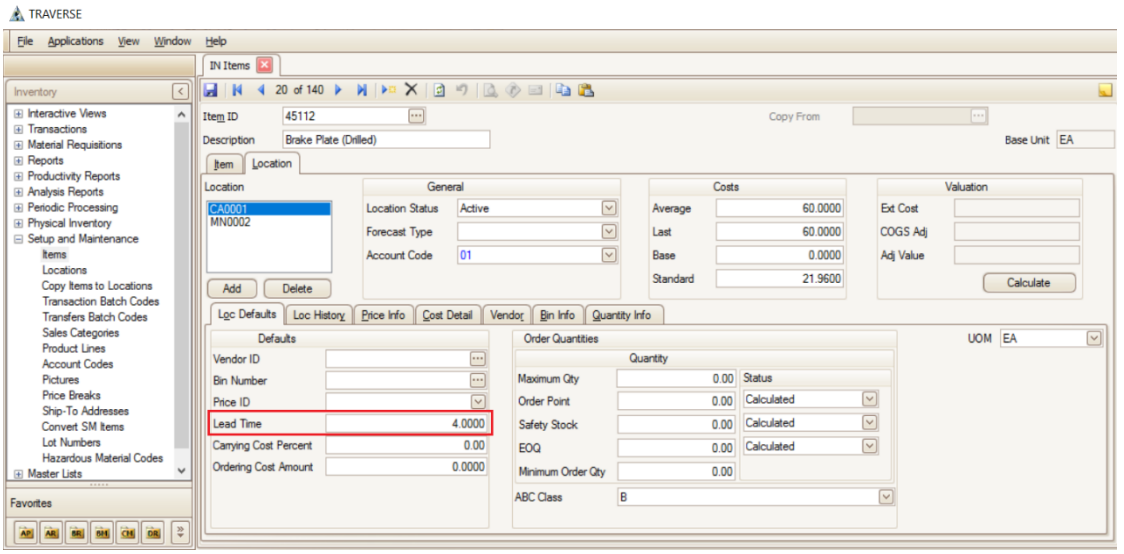
In the following example, under Manufacturing Routing and Resources, Setup and Maintenance Schedules, a single **Schedule ID** is set up for weekdays Monday thru Friday.



1. In Manufacturing Bills of Material, Setup and Maintenance, Bills of Material, the **Assembly ID** used will have three consecutive routings steps with none of them set to **Overlap with Next Step**. All three routing steps include setup and run times that are equal to one day.

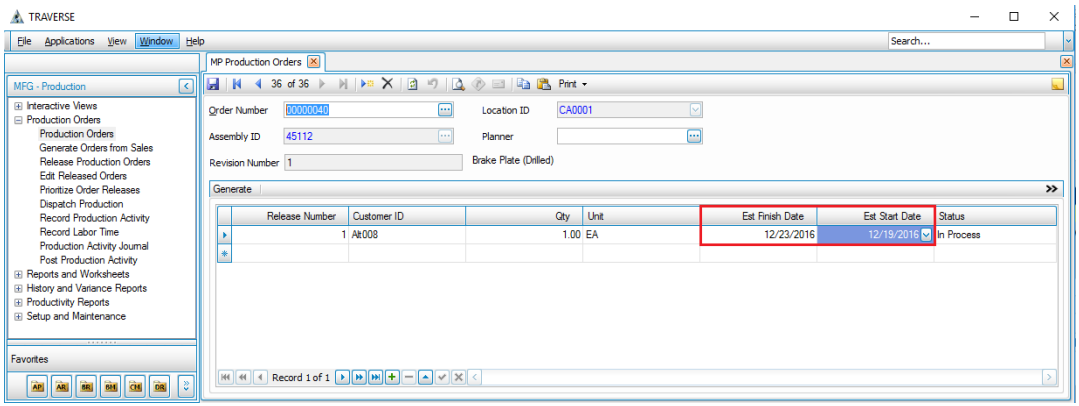


2. Under Inventory, Setup and Maintenance, Items, the **Lead Time** is set to 4.



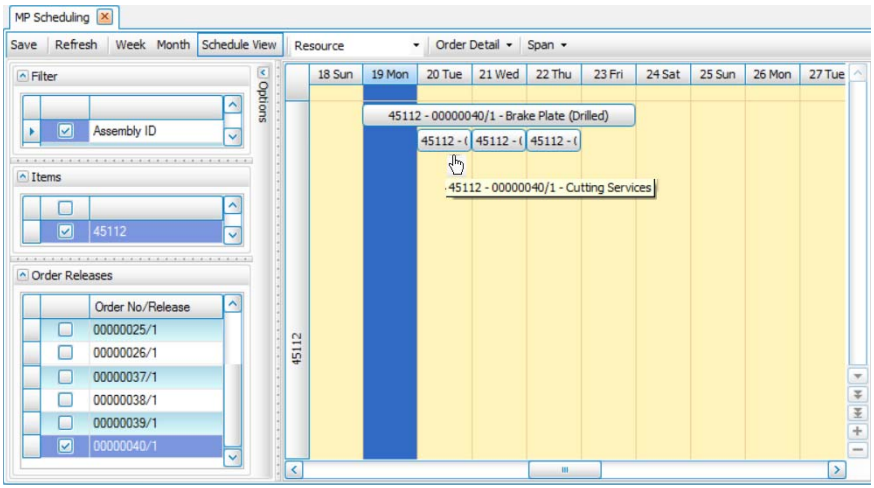
3. A simple Production Order is entered for Assembly ID 45112 with an **Estimated Finish Date** of 12/23/2016. The system then calculated the **Estimated Start Date** to be 12/19/2016.

4. Select **Generate** to release the Production Order.



5. Now in Manufacturing Production, Interactive Views, Scheduling, under **Type**, Order Detail was selected. The resource **Filter** is set to Assembly ID, **Items** equaled 45112 and **Order Releases** equaled 00000040.

   Notice the Estimated Start Date calculated to be 12/19/2016 based on the 12/23/2016 Estimated Finish Date entered. So when viewing the calendar with the option set to **Span**, the production order will span over these dates.



6. From this setup we can determine for a finished good to be available on the Estimated Finish Date, the first routing step must start three days earlier.

Finished Good (45112) Estimated Finish Date: Friday

Routing 3 (Deburring) Required Date/Start Date: Thursday --> Finish Date: Thursday

Routing 2 (Drilling) Required Date/Start Date: Wednesday --> Finish Date: Wednesday

Routing 1 (Cutting Services) Required Date/Start Date: Tuesday --> Finish Date: Tuesday

Recalculation Example 1

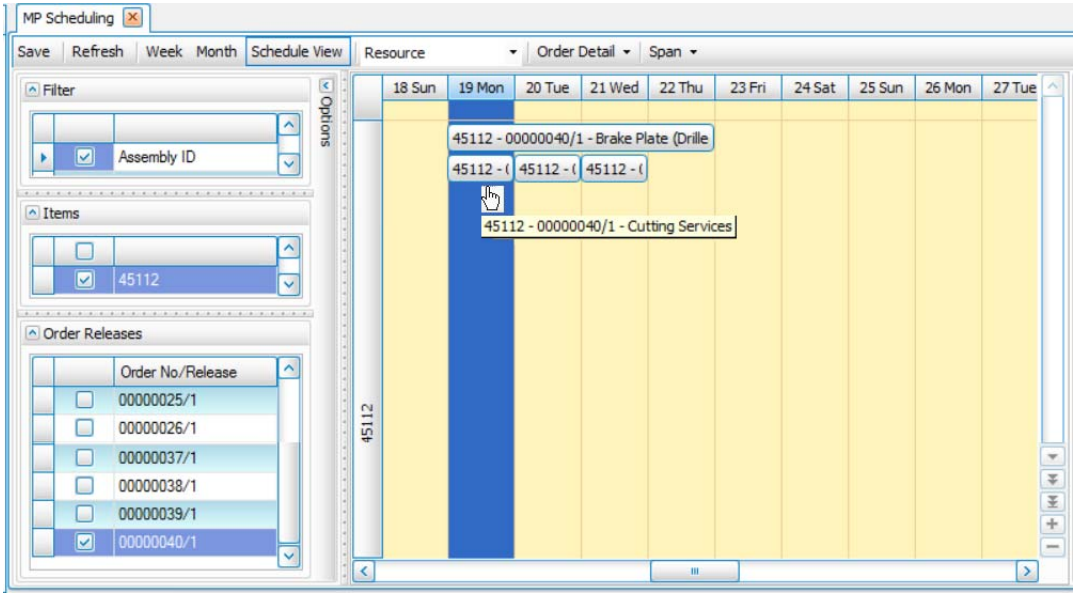
Moving any of the routing steps initiates a change in the Estimated Finish Date of the Finished Good followed by a recalculation of the Required Dates for all of the child and sibling requirements. If Routing 1 (Cutting) is moved to Monday, the process adjusts the Estimated Finish Date to be 1 day earlier (Thursday). Each of the routings would then be adjusted by the recalculation of the requirement dates as follows:

Finished Good (45112) Estimated Finish Date: Thursday

Routing 3 (Deburring) Required Date/Start Date: Wednesday --> Finish Date: Wednesday

Routing 2 (Drilling) Required Date/Start Date: Tuesday --> Finish Date: Tuesday

Routing 1 (Cutting Services) Required Date/Start Date: Monday --> Finish Date: Monday



Recalculation Example 2

If Routing 1 (Cutting Services) is moved so it starts 2 days earlier (Saturday), the estimated finish date would be Tuesday and each of the routings are recalculated as follows:

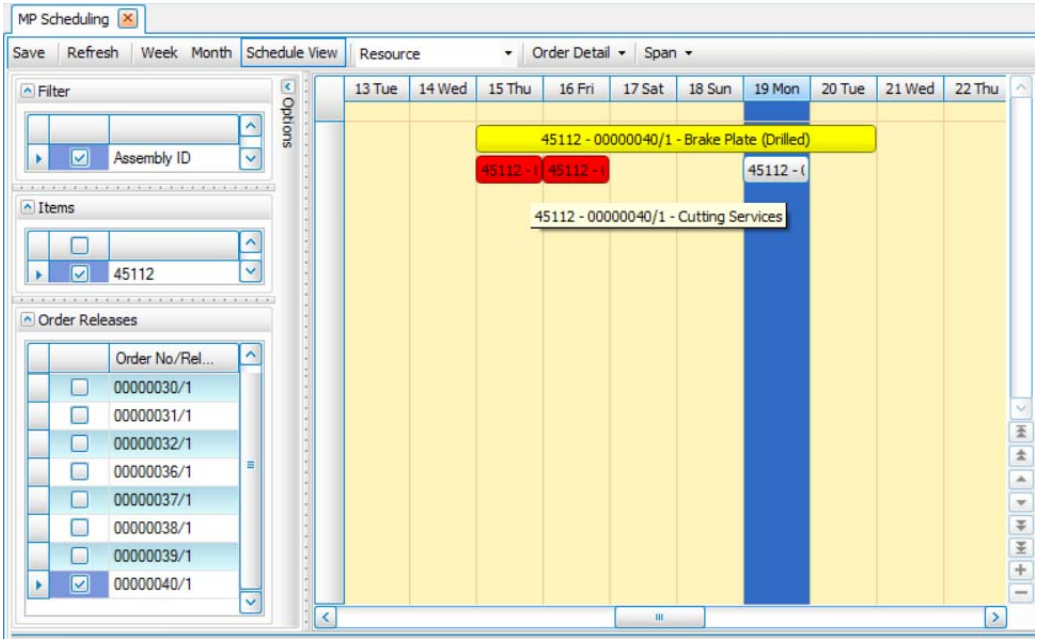
Finished Good (45112) Estimated Finish Date: Tuesday

Routing 3 (Deburring) Required Date/Start Date: Monday --> Finish Date: Monday

Routing 2 (Drilling) Required Date/Start Date: Friday --> Finish Date: Friday

Routing 1 (Cutting Services) Required Date/Start Date: Thursday --> Finish Date: Thursday

NOTE: For this example, Schedule 11 indicates the company is not open on weekends, so the dates are adjusted accordingly.



SCHEDULING

The **Scheduling** function provides you with the ability to visually review Production Orders as scheduled. If you want to add Production Orders or change the scheduling for them, use the Edit Released Orders function.

For more detailed information about manufacturing production scheduling, see the Scheduling Overview (page 5-7).

By using the buttons at the top of the calendar window, you can **Refresh** the calendar or choose to view the calendar by **Day**, **Work Week**, **Week**, **Month**, or **Schedule View**. You can also sort the calendar by **Resource**, **Date** or **None** (shows all Dates and Resources).

The center portion of the calendar window displays the calendar, including color-coded entries for Production Orders. To adjust the amount of information you can see on the calendar, use the plus ( ) and minus ( ) buttons on the lower right border of the center portion of the calendar.

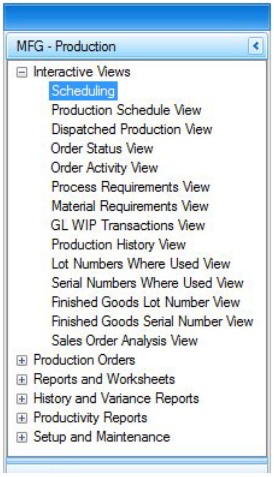
The right side of the calendar window displays full monthly views of the current month plus one or more additional months into the past and/or future as space permits. You can adjust the months in the view by selecting the month on the view.

You can show or hide the sliding menus with the arrow buttons at the top of the menu borders.

To use the **Schedule**, follow these steps:

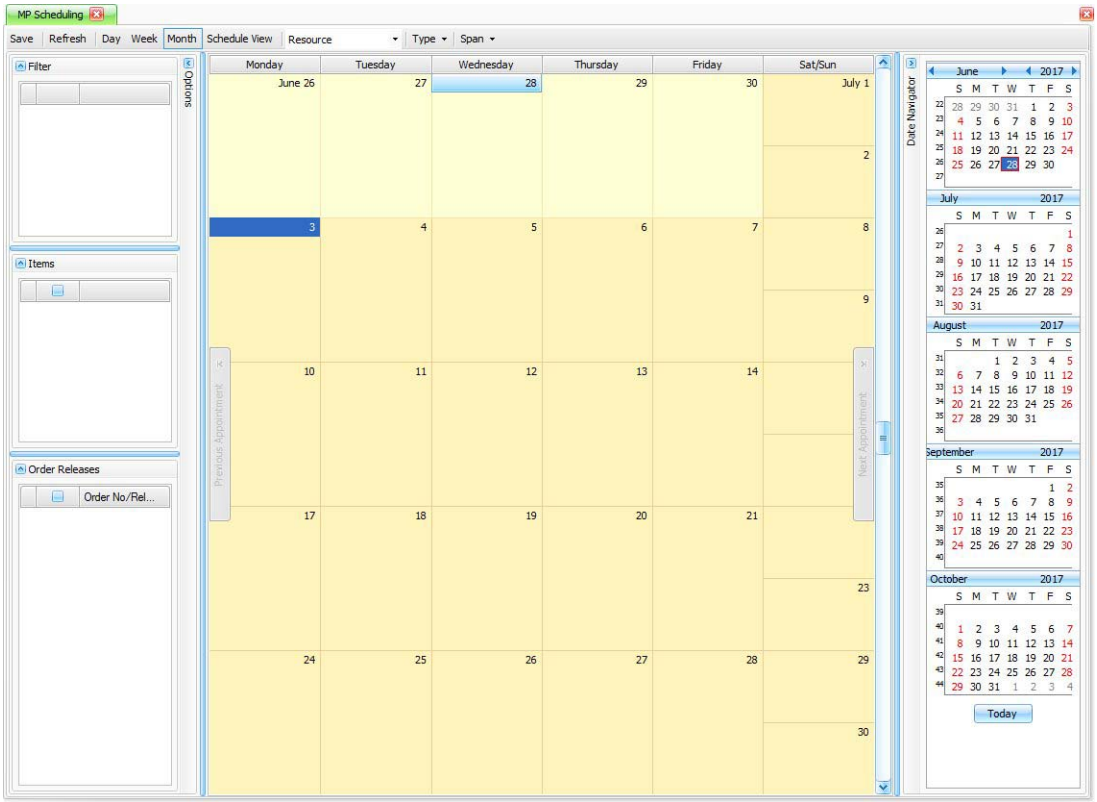
1. Select **Schedule** from the **Interactive Views** menu.

Schedule Menu



2. The blank **Schedule** screen appears.

Schedule Screen (Blank)



3. Select the content **Type** of information for which you want to filter; **Production**, **Order Detail**, or **Dispatch**.
4. After selecting the content **Type** of information, select the **Refresh** button to populate the **Filter** panel.
5. The selections in the **Filter** panel of the screen will vary, depending on the Type of content you selected to Filter;
    - **Production** and **Order Detail**; **Assembly ID**, **Location ID**, **Planner**, **Customer**, **Sales Order**, or **Purchase Order**.
    - **Dispatch**; **Labor Run Type**, **Labor Setup Type**, **Machine Group**, **Schedule**, or **Work Center**.

6. Select the **Filter** criteria to populate the **Items** panel.

   Select the check box in the gray header of the panel to select all Items.

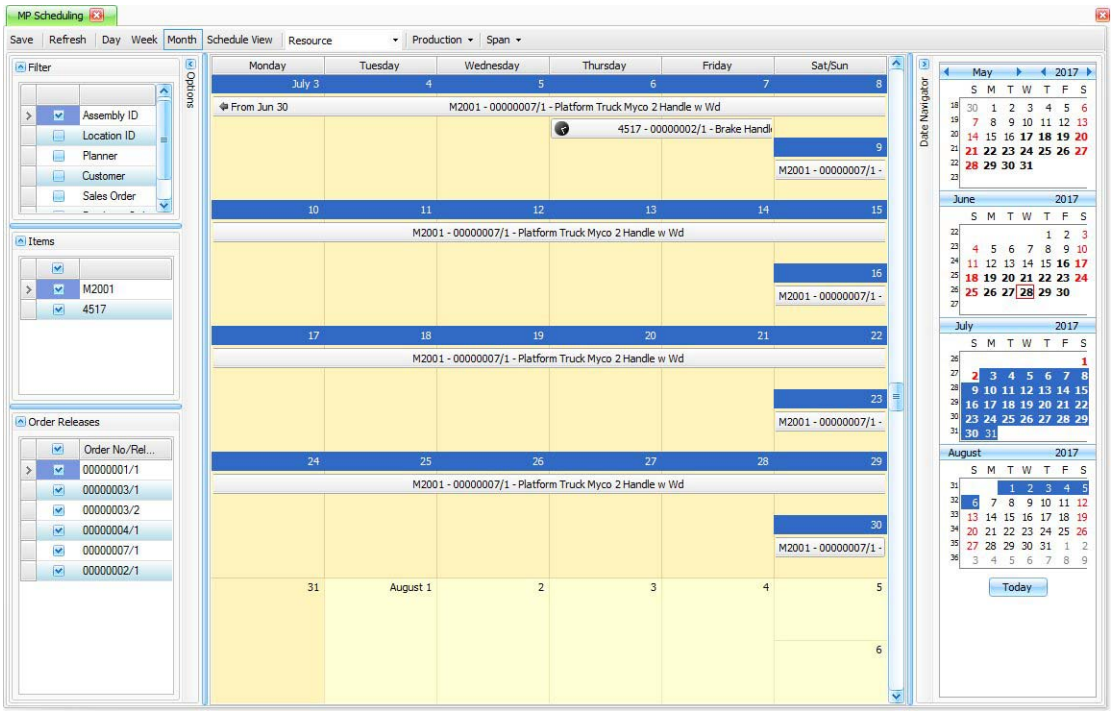
7. From the available selections in the **Items** panel, select the **Items** you want to include in the **Order No/Releases** panel.

8. In the **Order No/Release** panel, mark the check box(es) for the dispatch order(s) you want to see on the calendar view.

   Select the check box in the gray header of the panel to select all Order No/Releases.

9. The calendar in the center of the screen will display the selected Production Orders.

Schedule Screen (Filled)

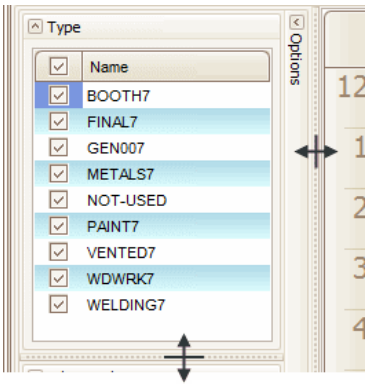


Changing the Appearance of the Calendar View

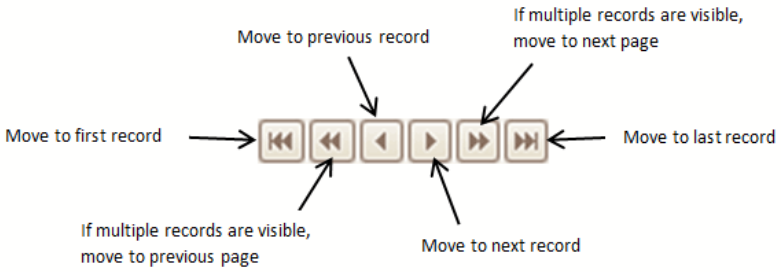
1. There are many ways you can change how the calendar looks to give you the best view of your Production schedule.

2. The side panels can be hidden to allow more room for the main central panel. Use each panel's Hide-Show buttons (or) on the panel's main bar to hide or show the panel.

3. To adjust the width or height of a panel or section, move the mouse over the edge of the panel or section until the cursor becomes a two-headed arrow . Then click and drag the edge of the panel or section until it is the size you want. Release the mouse button to stop sizing the panel or section.



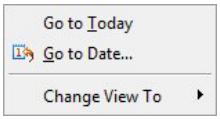
4. Use the check boxes in the various sections of the Options panel to filter the calendar view.
5. If you have selected a grouping option for the Schedule View, you will have the option of zooming in or out of the calendar to see more or less data. Use the increase visible data ( ) or decrease visible data ( ) buttons in the lower right corner of the calendar view's central panel to adjust the amount of data you can see on the calendar in the central panel.
6. If you have a grouping option selected for the Schedule View, you can move through the records that make up a group by using the record navigation buttons in the lower right corner of the calendar view's central panel.

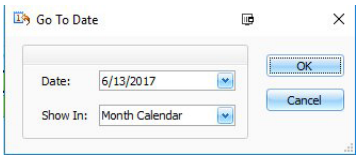
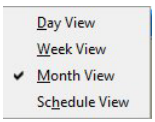


Calendar View Actions

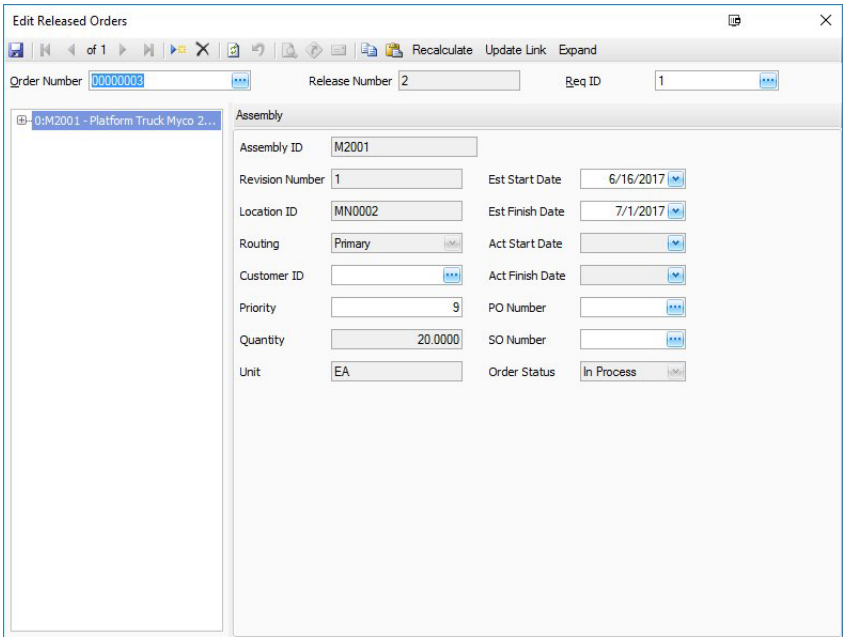
1. When you right-click on the calendar, you can use shortcuts on the context menu to perform various actions.

2. If you right-click when your mouse is on an empty area of the calendar, you will get the following options:



Name	Description
Go to Today	Jump to today's date
Go to Date	Jump to a particular date 
Change View To	Change the view of the calendar without using the command buttons at the top of the screen. 

3. Double-click on a schedule entry to open the **Edit Released Orders** function. You can make changes to the released order that, once recalculated, will be reflected on the scheduling calendar. (See the Workflow section below for details on using the Edit Released Orders screen.)



- The **Order Number**, **Release Number**, and **Req ID** from the selected Production Order are displayed.
- The Assembly ID is displayed in the panel at the left of the screen and an be expanded to view the details of the Assembly. Expand the Assembly by clicking on the **Plus** (+) next to the **Assembly ID**. Expand a Routing by clicking the **Plus** (+) next to a **Routing**, or click the **Expand** button to fully expand the Assembly ID.
- The following fields are displayed and cannot be edited; **Assembly ID**, **Revision Number**, **Location ID**, **Routing**, **Quantity**, **Unit**, **Act Start Date**, **Act Finish Date**, and **Order Status**.
- Accept the default **Customer ID**, or select a Customer ID from the list.
- Accept the default **Priority**, or edit it.

- Edit the **Est Finish Date**, and click the **Recalculate** button to establish a new **Est Start Date**.

  Editing the Est Finish Date is the preferred method to reschedule the Order No/Release. When the Est Finish Date is updated and Recalculated, the Est Start Date is calculated, looking at the Lead Time set up for the Assembly ID, Item ID, and going backwards. See the Scheduling Process for a Manufacturing Production Order (page 5-21) section above for more details on calculating the schedule.

- Select the **Save** button on the toolbar to save your changes. Close the Edit Released Orders screen to return to the Schedule.

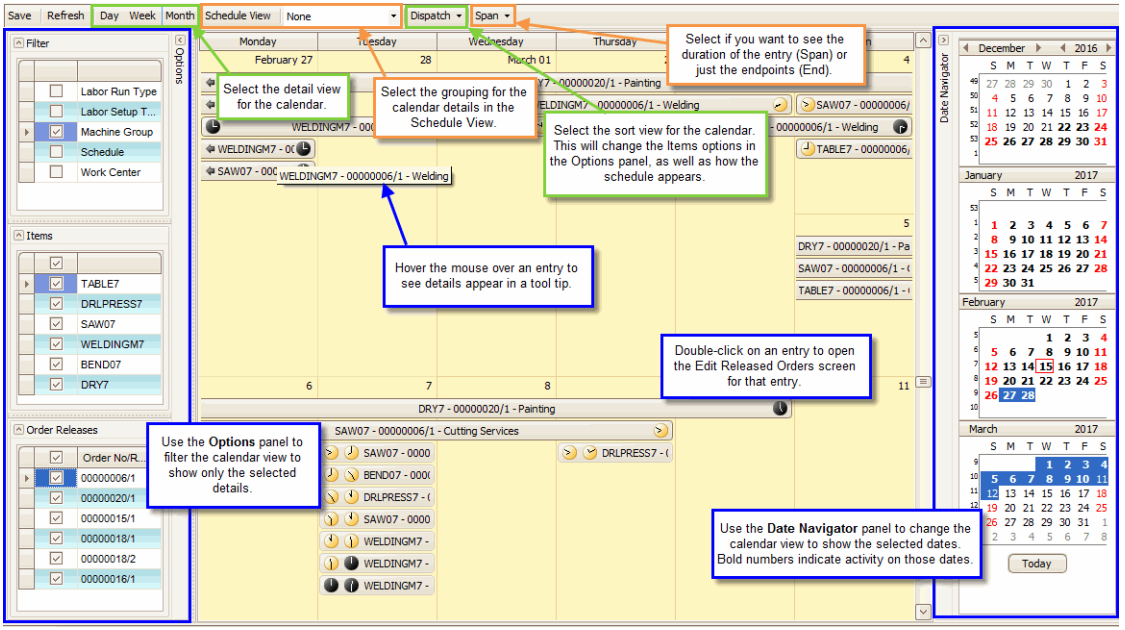
4. You can click and drag an entry to adjust the scheduling for that entry.

   When you drag and drop the entry to adjust the scheduling, the **Est Start Date** and **Est Finish Date** are adjusted accordingly.

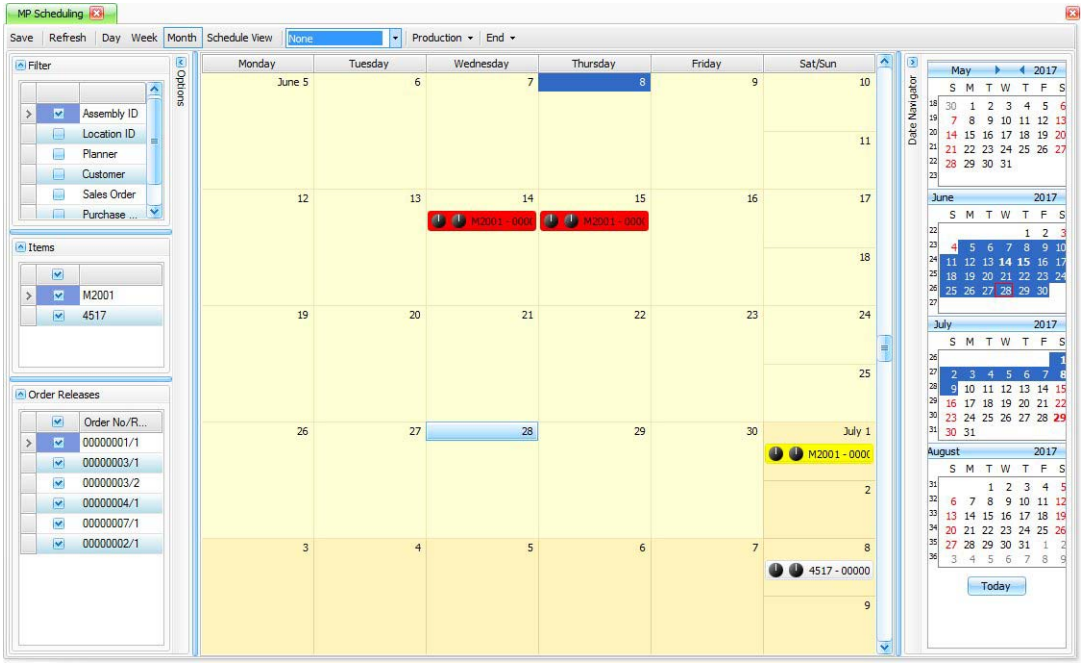
5. Use the **Refresh** command button to refresh the view.

6. If you make changes to the Schedule on the calendar, use the **Save** command button to save your changes.

7. When you select a Schedule entry and want to see the duration of the entry, click the **Span** command button. The beginning date through the ending date will be highlighted on the calendar.

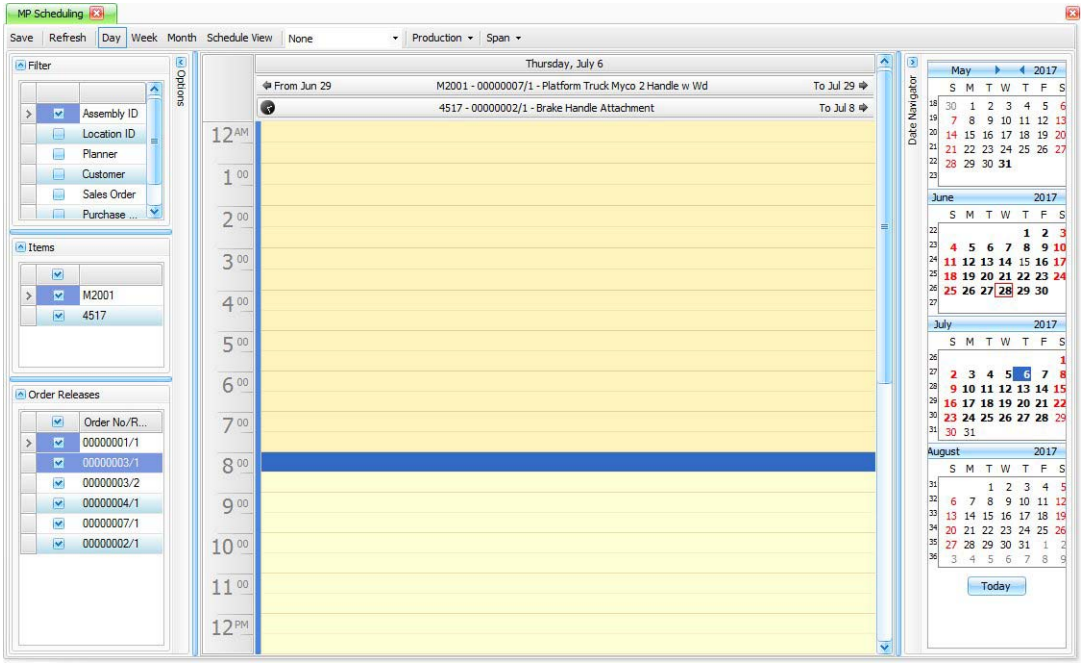


8. To see only the endpoints of each entry, select the **End** option from the **Span** command button drop-down list.



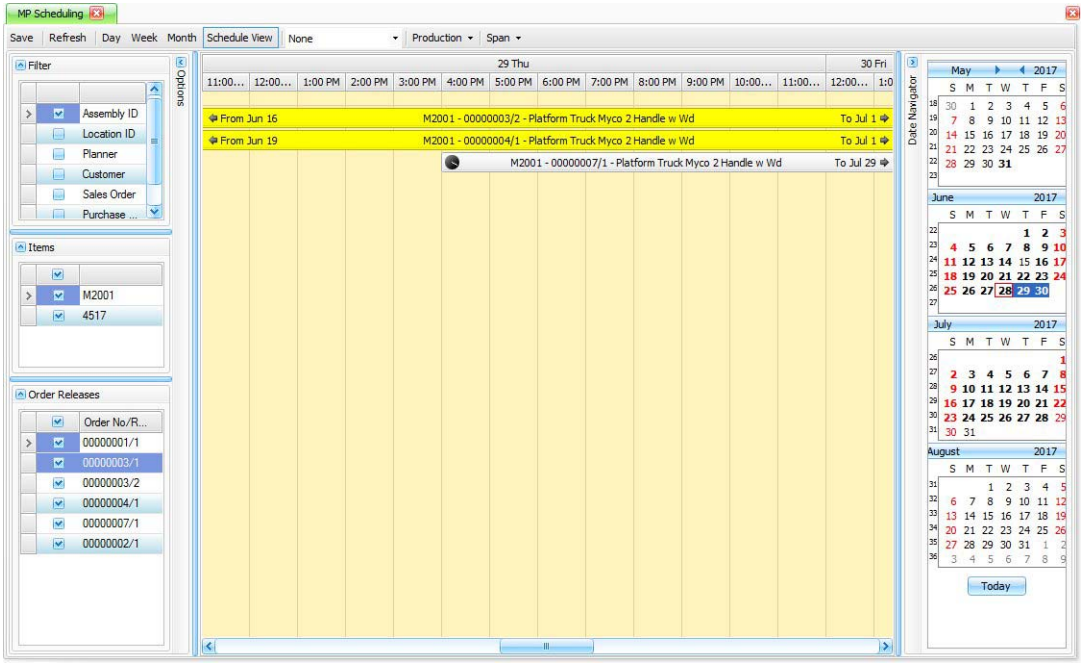
Daily View -- Detail button

The daily view will list all dispatch production orders on the schedule for that **Day**.

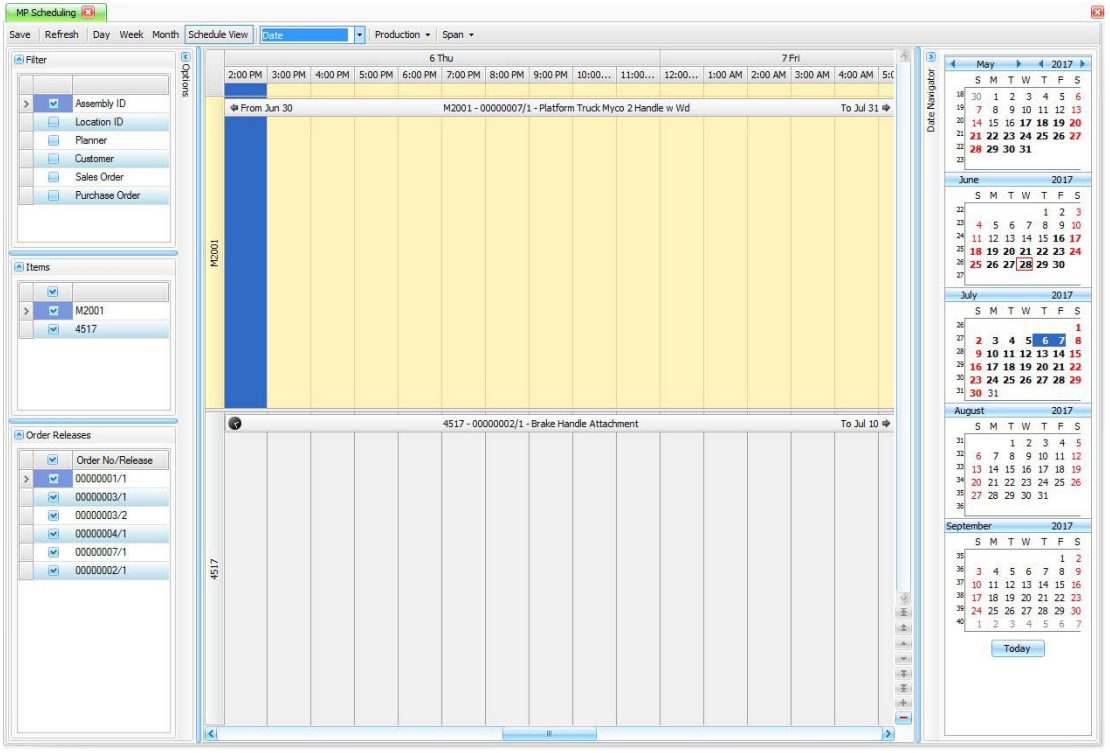


Schedule View

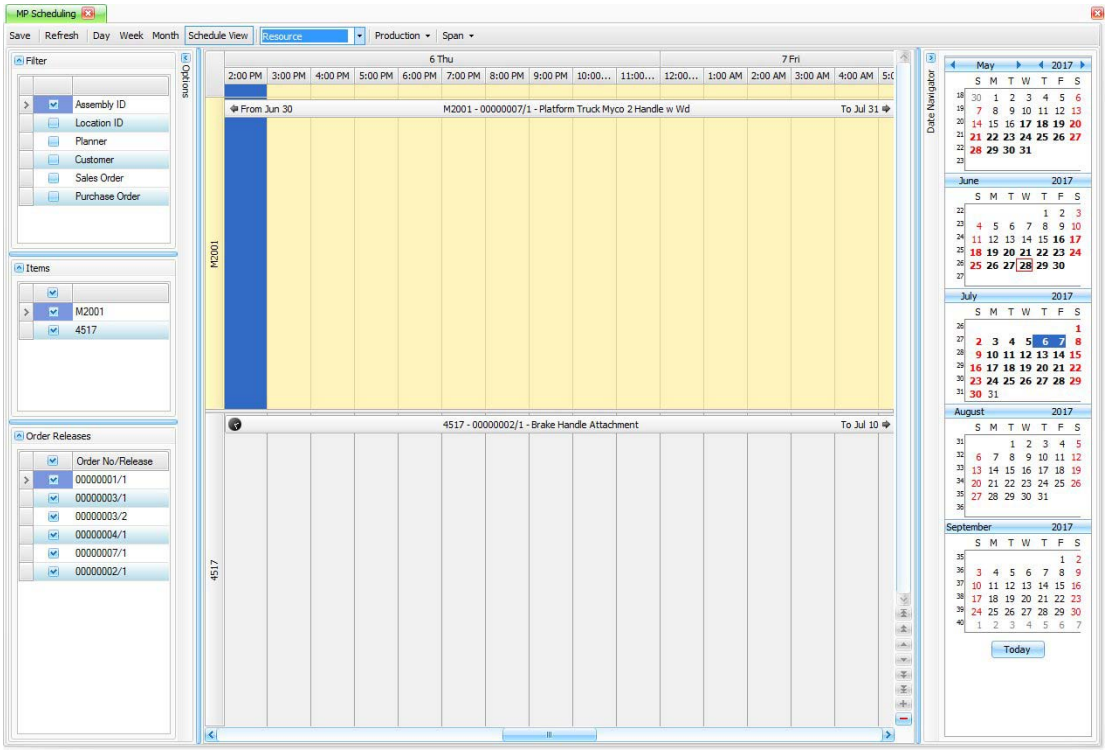
The **Schedule View** drop-down list allows you to group the dispatch orders by Date, by Resource, or None. Each selection will arrange the calendar differently. The main screenshot above shows the calendar with the Schedule View set to None.



When you set the **Schedule View** to **Date**, the calendar appears with the date as the top-level group, with the resource as the next level.



When you set the **Schedule View** to **Resource**, the calendar appears with the resource as the top-level group, with the date as the next level.



View Options

When you select a view option for the orders, the options available in the **Filter** panel change to match the selected value.

When you select **Dispatch**, the available dispatch order values appear in the **Filter** panel. Mark the check box for the dispatch type you want to view on the calendar; **Labor Run Type**, **Labor Setup Type**, **Machine Group**, **Schedule**, or **Work Center**.

When you select **Production**, the available production order values appear in the **Filter** panel. Mark the check box for the production order value you want to view on the calendar; **Assembly ID**, **Location ID**, **Planner**, **Customer**, **Sales Order**, or **Purchase Order**.

When you select **Order Detail**, the available production order values appear in the **Filter** panel. Mark the check box for the production order detail you want to view on the calendar; **Assembly ID**, **Location ID**, **Planner**, **Customer**, **Sales Order**, or **Purchase Order**.

Multiple Operators Overview

The Multiple Manufacturing Operator functionality provides the ability to assign multiple Employees to an Operation on a Bill of Material (BOM). This will allow users to see correct cost estimates and accurate scheduling.

A Bill of Material (BOM) can contain any number of Routing Operations. Each Routing identifies the details associated with a specific process or Operation, including a set of time requirements necessary for completing the process. Each of the time values are considered a cumulative value necessary for completing the given process. The cumulative time values are also used to evaluate the costs associated with the relative portions of the Routing (Machine, Labor, etc).

The setup and processing of Manufacturing BOMs support the distribution of Labor Time (labor time = labor setup time + labor run time) across multiple operators. This helps improve the accuracy of Production Order scheduling without compromising the accuracy of the BOM costing.

Before the multiple operators feature was added

When setting up an Operation or BOM Route, a user can enter the actual time it will take X number of employees to complete a task. However, it is more common to enter the total labor for all employees working on the task, which yields more accurate costing but could cause the schedule to be inaccurate.

The ASSEMBLY7 Operation has an Operators Required value of 4.

We set up the BOM with the ASSEMBLY7 Operation, which shows us 1 hour of machine time, 1 hour of labor setup time, and 4 hours of labor run time to account for the 4 operators on the Operations screen.

We place an order to produce two widgets. We know that we will have 2 hours of machine time and 9 hours of labor time (labor setup time + labor run time). When we look at the schedule, we see that our production order is going to take 9 hours to complete. As shown using our example, our production order will run from 3 PM to Midnight. Note that the 4 operators defined for the ASSEMBLY7 operation are not being considered during scheduling.

Since the total labor time is 9 hrs, and we have 4 operators working on the Order, in reality it will only take 2.25 hrs (9 hrs of labor/4 operators = 2.25 hrs) to complete the Order.

To address this, we added a feature to utilize the Operator Count value to calculate the scheduling time. If we had the option to add multiple operators, we would have better visibility into the timing of orders. The Operators Required field that already exists in MR - Setup and Maintenance - Operations will be used in the scheduling.

Utilizing the multiple operators feature

When creating a new BOM, the value from the Operators Required field on the Operations screen will default into the Operator Count field in the Routing section of the BOM. The multiple operators feature presumes that the amount of time each operator uses to perform the labor setup and the labor run is the same.

NOTE: In the Operations setup/maintenance screen, the BOM Item setup/maintenance screen, and the Edit Released Order function, if the total labor time (labor setup time + labor run time) > 0, the operator count must be greater than 0.

With regards to scheduling, the system will use the larger of machine time or labor time. In our example, we ordered 2 widgets, with 2 hours of machine time, 1 hour of labor setup time, and 8 hours of labor run time. If we only use 1 operator (Operator Count = 1), the system will schedule 9 hours for the operation (1 hr setup + (4 hrs / 1 operator * 2 widgets) = 9 hrs; 9 hrs of labor time is greater than 2 hrs of machine time). Remember: Machine Setup and Labor Setup are performed once no matter the quantity of the Item on the Production Order.

If we instead use 4 operators (Operator Count = 4), the system will schedule 2.25 hours for the Operation (note the system always calculates using minutes):

Labor setup time: 60 min setup / 4 operators = 15 minutes (.25 hrs)

Labor run time: 240 minutes / 4 operators * 2 widgets = 120 minutes (2 hrs)

Total labor time = 135 minutes (2.25 hrs); 2.25 hrs of labor time is greater than 2 hrs of machine time.

Changing the operator count after production order release

For example, you release the production order for 2 widgets, utilizing 4 operators. One operator calls in sick, so now only 3 operators are available to work on the production order. The schedule will need to change to accommodate the change in available labor.

To adjust the schedule once a production order is released, use the Edit Released Orders function on the MP -- Production Orders menu. Select the production order affected by the change in available operators, then edit the Operator Count value as necessary.

Click the Recalculate button on the toolbar to recalculate the amount of time to schedule for the order. Also, if you click the Save button, a dialog box pops up and asks if you want to recalculate requirements. Click 'Yes' to recalculate.

You may see a dialog box once the recalculation is complete.

With three operators (Operator Count = 3), the system will now schedule 3 hours for the operation:

Labor setup time: 60 min setup / 3 operators = 20 minutes

Labor run time: 240 minutes / 3 operators * 2 widgets = 160 minutes

Total labor time = 180 minutes (3 hrs); 3 hrs of labor time is greater than 2 hrs of machine time.

PRODUCTION SCHEDULE VIEW

Use the **Production Schedule View** function to view a summary of all Production Order Releases in the system. It contains information about each Production Order and their Releases, but does not contain any Component information. All order statuses appear. For more information on Production Orders, use the Production Schedule report, which includes the additional production order fields not available in this view function.

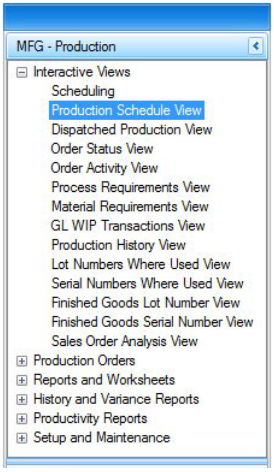
The Production Schedule View allows you to select ranges of information so you can quickly locate specific Production Order Release information by defining your search criteria. This allows you to see all the outstanding orders for a given Customer ID, even if you only know, for example, the Customer ID or Customer Purchase Order.

Use the Scheduling function to edit the scheduling of the Production Order Releases displayed.

To use the **Production Schedule View**, follow these steps:

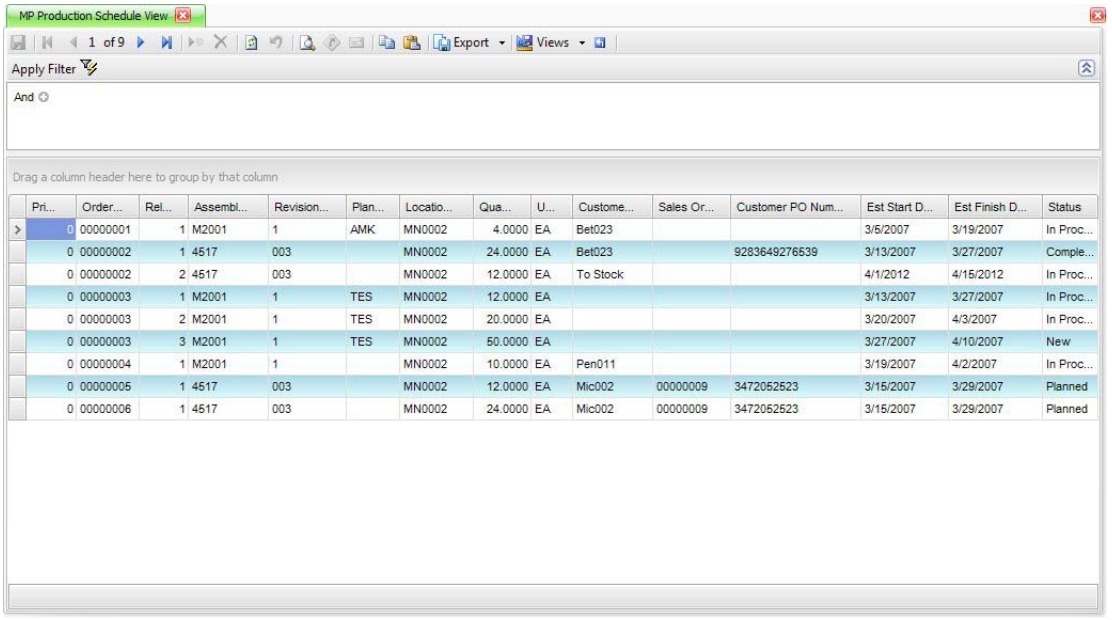
1. Select **Production Schedule View** from the **Interactive Views** menu.

Production Schedule View Menu



2. The **Production Schedule View** screen appears.

Production Schedule View Screen



Pri...	Order...	Rel...	Assembl...	Revision...	Plan...	Locatio...	Qua...	U...	Custome...	Sales Or...	Customer PO Num...	Est Start D...	Est Finish D...	Status
0	00000001	1	M2001	1	AMK	MN0002	4.0000	EA	Bet023			3/5/2007	3/19/2007	In Proc...
0	00000002	1	4517	003		MN0002	24.0000	EA	Bet023		9283649276539	3/13/2007	3/27/2007	Comple...
0	00000002	2	4517	003		MN0002	12.0000	EA	To Stock			4/1/2012	4/15/2012	In Proc...
0	00000003	1	M2001	1	TES	MN0002	12.0000	EA				3/13/2007	3/27/2007	In Proc...
0	00000003	2	M2001	1	TES	MN0002	20.0000	EA				3/20/2007	4/3/2007	In Proc...
0	00000003	3	M2001	1	TES	MN0002	50.0000	EA				3/27/2007	4/10/2007	New
0	00000004	1	M2001	1		MN0002	10.0000	EA	Pen011			3/19/2007	4/2/2007	In Proc...
0	00000005	1	4517	003		MN0002	12.0000	EA	Mic002	00000009	3472052523	3/15/2007	3/29/2007	Planned
0	00000006	1	4517	003		MN0002	24.0000	EA	Mic002	00000009	3472052523	3/15/2007	3/29/2007	Planned

3. Select the range of **Filter Criteria** to include in the View. Leave the filter criteria blank to include all records. Click **Apply Filter** to populate the grid below.
4. Refer to the **Using the Interactive Views Menu** section a the beginning of this for more details on using the Production Schedule View.

NOTE: Refer to the How to Use Grids Section in the General Information guide for more details on how to add or take away columns from the grid screen.

DISPATCHED PRODUCTION VIEW

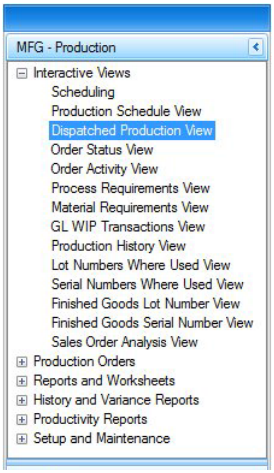
Use the **Dispatched Production View** to view the workload for any specific Work Centers, Machine Groups, or Labor Types. You can change the sequence in which Production Orders should flow through the selected resource, but these changes are not saved when using Interactive Views. Use the Dispatch Production function within Production Orders to make and save changes to the production sequence.

Work Center is the most frequently used resource selected, showing the upcoming load for that Work Center. The information can also be selected by Machine Group or Labor Type if your planning is centered around either of those two bottleneck resources.

To use the **Dispatched Production View**, follow these steps:

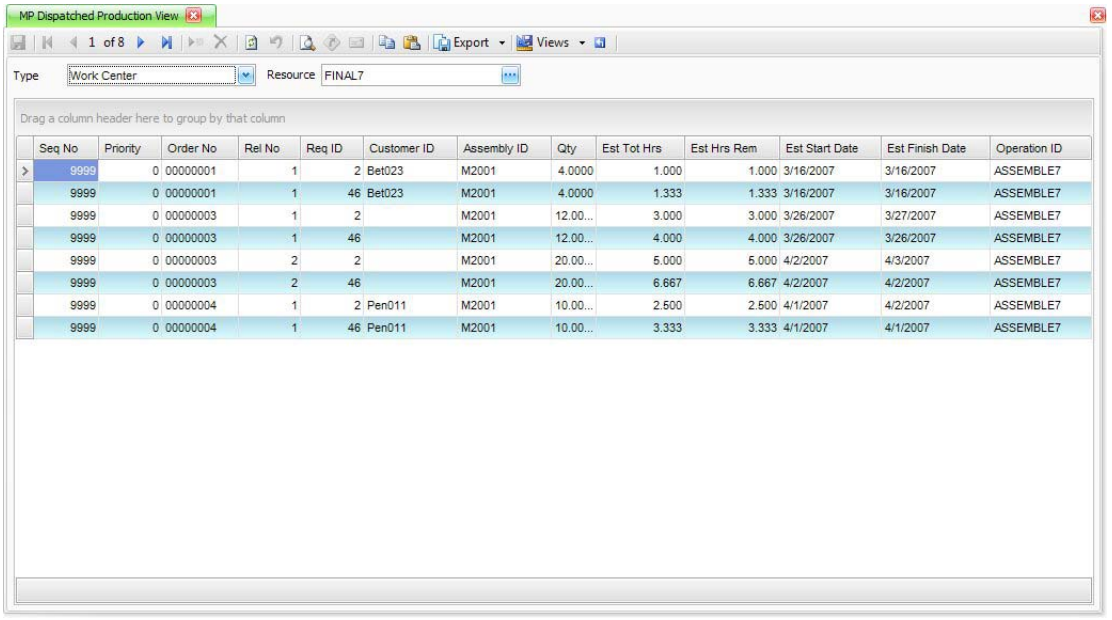
1. Select **Dispatched Production View** from the **Interactive Views** menu.

Dispatched Production View Menu



2. The **Dispatched Production View** screen appears.

Dispatched Production View Screen



3. Select the type of information to include in the report from the **Type** field; **Work Center**, **Machine Group**, or **Labor Type**.
4. Select the associated ID from the **Resource** field.
5. Refer to the **Using the Interactive Views Menu** section a the beginning of this chapter for more details on using the Dispatched Production View.

NOTE: Refer to the How to Use Grids Section in the General Information guide for more details on how to add or take away columns from the grid screen.

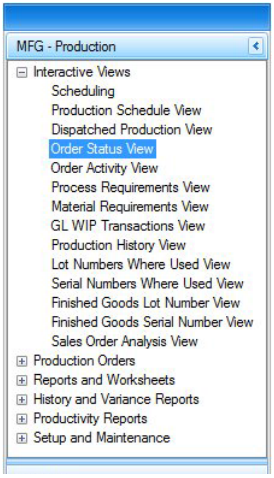
ORDER STATUS VIEW

The **Order Status View** provides you with detailed information about a specific Production Order Release and the Status of all its elements.

To use the **Order Status View**, follow these steps:

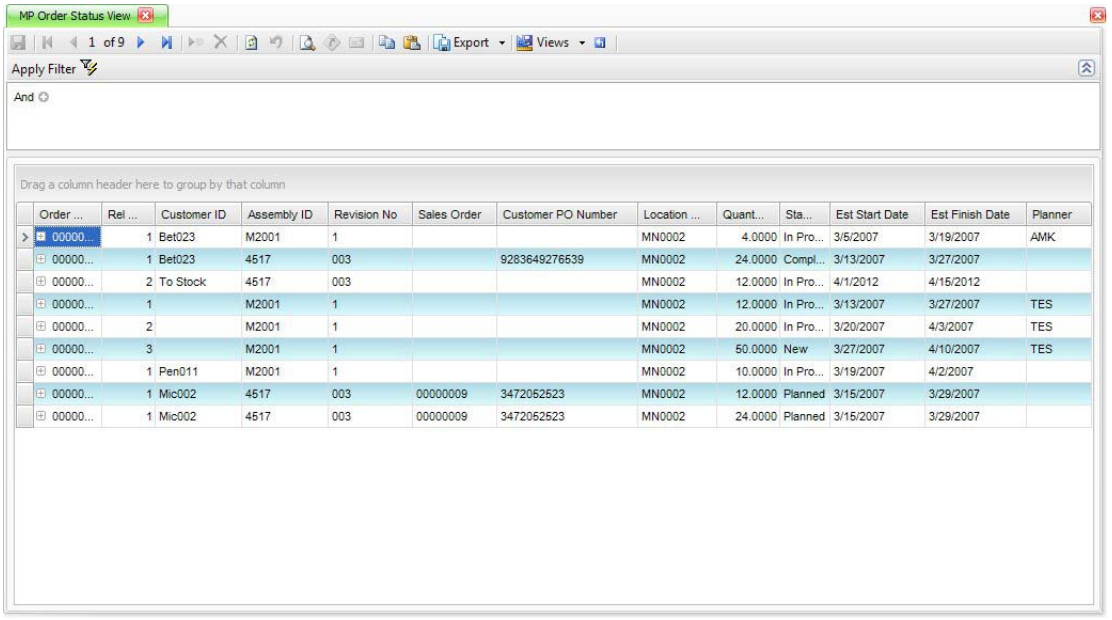
1. Select **Order Status View** from the **Interactive Views** menu.

Order Status View Menu



2. The **Order Status View** screen appears.

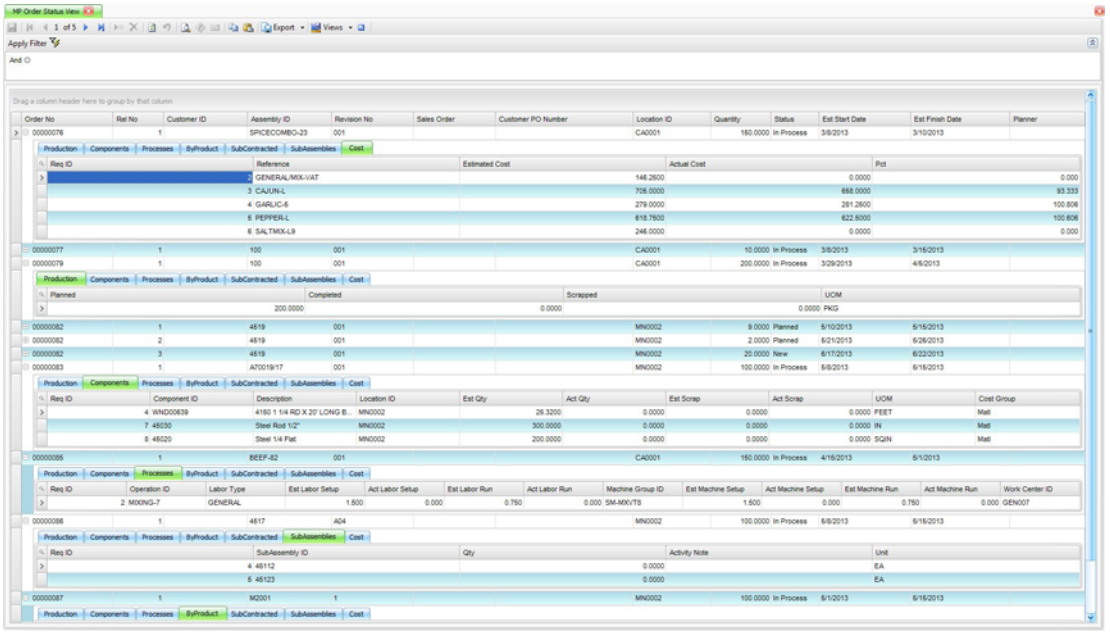
Order Status View Screen

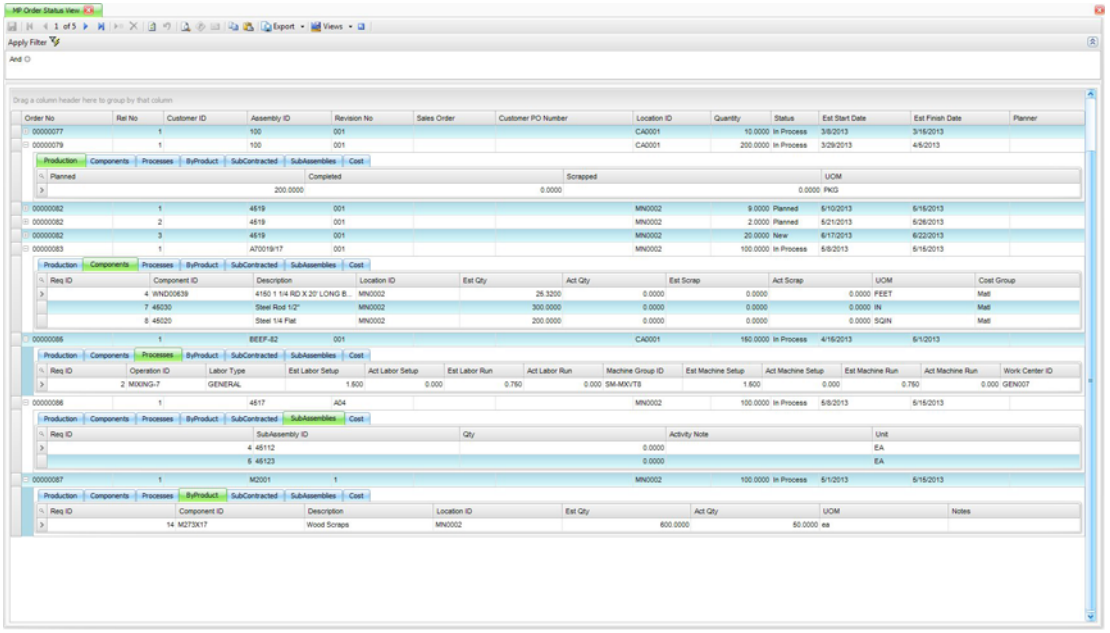


Order ...	Rel ...	Customer ID	Assembly ID	Revision No	Sales Order	Customer PO Number	Location ...	Quant...	Sta...	Est Start Date	Est Finish Date	Planner
00000...	1	Bet023	M2001	1			MN0002	4.0000	In Pro...	3/5/2007	3/19/2007	AMK
00000...	1	Bet023	4517	003		9283649276539	MN0002	24.0000	Compl...	3/13/2007	3/27/2007	
00000...	2	To Stock	4517	003			MN0002	12.0000	In Pro...	4/1/2012	4/15/2012	
00000...	1		M2001	1			MN0002	12.0000	In Pro...	3/13/2007	3/27/2007	TES
00000...	2		M2001	1			MN0002	20.0000	In Pro...	3/20/2007	4/3/2007	TES
00000...	3		M2001	1			MN0002	50.0000	New	3/27/2007	4/10/2007	TES
00000...	1	Pen011	M2001	1			MN0002	10.0000	In Pro...	3/19/2007	4/2/2007	
00000...	1	Mic002	4517	003	00000009	3472052523	MN0002	12.0000	Planned	3/15/2007	3/29/2007	
00000...	1	Mic002	4517	003	00000009	3472052523	MN0002	24.0000	Planned	3/15/2007	3/29/2007	

3. Select the range of **Filter Criteria** to include in the View. Leave the filter criteria blank to include all records. Click **Apply Filter** to populate the grid below.
4. Click the **Plus** (+) next to the Production Order for which you want to see more details.
5. Select the tab for which you want to see information.

Order Status View Screen Expanded





6. Refer to the **Using the Interactive Views Menu** section a the beginning of this chapter for more details on using the Order Status View.

NOTE: Refer to the How to Use Grids Section in the General Information guide for more details on how to add or take away columns from the grid screen.

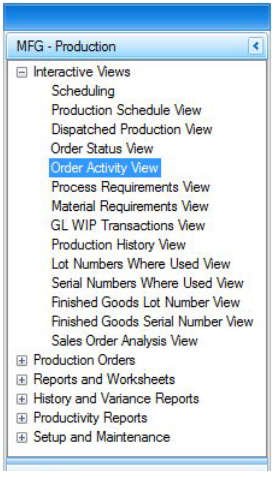
ORDER ACTIVITY VIEW

Use the **Order Activity View** to view, in detail, Production Order activity on a transaction by transaction basis. Using this view you can review all of the transactions which have been recorded against a particular Production Order. You can use the Order Status View to see the current status of each requirement.

To use the **Order Activity View**, follow these steps:

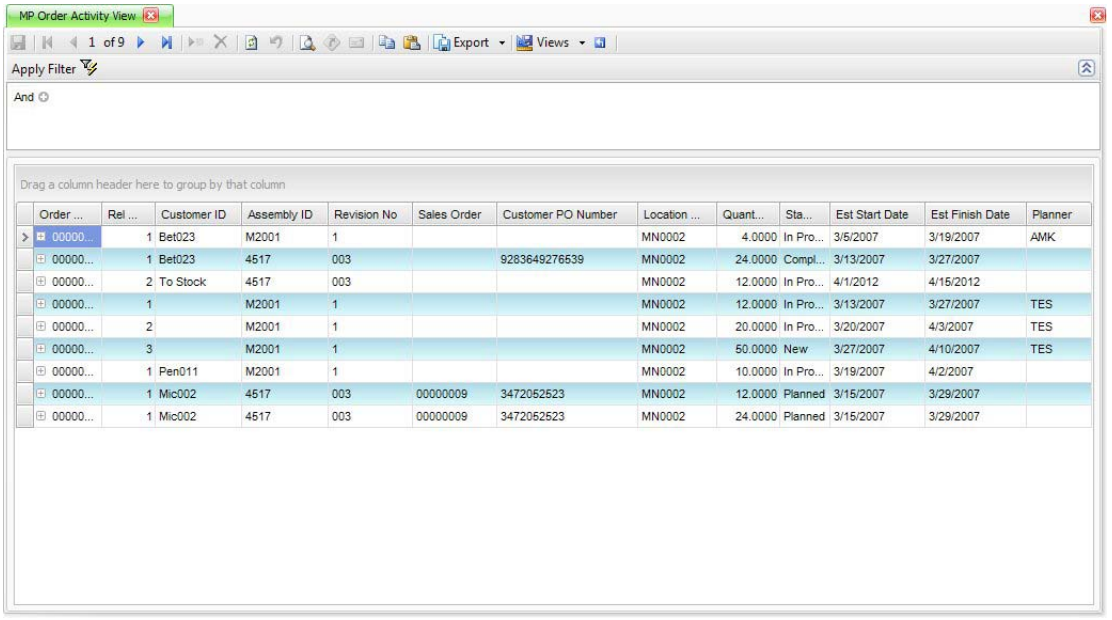
1. Select **Order Activity View** from the **Interactive Views** menu.

Order Activity View Menu



2. The **Order Activity View** screen appears.

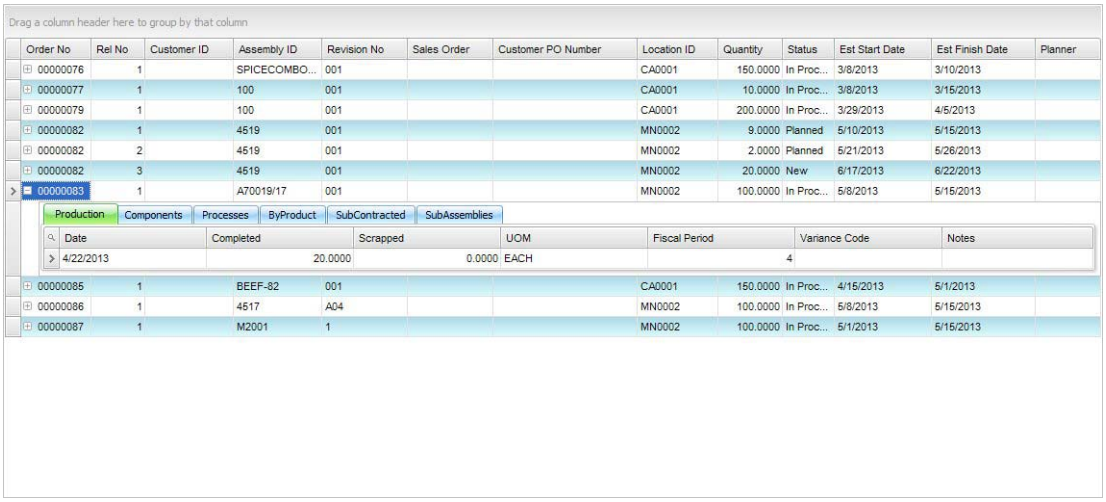
Order Activity View Screen



Order ...	Rel ...	Customer ID	Assembly ID	Revision No	Sales Order	Customer PO Number	Location ...	Quant...	Sta...	Est Start Date	Est Finish Date	Planner
00000...	1	Bet023	M2001	1			MN0002	4.0000	In Pro...	3/5/2007	3/19/2007	AMK
00000...	1	Bet023	4517	003		9283649276539	MN0002	24.0000	Compl...	3/13/2007	3/27/2007	
00000...	2	To Stock	4517	003			MN0002	12.0000	In Pro...	4/1/2012	4/15/2012	
00000...	1		M2001	1			MN0002	12.0000	In Pro...	3/13/2007	3/27/2007	TES
00000...	2		M2001	1			MN0002	20.0000	In Pro...	3/20/2007	4/3/2007	TES
00000...	3		M2001	1			MN0002	50.0000	New	3/27/2007	4/10/2007	TES
00000...	1	Pen011	M2001	1			MN0002	10.0000	In Pro...	3/19/2007	4/2/2007	
00000...	1	Mic002	4517	003	00000009	3472052523	MN0002	12.0000	Planned	3/15/2007	3/29/2007	
00000...	1	Mic002	4517	003	00000009	3472052523	MN0002	24.0000	Planned	3/15/2007	3/29/2007	

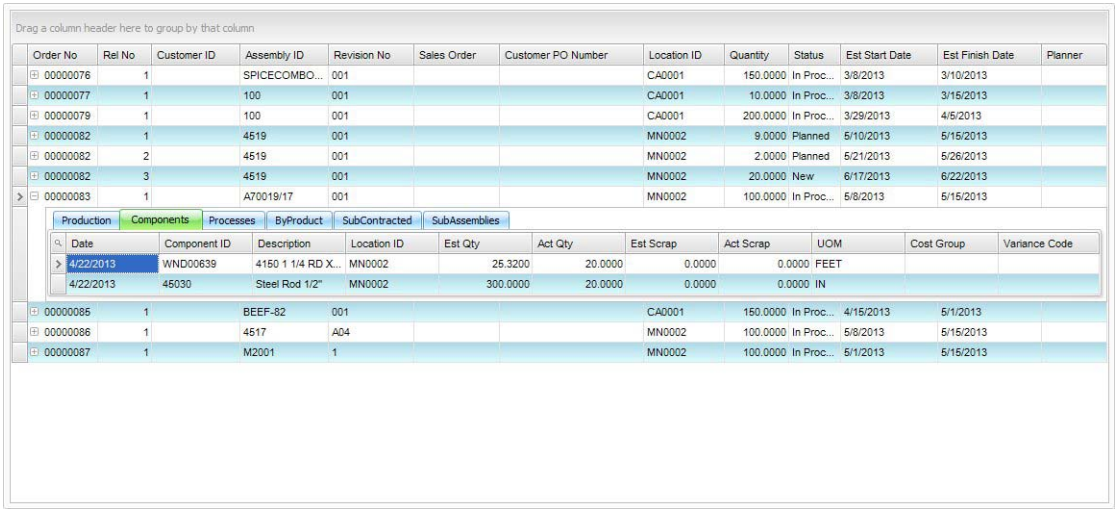
3. Select the range of **Filter Criteria** to include in the View. Leave the filter criteria blank to include all records. Click **Apply Filter** to populate the grid below.
4. Click the **Plus** (+) next to the Production Order for which you want to see more details.
5. Select the tab for which you want to see information.

Order Activity View Screen - Production Tab



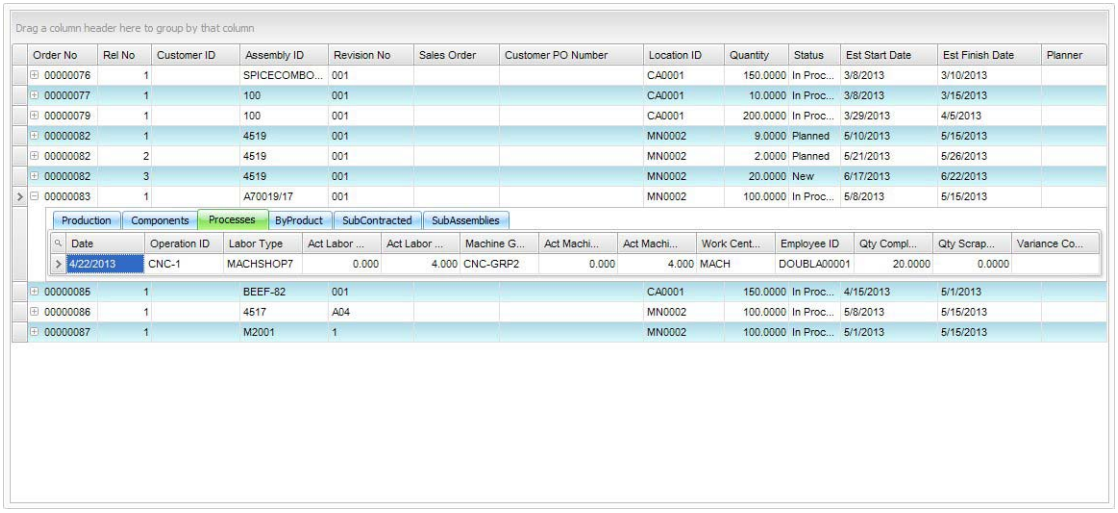
6. The **Production** tab shows the recording of finished goods. Many times this will be one transaction; however, since finished production can be recorded multiple times, multiple transactions can exist.

Order Activity View Screen - Components Tab



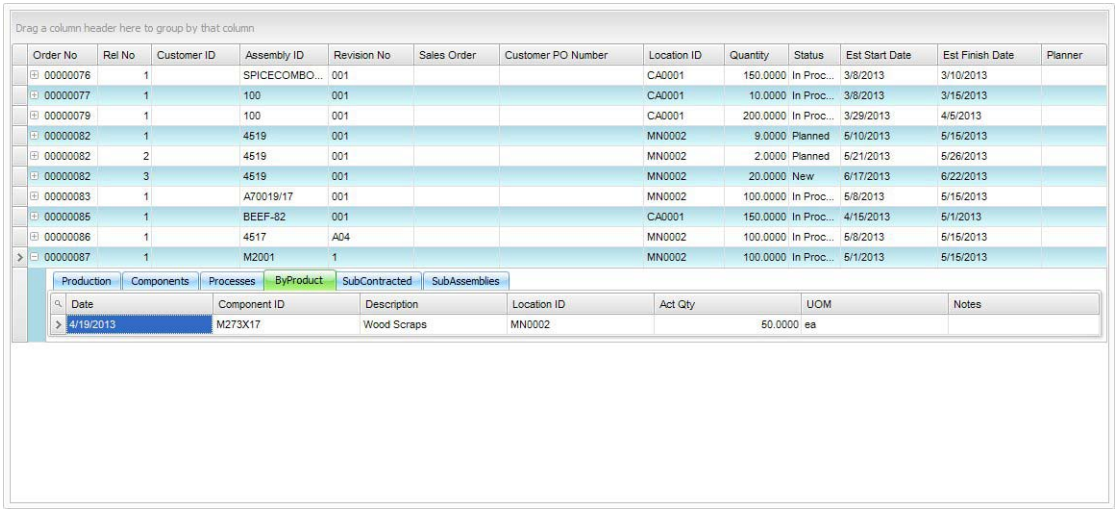
7. The **Components** tab shows the recorded usage of Components on a transaction by transaction basis. Estimated Quantities are derived from the order plan, thus if two records appear on the tab for the same requirements, for instance, 10 units and 20 units, the Estimated Quantity and Scrap will appear as the same number for both transactions.

Order Activity View Screen - Processes Tab



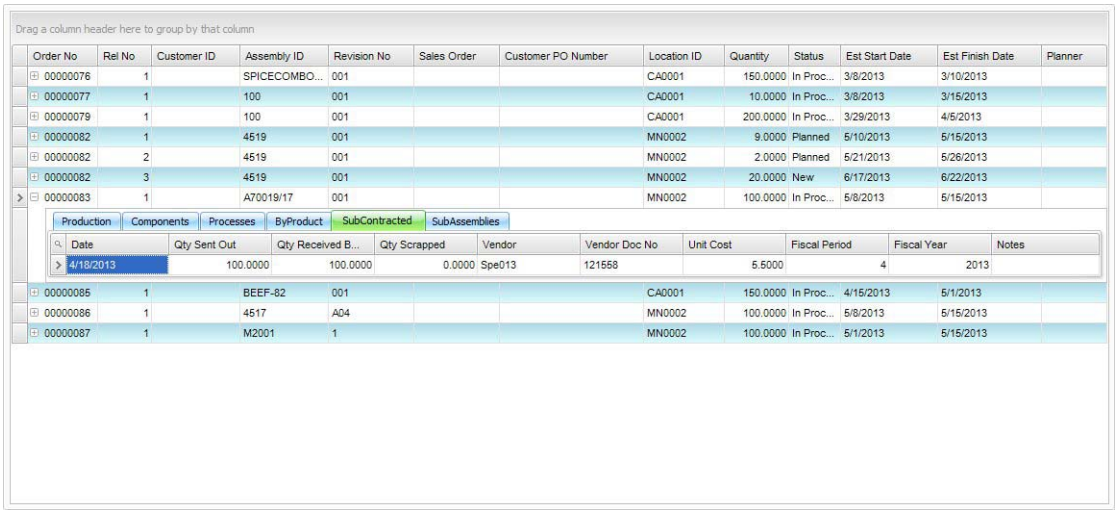
8. The **Processes** tab shows the recorded time activity for processes used in the selected Production Order. They appear on a transaction by transaction basis. Only actual recorded numbers appear on this tab. Note that the Quantity Completed and Quantity Scrapped are part of the recording process but are not usable Inventory numbers, they are simply a way of tracking the processes.

Order Activity View Screen - By-Products Tab



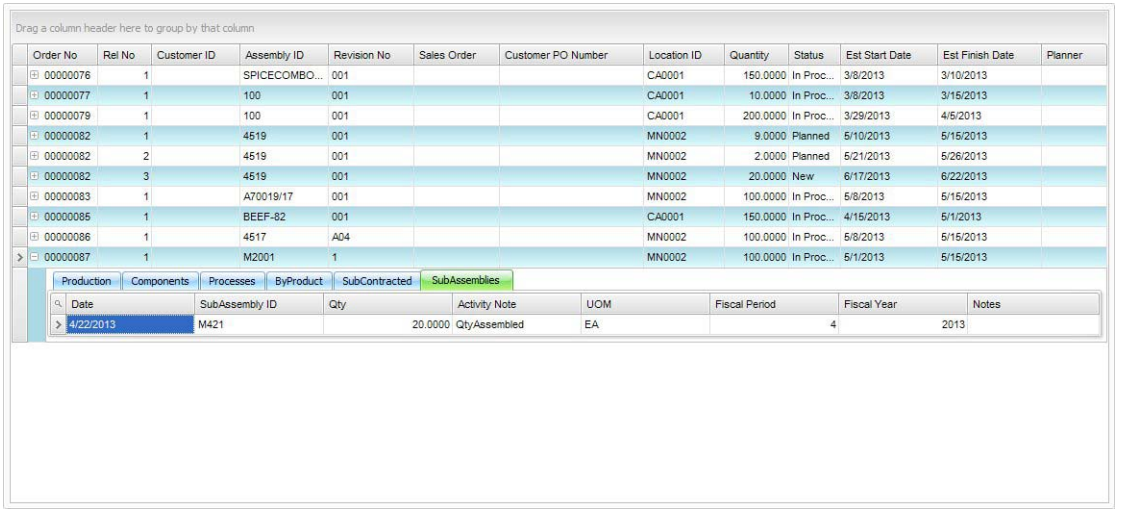
9. The **By-Product** tab shows the recorded creation of By-Products on a transaction by transaction basis.

Order Activity View Screen - Subcontracted Tab



10. The **Subcontracted** tab shows Subcontracting activity for the given Production Order. Since quantities going out and quantities coming back are recorded in Production as two separate transactions, they appear on this view as multiple transactions also.

Order Activity View Screen - Subassemblies Tab



11. The **Subassembly** tab shows Subassembly activity for the given Production Order. Subassembly activity is rarely recorded. Usually these Subassemblies are simply recorded as being produced along the way; however, occasionally, partially assembled products, which are normally not stocked, will be pulled from stock from a previous overrun or will be put into stock because the current order overproduced that item. These are recorded as "Moved to Stock" and "Pulled from Stock" transactions, thus the **Activity Note** field, which indicates the type of transaction we are looking at.

12. Refer to the **Using the Interactive Views Menu** section a the beginning of this chapter for more details on using the Order Activity View.

NOTE: Refer to the How to Use Grids Section in the General Information guide for more details on how to add or take away columns from the grid screen.

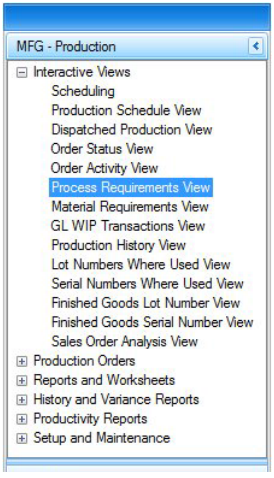
PROCESS REQUIREMENTS VIEW

Use the **Process Requirements View** to see the detailed Operation Status and quantity requirements for each Component for your Production Orders.

To use the **Process Requirements View**, follow these steps:

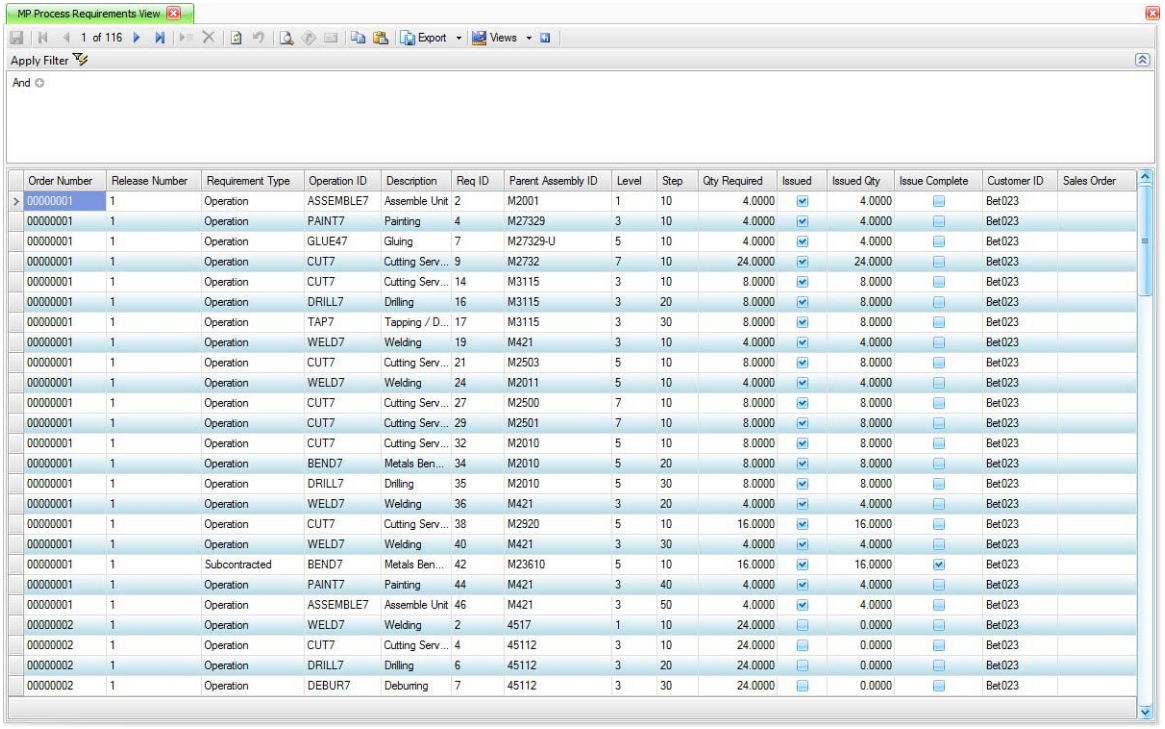
1. Select **Process Requirements View** from the **Interactive Views** menu.

Process Requirements View Menu



2. The **Process Requirements View** screen appears.

Process Requirements View Screen



Order Number	Release Number	Requirement Type	Operation ID	Description	Req ID	Parent Assembly ID	Level	Step	Qty Required	Issued	Issued Qty	Issue Complete	Customer ID	Sales Order
00000001	1	Operation	ASSEMBLE7	Assemble Unit	2	M2001	1	10	4.0000	☑	4.0000	☐	Bet023	
00000001	1	Operation	PAINT7	Painting	4	M27329	3	10	4.0000	☑	4.0000	☐	Bet023	
00000001	1	Operation	GLUE47	Gluing	7	M27329-U	5	10	4.0000	☑	4.0000	☐	Bet023	
00000001	1	Operation	CUT7	Cutting Serv...	9	M2732	7	10	24.0000	☑	24.0000	☐	Bet023	
00000001	1	Operation	CUT7	Cutting Serv...	14	M3115	3	10	8.0000	☑	8.0000	☐	Bet023	
00000001	1	Operation	DRILL7	Drilling	16	M3115	3	20	8.0000	☑	8.0000	☐	Bet023	
00000001	1	Operation	TAP7	Tapping / D...	17	M3115	3	30	8.0000	☑	8.0000	☐	Bet023	
00000001	1	Operation	WELD7	Welding	19	M421	3	10	4.0000	☑	4.0000	☐	Bet023	
00000001	1	Operation	CUT7	Cutting Serv...	21	M2503	5	10	8.0000	☑	8.0000	☐	Bet023	
00000001	1	Operation	WELD7	Welding	24	M2011	5	10	4.0000	☑	4.0000	☐	Bet023	
00000001	1	Operation	CUT7	Cutting Serv...	27	M2500	7	10	8.0000	☑	8.0000	☐	Bet023	
00000001	1	Operation	CUT7	Cutting Serv...	29	M2501	7	10	8.0000	☑	8.0000	☐	Bet023	
00000001	1	Operation	CUT7	Cutting Serv...	32	M2010	5	10	8.0000	☑	8.0000	☐	Bet023	
00000001	1	Operation	BEND7	Metals Ben...	34	M2010	5	20	8.0000	☑	8.0000	☐	Bet023	
00000001	1	Operation	DRILL7	Drilling	35	M2010	5	30	8.0000	☑	8.0000	☐	Bet023	
00000001	1	Operation	WELD7	Welding	36	M421	3	20	4.0000	☑	4.0000	☐	Bet023	
00000001	1	Operation	CUT7	Cutting Serv...	38	M2920	5	10	16.0000	☑	16.0000	☐	Bet023	
00000001	1	Operation	WELD7	Welding	40	M421	3	30	4.0000	☑	4.0000	☐	Bet023	
00000001	1	Subcontracted	BEND7	Metals Ben...	42	M23610	5	10	16.0000	☑	16.0000	☑	Bet023	
00000001	1	Operation	PAINT7	Painting	44	M421	3	40	4.0000	☑	4.0000	☐	Bet023	
00000001	1	Operation	ASSEMBLE7	Assemble Unit	46	M421	3	50	4.0000	☑	4.0000	☐	Bet023	
00000002	1	Operation	WELD7	Welding	2	4517	1	10	24.0000	☐	0.0000	☐	Bet023	
00000002	1	Operation	CUT7	Cutting Serv...	4	45112	3	10	24.0000	☐	0.0000	☐	Bet023	
00000002	1	Operation	DRILL7	Drilling	6	45112	3	20	24.0000	☐	0.0000	☐	Bet023	
00000002	1	Operation	DEBUR7	Deburring	7	45112	3	30	24.0000	☐	0.0000	☐	Bet023	

3. Select the range of **Filter Criteria** to include in the View. Leave the filter criteria blank to include all records. Click **Apply Filter** to populate the grid below.
4. Refer to the **Using the Interactive Views Menu** section a the beginning of this for more details on using the Process Requirements View.

NOTE: Refer to the How to Use Grids Section in the General Information guide for more details on how to add or take away columns from the grid screen.

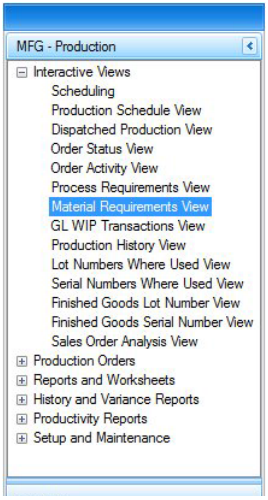
MATERIAL REQUIREMENTS VIEW

Use the **Material Requirements View** to see the detailed Component Material Status and Quantity requirement information for your Production Orders.

To use the **Material Requirements View**, follow these steps:

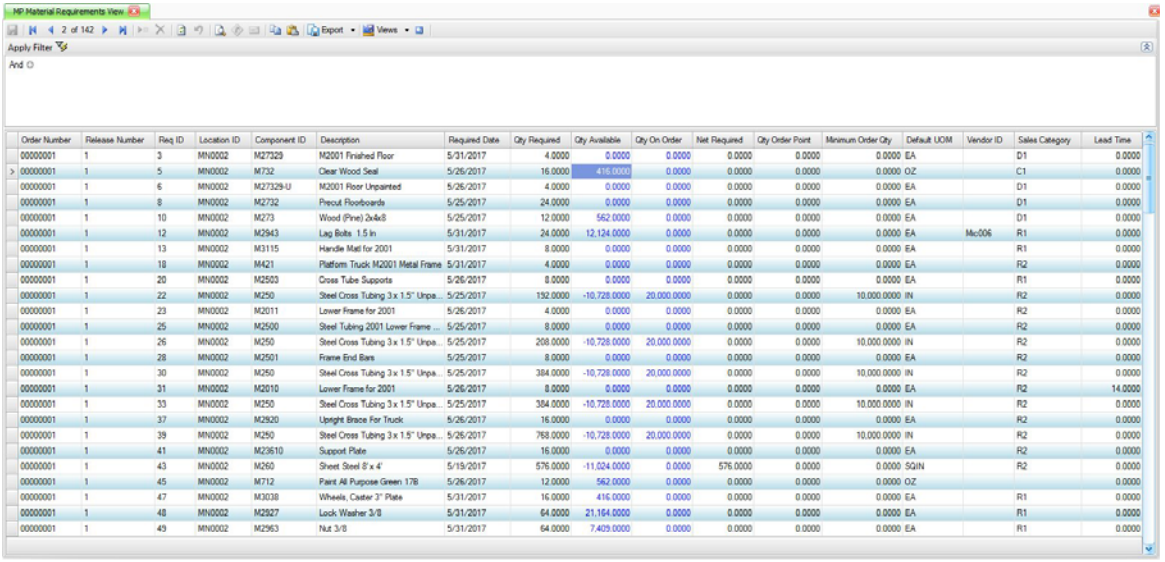
1. Select **Material Requirements View** from the **Interactive Views** menu.

Material Requirements View Menu



2. The **Material Requirements View** screen appears.

Material Requirements View Screen



Order Number	Release Number	Req ID	Location ID	Component ID	Description	Required Date	Qty Required	Qty Available	Qty On Order	Net Required	Qty Order Point	Minimum Order Qty	Default UOM	Vendor ID	Sales Category	Lead Time
00000001	1	3	MN0002	M27329	M2001 Finished Floor	5/31/2017	4.0000	0.0000	0.0000	0.0000	0.0000	0.0000	EA		D1	0.0000
00000001	1	5	MN0002	M732	Clear Wood Seal	5/26/2017	16.0000	416.0000	0.0000	0.0000	0.0000	0.0000	OZ		C1	0.0000
00000001	1	6	MN0002	M27329-U	M2001 Floor Unpainted	5/26/2017	4.0000	0.0000	0.0000	0.0000	0.0000	0.0000	EA		D1	0.0000
00000001	1	8	MN0002	M2732	Precut Floorboards	5/25/2017	24.0000	0.0000	0.0000	0.0000	0.0000	0.0000	EA		D1	0.0000
00000001	1	10	MN0002	M273	Wood (Pine) 2x4x8	5/25/2017	12.0000	562.0000	0.0000	0.0000	0.0000	0.0000	EA		D1	0.0000
00000001	1	12	MN0002	M2943	Lag Bolts 1.5 In	5/31/2017	24.0000	12,124.0000	0.0000	0.0000	0.0000	0.0000	EA	Mic006	R1	0.0000
00000001	1	13	MN0002	M3115	Handle Mat for 2001	5/31/2017	8.0000	0.0000	0.0000	0.0000	0.0000	0.0000	EA		R1	0.0000
00000001	1	18	MN0002	M421	Platform Truck M2001 Metal Frame	5/31/2017	4.0000	0.0000	0.0000	0.0000	0.0000	0.0000	EA		R2	0.0000
00000001	1	20	MN0002	M2503	Cross Tube Supports	5/26/2017	8.0000	0.0000	0.0000	0.0000	0.0000	0.0000	EA		R1	0.0000
00000001	1	22	MN0002	M250	Steel Cross Tubing 3 x 1.5" Unpa...	5/25/2017	192.0000	-10,728.0000	20,000.0000	0.0000	0.0000	10,000.0000	IN		R2	0.0000
00000001	1	23	MN0002	M2011	Lower Frame for 2001	5/26/2017	4.0000	0.0000	0.0000	0.0000	0.0000	0.0000	EA		R2	0.0000
00000001	1	25	MN0002	M2500	Steel Tubing 2001 Lower Frame ...	5/25/2017	8.0000	0.0000	0.0000	0.0000	0.0000	0.0000	EA		R2	0.0000
00000001	1	26	MN0002	M250	Steel Cross Tubing 3 x 1.5" Unpa...	5/25/2017	208.0000	-10,728.0000	20,000.0000	0.0000	0.0000	10,000.0000	IN		R2	0.0000
00000001	1	28	MN0002	M2501	Frame End Bars	5/25/2017	8.0000	0.0000	0.0000	0.0000	0.0000	0.0000	EA		R2	0.0000
00000001	1	30	MN0002	M250	Steel Cross Tubing 3 x 1.5" Unpa...	5/25/2017	384.0000	-10,728.0000	20,000.0000	0.0000	0.0000	10,000.0000	IN		R2	0.0000
00000001	1	31	MN0002	M2010	Lower Frame for 2001	5/26/2017	8.0000	0.0000	0.0000	0.0000	0.0000	0.0000	EA		R2	14.0000
00000001	1	33	MN0002	M250	Steel Cross Tubing 3 x 1.5" Unpa...	5/25/2017	384.0000	-10,728.0000	20,000.0000	0.0000	0.0000	10,000.0000	IN		R2	0.0000
00000001	1	37	MN0002	M2920	Upright Brace For Truck	5/26/2017	16.0000	0.0000	0.0000	0.0000	0.0000	0.0000	EA		R2	0.0000
00000001	1	39	MN0002	M250	Steel Cross Tubing 3 x 1.5" Unpa...	5/26/2017	768.0000	-10,728.0000	20,000.0000	0.0000	0.0000	10,000.0000	IN		R2	0.0000
00000001	1	41	MN0002	M23610	Support Plate	5/26/2017	16.0000	0.0000	0.0000	0.0000	0.0000	0.0000	EA		R2	0.0000
00000001	1	43	MN0002	M260	Sheet Steel 8' x 4'	5/19/2017	576.0000	-11,024.0000	0.0000	576.0000	0.0000	0.0000	SQIN		R2	0.0000
00000001	1	45	MN0002	M712	Paint All Purpose Green 178	5/26/2017	12.0000	562.0000	0.0000	0.0000	0.0000	0.0000	OZ			0.0000
00000001	1	47	MN0002	M3038	Wheels, Caster 3" Plate	5/31/2017	16.0000	416.0000	0.0000	0.0000	0.0000	0.0000	EA		R1	0.0000
00000001	1	48	MN0002	M2927	Lock Washer 3/8	5/31/2017	64.0000	21,164.0000	0.0000	0.0000	0.0000	0.0000	EA		R1	0.0000
00000001	1	49	MN0002	M2963	Nut 3/8	5/31/2017	64.0000	7,409.0000	0.0000	0.0000	0.0000	0.0000	EA		R1	0.0000

3. Select the range of **Filter Criteria** to include in the View. Leave the filter criteria blank to include all records. Click **Apply Filter** to populate the grid below.
4. Double-click on the blue **Quantity Available** or **Quantity On Order**, to view the Inventory Item Availability View for the selected Item ID.
5. Refer to the **Using the Interactive Views Menu** section a the beginning of this for more details on using the Material Requirements View.

NOTE: Refer to the How to Use Grids Section in the General Information guide for more details on how to add or take away columns from the grid screen.

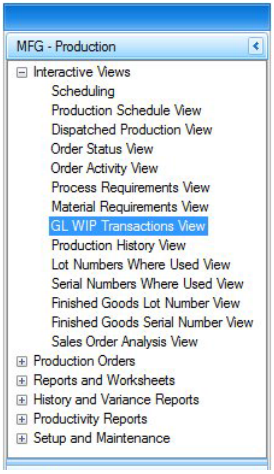
GL WIP TRANSACTIONS VIEW

Use the **GL WIP Transactions View** function to view Inventory that has been pulled from stock and is currently on the shop floor. As Materials are pulled from Inventory, the value of Inventory is reduced – Inventory Valuation Reports show less Inventory than actually exists, because pulled Inventory is now Work in Process. To see the full value of existing Inventory, consider the value shown on the WIP Report as well as the Inventory Valuation Reports.

To use the **GL WIP Transactions View**, follow these steps:

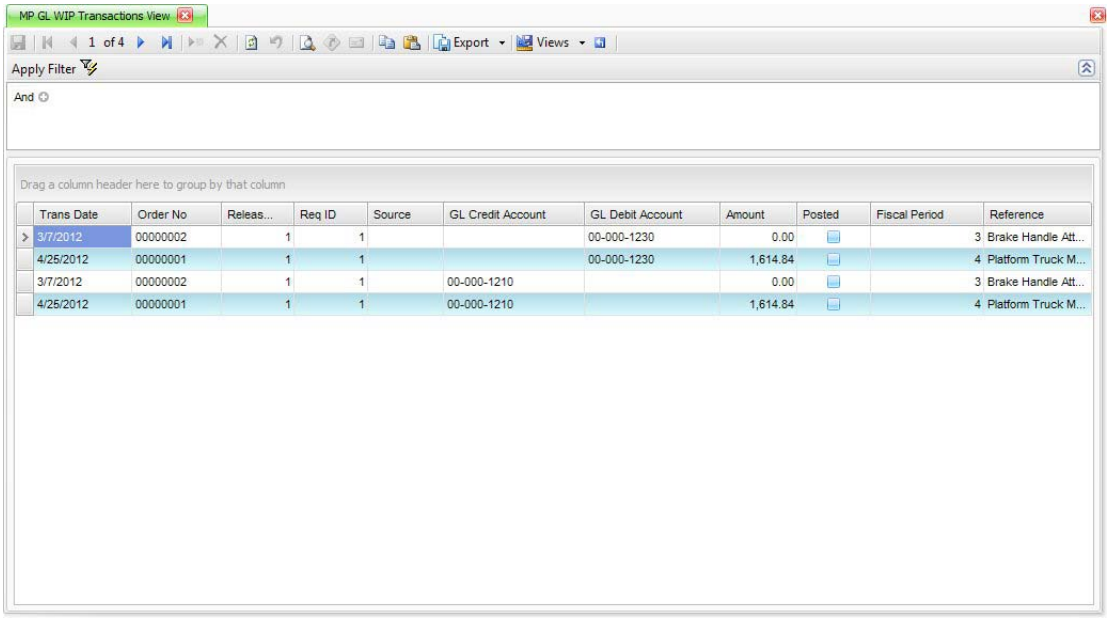
1. Select **GL WIP Transactions View** from the **Interactive Views** menu.

GL WIP Transactions View Menu



2. The **GL WIP Transactions View** screen appears.

GL WIP Transactions View Screen



3. Select the range of **Filter Criteria** to include in the View. Leave the filter criteria blank to include all records. Click **Apply Filter** to populate the grid below.
4. Refer to the **Using the Interactive Views Menu** section a the beginning of this chapter for more details on using the GL WIP Transactions View.

NOTE: Refer to the How to Use Grids Section in the General Information guide for more details on how to add or take away columns from the grid screen.

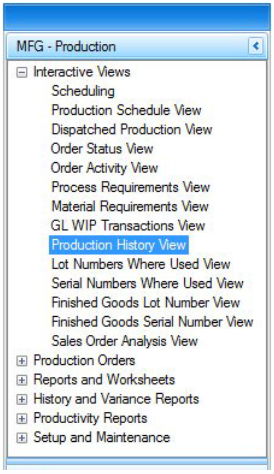
PRODUCTION HISTORY VIEW

Use the **Production History View** to review and locate information about previous Production Order Releases. The Production History view allows you to select ranges of information so you can quickly locate specific history information by defining your search criteria. This allows you to see all the history information for a Production Order Number, even if you only know, for example, the Customer Purchase Order.

To use the **Production History View**, follow these steps:

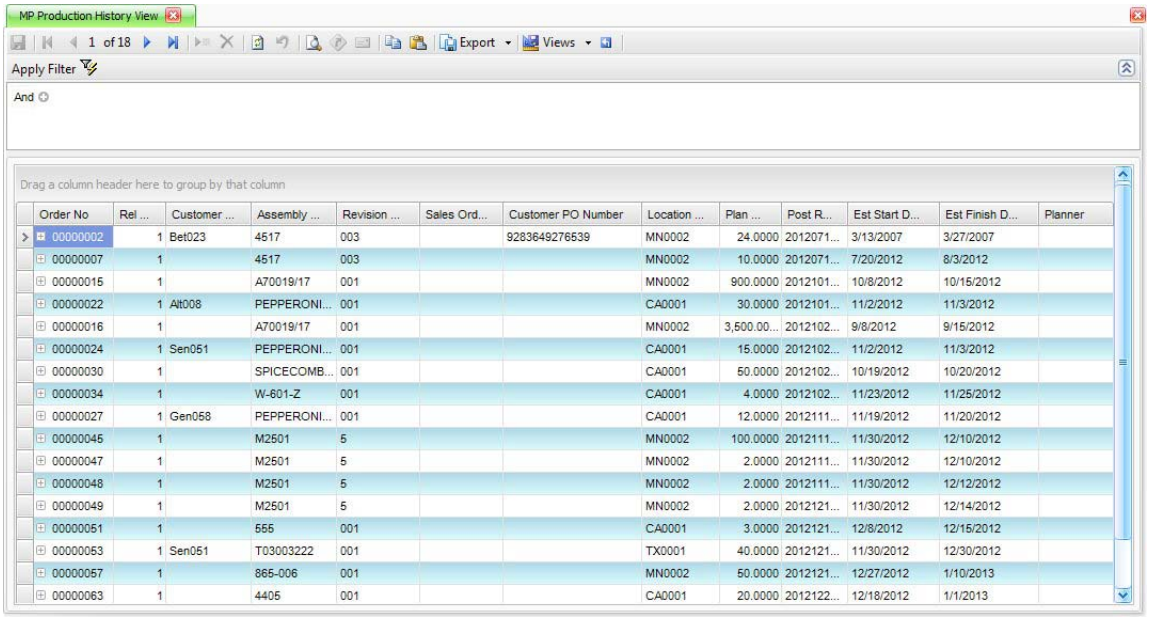
1. Select **Production History View** from the **Interactive Views** menu.

Production History View Menu



2. The **Production History View** screen appears.

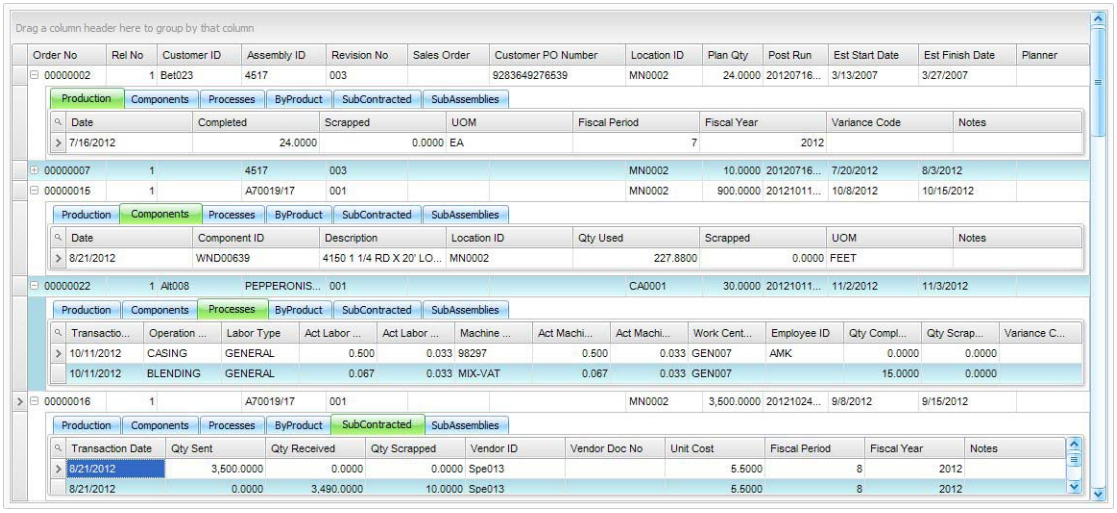
Production History View Screen



Order No	Rel ...	Customer ...	Assembly ...	Revision ...	Sales Ord...	Customer PO Number	Location ...	Plan ...	Post R...	Est Start D...	Est Finish D...	Planner
00000002	1	Bet023	4517	003		9283649276539	MN0002	24.0000	2012071...	3/13/2007	3/27/2007	
00000007	1		4517	003			MN0002	10.0000	2012071...	7/20/2012	8/3/2012	
00000015	1		A70019/17	001			MN0002	900.0000	2012101...	10/8/2012	10/15/2012	
00000022	1	Alt008	PEPPERONI...	001			CA0001	30.0000	2012101...	11/2/2012	11/3/2012	
00000016	1		A70019/17	001			MN0002	3,500.00...	2012102...	9/8/2012	9/15/2012	
00000024	1	Sen051	PEPPERONI...	001			CA0001	15.0000	2012102...	11/2/2012	11/3/2012	
00000030	1		SPICECOMB...	001			CA0001	50.0000	2012102...	10/19/2012	10/20/2012	
00000034	1		W-601-Z	001			CA0001	4.0000	2012102...	11/23/2012	11/25/2012	
00000027	1	Gen058	PEPPERONI...	001			CA0001	12.0000	2012111...	11/19/2012	11/20/2012	
00000045	1		M2501	5			MN0002	100.0000	2012111...	11/30/2012	12/10/2012	
00000047	1		M2501	5			MN0002	2.0000	2012111...	11/30/2012	12/10/2012	
00000048	1		M2501	5			MN0002	2.0000	2012111...	11/30/2012	12/12/2012	
00000049	1		M2501	5			MN0002	2.0000	2012121...	11/30/2012	12/14/2012	
00000051	1		555	001			CA0001	3.0000	2012121...	12/8/2012	12/15/2012	
00000053	1	Sen051	T03003222	001			TX0001	40.0000	2012121...	11/30/2012	12/30/2012	
00000057	1		865-006	001			MN0002	50.0000	2012121...	12/27/2012	1/10/2013	
00000063	1		4405	001			CA0001	20.0000	2012122...	12/18/2012	1/1/2013	

3. Select the range of **Filter Criteria** to include in the View. Leave the filter criteria blank to include all records. Click **Apply Filter** to populate the grid below.
4. Click the **Plus** (+) next to the Production Order for which you want to see more details.
5. Select the tab for which you want to see information.

Production History View Screen Expanded



6. Refer to the **Using the Interactive Views Menu** section a the beginning of this chapter for more details on using the Production History View.

NOTE: Refer to the How to Use Grids Section in the General Information guide for more details on how to add or take away columns from the grid screen.

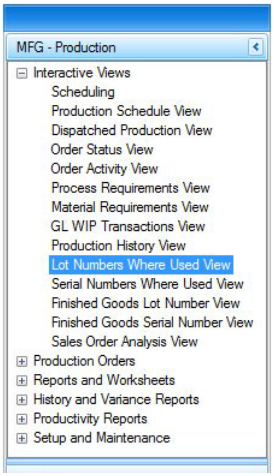
LOT NUMBER WHERE USED VIEW

Use the **Lot Number Where Used View** function to view products that were produced in a particular Lot Number. This function could be used if you have a Lot Number that is suspect or known to be defective. Knowing the Lot Number, you could find which finished products might have quality or recall issues.

To use the **Lot Number Where Used View**, follow these steps:

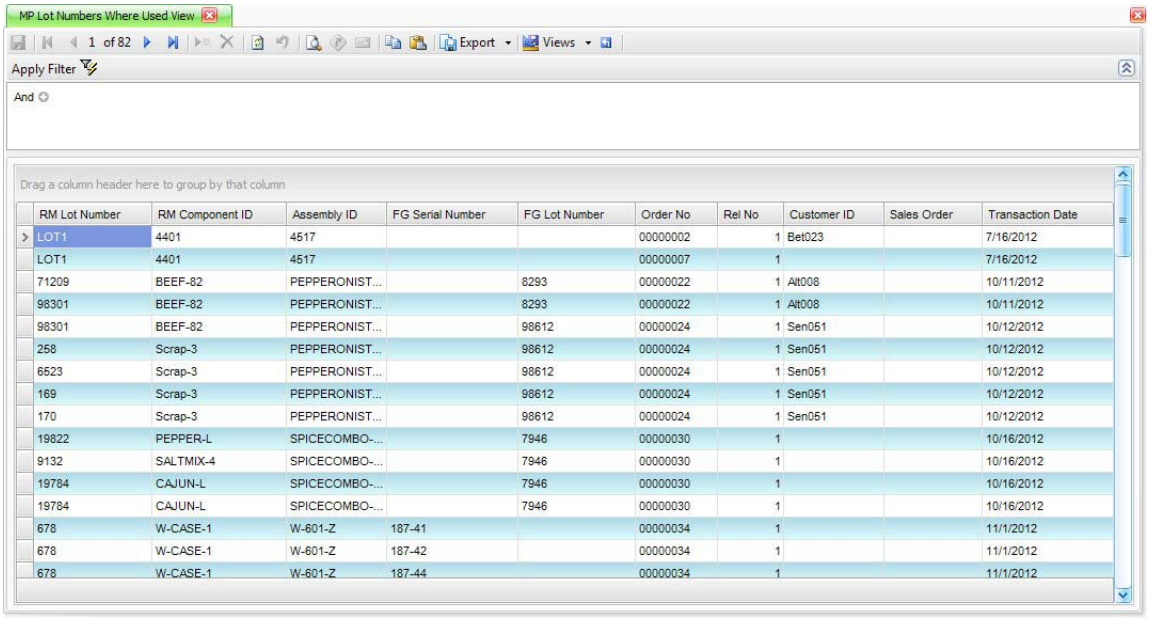
1. Select **Lot Number Where Used View** from the **Interactive Views** menu.

Lot Number Where Used View Menu



2. The **Lot Number Where Used View** screen appears.

Lot Number Where Used View Screen



RM Lot Number	RM Component ID	Assembly ID	FG Serial Number	FG Lot Number	Order No	Rel No	Customer ID	Sales Order	Transaction Date
LOT1	4401	4517			00000002	1	Bet023		7/16/2012
LOT1	4401	4517			00000007	1			7/16/2012
71209	BEEF-82	PEPPERONIST...		8293	00000022	1	Alt008		10/11/2012
98301	BEEF-82	PEPPERONIST...		8293	00000022	1	Alt008		10/11/2012
98301	BEEF-82	PEPPERONIST...		98612	00000024	1	Sen051		10/12/2012
258	Scrap-3	PEPPERONIST...		98612	00000024	1	Sen051		10/12/2012
6523	Scrap-3	PEPPERONIST...		98612	00000024	1	Sen051		10/12/2012
169	Scrap-3	PEPPERONIST...		98612	00000024	1	Sen051		10/12/2012
170	Scrap-3	PEPPERONIST...		98612	00000024	1	Sen051		10/12/2012
19822	PEPPER-L	SPICECOMBO-...		7946	00000030	1			10/16/2012
9132	SALTMIX-4	SPICECOMBO-...		7946	00000030	1			10/16/2012
19784	CAJUN-L	SPICECOMBO-...		7946	00000030	1			10/16/2012
19784	CAJUN-L	SPICECOMBO-...		7946	00000030	1			10/16/2012
678	W-CASE-1	W-601-Z	187-41		00000034	1			11/1/2012
678	W-CASE-1	W-601-Z	187-42		00000034	1			11/1/2012
678	W-CASE-1	W-601-Z	187-44		00000034	1			11/1/2012

3. Select the range of **Filter Criteria** to include in the View. Leave the filter criteria blank to include all records. Click **Apply Filter** to populate the grid below.

4. Refer to the **Using the Interactive Views Menu** section a the beginning of this chapter for more details on using the Lot Number Where Used View.

NOTE: Refer to the How to Use Grids Section in the General Information guide for more details on how to add or take away columns from the grid screen.

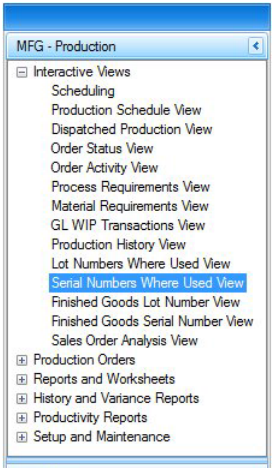
SERIAL NUMBER WHERE USED VIEW

Use the **Serial Numbers Where Used View** function to view products that were built using parts with a particular Serial Number. This function could be used if you have a Serial Number that is suspect or known to be defective. Knowing the Serial Number, you could find which finished products might have quality or recall issues.

To use the **Serial Number Where Used View**, follow these steps:

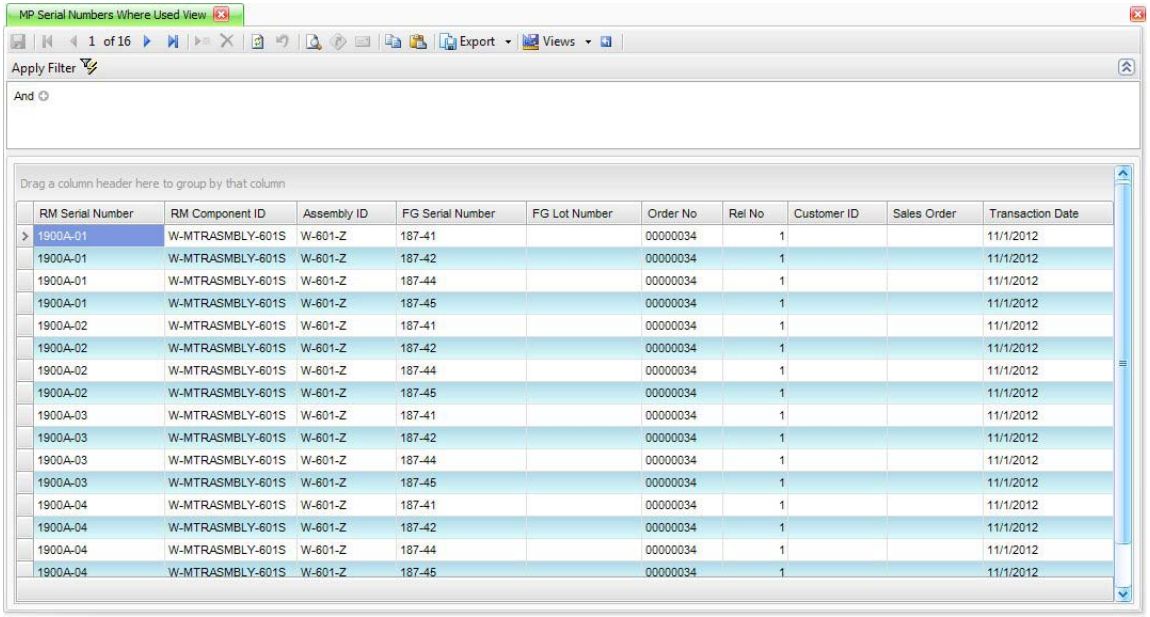
1. Select **Serial Number Where Used View** from the **Interactive Views** menu.

Serial Number Where Used View Menu



2. The **Serial Number Where Used View** screen appears.

Serial Number Where Used View Screen



RM Serial Number	RM Component ID	Assembly ID	FG Serial Number	FG Lot Number	Order No	Rel No	Customer ID	Sales Order	Transaction Date
1900A-01	W-MTRASMBLY-601S	W-601-Z	187-41		00000034	1			11/1/2012
1900A-01	W-MTRASMBLY-601S	W-601-Z	187-42		00000034	1			11/1/2012
1900A-01	W-MTRASMBLY-601S	W-601-Z	187-44		00000034	1			11/1/2012
1900A-01	W-MTRASMBLY-601S	W-601-Z	187-45		00000034	1			11/1/2012
1900A-02	W-MTRASMBLY-601S	W-601-Z	187-41		00000034	1			11/1/2012
1900A-02	W-MTRASMBLY-601S	W-601-Z	187-42		00000034	1			11/1/2012
1900A-02	W-MTRASMBLY-601S	W-601-Z	187-44		00000034	1			11/1/2012
1900A-02	W-MTRASMBLY-601S	W-601-Z	187-45		00000034	1			11/1/2012
1900A-03	W-MTRASMBLY-601S	W-601-Z	187-41		00000034	1			11/1/2012
1900A-03	W-MTRASMBLY-601S	W-601-Z	187-42		00000034	1			11/1/2012
1900A-03	W-MTRASMBLY-601S	W-601-Z	187-44		00000034	1			11/1/2012
1900A-03	W-MTRASMBLY-601S	W-601-Z	187-45		00000034	1			11/1/2012
1900A-04	W-MTRASMBLY-601S	W-601-Z	187-41		00000034	1			11/1/2012
1900A-04	W-MTRASMBLY-601S	W-601-Z	187-42		00000034	1			11/1/2012
1900A-04	W-MTRASMBLY-601S	W-601-Z	187-44		00000034	1			11/1/2012
1900A-04	W-MTRASMBLY-601S	W-601-Z	187-45		00000034	1			11/1/2012

3. Select the range of **Filter Criteria** to include in the View. Leave the filter criteria blank to include all records. Click **Apply Filter** to populate the grid below.

4. Refer to the **Using the Interactive Views Menu** section a the beginning of this chapter for more details on using the Serial Number Where Used View.

NOTE: Refer to the How to Use Grids Section in the General Information guide for more details on how to add or take away columns from the grid screen.

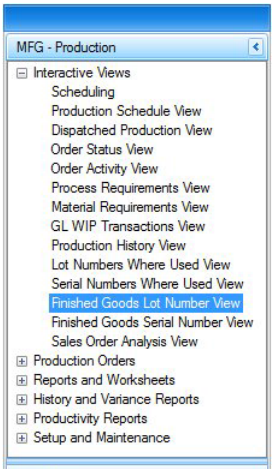
FINISHED GOODS LOT NUMBER VIEW

Use the **Finished Goods Lot Number View** function to view the Lot, Serial, and Part Numbers that went into a given finished good Lot Number. This function could be used if you have a finished good that is suspect or known to be defective. Knowing the Lot Number, you could find which raw materials were used in producing the good that might have quality or recall issues

To use the **Finished Goods Lot Number View**, follow these steps:

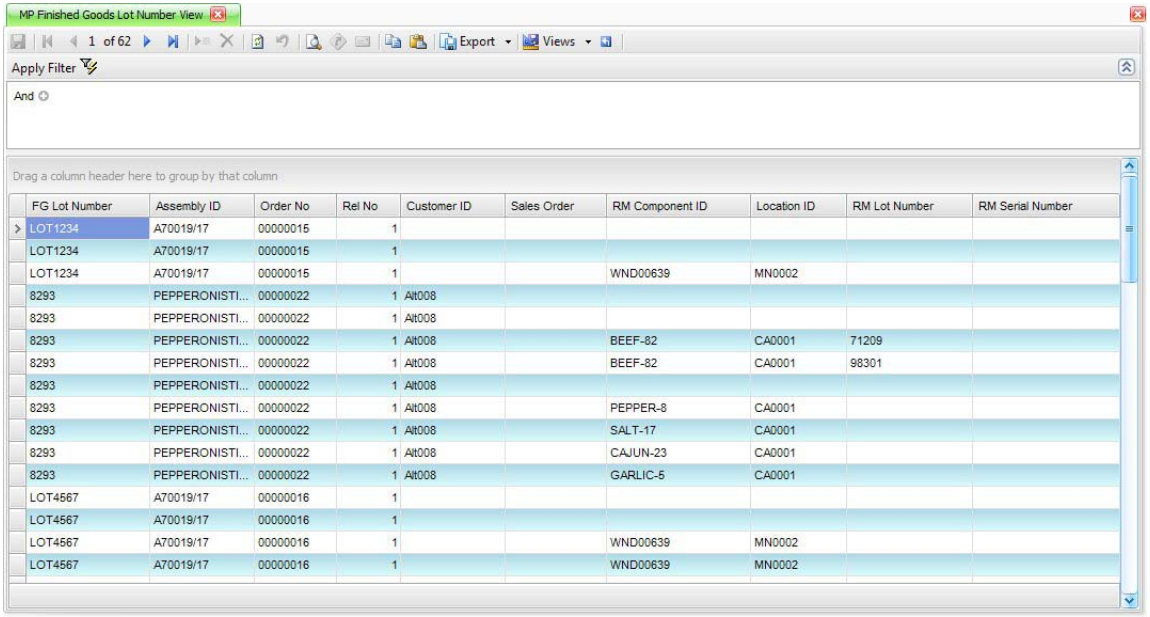
1. Select **Finished Goods Lot Number View** from the **Interactive Views** menu.

Finished Goods Lot Number View Menu



2. The **Finished Goods Lot Number View** screen appears.

Finished Goods Lot Number View Screen



FG Lot Number	Assembly ID	Order No	Rel No	Customer ID	Sales Order	RM Component ID	Location ID	RM Lot Number	RM Serial Number
LOT1234	A70019/17	00000015	1						
LOT1234	A70019/17	00000015	1						
LOT1234	A70019/17	00000015	1			WND00639	MN0002		
8293	PEPPERONISTI...	00000022	1	Alt008					
8293	PEPPERONISTI...	00000022	1	Alt008					
8293	PEPPERONISTI...	00000022	1	Alt008		BEEF-82	CA0001	71209	
8293	PEPPERONISTI...	00000022	1	Alt008		BEEF-82	CA0001	98301	
8293	PEPPERONISTI...	00000022	1	Alt008					
8293	PEPPERONISTI...	00000022	1	Alt008		PEPPER-8	CA0001		
8293	PEPPERONISTI...	00000022	1	Alt008		SALT-17	CA0001		
8293	PEPPERONISTI...	00000022	1	Alt008		CAJUN-23	CA0001		
8293	PEPPERONISTI...	00000022	1	Alt008		GARLIC-5	CA0001		
LOT4567	A70019/17	00000016	1						
LOT4567	A70019/17	00000016	1						
LOT4567	A70019/17	00000016	1			WND00639	MN0002		
LOT4567	A70019/17	00000016	1			WND00639	MN0002		

3. Select the range of **Filter Criteria** to include in the View. Leave the filter criteria blank to include all records. Click **Apply Filter** to populate the grid below.

4. Refer to the **Using the Interactive Views Menu** section a the beginning of this chapter for more details on using the Finished Goods Lot Number View.

NOTE: Refer to the How to Use Grids Section in the General Information guide for more details on how to add or take away columns from the grid screen.

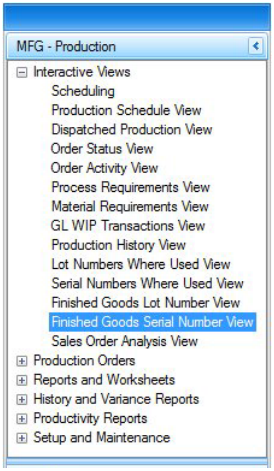
FINISHED GOODS SERIAL NUMBER VIEW

Use the **Finished Goods Serial Number View** function to view the Lot, Serial, and Part Numbers that went into a given finished good Serial Number. This function could be used if you have a finished good that is suspect or known to be defective. Knowing the Serial Number, you could find which raw materials were used in producing the good that might have quality or recall issues.

To use the **Finished Goods Serial Number View**, follow these steps:

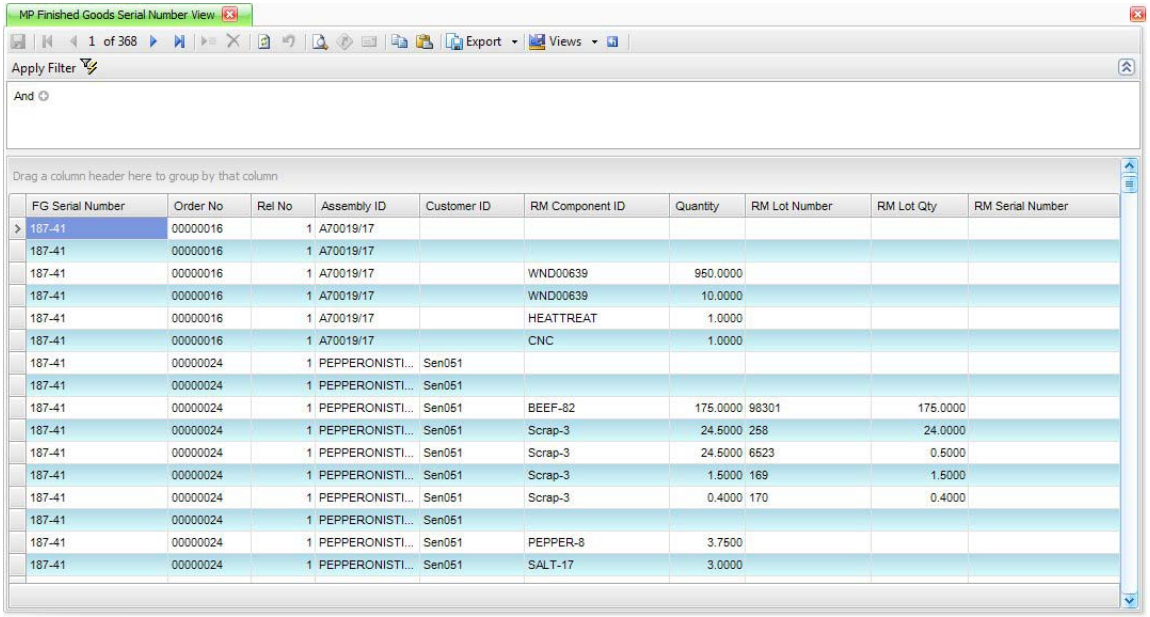
1. Select **Finished Goods Serial Number View** from the **Interactive Views** menu.

Finished Goods Serial Number View Menu



2. The **Finished Goods Serial Number View** screen appears.

Finished Goods Serial Number View Screen



FG Serial Number	Order No	Rel No	Assembly ID	Customer ID	RM Component ID	Quantity	RM Lot Number	RM Lot Qty	RM Serial Number
187-41	00000016	1	A70019/17						
187-41	00000016	1	A70019/17						
187-41	00000016	1	A70019/17		WND00639	950.0000			
187-41	00000016	1	A70019/17		WND00639	10.0000			
187-41	00000016	1	A70019/17		HEATTREAT	1.0000			
187-41	00000016	1	A70019/17		CNC	1.0000			
187-41	00000024	1	PEPPERONISTI...	Sen051					
187-41	00000024	1	PEPPERONISTI...	Sen051					
187-41	00000024	1	PEPPERONISTI...	Sen051	BEEF-82	175.0000	98301	175.0000	
187-41	00000024	1	PEPPERONISTI...	Sen051	Scrap-3	24.5000	258	24.0000	
187-41	00000024	1	PEPPERONISTI...	Sen051	Scrap-3	24.5000	6523	0.5000	
187-41	00000024	1	PEPPERONISTI...	Sen051	Scrap-3	1.5000	169	1.5000	
187-41	00000024	1	PEPPERONISTI...	Sen051	Scrap-3	0.4000	170	0.4000	
187-41	00000024	1	PEPPERONISTI...	Sen051					
187-41	00000024	1	PEPPERONISTI...	Sen051	PEPPER-8	3.7500			
187-41	00000024	1	PEPPERONISTI...	Sen051	SALT-17	3.0000			

3. Select the range of **Filter Criteria** to include in the View. Leave the filter criteria blank to include all records. Click **Apply Filter** to populate the grid below.
4. Refer to the **Using the Interactive Views Menu** section a the beginning of this chapter for more details on using the Finished Goods Serial Number View.

NOTE: Refer to the How to Use Grids Section in the General Information guide for more details on how to add or take away columns from the grid screen.

SALES ORDER ANALYSIS VIEW

Use the **Sales Order Analysis View** function to view information when you are generating Production Orders based on Sales Orders. If the environment in which you are using TRAVERSE Manufacturing is a make-to-order or job shop environment in which Production Orders are entered as a direct result of an incoming Sales Order, you may want to automatically generate the Production Orders from the Sales Orders.

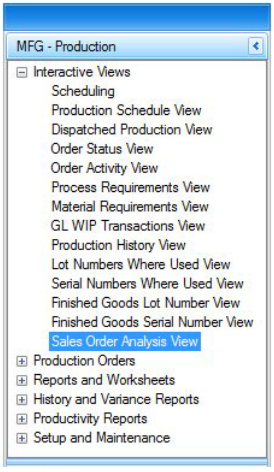
The report has two primary functions:

- Review the current need for Production Orders based on existing Sales Orders. Many times you won't want to use the Generate Orders from Sales function, but want an idea of Production Orders that you need to place. For example, if a Customer places an order for 10 widgets, then you need to create a Production Order for widgets to cover this Sales Order, if one doesn't currently exist. You may have sufficient stock, you may want to enter a Production Order for 10 widgets, or you may want to enter an order for 100 widgets because you know you'll need them eventually or because your current Inventory is already Committed to other uses.
- View the possible results of using the Generate Orders from Sales function by using the same criteria to run this view. You can see the results without actually creating the Production Orders.

To use the **Sales Order Analysis View**, follow these steps:

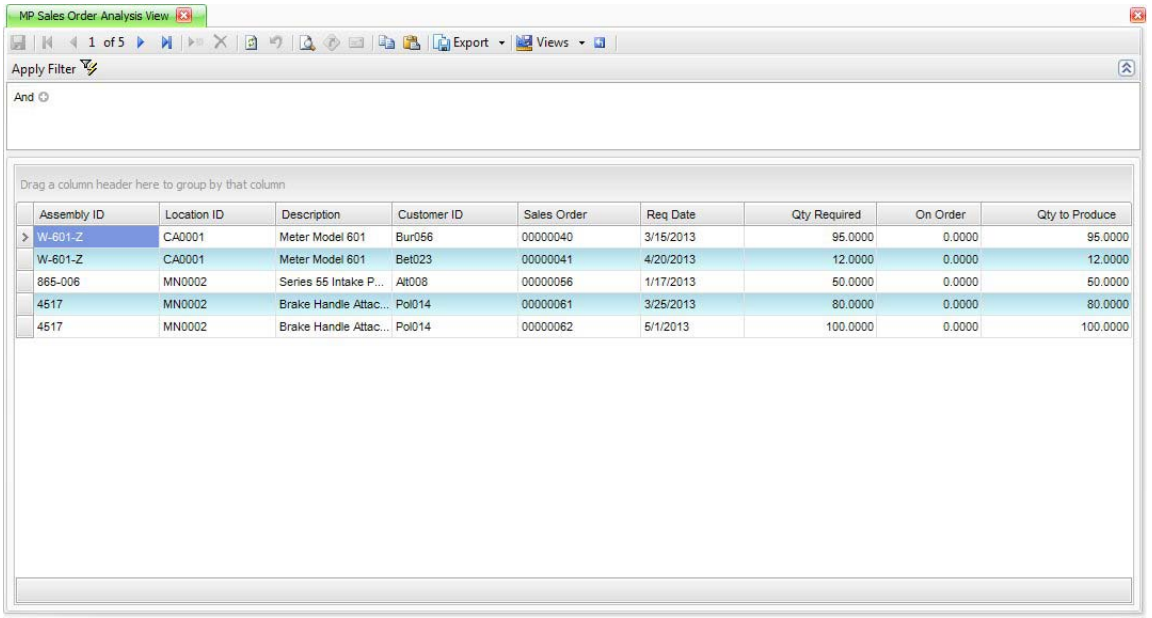
1. Select **Sales Order Analysis View** from the **Interactive Views** menu.

Sales Order Analysis View Menu



2. The **Sales Order Analysis View** screen appears.

Sales Order Analysis View Screen



Assembly ID	Location ID	Description	Customer ID	Sales Order	Req Date	Qty Required	On Order	Qty to Produce
W-601-Z	CA0001	Meter Model 601	Bur056	00000040	3/15/2013	95.0000	0.0000	95.0000
W-601-Z	CA0001	Meter Model 601	Bet023	00000041	4/20/2013	12.0000	0.0000	12.0000
865-006	MN0002	Series 55 Intake P...	Alt008	00000056	1/17/2013	50.0000	0.0000	50.0000
4517	MN0002	Brake Handle Attac...	Pol014	00000061	3/25/2013	80.0000	0.0000	80.0000
4517	MN0002	Brake Handle Attac...	Pol014	00000062	5/1/2013	100.0000	0.0000	100.0000

3. Select the range of **Filter Criteria** to include in the View. Leave the filter criteria blank to include all records. Click **Apply Filter** to populate the grid below.
4. Refer to the **Using the Interactive Views Menu** section a the beginning of this chapter for more details on using the Sales Order Analysis View.

NOTE: Refer to the How to Use Grids Section in the General Information guide for more details on how to add or take away columns from the grid screen.

6

Reports and Worksheets

USING THE REPORTS MENU

Before you use the functions on the Reports and Worksheets menu, make sure you have set up Production using the corresponding functions on the Business Rules function. Verify your set up information using the functions on the Master Lists and Interactive Views menus.

The Reports and Worksheets menu offers many report options.The screens for each report are similar in functionality.

- Use the **Sales Order Analysis** (page 6-5) function to view the possible results of the Generate Orders from Sales function (by using the same criteria) and to review the current need for Production Orders based on existing Sales Orders.
- Use the **Production Schedule** (page 6-9) function to view information about each Production Order and their Releases but not Component information.
- Use the **Requirement Availability** (page 6-13) function to view the availability of manufacturing material components based on existing demand.
- Use the **Production Picking List** (page 6-17) function to print a checklist of materials to pull from stock for upcoming production.
- Use the **Order Traveler** (page 6-21) function to print a worksheet that lists what needs to be done and provides room for writing down time and quantities as work is completed.
- Use the **Subcontracted Services** (page 6-25) function to print a report similar to a Purchase Order that you can send to a Subcontractor.
- Use the **Dispatch List** (page 6-29) function to print a list of an upcoming load for a specific Work Center, Machine Group, or Labor Type.
- Use the **Order Status** (page 6-33) function to view the status or progress of a specific Production Order Release.
- Use the **Work in Process Valuation** (page 6-39) function to determine the value of Inventory you pulled from stock and is currently on the shop floor.
- Use the **Employee Time Log** (page 6-43) function to print a log that focuses on Employee time rather than production results.
- Use the **Work Centers Load Profile** (page 6-47) function to view the upcoming workload and make necessary preparations to accommodate the size or nature of the process requirements.
- Use the **Resource Availability** (page 6-51) function to print a capacity oriented report that can be run for Work Centers, Machine Groups, or Labor Types.

- Use the **Subcontracted Status** (page 6-57) function to show the status of Inventory, which has been or will be sent out to a Subcontractor.

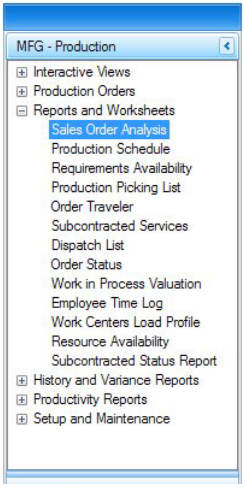
SALES ORDER ANALYSIS

Use **Sales Order Analysis** report when you are generating Production Orders based on Sales Orders. If the environment in which you are using TRAVERSE Manufacturing is a make-to-order or job shop environment in which Production Orders are entered as a direct results of an incoming Sales Order, you may want to automatically generate the Production Orders from the Sales Orders.

To produce the **Sales Order Analysis**, follow these steps:

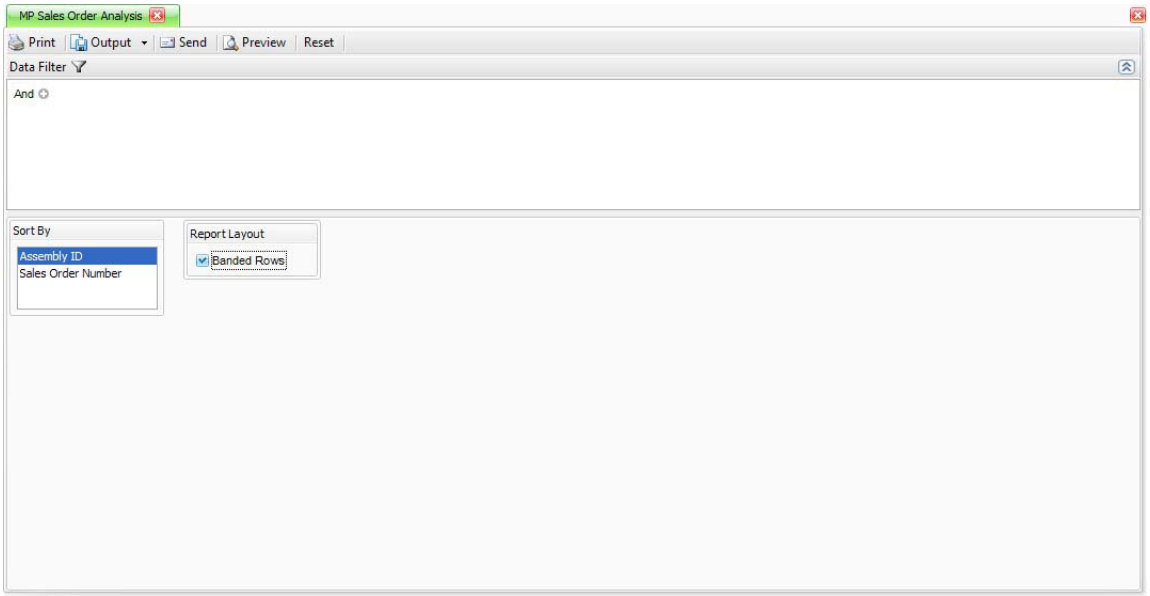
1. Select **Sales Order Analysis** from the **Reports and Worksheets** menu.

Sales Order Analysis Menu



2. The **Sales Order Analysis** screen appears.

Sales Order Analysis Screen



3. Use the **Data Filter** to select the range of filtering options, or leave the filter blank to include all available data.
4. Select the sort criteria for the report from the **Sort By** section; **Assembly ID** or **Sales Order Number**.
5. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.

6. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Sales Analysis Report

Continental Products Unlimited
Sales Order Analysis
Sorted by Assembly ID

Page 1

Report Filter

Assembly ID	Location ID	Description	Req Date	Qty Required	Qty On Order	Qty To Produce	Unit	Sales Order No	Customer ID
4517	MN0002	Brake Handle Attachment	3/25/2013	80.0000	80.0000	0.0000	EA	00000061	Pol014
4517	MN0002	Brake Handle Attachment	5/1/2013	100.0000	100.0000	0.0000	EA	00000062	Pol014
865-006	MN0002	Series 55 Intake Panel Filter	1/17/2013	50.0000	50.0000	0.0000	EA	00000056	Alh008
W-601-Z	CA0001	Meter Model 601	3/15/2013	95.0000	95.0000	0.0000	EA	00000040	Bur056
W-601-Z	CA0001	Meter Model 601	4/20/2013	12.0000	12.0000	0.0000	EA	00000041	Bet023

4/2/2013 2:43 PM

*** End of Report ***

OPEN_SYSTEMS\KentHe

PRODUCTION SCHEDULE

Use the **Production Schedule** report to view upcoming production activity. The Production Schedule is a summary version of all Production Order Releases in the system. It contains information about each Production Order and their Releases but not Component information. Use this report to insure that specific productions are scheduled for production, to check future workload, to review scheduled start dates, and so on.

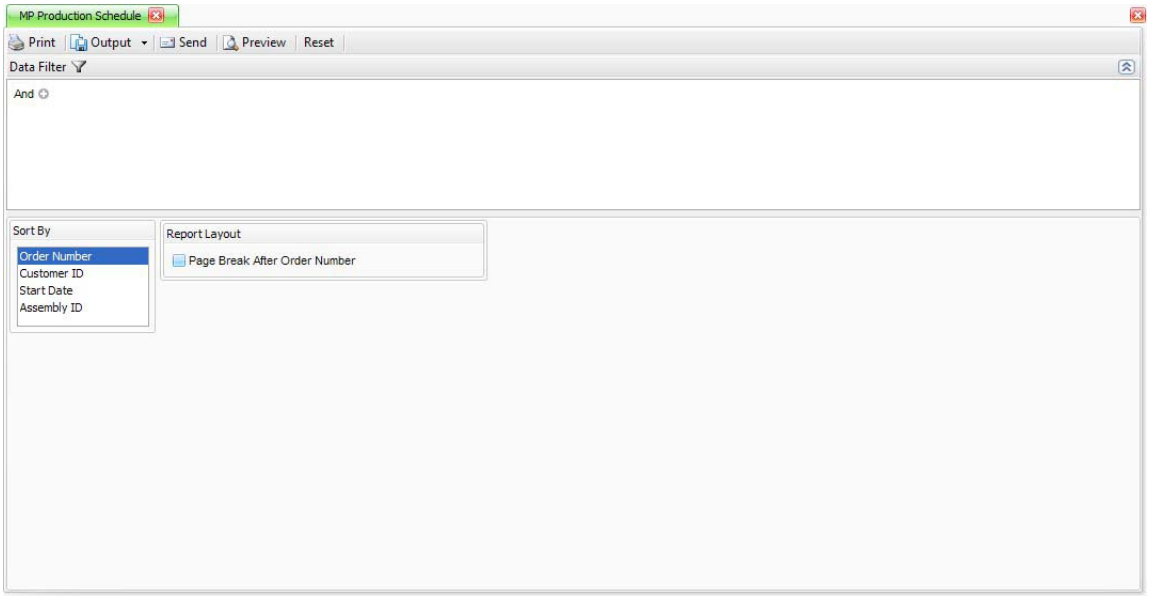
To produce the **Production Schedule**, follow these steps:

1. Select **Production Schedule** from the **Reports and Worksheets** menu.

Production Schedule Menu

2. The **Production Schedule** screen appears.

Production Schedule Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Select the sort criteria for the report from the **Sort By** section; **Order Number**, **Customer ID**, **Start Date** or **Assembly ID**.
5. Select the **Page Break After Order Number** check box, if applicable, to include page breaks after each order number in the report.

6. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Production Schedule Report

Continental Products Unlimited
Production Schedule
Sorted by Order No

Report Filter

Order No	Planner	Assembly ID	Rev	Location					
00000076		SPICECOMBO-23	001	CA0001		Est Start Date	Act Start Date		
Rel No	Customer ID	Description		Priority	Purchase Order No	Est Finish Date	Act Finish Date	Qty	Status
	Customer Name				Sales Order No			Unit	
1		Spice Combination 23		1		3/8/2013	2/22/2013	150.0000	In Process
						3/10/2013		KG	
00000077		100	001	CA0001		Est Start Date	Act Start Date	Qty	Status
Rel No	Customer ID	Description		Priority	Purchase Order No	Est Finish Date	Act Finish Date	Unit	
	Customer Name				Sales Order No				
1		Electrical Package		2		3/8/2013		10.0000	In Process
						3/15/2013		PKG	
00000083		W-601-Z	001	CA0001		Est Start Date	Act Start Date	Qty	Status
Rel No	Customer ID	Description		Priority	Purchase Order No	Est Finish Date	Act Finish Date	Unit	
	Customer Name				Sales Order No				
1	Bur056	Meter Model 601		3		3/15/2013		95.0000	In Process
	Johnson Controls Automotriz				00000040	3/15/2013		EA	
00000084		W-601-Z	001	CA0001		Est Start Date	Act Start Date	Qty	Status
Rel No	Customer ID	Description		Priority	Purchase Order No	Est Finish Date	Act Finish Date	Unit	
	Customer Name				Sales Order No				
1	Bet023	Meter Model 601		4		4/20/2013		12.0000	In Process
	Beta Dynamics Inc.				00000041	4/20/2013		EA	
00000085		865-006	001	MN0002		Est Start Date	Act Start Date	Qty	Status
Rel No	Customer ID	Description		Priority	Purchase Order No	Est Finish Date	Act Finish Date	Unit	
	Customer Name				Sales Order No				
1	Alt008	Series 55 Intake Panel Filter		5		1/3/2013		50.0000	In Process
	Altos Servers Company				00000056	1/17/2013		EA	
00000086		4517	A04	MN0002		Est Start Date	Act Start Date	Qty	Status
Rel No	Customer ID	Description		Priority	Purchase Order No	Est Finish Date	Act Finish Date	Unit	
	Customer Name				Sales Order No				
1	Pol014	Brake Handle Attachment		6		3/18/2013	4/2/2013	80.0000	In Process
	Poly Corp				00000061	3/25/2013		EA	
00000087		4517	A04	MN0002		Est Start Date	Act Start Date	Qty	Status
Rel No	Customer ID	Description		Priority	Purchase Order No	Est Finish Date	Act Finish Date	Unit	
	Customer Name				Sales Order No				
1	Pol014	Brake Handle Attachment		7		4/24/2013		100.0000	In Process
	Poly Corp				00000062	5/1/2013		EA	

4/2/2013 3:10 PM ***** End of Report ***** **OPEN_SYSTEMS\Kenthe**

REQUIREMENTS AVAILABILITY

The **Requirements Availability** report gives you a quick picture of Material Component availability based on existing demand. Each Material Component appears with the quantity required. The total quantity needed is shown below and the quantity available is shown alongside, giving you an idea of what is needed. This report total sees all requirements as being needed today. For example, if you had 10,000 widgets in stock, and there is an existing order for 11,000 six months from now, the report indicates that you are short and doesn't take into consideration that the order for 11,000 isn't due for six months.

You can select to print Additional Descriptions for this report. The summary version of the report shows the quantity required, but not the individual Production Orders that make it up. The Additional Description version shows individual Production Order Release quantities.

NOTE: When you sort the report by Component ID, the quantity available becomes less and less for each additional requirement. This helps you locate critical Inventory shortages, but assumes you process orders in the exact sequence shown, which you may not. If you enter and explode orders far into the future, selecting a practical date range allows you to use this report to its fullest.

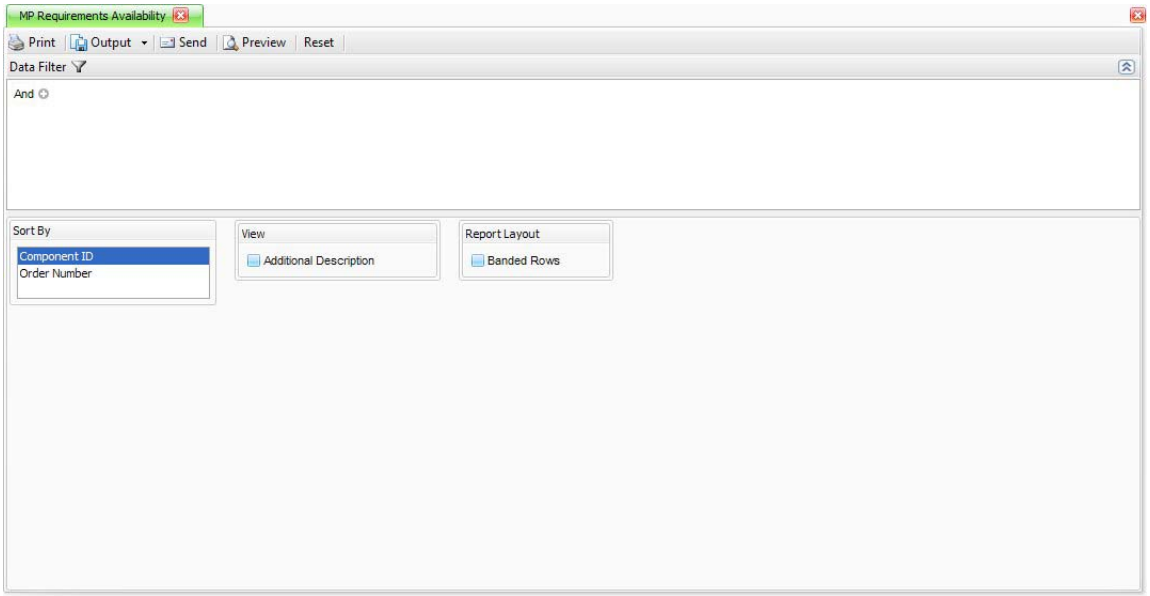
To produce the **Requirements Availability**, follow these steps:

1. Select **Requirements Availability** from the **Reports and Worksheets** menu.

Requirements Availability Menu

2. The **Requirements Availability** screen appears.

Requirements Availability Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Select the sort criteria for the report from the **Sort By** section; **Component ID** or **Order Number**.
5. Select the **Additional Descriptions** check box, if applicable, to print Additional Descriptions on the report.
6. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.

7. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Requirements Availability Report

Continental Products Unlimited
Requirements Availability
Sorted by Component ID

Page 3

Component ID 45020			Location ID MN0002		Qty Committed 1,088.0000	Unit	SQIN
Desc Steel 1/4 Flat					Qty On Order 0.0000	Lead Time	7.0000
Order No	Release No	Priority	Required Date	Req ID	Qty Required	Est Available	Net
00000077	1	2	11/30/2012	17	180.0000	-334.0000	-514.0000
00000086	1	6	11/30/2012	12	0.0000	-514.0000	-514.0000
00000087	1	7	11/30/2012	12	600.0000	-514.0000	-1,114.0000
00000077	1	2	3/14/2013	4	20.0000	-1,114.0000	-1,134.0000
			Total for Component ID 45020		800.0000		

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PRODUCTION PICKING LIST

The **Production Picking List** report provides a checklist of materials that you can use to pull Items from stock for upcoming production. This form can then be used as a source for entering material use transactions in the Record Production Activity function. The Production Picking List is a simple checklist of the Material Components that make up the working BOM. You have the option to print a bar code version of this report as well.

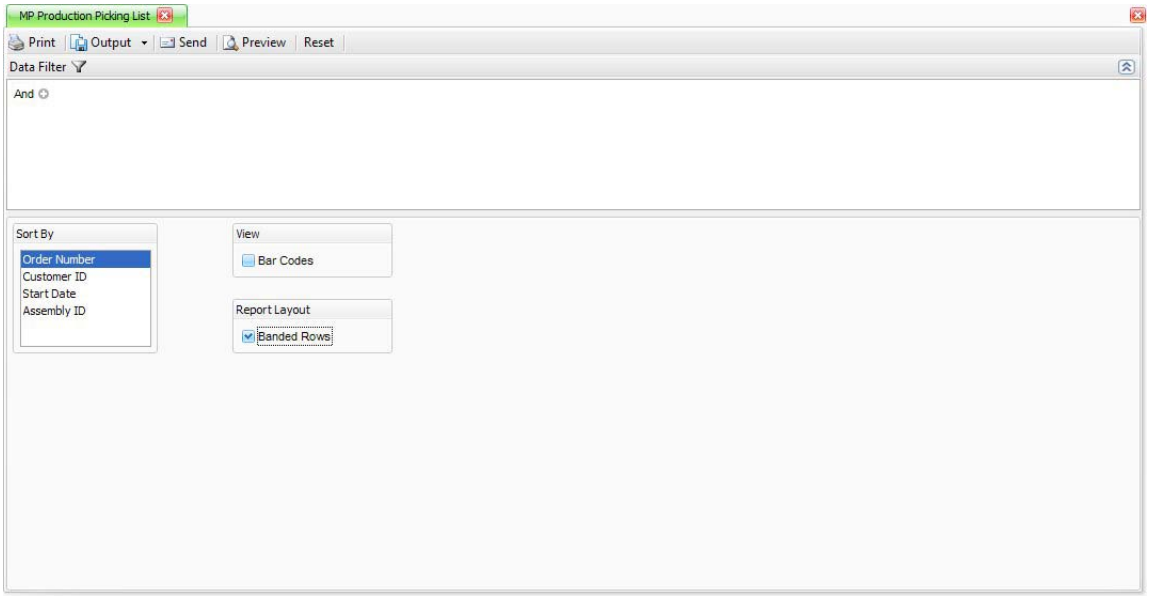
To produce the **Production Picking List**, follow these steps:

1. Select **Production Picking List** from the **Reports and Worksheets** menu.

Production Picking List Menu

2. The **Production Picking List** screen appears.

Production Picking List Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Select the sort criteria for the list from the **Sort By** section; **Order Number**, **Customer ID**, **Start Date**, and **Assembly ID**.
5. Select the **Bar Codes** check box, if applicable, to include bar codes in the list.
6. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.

7. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Production Picking List Report

Continental Products Unlimited PAGE 2
Production Picking List
Sorted by Order No

Order No 00000077 Release No 1
Assembly ID 100 Electrical Package
Build Qty 10.0000 PKG
Required Date 3/15/2013 Start Date 3/8/2013 Customer ID
Notes

Req ID	Component ID	Deliver To	Location ID	Qty	Unit	Bin
13	45030	METALS7	MN0002	540.0000	IN	
	Steel Rod 1/2"					
17	45020	METALS7	MN0002	180.0000	SQIN	
	Steel 1/4 Flat					
18	49003	VENTED7	MN0002	15.0000	OZ	
	Gray Primer					
19	49112	VENTED7	MN0002	60.0000	GAL	
	White Paint					
20	4401	GEN007	MN0002	30.0000	EA	
	Lot Numbers: _____					
	Black Plastic 4" Handle					
4	45020	GEN007	MN0002	20.0000	SQIN	
	Steel 1/4 Flat					
3	45030	GEN007	MN0002	30.0000	IN	
	Steel Rod 1/2"					

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ORDER TRAVELER

The **Order Traveler** is a worksheet similar to the Production Picking List, except it is Routing-oriented or process-oriented rather than Materials-oriented. This worksheet lists what needs to be done and provides room for writing down time and quantities as work is completed. The worksheet is printed in Production Order and Release Number sequence, listing each step and the anticipated times respective to each step. You have the option to include bar codes on the report, as well.

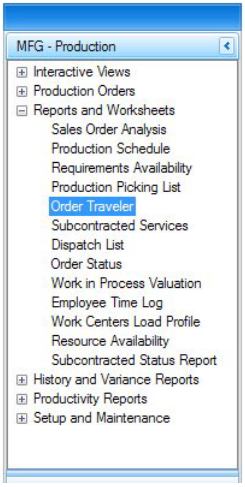
Like the Production Picking List, there are a number of user-defined areas on the form that can be used for additional information such as quantity passed or rejected, Employee ID, Setup Time, Processing Time, Wait Time, or Move Time.

This report is not available if you do not have Routing and Resources installed.

To produce the **Order Traveler**, follow these steps:

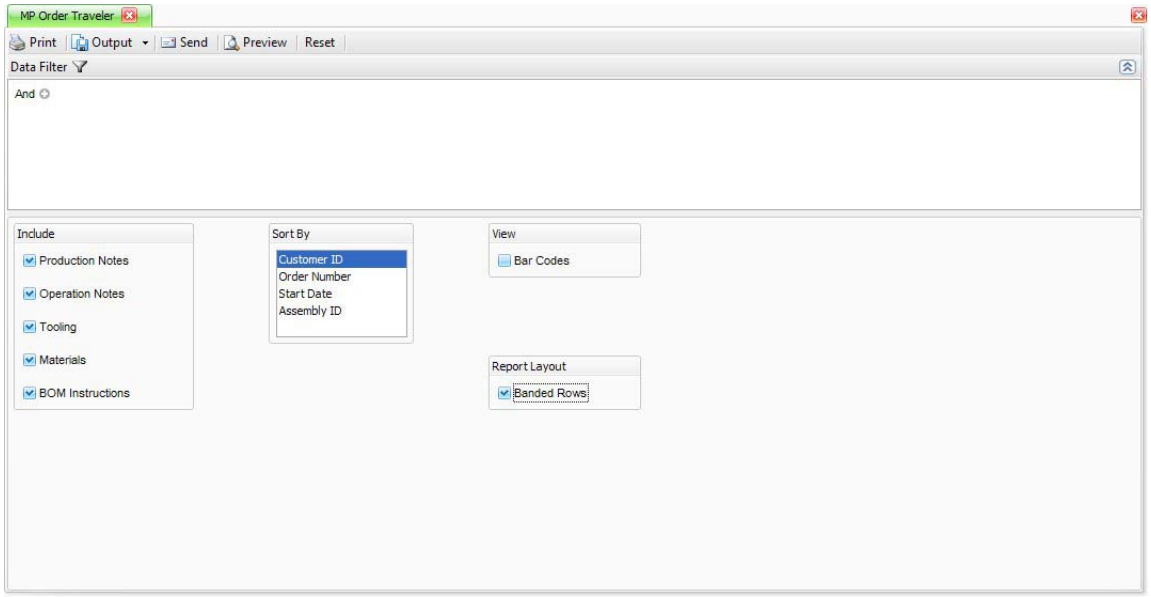
1. Select **Order Traveler** from the **Reports and Worksheets** menu.

Order Traveler Menu



2. The **Order Traveler** screen appears.

Order Traveler Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Select options to include in the report from the **Include** section; **Production Notes**, **Operation Notes**, **Tooling**, **Materials**, and **BOM Instructions**. You may select any one or any combination of these check boxes.
5. Select the sort criteria for the report from the **Sort By** section; **Customer ID**, **Order Number**, **Start Date**, or **Assembly ID**.
6. Select the **Bar Codes** check box, if applicable, to include bar codes in the report.
7. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.

8. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Order Traveler Report

Continental Products Unlimited — PAGE 2
Order Traveler
Sorted by Customer ID

Order No 00000077 | Release No 1 | Assembly ID 100 | Qty 10.0000
Customer ID
Start Date 3/8/2013 | Due Date 3/15/2013 | Revision No 001
Sales Order
Instructions
Notes

Req ID	Rtg Step	Operation ID	Machine Group ID	Machine Setup	Machine Run	Pcs				
Parent		Work Center ID	Labor Type ID	Labor Setup	Labor Run					
14	10	CUT7	SAW07	0.500	0.100	30.0000				
9		METALS7	MACHSHOP7	0.500	0.100					
Component ID		Description		Unit	Planned Usage Qty		Est Scrap	Scrap	Qty Used	Pct Used
45020		Steel 1/4 Flat		SQIN	180.0000		0.0000	0.0000	0.0000	0.000000
Tooling ID		Description								
9-G88		Welding Gloves								
CLAMP2		2" Spring Clamps								
CLAMP7		7" C - Clamp								
16	20	DRILL7	DRLPRESS7	0.083	0.250	30.0000				
9		METALS7	MACHSHOP7	0.083	0.250					
15	30	DEBUR7	MACHSHOP7	0.000	0.000	30.0000				
9		METALS7		0.000	0.250					
Tooling ID		Description								
9-G88		Welding Gloves								
CLAMP2		2" Spring Clamps								
CLAMP7		7" C - Clamp								
12	10	CUT7	SAW07	0.000	0.250	30.0000				
10		METALS7	MACHSHOP7	0.000	0.250					
Tooling ID		Description								
9-G88		Welding Gloves								
CLAMP2		2" Spring Clamps								
CLAMP7		7" C - Clamp								
11	20	BEND7	BEND07	0.500	2.500	30.0000				
10		METALS7	MACHSHOP7	0.500	2.500					
Component ID		Description		Unit	Planned Usage Qty		Est Scrap	Scrap	Qty Used	Pct Used
45030		Steel Rod 1/2"		IN	540.0000		0.0000	0.0000	0.0000	0.000000
Tooling ID		Description								
CLAMP2		2" Spring Clamps								
CLAMP7		7" C - Clamp								
8	1	WELD7	WELDINGM7	0.250	5.000	30.0000				
5		GEN007	WELD7	0.250	5.000					

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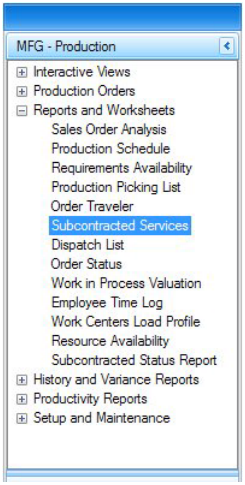
SUBCONTRACTED SERVICES

The **Subcontracted Services** report, similar to a Purchase Order, is designed to be sent or faxed to the Subcontractor. The form indicates valid Vendor information as well as the internal Production Order Number and Release, Requirement ID and Routing Step, Quantity of Materials to be processed, and Notes. The top of the form indicates valid Vendor information, showing the Vendor's Name and Address as well as your company Name and Address. The Subcontracted Services worksheet can be printed for any Subcontracted step of any Production Order.

To produce the **Subcontracted Services**, follow these steps:

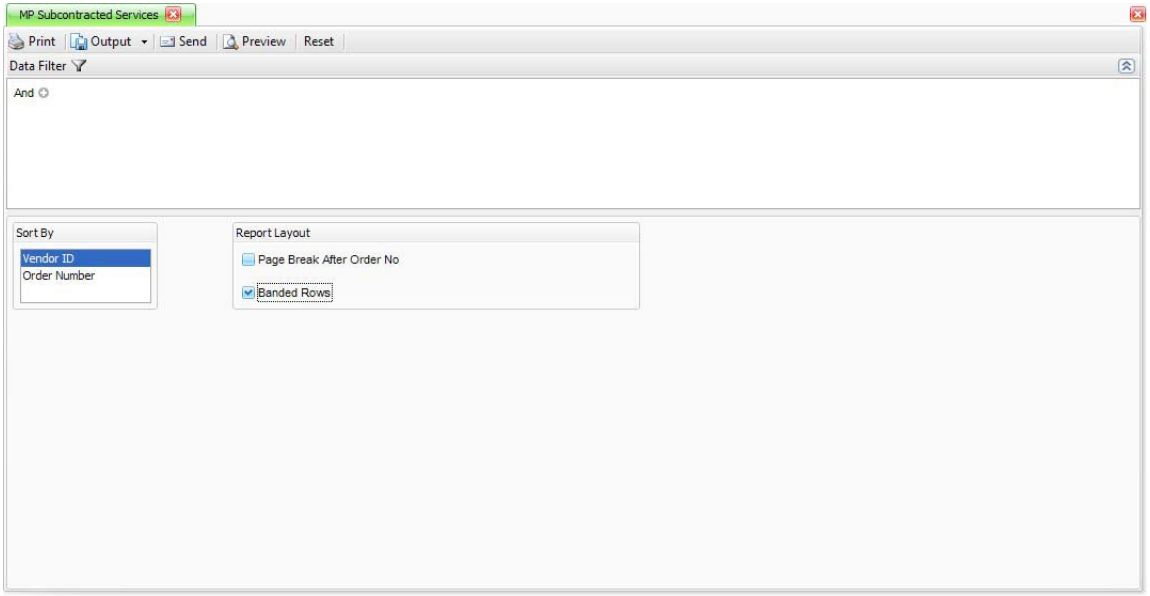
1. Select **Subcontracted Services** from the **Reports and Worksheets** menu.

Subcontracted Services Menu



2. The **Subcontracted Services** screen appears.

Subcontracted Services Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Select the sort criteria for the list from the **Sort By** section; **Vendor ID** or **Order Number**.
5. Select the **Page Break After Order No** check box, if applicable, to place a page break after each order in the list.
6. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.

7. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Subcontracted Services Report

Subcontracted Services Worksheet

To : Advanced Cirquit Boards Plus
Gabriella Scott
2 Rockford Parklawn Circle
Edina, MN 55424

Vendor ID : Adv008
Date : 4/22/2013

Return To : ContinentalProducts Unlimited
7626 Golden Triangle Drive
Eden Prairie, MN 55244-1203
UNITED STATES OF AMERICA
(612)-829-0011

Order No	Release No	Assembly ID	Rev	Step	Req	Start	Finish	Operation ID
00000087	1	M2001	1	1	46	5/2/2013	5/9/2013	BEND7

Description

Metals Bending

Notes

Qty

400.0000

Component ID	Location ID	Est Qty	Unit
M260	MN0002	14,400.0000	SQIN

To : Spectrum Test Equipment
Bart Connely
274 Madison Avenue
Chicago, IL 60640

Vendor ID : Spe013
Date : 4/22/2013

Return To : ContinentalProducts Unlimited
7626 Golden Triangle Drive
Eden Prairie, MN 55244-1203
UNITED STATES OF AMERICA
(612)-829-0011

Order No	Release No	Assembly ID	Rev	Step	Req	Start	Finish	Operation ID
00000083	1	A70019/17	001	1	2	5/10/2013	5/15/2013	HT-TRT-SUB

Description

HEAT TREATING SUBCONTRACTED

Notes

Heat Treating Services - Specifications Provided

Qty

100.0000

DISPATCH LIST

The **Dispatch List** can be printed from the Reports and Worksheets menu. The list displays the upcoming load for a specific Work Center, Machine Group, or Labor Type and enables the scheduler or foreman to plan the day's or week's activity. The information can be sorted in a number of ways, which helps you determine the sequence in which Production Orders should flow through the selected resource.

Define the sort sequence using the Dispatch Production function within the Production Orders menu. This is where you decide to expedite one process over another, and by dragging and dropping, move the events into the desired sequence. Once you finish, print the list from the Dispatch Production function or the Dispatch List function.

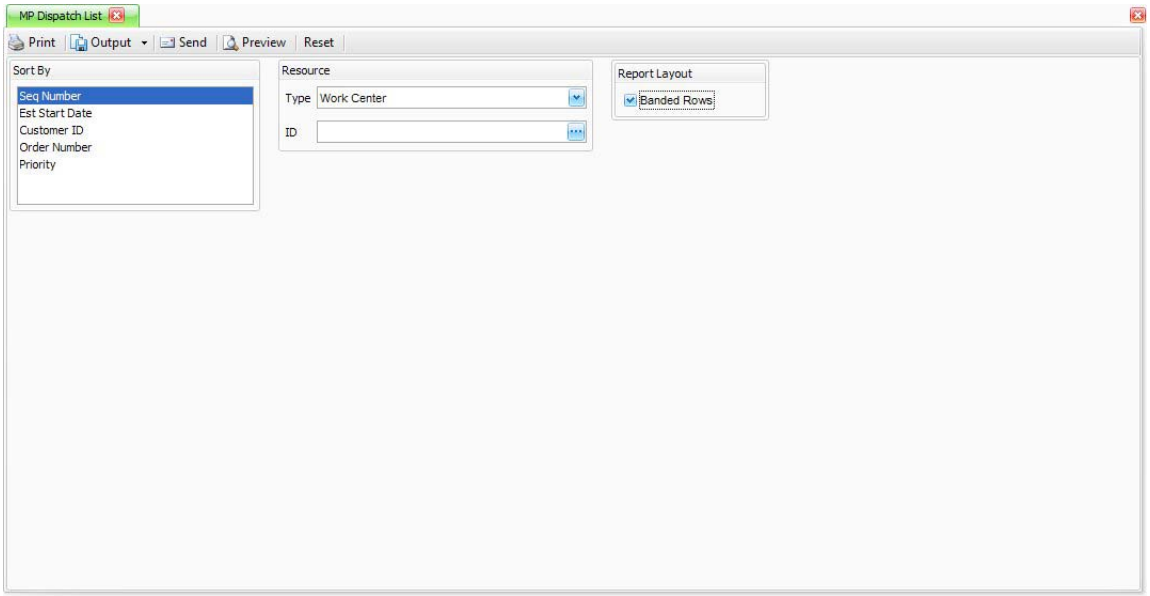
To produce the **Dispatch List**, follow these steps:

1. Select **Dispatch List** from the **Reports and Worksheets** menu.

Dispatch List Menu

2. The **Dispatch List** screen appears.

Dispatch List Screen



3. Select the sort criteria for the list from the **Sort By** section; **Seq Number**, **Est Start Date**, **Customer ID**, **Order Number**, or **Priority**.
4. Select the type of resource and ID to include in the list from the **Type** and **ID** fields respectively; **Work Center**, **Machine Group** and **Labor Type**.
5. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.

6. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Dispatch List

Continental Products Unlimited
Dispatch List for Work Center ID GEN007
Sorted by Seq No

Page 1

Seq No	Priority	Order No	Rel No	Req ID	Customer ID	Assembly ID	Qty	Est Total Hrs	Hrs Worked	Est Hrs Rem	Est Start Date	Est Finish Date
1	1	00000076	1	2		SPICECOMBO-23	150.0000	4.500	2.000	2.500	11/30/2012	3/10/2013
2	2	00000077	1	6		100	30.0000	3.250	0.000	3.250	3/14/2013	3/14/2013
3	2	00000077	1	2		100	10.0000	9.000	0.000	9.000	3/14/2013	3/15/2013
4	2	00000077	1	8		100	30.0000	10.500	0.000	10.500	11/30/2012	11/30/2012
5	3	00000083	1	2	Bur056	W-601-Z	95.0000	16.083	0.000	16.083	3/13/2013	3/15/2013
6	4	00000084	1	2	Bet023	W-601-Z	12.0000	2.250	0.000	2.250	4/19/2013	4/20/2013

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*** End of Report ***

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ORDER STATUS

The **Order Status** report provides you with the status or progress of a specific Production Order Release. It lists the percentage of completion for each of the process steps and the quantity of Material Components issued to the Release, as well as the status of Subassembly completion. Each Routing Step and Component Item ID is shown in detail. The report also shows the number of partially completed Item IDs at each Routing Step. You can choose to print a page break after each Production Order and Release.

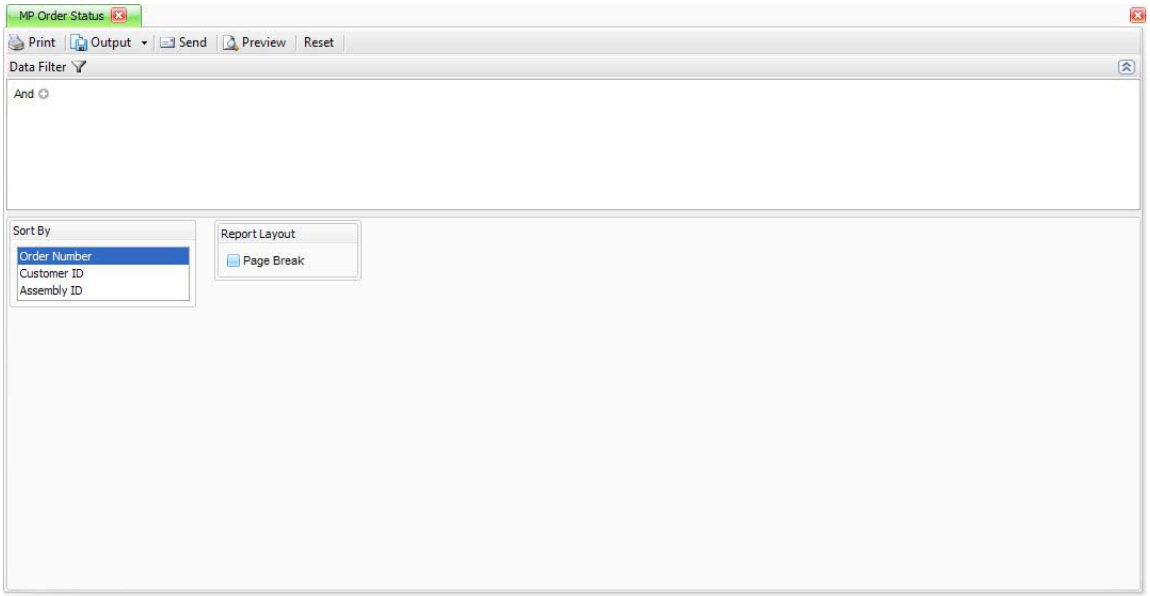
To produce the **Order Status**, follow these steps:

1. Select **Order Status** from the **Reports and Worksheets** menu.

Order Status Menu

2. The **Order Status** screen appears.

Order Status Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Select the sort criteria for the report from the **Sort By** section; **Order Number**, **Customer ID**, or **Assembly ID**.
5. Select the **Page Break** check box, if applicable, to include page breaks after each Production Order in the report.

6. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Order Status Report

Continental Products Unlimited PAGE 1
Order Status
Sorted by Order Number

Report Filter Order Number = '00000004' And Release Number = '1'

Order No 00000004 **Release No** 1 **Customer ID** Pen011 **PO No**
Assembly ID M2001 **SO No** **Order Status** In Process **Finish Date** 2/9/2018 **Qty** 10.0000

Material Components

Component ID	Description	Unit	Planned Usage Qty	Est Scrap	Scrap	Qty	Pct
M250	Steel Cross Tubing 3 x 1.5" Unpaint	IN	480.0000	0.0000	0.0000	480.0000	100.00
M250	Steel Cross Tubing 3 x 1.5" Unpaint	IN	520.0000	0.0000	0.0000	520.0000	100.00
M250	Steel Cross Tubing 3 x 1.5" Unpaint	IN	960.0000	0.0000	0.0000	960.0000	100.00
M250	Steel Cross Tubing 3 x 1.5" Unpaint	IN	960.0000	0.0000	0.0000	960.0000	100.00
M250	Steel Cross Tubing 3 x 1.5" Unpaint	IN	1,920.0000	0.0000	0.0000	1,920.0000	100.00
M260	Sheet Steel 8' x 4'	SQIN	1,440.0000	0.0000	0.0000	1,440.0000	100.00
M273	Wood (Pine) 2x4x8	EA	30.0000	0.0000	0.0000	30.0000	100.00
M273X17	Wood Scraps	ea	60.0000	0.0000	0.0000	60.0000	100.00
M2915	Bolt 3/8 x 1	EA	160.0000	0.0000	0.0000	160.0000	100.00
M2927	Lock Washer 3/8	EA	160.0000	0.0000	0.0000	160.0000	100.00
M2943	Lag Bolts 1.5 In	EA	60.0000	0.0000	0.0000	60.0000	100.00
M2963	Nut 3/8	EA	160.0000	0.0000	0.0000	160.0000	100.00
M3038	Wheels, Caster 3" Plate	EA	40.0000	0.0000	0.0000	40.0000	100.00
M311	Tubular Plastic 1.25"	IN	900.0000	0.0000	0.0000	900.0000	100.00
M712	Paint All Purpose Green 17B	OZ	30.0000	0.0000	0.0000	30.0000	100.00
M732	Clear Wood Seal	OZ	40.0000	0.0000	0.0000	40.0000	100.00

Processes

Operation ID / Description	Actual Yield %	Qty Planned / Qty Produced	Qty Scrapped	Reference	Planned Time	Actual Time	Pct Complete	Status
ASSEMBLE7	100.00	10.0000	0.0000					
Assemble Unit		10.0000		Labor Setup	0.000	0.000	0.00	In Process
				Labor Run	2.500	2.500	100.00	
				Machine Setup	0.000	0.000	0.00	
				Machine Run	0.000	0.000	0.00	
PAINT7	100.00	10.0000	0.0000					
Painting		10.0000		Labor Setup	0.500	0.500	100.00	In Process
				Labor Run	2.500	2.500	100.00	
				Machine Setup	0.000	0.000	0.00	
				Machine Run	0.000	0.000	0.00	

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Order Status Report

Continental Products Unlimited
Order Status
Sorted by Order No

Report Filter

Order No 00000076 **Release No** 1 **Customer ID** **PO No**
Assembly ID SPICECOMBO-23 **SO No** **Order Status** In Process **Finish Date** 3/10/2013 **Qty** 150.0000

Material Components

Component ID	Description	Unit	Planned Usage Qty	Est Scrap	Scrap	Qty Used	Pct Used
SALTMIX-L9	Salt Spice Mixture	LBS	60.0000	0.0000	0.0000	0.0000	0.000000
CAJUN-L	Cajun Seasoning	LBS	150.0000	0.0000	0.0000	140.0000	93.333333
GARLIC-5	Std Garlic Powder	LBS	45.0000	0.0000	0.0000	45.0000	100.000000
PEPPER-L	Fine Ground Pepper	LBS	75.0000	0.0000	0.0000	75.0000	100.000000

Processes

Operation ID	Description	Reference	Planned Time	Actual Time	Pct Complete	Status
BLENDING	Blending					
		Labor Setup	1.500	0.000	0.000000	In Process
		Labor Run	0.750	2.000	266.666667	
		Machine Setup	1.500	0.000	0.000000	
		Machine Run	0.750	0.000	0.000000	

Production

Item ID	Description	Qty Planned	Unit	Scrap	Produced	Pct Complete
SPICECOMBO-23	Spice Combination 23	150.0000	KG	0.0000	150.0000	100.000000

Order No 00000077 **Release No** 1 **Customer ID** **PO No**
Assembly ID 100 **SO No** **Order Status** In Process **Finish Date** 3/15/2013 **Qty** 10.0000

Material Components

Component ID	Description	Unit	Planned Usage Qty	Est Scrap	Scrap	Qty Used	Pct Used
45020	Steel 1/4 Flat	SQIN	20.0000	0.0000	0.0000	0.0000	0.000000
45030	Steel Rod 1/2"	IN	30.0000	0.0000	0.0000	0.0000	0.000000
4401	Black Plastic 4" Handle	EA	30.0000	0.0000	0.0000	0.0000	0.000000
49003	Gray Primer	OZ	15.0000	0.0000	0.0000	0.0000	0.000000
49112	White Paint	GAL	60.0000	0.0000	0.0000	0.0000	0.000000
45030	Steel Rod 1/2"	IN	540.0000	0.0000	0.0000	0.0000	0.000000
45020	Steel 1/4 Flat	SQIN	180.0000	0.0000	0.0000	0.0000	0.000000

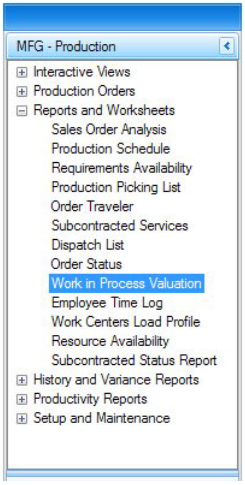
WORK IN PROCESS VALUATION

The **Work In Process Valuation** report enables you to determine the value of Inventory that has been pulled from stock and is currently on the shop floor. As Materials are pulled from Inventory, the value of Inventory is reduced - Inventory Valuation Reports show less Inventory than actually exists because pulled Inventory is now Work in Process. To see the full value of existing Inventory, consider the value shown on the WIP report as well as the Inventory Valuation Reports.

To produce the **Work In Process Valuation**, follow these steps:

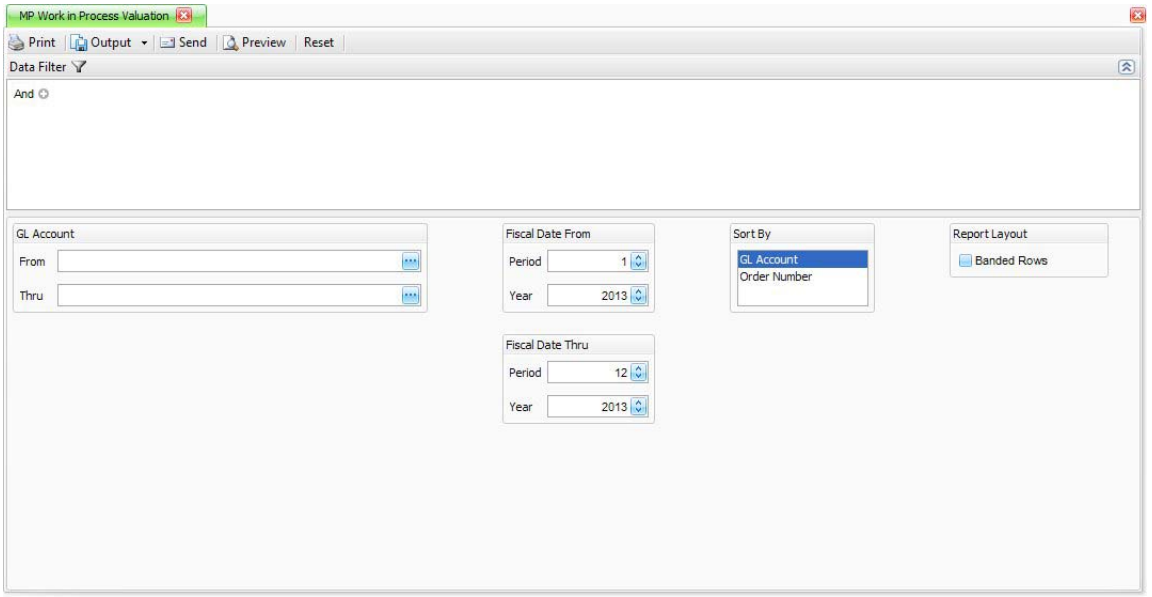
1. Select **Work In Process Valuation** from the **Reports and Worksheets** menu.

Work In Process Valuation Menu



2. The **Work In Process Valuation** screen appears.

Work In Process Valuation Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Select the range of **GL accounts** to view in the report from the **GL Account From** and **Thru** fields.
5. Select the range of fiscal dates to view in the report from the **Fiscal Date From Period** and **Year** fields and the **Fiscal Date Thru Period** and **Year** fields.
6. Select the sorting criterion from the **Sort By** section; **GL Account** or **Order Number**.
7. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.

8. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Work In Process Valuation Report

Continental Products Unlimited
Work in Process Valuation
Sorted by GL Account

Report Filter
GL Account From **Thru**
Fiscal Period / Year From 1 / 2013 **Thru** 12 / 2013

Order No	Rel No	Req ID	Source	Reference	Fiscal Period	Trans Date	Unposted Debit Amount	Unposted Credit Amount	Posted Debit Amount	Posted Credit Amount	GL Account
00000076	1	1	Finished Goods	Spice Combination 23	2	2/22/2013	0.00	0.00	19,650.00	0.00	000001200
00000076	1	5	Inventory	Fine Ground Pepper	2	2/22/2013	0.00	0.00	0.00	622.50	000001200
00000076	1	3	Inventory	Cajun Seasoning	2	2/22/2013	0.00	0.00	0.00	658.00	000001200
00000076	1	4	Inventory	Std Garlic Powder	2	2/22/2013	0.00	0.00	0.00	281.25	000001200
				Total for GL Account 000001200			0.00	0.00	19,650.00	1,561.75	
00000076	1	1	Finished Goods	Spice Combination 23	2	2/22/2013	0.00	0.00	0.00	19,650.00	000001210
00000076	1	2	Labor	Blending	4	4/2/2013	0.00	0.00	30.00	0.00	000001210
00000076	1	5	Inventory	Fine Ground Pepper	2	2/22/2013	0.00	0.00	622.50	0.00	000001210
00000076	1	3	Inventory	Cajun Seasoning	2	2/22/2013	0.00	0.00	658.00	0.00	000001210
00000076	1	4	Inventory	Std Garlic Powder	2	2/22/2013	0.00	0.00	281.25	0.00	000001210
00000086	1	10	Labor Setup	Cutting Services	4	4/2/2013	0.00	0.00	49.50	0.00	000001210
00000086	1	10	Machine	Cutting Services	4	4/2/2013	0.00	0.00	6.75	0.00	000001210
00000086	1	10	Labor Setup	Cutting Services	4	4/2/2013	0.00	0.00	5.50	0.00	000001210
00000086	1	10	Machine	Cutting Services	4	4/2/2013	0.00	0.00	0.75	0.00	000001210
00000086	1	11	Labor	Drilling	4	4/2/2013	0.00	0.00	14.67	0.00	000001210
00000086	1	11	Labor Setup	Drilling	4	4/2/2013	0.00	0.00	1.83	0.00	000001210
00000086	1	11	Machine	Drilling	4	4/2/2013	0.00	0.00	3.38	0.00	000001210
00000086	1	9	Labor	Deburring	4	4/2/2013	0.00	0.00	14.67	0.00	000001210
00000086	1	3	Inventory	Black Plastic 4" Handle	4	4/2/2013	0.00	0.00	68.00	0.00	000001210
00000086	1	12	Inventory	Steel 1/4 Flat	4	4/2/2013	0.00	0.00	96.00	0.00	000001210
				Total for GL Account 000001210			0.00	0.00	1,852.80	19,650.00	
00000086	1	12	Inventory	Steel 1/4 Flat	4	4/2/2013	0.00	0.00	0.00	96.00	000001270
				Total for GL Account 000001270			0.00	0.00	0.00	96.00	
00000076	1	2	Labor	Blending	4	4/2/2013	0.00	0.00	0.00	30.00	000005030
00000086	1	11	Labor	Drilling	4	4/2/2013	0.00	0.00	0.00	14.67	000005030
00000086	1	11	Labor Setup	Drilling	4	4/2/2013	0.00	0.00	0.00	1.83	000005030
00000086	1	9	Labor	Deburring	4	4/2/2013	0.00	0.00	0.00	14.67	000005030
00000086	1	10	Labor Setup	Cutting Services	4	4/2/2013	0.00	0.00	0.00	49.50	000005030
00000086	1	10	Labor Setup	Cutting Services	4	4/2/2013	0.00	0.00	0.00	5.50	000005030
				Total for GL Account 000005030			0.00	0.00	0.00	116.17	

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EMPLOYEE TIME LOG

As you record time and activity information for specific Employees, you may want to print a log that focuses on Employee time rather than production results. The **Employee Time Log** provides you with the hours worked by Employees. It also provides a preview of the data that will post to Payroll, if interfaced with Production.

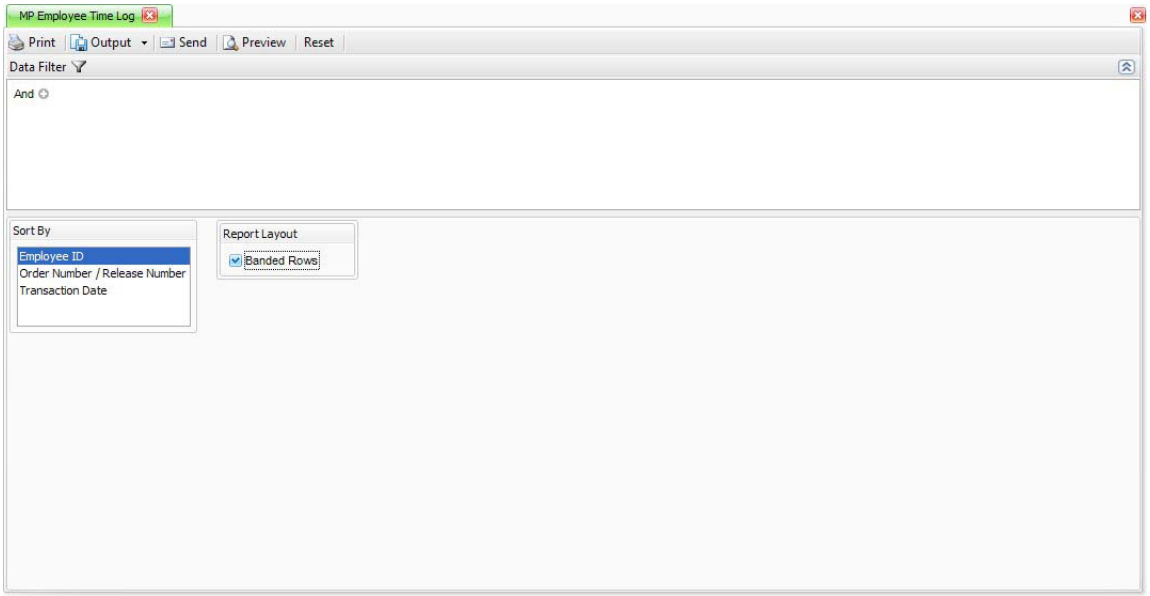
To produce the **Employee Time Log**, follow these steps:

1. Select **Employee Time Log** from the **Reports and Worksheets** menu.

Employee Time Log Menu

2. The **Employee Time Log** screen appears.

Employee Time Log Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Select the sorting criterion from the **Sort By** section; **Employee ID, Order Number/Release Number,** or **Transaction Date**.
5. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.

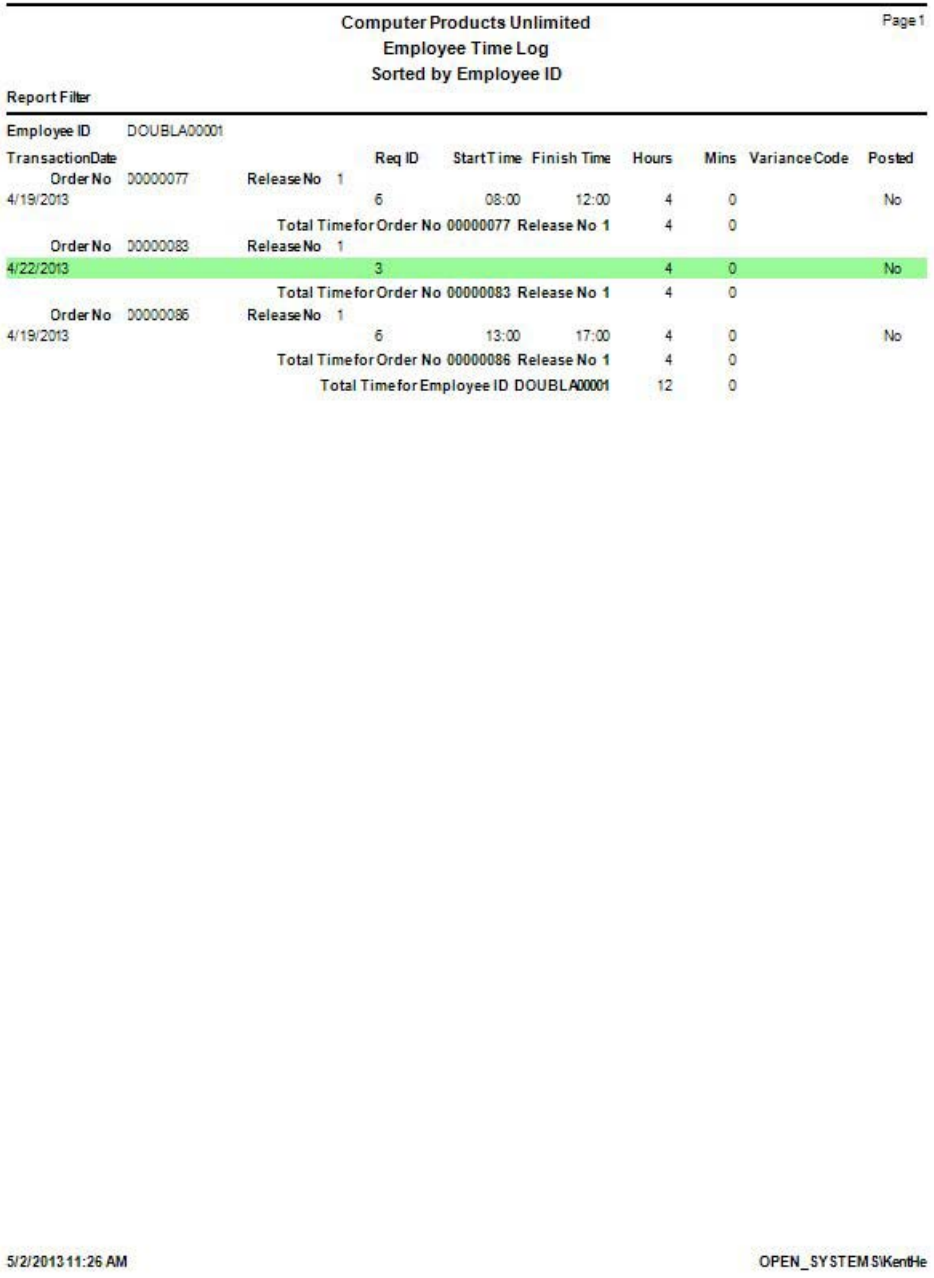
6. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Employee Time Log



Computer Products Unlimited
Employee Time Log
Sorted by Employee ID

Page 1

Report Filter

Employee ID	DOUBLA00001							
TransactionDate		Req ID	StartTime	Finish Time	Hours	Mins	VarianceCode	Posted
Order No	00000077	Release No 1						
4/19/2013		6	08:00	12:00	4	0		No
	Total Time for Order No 00000077 Release No 1				4	0		
Order No	00000083	Release No 1						
4/22/2013		3			4	0		No
	Total Time for Order No 00000083 Release No 1				4	0		
Order No	00000086	Release No 1						
4/19/2013		6	13:00	17:00	4	0		No
	Total Time for Order No 00000086 Release No 1				4	0		
	Total Time for Employee ID DOUBLA00001				12	0		

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WORK CENTERS LOAD PROFILE

The **Work Centers Load Profile** report enables you to view the upcoming workload and make necessary preparations to accommodate the size or nature of the process requirements. The information is based solely on Work Center information and shows production requirements coming up within a Work Center.

There are three sections to the report, or three sub-reports: **Upcoming Orders**, **Current Orders**, and **Completed Orders**.

NOTE: The Remaining Hours in the Current Order section reflect the total hours less any time that was recorded. In the Upcoming Orders section, the Remaining Hours reflect the total hours required to complete each process.

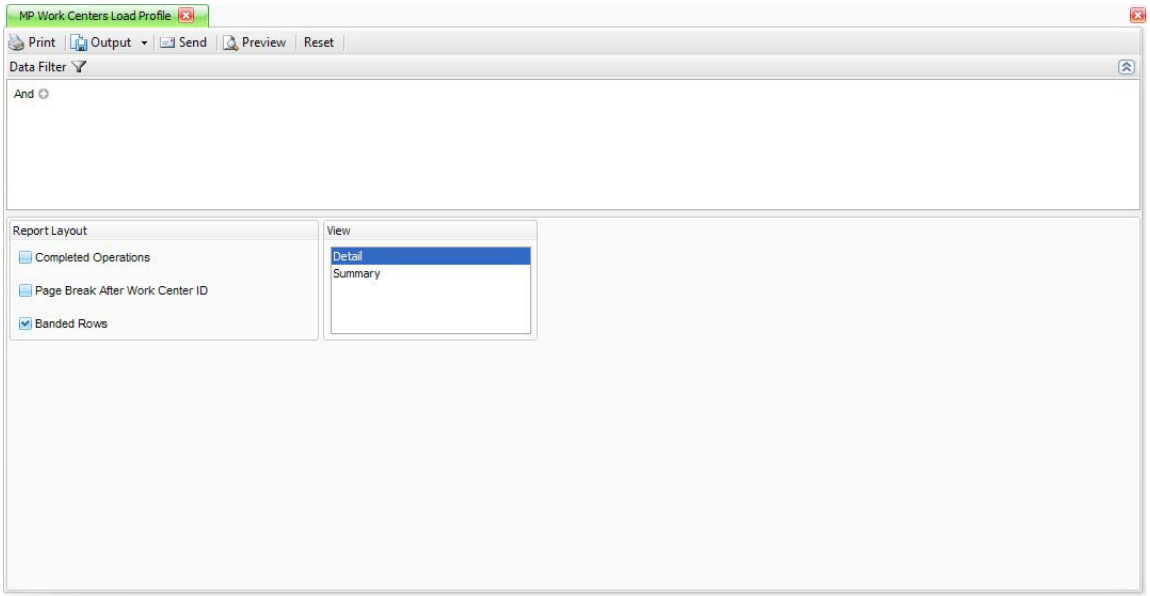
To produce the **Work Centers Load Profile**, follow these steps:

1. Select **Work Centers Load Profile** from the **Reports and Worksheets** menu.

Work Centers Load Profile Menu

2. The **Work Centers Load Profile** screen appears.

Work Centers Load Profile Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Select the **Completed Operations** check box, if applicable, to include completed Operations in the report.
5. Select the **Page Break After Work Center ID** check box, if applicable, to include page breaks after each Work Center in the report.
6. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.
7. Select whether to view a **Detail** or **Summary** view of the Work Centers Load Profile by selecting the appropriate view from the **View** section.

8. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Work Centers Load Profile Report

Continental Products Unlimited
Work Centers Load Profile (Detail)

Upcoming Operations

Order No	Release No	Req ID	Assembly ID	Machine Group ID	Labor Type ID	Qty to Process	Remaining Hours	Est Start Date	Est Finish Date
00000077	1	15	45112		MACHSHOP7	30.0000	0.250	11/30/2012	11/30/2012
Remaining		Machine Setup		Labor Setup		Machine Run Time		Labor Time	
00000077	1	16	45112	DRLPRESS7	MACHSHOP7	30.0000	0.667	11/30/2012	11/30/2012
Remaining		Machine Setup		Labor Setup		Machine Run Time		Labor Time	
00000077	1	14	45112	SAW07	MACHSHOP7	30.0000	1.200	11/30/2012	11/30/2012
Remaining		Machine Setup		Labor Setup		Machine Run Time		Labor Time	
00000077	1	11	45123	BEND07	MACHSHOP7	30.0000	6.000	11/30/2012	11/30/2012
Remaining		Machine Setup		Labor Setup		Machine Run Time		Labor Time	
00000077	1	12	45123	SAW07	MACHSHOP7	30.0000	0.500	11/30/2012	11/30/2012
Remaining		Machine Setup		Labor Setup		Machine Run Time		Labor Time	
00000086	1	6	45123	BEND07	MACHSHOP7	80.0000	14.333	11/30/2012	3/24/2013
Remaining		Machine Setup		Labor Setup		Machine Run Time		Labor Time	
00000086	1	7	45123	SAW07	MACHSHOP7	80.0000	1.333	11/30/2012	11/30/2012
Remaining		Machine Setup		Labor Setup		Machine Run Time		Labor Time	
00000087	1	9	45112		MACHSHOP7	100.0000	0.833	11/30/2012	4/30/2013
Remaining		Machine Setup		Labor Setup		Machine Run Time		Labor Time	
00000087	1	10	45112	SAW07	MACHSHOP7	100.0000	1.667	11/30/2012	11/30/2012
Remaining		Machine Setup		Labor Setup		Machine Run Time		Labor Time	
00000087	1	11	45112	DRLPRESS7	MACHSHOP7	100.0000	1.833	11/30/2012	11/30/2012
Remaining		Machine Setup		Labor Setup		Machine Run Time		Labor Time	
00000087	1	6	45123	BEND07	MACHSHOP7	100.0000	17.667	11/30/2012	4/30/2013
Remaining		Machine Setup		Labor Setup		Machine Run Time		Labor Time	
00000087	1	7	45123	SAW07	MACHSHOP7	100.0000	1.667	11/30/2012	11/30/2012
Remaining		Machine Setup		Labor Setup		Machine Run Time		Labor Time	

Upcoming Production Orders Time Total 47.950

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RESOURCE AVAILABILITY

The **Resource Availability** report is a capacity-oriented report that can be run for Work Centers, Machine Groups, or Labor Types. The report appears in Operation Start Date sequence.

Using the Schedule assigned in the Routing and Resources module the system plots the hours required against the hours available according to the Schedule. If there are more hours in the day than the process step requires, the report shows that you can begin the next process. If there are fewer hours in the day than the process requires, the process is carried over to the next day, or the next day when hours are available. This results in some days reflecting many process steps and others showing only one, depending on the length of the process

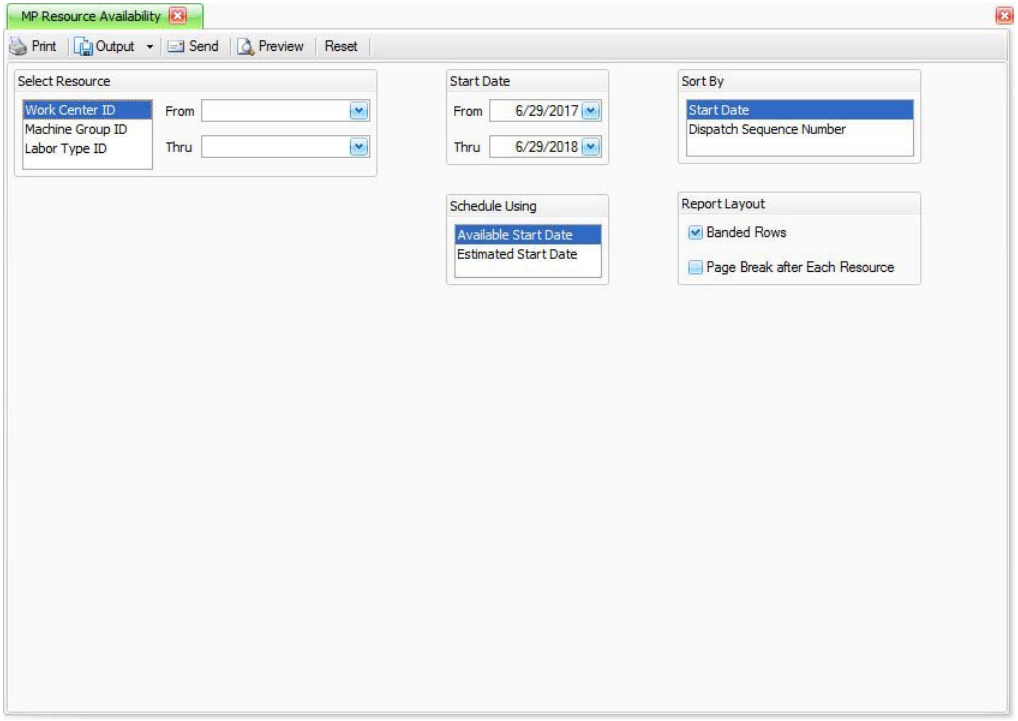
To produce the **Resource Availability**, follow these steps:

1. Select **Resource Availability** from the **Reports and Worksheets** menu.

Resource Availability Menu

2. The **Resource Availability** screen appears.

Resource Availability Screen



3. Select the resource and range of resources for the report from the **Select Resource** section and the **From** and **Thru** fields; **Work Center ID**, **Machine Group ID**, or **Labor Type ID**.
4. Select a range of start dates for the report from the **Start Date From** and **Thru** fields.
5. Select the sort criteria for the report from the **Sort By** section; **Start Date** and **Dispatch Sequence Number**.
6. Select whether to view the resource availability using the **Available Start Date** or **Estimated Start Date** from the **Schedule Using** section.
    - If you select **Available Start Date**, the report will sequence operations as tightly as possible for a given resource. This will result in the greatest throughput but may not be practical or even possible. This may result in some processes being scheduled prior to the time you plan to run them.

Example: For example, you set up two jobs to be run on a special labeling machine and set them up to run 2 weeks and 3 weeks from now and each job requires about a day's worth of work. Now let's say that the machine that is being used to apply the labels is not being used for any other jobs. The report will show the labeling process will appear as ready to run tomorrow or today and the next job will be scheduled immediately afterwards. This might be great, but on the other hand, this might not make sense at all, thus the other option.

- If you select **Estimated Start Date**, no process will begin prior to its Estimated Start Date. This may result in large gaps of unused time in the schedule of a given machine but these gaps may be required given the nature of the processes to be done.

7. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.
8. Select the **Page Break after Each Resource check** box, if applicable, to place a page break after each Work Center/Machine Group/Labor Type in the report.
9. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

The Resources Availability report will use the Schedule set up in Routing and Resources to calculate when Work Centers, Machine Groups or Labor Types will be available. Below is the process the report uses with the Schedule to calculate.

The Schedule is used to create a behind the scenes data set that defined a day by day availability schedule. These schedules are then assigned to Labor Types, Machine Groups, or Work Centers to define the availability on an hour by hour basis of that resource. Typically Machine Groups are the most popular choice.

Resource Availability Report

Continental Products Unlimited
Resource Availability
For Work Center ID by Start Date

Page 1

Work Center ID From **Thru**
Start Date From 1/1/2013 **Thru** 4/2/2014
Schedule Using Available Start Date

Work Center ID: GEN007 Main Shop Floor

Order No	Release No	Req ID	Customer ID	Assembly ID	Quantity to Produce	Operation ID	Seq No	Est Start Date	Est Finish Date	Hours Remaining At Beginning of the Day	Hours Remaining At End of the Day
Monday, Dec 02			**Hours Available:**	**24.000**							
00000077	1	8		100	30.0000	WELD7	4	11/30/2012	11/30/2012	5.250	0.000
00000076	1	2		SPICECOMBO-23	150.0000	BLENDING	1	11/30/2012	3/10/2013	2.275	0.000
00000083	1	2	Bur056	W-601-Z	95.0000	ASSEMBLE7	5	3/13/2013	3/15/2013	8.167	0.000
00000077	1	6		100	30.0000	ASSEMBLE7	2	3/14/2013	3/14/2013	3.250	0.000
00000077	1	2		100	10.0000	1701012727	3	3/14/2013	3/15/2013	4.500	0.000
00000084	1	2	Bet023	W-601-Z	12.0000	ASSEMBLE7	6	4/19/2013	4/20/2013	1.250	0.692
Tuesday, Dec 03			**Hours Available:**	**24.000**							
00000084	1	2	Bet023	W-601-Z	12.0000	ASSEMBLE7	6	4/19/2013	4/20/2013	0.692	0.000

Work Center ID: METALS7 Metal processing

Order No	Release No	Req ID	Customer ID	Assembly ID	Quantity to Produce	Operation ID	Seq No	Est Start Date	Est Finish Date	Hours Remaining At Beginning of the Day	Hours Remaining At End of the Day
Monday, Dec 02			**Hours Available:**	**24.000**							
00000086	1	11	Pol014	4517	80.0000	DRILL7	9999	11/30/2012	11/30/2012	0.001	0.000
00000087	1	6	Pol014	4517	100.0000	BEND7	9999	11/30/2012	4/30/2013	8.867	0.000
00000086	1	9	Pol014	4517	80.0000	DEBUR7	9999	11/30/2012	3/24/2013	0.000	0.000
00000086	1	10	Pol014	4517	80.0000	CUT7	9999	11/30/2012	11/30/2012	0.267	0.000
00000087	1	10	Pol014	4517	100.0000	CUT7	9999	11/30/2012	11/30/2012	0.833	0.000
00000087	1	11	Pol014	4517	100.0000	DRILL7	9999	11/30/2012	11/30/2012	0.917	0.000
00000087	1	7	Pol014	4517	100.0000	CUT7	9999	11/30/2012	11/30/2012	0.833	0.000
00000087	1	9	Pol014	4517	100.0000	DEBUR7	9999	11/30/2012	4/30/2013	0.833	0.000
00000086	1	7	Pol014	4517	80.0000	CUT7	9999	11/30/2012	11/30/2012	0.667	0.000
00000077	1	15		100	30.0000	DEBUR7	9999	11/30/2012	11/30/2012	0.250	0.000
00000077	1	16		100	30.0000	DRILL7	9999	11/30/2012	11/30/2012	0.333	0.000
00000077	1	12		100	30.0000	CUT7	9999	11/30/2012	11/30/2012	0.250	0.000
00000077	1	14		100	30.0000	CUT7	9999	11/30/2012	11/30/2012	0.600	0.000
00000086	1	6	Pol014	4517	80.0000	BEND7	9999	11/30/2012	3/24/2013	7.200	0.000
00000077	1	11		100	30.0000	BEND7	9999	11/30/2012	11/30/2012	3.033	0.884

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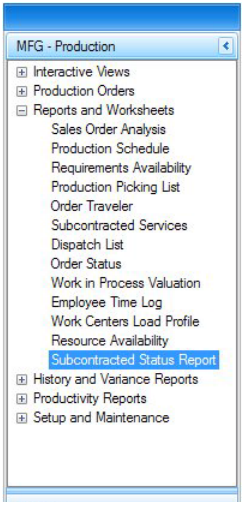
SUBCONTRACTED STATUS REPORT

The **Subcontracted Status Report** lists the current status of outstanding requirements. Outstanding requirements are those that you have sent to the Vendor (either fully or partially) but that you have not yet fully received. Use this report to identify dependencies or determine the source of production roadblocks.

To produce the **Subcontracted Status Report**, follow these steps:

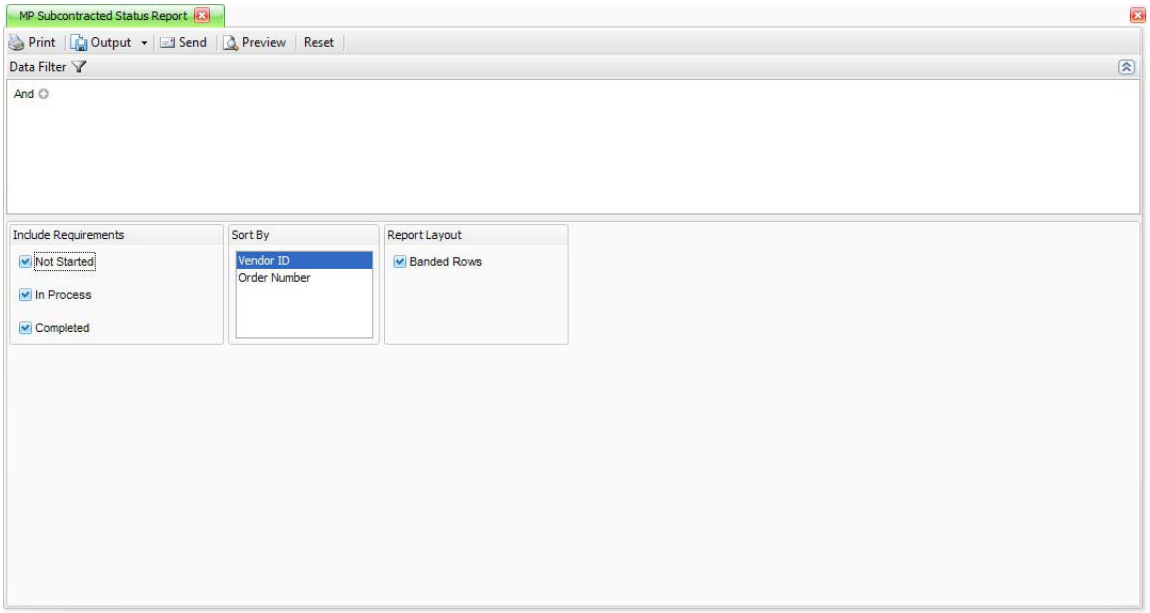
1. Select **Subcontracted Status Report** from the **Reports and Worksheets** menu.

Subcontracted Status Report Menu



2. The **Subcontracted Status Report** screen appears.

Subcontracted Status Report Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Select the requirements to include from the **Include Requirements** section; **Not Started**, **In Process**, and **Completed**. You may select any one or any combination of these choices.
5. Select the sorting criterion from the **Sort By** section; **Vendor ID** or **Order Number**.
6. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.

7. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Subcontracted Status Report

Continental Products Unlimited — Page 1
Subcontracted Status Report
Sorted by Vendor ID

Report Filter
Include Requirements Not Started, In Process

Vendor ID / Name	Order No / Release No	Req ID	Operation ID / Description	Qty Planned / Qty Scrapped	Qty Sent / Qty Received
Not Started					
Adv008	00000087		BEND7	400.0000	0.0000
Advanced Cirquit Boards Plus	1	46	Metals Bending	0.0000	0.0000

4/22/2013 4:37 PM *** End of Report *** OPEN_SYSTEMS\KentHe

7

History and Variance Reports

OVERVIEW

The History and Variance Reports provide historical information of the variances that occurred and offer you a way to trace old production orders that have already been processed through the system.

At first glance, these history reports may appear to be similar. However, each has a unique purpose or focus, although each report uses the same historical data. These reports compare expected production results with actual production results and display different sorts of variances, pointing out problem areas.

The History and Variance Reports menu offers several report options. The report screens are similar in functionality.

The History and Variance Reports menu provides the following reports:

- **Cost Variance Analysis**(page 7-5) - Use this report to review past production and analyze situations where the actual production cost ended up notably different than the expected cost.
- **Time Variance Analysis** (page 7-9) **-** Use the Time Variance Analysis report to review the difference between anticipated time and actual time spent. The report shows each Routing Step, its Machine Group or Labor Type, Setup Times, Run Times, Wait Times, and so on.
- **Production Variance Analysis** (page 7-13) - The Production Variance Analysis report examines unplanned variances in finished goods. Use this report to compare the quantity you planned to produce against the actual production quantity, and to compare the actual finished good unit cost against the standard unit cost.
- **Transaction History** (page 7-17) - Use the Transaction History report to review detailed information relating to past production. This report deals with the use of Materials, Labor, Subcontracting, Machinery, and the finished production.
- **Production History** (page 7-21) - Use the Production History report to quickly access end results of production runs. The report is similar to the transaction history, except this report focuses specifically on finished goods.
- **Variance Code History** (page 7-25) - If you are using the Variance Code field when recording production activity, this data is recorded in the production history tables. The Variance Code History report displays manufacturing history based on the Variance Codes grouped by sources such as Materials or Operations.

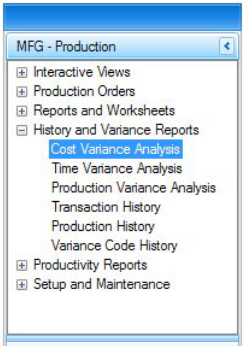
COST VARIANCE ANALYSIS

Use **Cost Variance Analysis** report to review past production and analyze situations where the actual production cost ended up notably different than the expected cost.

To produce the **Cost Variance Analysis**, follow these steps:

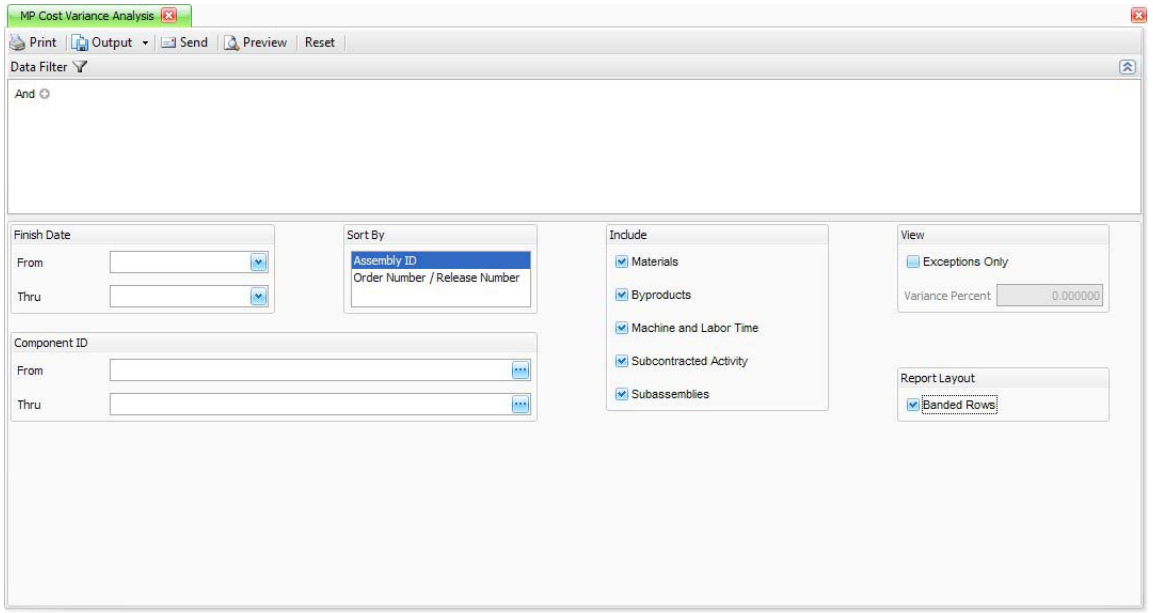
1. Select **Cost Variance Analysis** from the **History and Variance Reports** menu.

Cost Variance Analysis Menu



2. The **Cost Variance Analysis** screen appears.

Cost Variance Analysis Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Select, if applicable, an estimate finish date range to include in the report from the **Finish Date From** and **Thru** fields.
5. Select, if applicable, a range of Components to include in the report from the **Component ID From** and **Thru** fields.
6. Select the sort criteria for the report from the **Sort By** section; **Assembly ID** or **Order Number/Release Number.**
7. Select options to **Include** in the report from the Include section; **Materials**, **Byproducts**, **Machine and Labor Time**, **Subcontracted Activity**, and **Subassemblies**. You may select any one or any combination of these selections.
8. Select the **Exceptions Only** check box, if applicable, to only view exceptions in the report.

   If this box is checked, then the **Variance Percent** field opens up. The default setting for this field is set in the Business Rules (page 3-5) but it may be edited it at this point. If the percentage of variance is equal to or greater than the percentage in this field, the transaction will appear on the report.

Example: Standard Cost is $5.00 and the Actual Cost is $6.00, the variance will be $1.00 or more importantly, 20%.

9. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.

10. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Cost Variance Analysis Report

Continental Products Unlimited
Cost Variance Analysis
Sorted by Assembly ID

Report Filter			
Include Materials	Yes	Include Byproducts	Yes
Include Machine and Labor Time	Yes	Include Subcontracted Activity	Yes
Include Subassemblies	Yes		
Exceptions Only	No	Variance Pct	0.000000

Order No	Release No	Customer ID	Assembly ID	Finish Date	Planned Qty / Actual Qty	Standard Cost / Actual Cost	Total Planned / Total Actual	Variance
00000073	1		100	2/7/2013	100.0000	350.0000	35,000.0000	-94.3374
					100.0000	19.8190	1,981.9000	

Materials

Component ID	Planned Qty / Actual Qty	Variance	Estimated Scrap / Actual Scrap	Variance	Estimated Cost / Actual Cost	Variance	Cost Group
45020	200.0000	0.0000	0.0000	0.0000	40.0000	0.0000	Matl
	200.0000		0.0000		40.0000		
45030	300.0000	0.0000	0.0000	0.0000	51.9000	0.0000	Matl
	300.0000		0.0000		51.9000		

Routings

Labor Setup	Estimated Cost / Actual Cost	Labor	Estimated Cost / Actual Cost	Machine Setup	Estimated Cost / Actual Cost	Machine Run	Estimated Cost / Actual Cost	Variance
1701012727	20.0000	1701012727	250.0000	1701012727	120.0000	1701012727	1,500.0000	0.0000
	20.0000		250.0000		120.0000		1,500.0000	

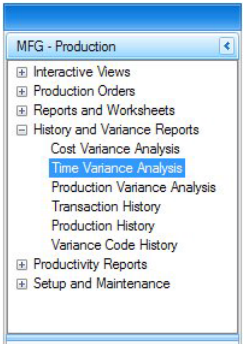
TIME VARIANCE ANALYSIS

Use the **Time Variance Analysis** report to review the difference between anticipated time and actual time spent. The report shows each Routing Step, its Machine Group or Labor Type, Setup Times, Run Times, Wait Times, and so on.

To produce the **Time Variance Analysis**, follow these steps:

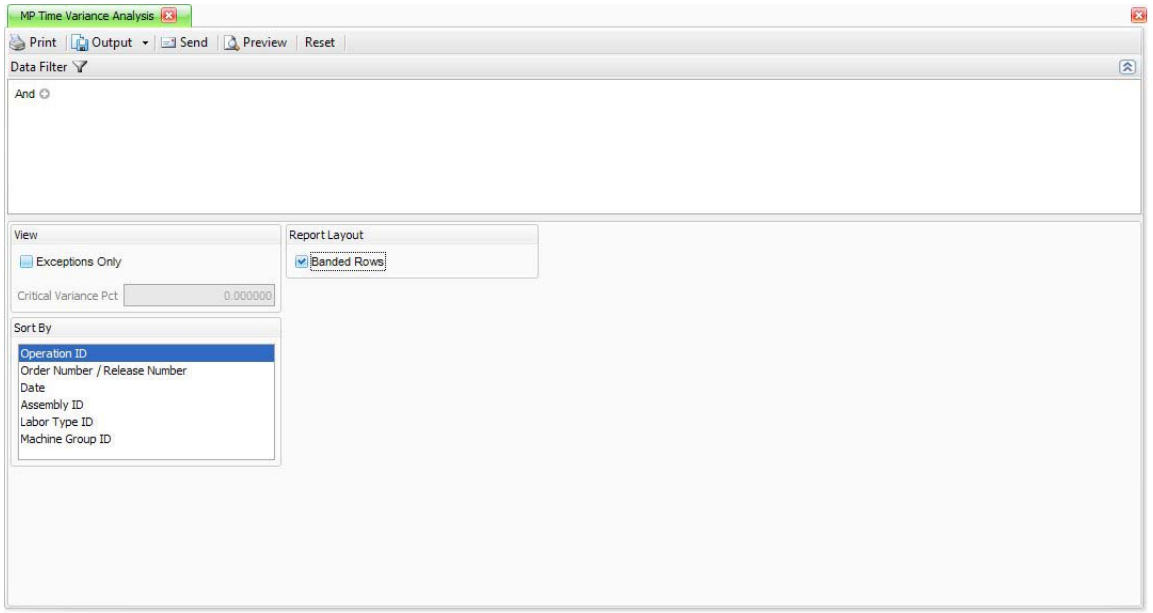
1. Select **Time Variance Analysis** from the **History and Variance Reports** menu.

Time Variance Analysis Menu



2. The **Time Variance Analysis** screen appears.

Time Variance Analysis Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Select the **Exceptions Only** check box, if applicable, to only view exceptions in the report.

> **NOTE: If you select this check box, you may enter a Variance Percentage, corresponding to the exceptions, in the Critical Variance Pct field. The value defaulted will be the value entered in the Business Rules (page 3-5).**

5. Select the sort criteria for the report from the **Sort By** section; **Operation ID, Order Number/Release Number, Date, Assembly ID, Labor Type ID,** and **Machine Group ID.**
6. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.

7. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Time Variance Analysis Report

Continental Products Unlimited
Time Variance Analysis
Sorted by Operation ID

Report Filter
Exceptions Only No **Variance Pct** 0.000000

Order No / Rel	Revision / Assembly ID	Routing Step	Operation ID	Work Center ID	Mach Group ID / Labor Type ID	Est Setup Time	Actual Setup Time	Variance Pct	Est Run Time	Actual Run Time	Variance Pct	Activity Date
00000007	003	1				0.000	0.000	0.000	0.000	0.000	0.000	7/16/2012
1	4517					0.000	0.000	0.000	0.000	0.000	0.000	
00000053	001	1				0.000	0.000	0.000	0.000	0.000	0.000	12/13/2012
1	T03003222					0.000	0.000	0.000	0.000	0.000	0.000	
00000073	001	1	1701012727	GEN007	1701012727	2.000	2.000	0.000	25.000	25.000	0.000	1/3/2013
1	100				1701012727	2.000	2.000	0.000	25.000	25.000	0.000	
00000002	003	1	ASSEMBLE7	GEN007		0.000	0.000	0.000	0.000	0.000	0.000	7/16/2012
1	4517				ASSEMBLY7	0.250	0.250	0.000	2.400	2.400	0.000	
00000007	003	1	ASSEMBLE7	GEN007		0.000	0.000	0.000	0.000	0.000	0.000	7/16/2012
1	4517				ASSEMBLY7	0.250	0.250	0.000	1.000	1.000	0.000	
00000053	001	1	ASSEMBLE7	GEN007		0.000	0.000	0.000	0.000	0.000	0.000	12/13/2012
1	T03003222				ASSEMBLY7	0.000	0.000	0.000	0.000	0.000	0.000	
00000057	001	1	ASSEMBLE7	NOT-USED	865-006	0.000	0.000	0.000	7.150	7.579	6.000	12/19/2012
1	865-006				865-006	0.000	0.000	0.000	7.150	7.579	6.000	
00000063	001	1	ASSEMBLE7	GEN007		0.000	0.000	0.000	0.000	0.000	0.000	12/26/2012
1	4405				ASSEMBLY7	0.250	0.250	0.000	2.000	2.000	0.000	
00000002	003	1	BEND7	METALS7	BEND07	0.500	0.500	0.000	2.000	2.000	0.000	7/16/2012
1	4517				MACHSHOP7	0.500	0.500	0.000	2.000	2.000	0.000	
00000007	003	1	BEND7	METALS7	BEND07	0.500	0.500	0.000	0.833	0.833	0.000	7/16/2012
1	4517				MACHSHOP7	0.500	0.500	0.000	0.833	0.833	0.000	
00000063	001	1	BEND7	METALS7	BEND07	0.500	0.500	0.000	1.667	1.667	0.000	12/26/2012
1	4405				MACHSHOP7	0.500	0.500	0.000	1.667	1.667	0.000	
00000022	001	1	BLENDING	GEN007	MIX-VAT	0.067	0.067	0.000	0.033	0.033	0.000	10/11/2012
1	PEPPERONISTIX-12				GENERAL	0.067	0.067	0.000	0.033	0.033	0.000	
00000024	001	1	BLENDING	GEN007	MIX-VAT	0.033	0.033	0.000	0.017	0.017	2.000	10/12/2012
1	PEPPERONISTIX-12				GENERAL	0.033	0.033	0.000	0.017	0.017	2.000	
00000027	001	1	BLENDING	GEN007	MIX-VAT	0.033	0.000	-100.000	0.017	0.000	-100.000	10/12/2012
1	PEPPERONISTIX-12				GENERAL	0.033	0.000	-100.000	0.017	0.000	-100.000	
00000030	001	1	BLENDING	GEN007	MIX-VAT	0.500	0.500	0.000	0.250	0.250	0.000	10/18/2012
1	SPICECOMBO-23				GENERAL	0.500	0.500	0.000	0.250	0.250	0.000	
00000022	001	1	CASING	GEN007	98297	0.500	0.500	0.000	0.033	0.033	0.000	10/11/2012
1	PEPPERONISTIX-12				GENERAL	0.500	0.500	0.000	0.033	0.033	0.000	
00000024	001	1	CASING	GEN007	98297	0.500	0.500	0.000	1.250	1.250	0.000	10/12/2012
1	PEPPERONISTIX-12				NOT-USED	0.500	0.500	0.000	1.250	1.250	0.000	
00000027	001	1	CASING	GEN007	98297	0.500	0.500	0.000	1.000	1.000	0.000	10/12/2012

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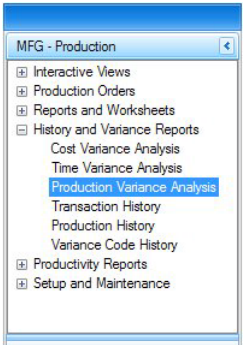
PRODUCTION VARIANCE ANALYSIS

The **Production Variance Analysis** report examines unplanned variances in finished goods. Use this report to compare the quantity you planned to produce against the actual production quantity, and to compare the actual finished good unit cost against the standard unit cost. Component and process costs are included, broken down by Cost Code. The report serves as a great starting point for locating quantitative or cost-oriented output variances. To attain more cost input variance detail, use the Cost Variance Analysis and Time Variance Analysis report.

To produce the **Production Variance Analysis**, follow these steps:

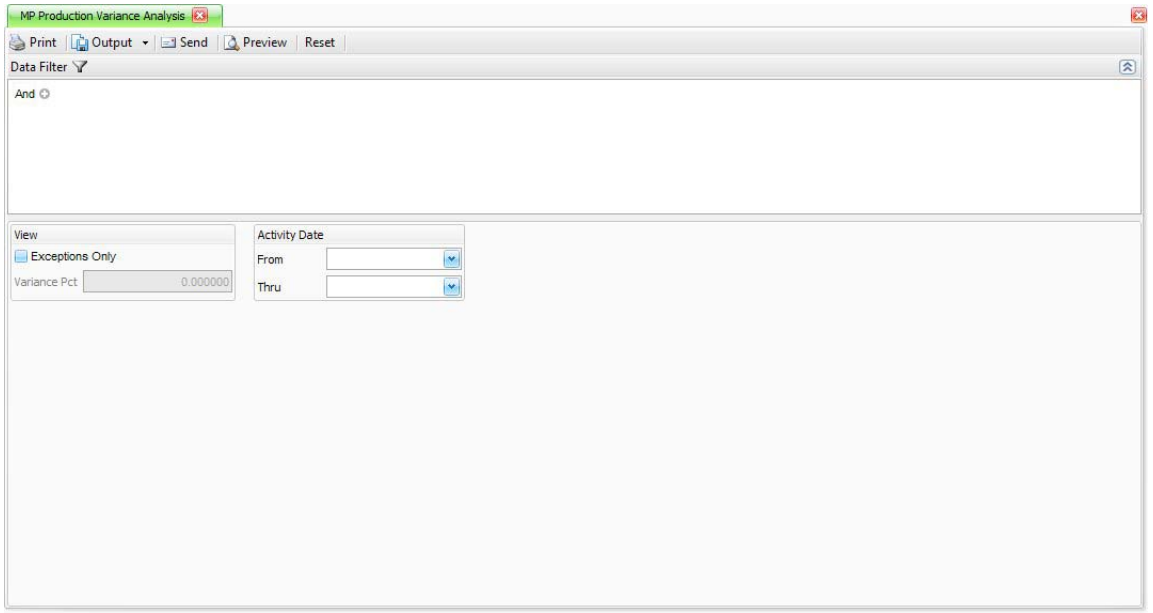
1. Select **Production Variance Analysis** from the **History and Variance Reports** menu.

Production Variance Analysis Menu



2. The **Production Variance Analysis** screen appears.

Production Variance Analysis Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Select the **Exceptions Only** check box, if applicable, to only view exceptions in the report.

> **NOTE: If you select this check box, you may enter a Variance Percentage, corresponding to the exceptions, in the Critical Variance Pct field. The value defaulted will be the value entered in the Business Rules (page 3-5).**

5. Select, if applicable, a range of Activity Dates to include in the report from the **Activity Date From** and **Thru** fields.

6. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Production Variance Analysis Report

Continental Products Unlimited
Production Variance Analysis

Report Filter
Exceptions Only: No

Variance Pct: 0.00

Order No	Release No	Customer ID	Assembly ID		Activity Date	Planned Qty	Actual Qty	Standard Unit Cost	Actual Unit Cost	Total Standard	Total Actual	Variance Pct
00000002	1	Bet023	4517		7/16/2012	24.0000	24.0000	59.3400	34.0854	1,424.1600	818.0496	-42.559151
	Cost Group ID		Planned Cost	Actual Cost	Variance Pct							
			4.50	4.50	0.000000							
	Labor1		289.88	311.88	7.586730							
	Labor2		178.50	178.50	0.000000							
	Mach		68.50	68.50	0.000000							
	Mach2		500.46	500.45	-0.000299							
	Matl		667.78	667.78	0.000000							
	Matl2		7.56	7.56	0.000000							
	Overh		112.00	112.00	0.000000							
00000007	1		4517		7/16/2012	10.0000	10.0000	59.3400	41.1200	593.4000	411.2000	-30.704415
	Cost Group ID		Planned Cost	Actual Cost	Variance Pct							
			0.00	0.00	0.000000							
	Labor1		150.58	150.54	-0.028776							
	Labor2		80.50	80.51	0.017391							
	Mach		35.08	35.08	-0.000950							
	Mach2		80.68	210.49	160.888512							
	Matl		161.02	282.70	75.570433							
	Matl2		3.15	3.15	0.000000							
	None		0.00	0.00	0.000000							
	Overh		70.00	70.00	0.000000							
00000015	1		A70019/17		8/21/2012	900.0000	900.0000	6.3000	6.2495	5,670.0000	5,624.5500	-0.801587
	Cost Group ID		Planned Cost	Actual Cost	Variance Pct							
	Labor1		0.00	0.00	0.000000							
	Mach		0.00	0.00	0.000000							
	Matl		683.64	674.52	-1.333333							
	Prcss		0.00	0.00	0.000000							
	Xtrnl		4,950.00	4,950.00	0.000000							
00000016	1		A70019/17		8/21/2012	3,500.0000	3,500.0000	6.3000	6.3223	22,050.0000	22,128.0500	0.353968
	Cost Group ID		Planned Cost	Actual Cost	Variance Pct							
	Labor1		0.00	11.00	0.000000							
	Mach		0.00	75.00	0.000000							
	Matl		21,908.60	2,847.10	-87.004646							
	Prcss		0.00	0.00	0.000000							
	Xtrnl		19,250.00	19,250.00	0.000000							

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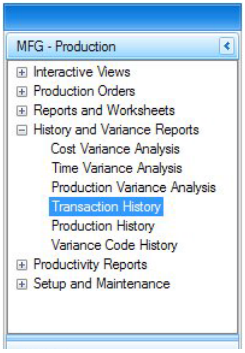
TRANSACTION HISTORY

Use the **Transaction History** report to review detailed information relating to past production. This report deals with the use of Materials, Labor, Subcontracting, Machinery, and the Finished Production. The report is grouped into up to five sections showing material use, process-related time and expense, subcontracted activity, usage or creation of subassemblies, and finished production.

To produce the **Transaction History Report**, follow these steps:

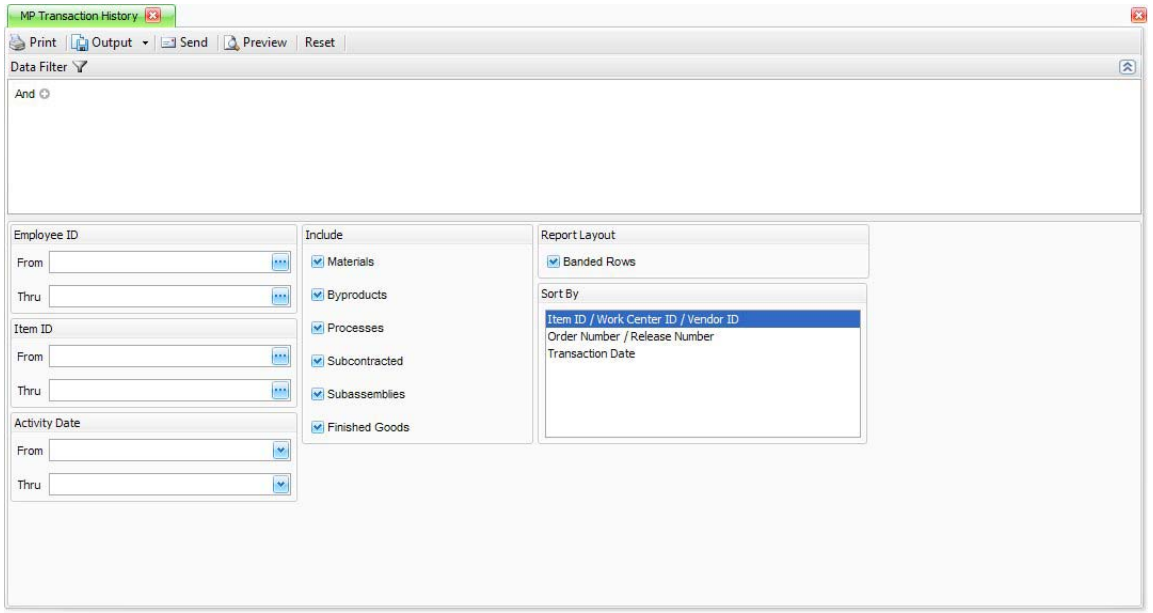
1. Select **Transaction History** from the **History and Variance Reports** menu.

Transaction History Menu



2. The **Transaction History** screen appears.

Transaction History Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Select the range of Employees to view in the report from the **Employee ID From** and **Thru** fields.
5. Select the range of Items to view in the report from the **Item ID From** and **Thru** fields.
6. Select the range of Activity Dates to view in the report from the **Activity Date From** and **Thru** fields.
7. Select options to Include in the report from the **Include** section; **Materials**, **Byproducts**, **Processes**, **Subcontracted**, **Subassemblies**, and **Finished Goods**. You may select any one or any combination of these selections.
8. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.
9. Select the sort criteria for the report from the **Sort By** section; **Item ID/Work Center ID/Vendor ID**, **Order Number/Release Number**, or **Transaction Date**.

10. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Transaction History Report

Continental Products Unlimited
Transaction History
Sorted by Item ID / Work Center ID / Vendor ID

Report Filter			
Employee ID From		Thru	
Item ID From		Thru	
Transaction Date From		Thru	
Include Materials	Yes	Include Byproducts	Yes
Include Processes	Yes	Include Subcontracted	Yes
Include Subassemblies	Yes	Include Finished Goods	Yes

Materials

Order No / Rel No / Req ID	Component ID / Description	Location	Trans Date	Qty Pulled / Qty Scrapped	Unit	Unit Cost / Total Cost	Variance Code / Variance Description
Notes							
00000045	105	MN0002	11/14/2012	100.0000	ML	500.0000	
1 / 4	Test Item 105			0.0000		50,000.0000	
00000047	106	MN0002	11/14/2012	1.0000	EA	500.0000	
1 / 4	Test Item 106			0.0000		500.0000	
00000048	107	MN0002	11/14/2012	1.0000	EA	500.0000	
1 / 4	Test Item 107			0.0000		500.0000	
00000049	108	MN0002	11/14/2012	1.0000	EA	500.0000	
1 / 4	Test Item 108			0.0000		500.0000	
00000053	155-0491-020	TX0001	12/13/2012	226.8000	EA	1.5000	
1 / 85	Grommet, strip, continuous spring f			0.0000		340.2000	
00000002	4401	MN0002	7/16/2012	24.0000	EA	0.3500	
1 / 18	Black Plastic 4" Handle			0.0000		8.4000	
Lot No		Qty					
LOT1		24.0000					
00000007	4401	MN0002	7/16/2012	10.0000	EA	0.3500	
1 / 22	Black Plastic 4" Handle			0.0000		3.5000	
Lot No		Qty					
LOT1		10.0000					
00000002	45020	MN0002	7/16/2012	288.0000	SQIN	0.2000	
1 / 5	Steel 1/4 Flat			0.0000		57.6000	
00000007	45020	MN0002	7/16/2012	120.0000	SQIN	0.2000	
1 / 14	Steel 1/4 Flat			0.0000		24.0000	
00000063	45020	MN0002	12/26/2012	240.0000	SQIN	0.2000	

PRODUCTION HISTORY

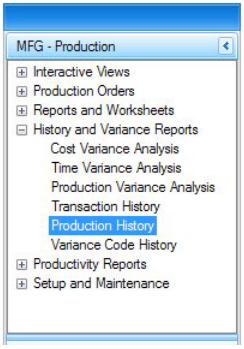
Use the **Production History** report to quickly access end results of production runs. The report is similar to the transaction history, except this report focuses specifically on finished goods.

The Production History report groups information together for each Production Order, providing production run information for one Production Order Release at a time. The report also prints specific production information by individual Lot Number or Serial Number, if applicable.

To produce the **Production History Report**, follow these steps:

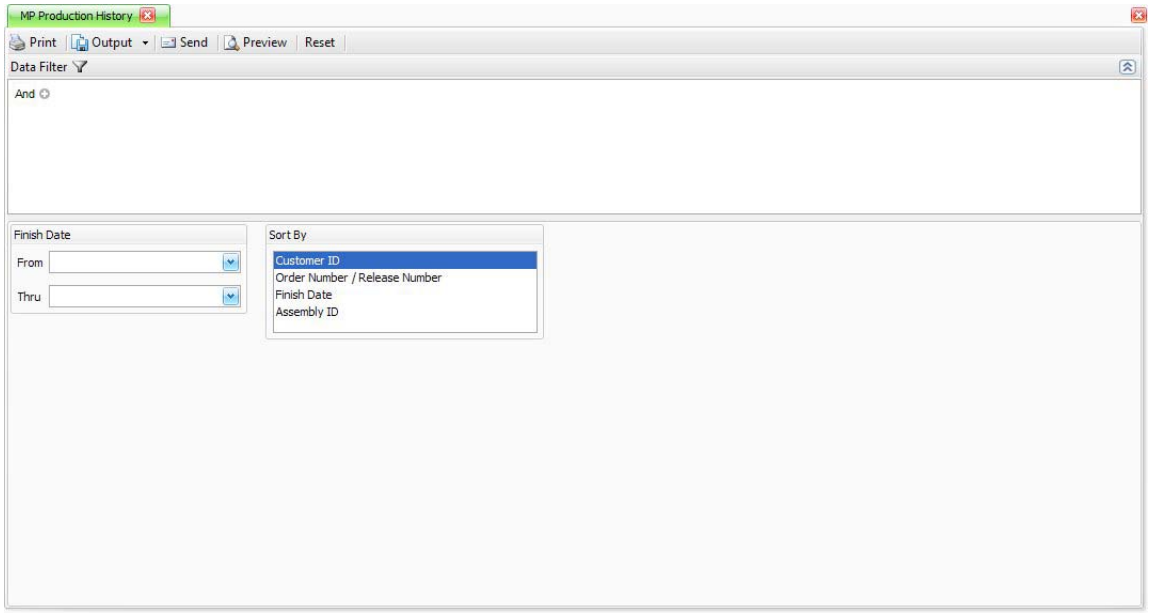
1. Select **Production History** from the **History and Variance Reports** menu.

Production History Menu



2. The **Production History** screen appears.

Production History Screen



3. Use the **Data Filter** to select the range of filtering options or leave the filter blank to include all available data.
4. Select, if applicable, a range of Finish Dates to include in the report from the **Finish Date From** and **Thru** fields.
5. Select the sort criteria for the report from the **Sort By** section; **Customer ID**, **Order Number/Release Number**, **Finish Date**, or **Assembly ID**.

6. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Production History Report

Continental Products Unlimited
Production History
Sorted by Customer ID

Report Filter

Order No / Assembly ID	Release No / Revision	Customer ID / Location	Sales Order / Customer PO No	Qty Produced / Qty Scrapped	Per Piece Cost / Total Cost	Unit	Start Date / Finish Date
00000007	1			10.0000	41.1200	EA	7/16/2012
4517	003	MN0002		0.0000	411.2000		7/16/2012
00000015	1			900.0000	6.2495	EACH	8/21/2012
A70019/17	001	MN0002		0.0000	5,624.5500		8/21/2012
Lot No		**Qty**					
LOT1234		900.0000					
00000016	1			3,500.0000	6.3223	EACH	8/21/2012
A70019/17	001	MN0002		0.0000	22,128.0500		8/21/2012
Lot No		**Qty**					
LOT4567		3,500.0000					
00000030	1			48.0000	14.2044	KG	10/16/2012
SPICECOMBO-23	001	CA0001		0.0000	681.8112		10/16/2012
Lot No		**Qty**					
7946		48.0000					
00000034	1			4.0000	312.0075	EA	11/1/2012
W-601-Z	001	CA0001		0.0000	1,248.0301		11/2/2012
Lot No	**Serial No**		**Unit Cost**				
	187-41		312.0050				
	187-42		312.0050				
	187-44		312.0050				
	187-45		312.0050				
Total			1,248.0200				
00000045	1			100.0000	504.8000	EA	11/14/2012
M2501	5	MN0002		0.0000	50,480.0000		11/14/2012
00000047	1			2.0000	254.8000	EA	11/14/2012
M2501	5	MN0002		0.0000	509.6000		11/14/2012
00000048	1			2.0000	254.8000	EA	11/14/2012
M2501	5	MN0002		0.0000	509.6000		11/14/2012

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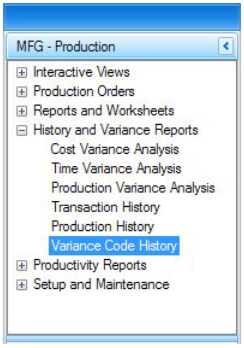
VARIANCE CODE HISTORY

If you are using the Variance Code field when recording production activity, this data is recorded in the production history tables. The **Variance Code History** report displays manufacturing history based on the Variance Codes grouped by sources such as Materials or Operations. If, for example, you had a problem with materials that you identified with a Variance Code, you could view all the recorded problems for as long as you kept history.

To produce the **Variance Code History**, follow these steps:

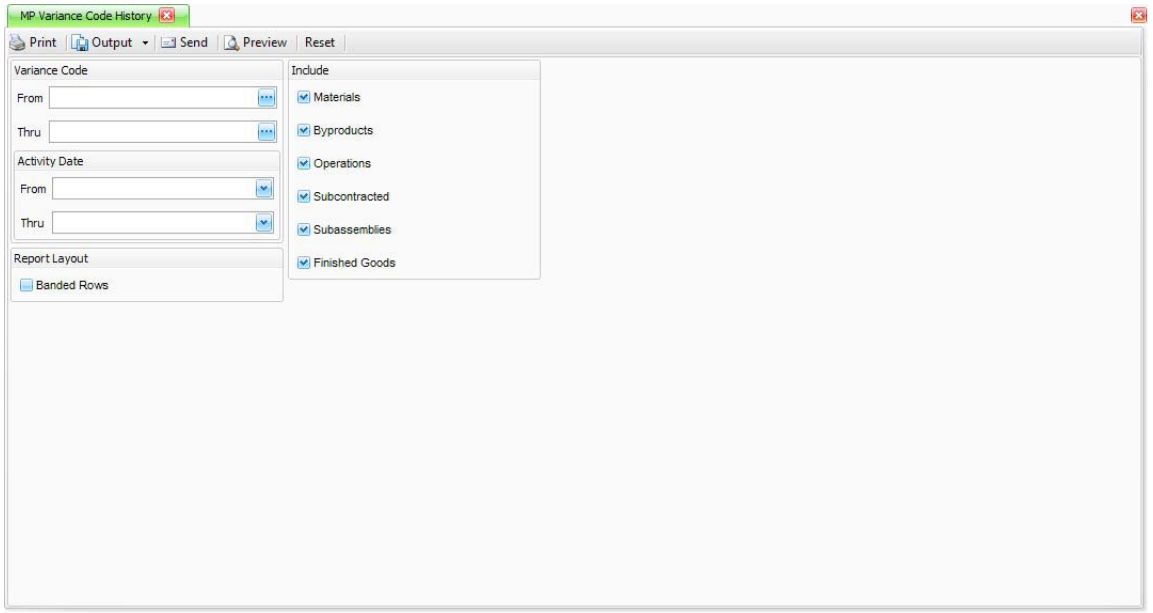
1. Select **Variance Code History** from the **History and Variance Reports** menu.

Variance Code History Menu



2. The **Variance Code History** screen appears.

Variance Code History Screen



3. Select the range of Variance Codes to view in the report from the **Variance Code From** and **Thru** fields.
4. Select the range of Activity Dates to view in the report from the **Activity Date From** and **Thru** fields.
5. Select the check box if you want to print the report in **Banded Rows** format, which highlights lines in the report in alternating bands of color (or gray on monochrome printers). This makes wide reports easier to read. You can define your default preference for the banded rows format on the System Manager Business Rules. You can then override your default choice when you print the report.
6. Select options to include in the report from the **Include** section; **Materials**, **Byproducts**, **Operations**, **Subcontracted**, **Subassemblies**, and **Finished Goods**. You may select any one or any combination of these selections.

7. Select a command button:

Command Buttons

Name	Description
Reset	Set all fields to their defaults.
Preview	Preview the report on your monitor.
Output	Output the report as a .pdf file and save it.
Send	Email the report with the report attached as a .pdf file.
Print	Print the report.

NOTE: Refer to the Reporting section in the General Information guide for more details on print options and selections when previewing the report.

Variance Code History Report

Continental Products Unlimited — Page 1
Variance Code History

Variance Code From		Thru	
Activity Date From		Thru	
Include Materials	Yes	Include Byproducts	Yes
Include Operations	Yes	Include Subcontracted	Yes
Include Subassemblies	Yes	Include Finished Goods	Yes

Materials

Byproducts

Operations

Subcontracted

Subassemblies

Finished Goods

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8

COMMON QUESTIONS

QUESTIONS

How does the Yield Percentage field work in Operations?

The Yield Percentage field is simply a cosmetic field. There are two philosophies on the yield concept; one being to allow it to recalculate all of the quantitative fields below it and increase the raw materials requirements in production, similar to scrap, to accommodate yield loss. The other philosophy is to use it strictly as a benchmark against actual yield on a historical basis. Recalculating quantities can get very complex and doesn't allow for the built in restrictions in actual environments such as limited space capacity or other manufacturing restrictions that would prevent one from simply increasing the production plan. For example; I need 50 liters of FG XYZ, but I have a 50% yield so therefore to produce 50 liters I might need to bump up the raw materials by approximately 50%. The problem is, however that the vat only holds 50 liters? I can't put 100 liters in a 50 liter vat so increasing RM may not be feasible. Look for future versions to build on these concepts. (Routing and Resources, Operations Setup and Bills of Material Setup)

How does the Generate Orders select and regenerate orders work?

The Generate Orders from Sales Order is based on Customer, Sales Order, Date Range, and Product. It no longer looks at PO number. It removes any Production Orders that meet the selected criteria that are of a Planned or New status. It then regenerates those. So if I was to say that the process selects Sales Orders (or Sales Order line) to generate from based on the Assembly or Product ID range, Date Range, Customer ID Range, and whether the status is PICKED. It then removes the Production Orders that have a status of PLANNED that meet the same criteria. It then replaces those Production Orders with new PLANNED status orders. If a product is found more than once on a given Sales Order, it generates multiple releases on one Production Order for those lines. No reference is made to Customer Purchase Order. (Production, Production Orders, Generate Orders from Sales)

How does the Per Piece overhead get generated in Record Production activity?

When recording time in Production, the quantity dictates the overhead per piece. Quantity is considered as Qty Produced PLUS Qty Scrapped. (Production, Production Orders, Record Production Activity)

How is scrap costed when I record production activity?

Scrap does not affect inventory. It is part of the quantity pulled when working with components and it is considered to be in addition to qty produced when recording finished goods, although it does not get added to Inventory. The scrap field is not part of the final costing calculation because it is technically, already included in the cost. (Production, Production Orders, Record Production Activity)

What is the difference between the Available Start Date and the Estimated Start Date in the Start Date option?

In the Resource Availability report use Available Start Date if Production Orders can start consecutively without regard for start date. Use Estimated Start Date to prevent orders from appearing before their start date. (Production, Reports and Worksheets, Resource Availability)

Why don't I see my Production Orders when I go into Release Orders?

In the Release Orders you must click on the Apply button to view the available orders. Also note that Production Orders must have a status of Released or Firm Planned. The status of the Production Orders is set using the Production Orders function. (Production, Production Orders, Production Orders and Release Production Orders)

It seems that the Summarized Bill of Material report and the Costed Bill of Material report print differently in regard to Subassemblies?

The Summarized Bill of Materials report prints the cost and detail of Non-Stocked Subassemblies as part of the report. No Subassembly Items will appear on the report unless they are Stocked Subassemblies. On the Costed Bill of Material report, Subassemblies Items are shown with their respective cost. Their detail is not shown. The reports should come up with the same overall assembly cost total. (Bills of Material, Reports, Costed Bills of Material and Summarized Bills of Material)

I see there are Operation Types in Version 11. What is the difference between version 10.5 and version 11.

In version 10.5 TRAVERSE could handle what we call, “Per Unit” and “Subcontracted” processes. We have added two types of processes. (Routing and Resources, Operations Setup)

The first is “Run Rate”. A “Run Rate” operation is like a “Per Unit” operation only “reversed” one might say. Instead of time per unit, the user sets up units per time. Per Unit says I can process a unit in 1.5 minutes, for example. Run Rate might state I can process 900 units in 1.5 minutes for example. Per the 900 units, I could have said I produce 1 unit in .1 seconds. It would be the exact same thing. However let's say we can process 1400 units in 1.25 minutes. I don't have to state the Per Unit time as 1 unit per .0535714 seconds. We simply say 1400 units per 1.25 minutes. So the concept is somewhat just being practical and somewhat simply a way of thinking.

The other method is “Batch” processing. There are some subtle complications here but more or less we are stating the time required to process a specific quantity. It involves at least two variables; the time and the quantity. Unlike Run Rate, you can't break it down for slightly smaller or larger quantities. It's like baking cookies; if the oven holds 50 cookies and they take 20 minutes to cook it won't really matter if you are cooking 10 or 50, you are probably looking at about 20 minutes. Along the same line if you are cooking 51 cookies, you will need to split them into two batches of 50 and 1 or maybe 25 and 26. Either way you are looking at about 40 minutes. This concept couldn't be handled by version 10.5. Most manufacturers know these Batch sizes. They aren't going to bake 51 cookies. They are going to bake 50, or 100, or 5000.

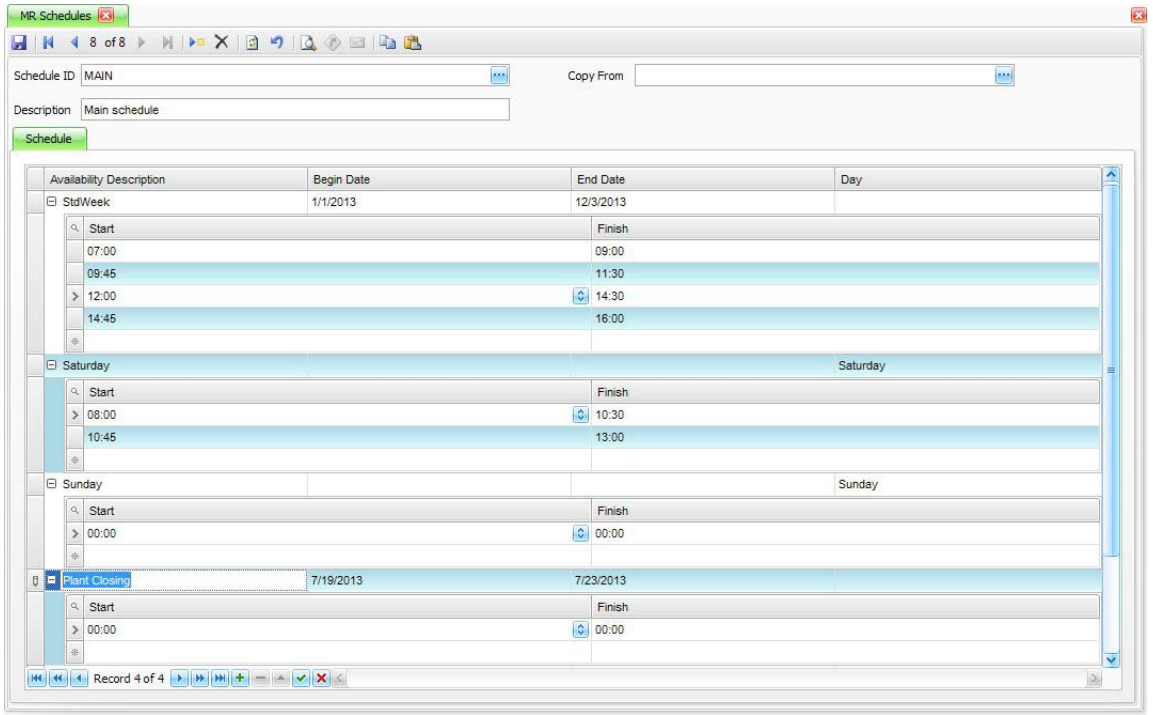
In Routing and Resources, what does the Billing Information Rate field do?

Special Note: Setup costs are on a per batch basis. For example; if the batch size is 50 and the setup costs are $20.00 and one runs two batches, the overall setup costs would be $40.00. This may or may not be proper given the FG product. In cases where repetitive setup isn't required or additional setup are less time intensive, the setup costs should be reduced or perhaps averaged over the number of batches usually run, or build into the run costs.

The Billing Information Rate is not used at all, but. . . what it could be used for would be “pricing” process or operation costs. Let's say we want to create a price quote for a Bill of Materials; it's going to require a custom report or form of some sort. We can easily get prices for the Components from Inventory, but what about the processes? What the billing information rate allows one to do is to set a percentage over cost or a flat rate per hour as a billing or chargeable rate so that if I'm writing a Customer report I could pick up this information, utilize the estimated time, and come up with a billable cost of the operation. (Routing and Resources, Work Centers Setup)

How do I set up a Schedule in Routing and Resources and how do they work?

Schedules are used in a couple of different areas of the TRAVERSE Production module. It is used in the explosion or “releasing” of Production Orders and it is used in the Resource Availability report. The Schedule ID is referenced in the creation of Labor Types, Machine Groups, and Work Centers and is a required field. It is also a field in the Production Business Rules. The detailed design and functionality was created to integrate with a third party or future internal scheduling software package, thus the setup may seem like overkill at first glance. In most cases one would want to have one simple Schedule and use only that one. Below is a good example of what the simplest schedule might look like with the assumption that there are no Saturday or Sunday hours and the plant hours are the same Monday through Friday.



The schedule is used in doing a very rough calculation of how much time the processes of a production order will require so that the system can estimate process start dates. Note that without a true scheduling system this is just a very rough estimate because the system assumes no other production activity and that all resources have the same availability. What the system does is first calculate the time required to do a process, beginning with the final process. That time is divided by the hours in a day, as found in the schedule, which was assigned to the labor or machine for that process, to determine the date that final process should start. Then the next process is calculated etc. etc. (Routing and Resources, Schedules Setup, Labor Types Setup, Machine Groups Setup, and Work Centers Setup)

Example: We have a process that requires 15 minutes of machine time per unit. The schedule used for that machine indicates it is running 15 hours a day, five days a week. We create a production order for 300 units. The system divides the 4500 minutes required by the 900 available minutes in a day to estimate a lead time of approximately 5 days.

What is the Master Schedule in the Requirements Planning module used for?

The Master Schedule represents the plan of production in terms of item, quantity, and date. We could achieve almost the same effect by creating Production Orders for finished goods Items in terms of date and quantity but this would be a tremendous task, not only to create, but also to maintain. When Master Schedules are used, it is generally in conjunction with some sort of a sales forecast. In TRAVERSE you can create a Sales Forecast and then, by running the Master Schedule report, create and manage a Master Schedule that meets the needs of the Sales Forecast. In simple terms, meeting demand with supply. Once you are satisfied with the Master Schedule, use the various Requirement Planning reports to tell you what subcomponents will be required and when, to satisfy the finished goods demand created by the Master Schedule. (Requirements Planning, Master Schedule Setup and RP Processing, Standard RP Report)

GLOSSARY

G

absorption costing

An approach to Inventory valuation in which variable costs and a portion of fixed costs are assigned to each unit of production. The fixed costs are usually allocated to units of output on the basis of labor hours, machine hours, or material costs.

account

A storage unit of financial data in accounting, usually grouping related information under one Account number or Account ID.

accounting period

A period of time in accounting, used to provide distinct units of time you can work with. For example, you might want a report to include transactions done in a particular accounting period.

activity

The changes in account balances resulting from transactions (Sales, Purchases, Payments of wages, Adjustments, and other Journal Entries) between the business and one or more outside parties.

activity based costing (ABC)

The allocation of indirect costs against the activities that caused them. An accounting technique that can more accurately reflect indirect cost improvement than traditional Standard Costing.

actual costing

A cost system that collects costs historically and allocates those costs as items are sold or used in production.

adjustment

A type of transaction that corrects differences in quantity.

alias

An alternate name for an Inventory Item ID. For example, the alias for Item ID 700873920PS might be plumbing supplies.

alternate item

A comparable Item that can be substituted when you sell an Item with insufficient quantities in stock.

alternate routing

A routing, usually less preferred than the primary routing, but resulting in an identical item.

application

A software package made up of several related programs (functions) and files. Usually an application is named after a common accounting practice—for example, Accounts Payable, Accounts Receivable, or Payroll.

assemble to order

A production environment where a product request can be assembled after the receipt of a Customer's order. The key components (bulk, semi finished, intermediate, subassembly, fabricated, purchased, packaging) used in the assembly or finished process are planned and possibly stocked in anticipation of the Customer order.

asset

The resources (such as cash, investments, manufacturing materials, inventory, buildings, leases, and fixtures) owned by a business. Assets are entered as debits in asset Accounts.

audit trail

A detailed record of accounting activity used to explain the source of every dollar in the accounts.

average cost

An inventory costing method. The average cost method calculates a weighted average cost by dividing the total cost of all units of an inventory item by the number of units on hand. See also FIFO, LIFO and standard cost.

average price

The average selling price of an item updated each time a sale is entered.

backflush

Automatic deduction of the parts used on an assembly from stock triggered by the release, progress, or completion of a production order. Unless there is a very high level of data accuracy and discipline, backflushing leads to inaccurate inventory records so is not recommended except when used in conjunction with Kan Bans.

back up

To make a copy of data for archival purposes.

balance

(1) The difference between the total debit entries and the total credit entries for an account.
(2) The total amount owed by a customer or owed to a vendor.

balance sheet

A standard financial statement that summarizes the financial status of a business at a particular time, according to the fundamental accounting equation Assets = Liabilities + Owner's Equity.

base cost

Cost used for calculating prices as a markup from cost.

base currency

In TRAVERSE, the currency selected in the System Manager Company Setup Company Information function. While TRAVERSE stores both base and foreign currencies, all other currencies are converted to base currency.

base price

A price assigned to each unit and used to calculate price breaks and customer level pricing in Sales Order.

batch

A group of items, locations, bins, product lines, and user-defined fields that are assigned an ID. Batch IDs are used in the physical count process to group similar items for counting purposes.

bin number

A number that identifies the location of an item.

blow-through

When a Phantom or Pseudo Assembly is found in the preparation of a kit picking list, the parts needed to make the Phantom or Pseudo Assembly (less any Phantom Parts found in stock) are “blown through” to the kit.

bills of materials

The list of the components necessary to make a part of product and the amount of each component required.

bill of resources

A list of some or all of the critical resources necessary to make an end item.

bucketless

All demands for a part keep their individual date identity and so can be traced back to their original source of demand through a Pegging Report–essential for bottom up re-planning.

byproduct

Material produced as a residual of a production process. Represented by negative use in the Bill of Material for an assembly.

capital

Claims on a company’s assets by the owners, either the capital put up by the owners or the income earned by the business and not distributed (retained earnings).

carrying cost percent

The percentage of the total value of Inventory. This amount is used in the EOQ calculation in the reorder process.

COGS

The beginning inventory plus purchases minus the ending inventory.

component

Part needed to make a parent item as shown on its Bill of Material.

configurator

A software tool to simplify order entry when a product may be sold with a number of features and options.

cumulative lead time

The total time required to make an item assuming there are is no stock of any of it's components including the time to purchase those components.

conversion

The process of updating existing data, programs, or applications to the current version. See also installation.

conversion factor

The portion of the base unit that is the alternate unit. For example, if the base unit were EACH and the alternate unit were BOX of 10, the conversion factor would be 10.

costing method

The method used for costing Sales and Inventory: FIFO, LIFO, average cost, and standard cost.

count date

The date when a physical count of Inventory Items is taken.

counted quantity

The quantities from the on-hand physical Inventory, generally listed on tags or worksheets. See also frozen quantity.

current liquidity ratio

The ratio of current assets to current liabilities.

depreciation

The allocation of the cost of using up fixed assets over time in the form of a particular portion per accounting period.

discount

An amount subtracted from the full amount of a Vendor or Customer invoice in return for prompt payment.

discrete manufacturing

Refers to the manufacturing of specific unique items to exacting specifications such as a custom-made cabinet or a new sophisticated carburetor. Discrete manufacturing is used heavily by the engineering, automotive, electronics, and aerospace industries, among others.

Unlike continuous manufacturing, this is divided into discrete stages and usually involves a wide range of finished products. The products themselves are discrete units. Depending on the variety and volume of finished products, discrete manufacturing is further sub-divided into Job Shop, Batch Production, and Repetitive manufacturing.

distribution code

A code that indicates how amounts are to be distributed among General Ledger accounts.

Economic Order Quantity (EOQ)

An ordering method that compares the cost of placing a Purchase Order (and all associated receiving and invoicing costs) against the cost of carrying stock in Inventory. It uses the Carrying Cost percent and Order Cost Amount fields from the locations table. If an Item is particularly expensive to order (imported, for example) or expensive to stock (very large, for example), you can override these fields on an Item basis. Generally, the higher the cost, the lower the purchase quantity. The traditional EOQ formula is used with Annual Use as the movement variable:

$$\sqrt{\frac{2 \times AnnualUsage \times OrderCost}{UnitValue \times CarryingCost}}$$

effective date

The date range for which a part or assembly is considered correct and in effect.

effectivity date

The date on which a change is due to take effect.

Engineering Change Order (ECO)

A record of revisions to one or more items usually released by engineering.

expense

The cost incurred in earning revenue: cost of goods sold, wages, rent.

explosion

A computer process or calculation of the requirements in terms of components of an assembly based on its Bill of Material.

field

(1) A region on the screen that accepts input from the user. (2) One element of a record in a table.

FIFO

A costing method that uses the oldest items in your inventory as the basis for costing your Sales and Inventory. FIFO allocates the oldest unit costs to the cost of goods sold and the most recent unit costs to the ending inventory. When costs rise, the FIFO method yields the highest net income; when costs fall, the FIFO method yields the lowest net income. See also average cost, LIFO, and standard cost.

finite capacity planning

Computer controlled re-scheduling of orders based on preset capacity resource levels and fixed scheduling rules.

firm planned order

An order which is treated as a planned order for the MRP calculation but one that does not be change, either in date or quantity, by the computer. Firm planned orders are changed manually and are used for Master production scheduling and to override the computer setting of order quantity, lead times, and safety stock, usually to overcome material or capacity problems.

flow manufacturing

A form of manufacturing in which machines and operators handle a standard, usually uninterrupted, material flow. Extreme examples could be process industries in the areas of chemicals, oil, paint.

forecast

An estimate of future demand. Generally related to the Master Production Schedule and used in MRP reporting.

freeze

A step in physical Inventory in which Inventory quantities are calculated and stored before the Inventory is counted.

frozen quantity

The calculated Inventory totals that are stored before the Inventory is counted. See also counted quantity.

function

A menu item that leads to a full screen. Most functions have a corresponding program.

general ledger

A record of accounts in terms of a chart of accounts and accounting periods. The General Ledger application tracks the effects on accounts from transactions entered in General Ledger and interfaced applications, and it is updated by other applications interfaced with it.

income statement

A standard financial statement that shows revenues, expenses, gains, and losses for an accounting period.

infinite planning

Loading a work center with orders to see how much current capacity is exceeded.

installation

The process of adding an application to an existing system. See also conversion.

interface

To join to another application for the purpose of having information entered in one application update information in another application.

inventory

The goods a business owns at a particular time, whether held for direct sale or for use in manufacturing goods for future sale. Manufacturing inventory is usually divided into raw material, work in process, and finished goods.

job shop environment

Tend to be high variety and low volume factories which make to order or to Customer specifications. Their Customers are very often other factories, so they tend not to produce consumer goods. Job shops tend to be highly flexible and their workers highly skilled. The shop floor layout would consist mostly of separate functionally specialized departments. Frequent change overs from one product to another are common.

journal

A chronological record of transactions.

journal entries

Transactions recorded in a journal.

KanBan

A method of JIT production that uses standard lot sizes with pull cards to signal wanting to withdraw parts from a supplying operation.

lead time

The amount of time required from the point of ordering or the point of entering the production line to the completion of the order. Each requirement of an order, be it a given raw material, subcontracted process, or labor or machine process has a point in time where it should be introduced into the flow of the order to ensure an on-time delivery of the product. If materials are made available too early, there may not be room for them and they may simply add congestion to the process. If brought in too late, delays may result. The problems are the same for labor, machine use, and subcontracting.

Lead time is in terms of hours. It assumes a perfect world in which all materials, machines, and personnel are available when needed. It indicates the number of hours after the materials are brought to the floor or the number of hours after a process begins, that the order will be finished.

Lead time is calculated by first establishing the process time of each individual process requirement, adding the queue time, setup time (uses labor setup time or machine setup time, whichever is longer), wait time, and move time.

To calculate the lead time, the system then starts at the top of the Bill of Material and works its way down calculating the hours of lead time required at each step by accruing the process time for each step. Lead time is actually only calculated for processes. It is then assigned to materials, based on which routing step the material is assigned to. If the Bill of Material is more than one level deep, the lead times of the first level become the starting point of lead times for the second level, and so on. Overlap factors come into play here, which can complicate things considerably if being used. (See the overlap entry in the Glossary for more information.)

LIFO

A costing method that uses the last items brought into inventory as the basis for costing your Sales and Inventory. When costs of your Inventory Items rise, the LIFO method yields the lowest net income of all the costing types; when Inventory Item costs fall, the LIFO method yields the highest net income. LIFO is often preferred when prices rise because it results in a lower pretax income and a lower tax obligation. See also average cost, FIFO, and standard cost.

liquidity ratio

Ratio that indicates the amount of cash that could be available for investment after meeting short-term obligations.

list price

The basic published price for each unit without discounts added to it.

location

The place your inventory is stored—a van, a warehouse, etc.

lotted items

Items that are grouped for identification and given a Lot Number, such as Items with the same shipping, receiving, or expiration date.

master production schedule (MPS)

What the company intends to produce in terms of products or end-items.

materials requirements planning (MRP)

A computer based technique which takes an MPS, product structure data, and inventory information, generates a report and creates planned orders for assemblies and components based on anticipated demand.

material requisition

A document that a business uses to record internal use of stock items from its own warehouse.

menu

A list of applications, functions, options, or other menus.

miscellaneous debit

A transaction that nullifies a Purchase, resulting from a return or an adjustment to the Purchase transaction. Miscellaneous debits reduce the total amount of Accounts Payable due Vendors.

mixed model production

Making several different parts or products in varying lot sizes that closely match the mix of products sold that day.

move time

The time required to move the product from one workstation to another. This could be across the plant floor or to a completely different location.

net change MRP

An approach in which the material requirements plan is continually retained in the computer and adjustments made only as needed.

order point

The quantity you want to have on hand when you place an order for an item at a location.

ordering cost amount

The total cost of shipping, stocking, and labor. This amount is used in the EOQ calculation in the reorder process.

overlap

Overlap is simply a matter of trying to attain a more realistic and accurate lead time by reducing the calculated lead time based on the assumption that in a series of sequential processes, the next process can begin before the last process is finished.

NOTE: Each step is compared to the next step in the BOMs. The time to complete one step doesn't change, but the determination of at what point to begin a step in relation to the previous step can have a significant affect on the total time required to manufacture the BOMs.

overlap quantity

The number of items that need to be run and sent to the following operation before the "overlap" operation can begin.

pegging

The capability to identify the sources of a given item's gross requirements.

penalty type

The percent or amount used to determine the price when fractional parts of a unit are sold.

periodic inventory

Physical Inventory taken at the end of the year to establish ending Inventory.

perpetual inventory

A continuous record of Inventory maintained by keeping detailed records of Purchases and Sales.

phantom bill of material

A Bill of Material coding and structuring technique used primarily for transient subassemblies.

physical inventory

The actual on-hand Inventory.

planned order

Generally a Production Order created by an MRP system.

planning bill of material

An artificial grouping of Items or events in a Bill of Material format to enable the calculation of mixed components to achieve a mixture of finished product, for example, 2 blues, 2 yellows, 1 green.

post

To transfer information from one place to another, usually at the end of the day or at a distinct break in business.

price break

A price break set up by quantity, generally giving increasing discounts as the quantity of sales increase.

price ID

Customer-level pricing identifier that is useful for categories of Items and Items in particular locations.

product line

A category of similar Items used for sorting.

program

A self-contained list of executable code, written and implemented to do a task. Most programs are represented by a function on a menu.

process manufacturing

Production that adds value by mixing, separating, forming, and /or performing chemical reactions. It can be done in either a batch or continuous mode.

prox term

A term of a business arrangement which specifies that the payment's due date is based on days from the beginning of the next month. See also regular terms.

purchase price variance

The difference between the Standard Cost and the actual price paid for an item in the standard costing valuation method. For example, if your standard cost for an item is $50 and you purchase the item at $60, the purchase price variance between the standard cost and what was paid for the item is $10.

purge

To remove from the system.

queue time

Used mainly as a cushion for error. Queue time is the time the materials sit in front of the workstation waiting to be processed.

quick ratio

The ratio of current assets less inventory to current liabilities.

record

A unit of information that has other pieces of information assigned to it.

regeneration MRP

An MRP processing approach where the requirements are totally re-exploded down through all Bills of Material, resulting in a totally new MRP report and plan.

regular terms

A term of a business arrangement which specifies that the payment's due date is based on days from the discount date. See also prox terms.

repetitive manufacturing

This type of production is characterized by low variety and high volume. It is concerned with the production of consumer goods. Production is mostly to stock. The factory floor normally consists entirely of production lines, each dedicated to a specific product. The line is designed for optimum production of that product. Changeovers are infrequent and tend to be costly in terms of time and labor.

restore

To bring information back to its original place and condition.

routing

Information detailing the method of manufacture of a particular item. It includes the Operations to be performed, their sequence, the various Work Centers involved, and the standards for run and setup time. Also may include additional information such as required skill levels, tooling, testing equipment.

safety stock

The quantity of stock in inventory to have as a safeguard against order process uncertainty and fluctuations in demand or supply.

scrap

Materials outside of specifications and possessing characteristics that make rework impractical. For example, a raw material with a 2% scrap factor is assumed to be something in which when an assembly is put together and the material is used, about 2% is lost or scrapped. It could be that 2% of the material is defective or is lost due to the nature of the process. The reason a scrap factor is set up is to enable you to actually track these quantities in the hopes of improving your process. Scrap should be considered a variable quantity and expense.

The unexpected loss of a completed part for any reason.

scrap factor

A percentage factor used in the product structure to increase gross needed requirements to account for anticipated scrap.

setup time

The time it takes to adjust a machine or fit a tool to make a particular item. Part of the lead time which does not vary with the order quantity.

shrinkage

The anticipated loss or reduction of an item when being used. It can be related to the specific manufacturing nature but can also represent other things.

The reduction of actual quantities of items in stock, in process, or in transit. The loss may be caused by scrap, theft, deterioration, evaporation.

serialized item

An item that is identified by a Serial Number, such as an appliance, a computer, a stereo system.

standard cost

A costing method that is an estimate of costs you set. For example, in a manufacturing operation the standard cost is the cost of the item plus costs of raw materials, labor, and overhead. See also average cost, FIFO, and LIFO.

subcontracting

Sending production work outside to another manufacturer.

superseded item ID

An ID assigned to an Item that is set up to replace an Item that is no longer available for Purchase or Sale.

table

(1) A grid that holds records and is visible. (2) An object that stores data.

tact time

The time required between completion of successive units of an end product.

temporary vendor

An organization or source of supply from which your business purchases goods or services only once.

terms code

A code that serves as a shorthand notation for the terms of a business arrangement.

time bucket

A number of days of data summarized into a column display.

transaction

An exchange between a business and another party, leading to an accounting entry, which is recorded in the GL Journal.

traveler

A copy of the manufacturing Production Order that actually moves with the work through the shop.

UPC

The universal price code that records the identification number for an Item.

variance amount

The difference between frozen quantities and calculated (counted quantities times cost) quantities.

work in process

Products in various stages of completion throughout the factory, including raw material that has been released for initial processing and products awaiting inspection.

wait time

Time required after an operation or process is complete for curing, drying, setting, cooling. This time is required after the process is complete but before the next process can begin or before it can be moved to the next step. It does not involve any trackable machine or labor time.