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MRP Plus Concepts and Interactive Demo Manual

Release 12 & 14

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Chapter 1: Introduction

Welcome to the MRP Plus Concepts and Interactive Demo Manual!

Thank you for considering MRP Plus for your company's manufacturing and accounting requirements. We are pleased that you are considering joining the many satisfied users of our ERP software and hope this manual along with the associated applications software will convince you that MRP Plus is the solution for your corporate needs.

Written in Microsoft's most recent versions of Access and Visual Basic, MRP Plus is a fully graphical product designed to run on the Microsoft Windows platform including Windows 7 and 2008 Server. Because of this, MRP Plus seamlessly integrates with Microsoft's Word and Excel as well as other software written for the Windows environment.

MRP Plus is feature rich. It is an integrated, on-line, real-time, closed-loop, net-change manufacturing, service, planning, control and analysis software package. It encompasses and integrates all the major functions of a manufacturing company today.

MRP Plus is an integrated management system: Both the manufacturing and financial management operations are integrated throughout the system. This enables decision-makers in all departments, at all levels of the company to work together using the *same set of numbers*. Managers are provided with the communication tools and information necessary to understand each other's needs.

With MRP Plus, managers have immediate, on-line access to information vital to the organization. Data generated from Order Processing, Purchasing, Material Requirements Planning, and Accounting is at your fingertips. Performance can easily be measured in a number of areas: Inventory Control, Material Shortages, Quality, Customer Service, Productivity and Cash Management. By providing timely information, MRP Plus assists you in balancing customer requirements against production costs and inventory dollars. It also provides the tools necessary to efficiently schedule the utilization of resources.

MRP Plus is a closed-loop, net change system. It plans and generates requirements using modern production and inventory control techniques. It tracks open orders, allocations of parts to manufacturing and shipping, and provides visibility of an overall inventory status. It notes exceptions (i.e., changes to plans that required parts to be ordered or expedited, etc.), allowing you to plan inventories and manufacturing operations to satisfy current or any future needs. Because the planning can be done in a Net Change mode, changes to your production plan can be efficiently executed with only those items that have had activity being re-planned.

The sample screens and reports found in this manual provide are an excellent companion with the demo version of the software. The data in the software is set up to allow you to work your way through all the main phases of sales, production, purchasing, and accounting. When you finish your journey, we believe you will agree that MRP Plus is a technically advanced, integrated and complete manufacturing software package designed to give your company a technical advantage into the next millenium!

Note; the demo version of the MRP Plus software is located on cloud servers to allow you access from any location. You should have received a remote desktop link with a user name and password for login. Access is provided for 14 days. If you require more time to evaluate the software, or didn't receive the link, please contact the sales department at 888-205-0097 x2.

While the demo version is 'in the cloud', MRP Plus is licensed for hosting on your company servers or as 'Software as a Service' on our cloud.

If you have any questions about MRP Plus, the demo version, or would like a personalized demonstration, call 888-205-0097 x2 or email sales@hznsoft.com.

Chapter 2: The Script

What follows is an overview for our fictional company. Please try this *script* using the supplied data first. It will give you a thorough understanding of the core MRP Plus program. When you are finished, feel free to run through the demo again but with your own company data.

Our Fictional Company's Order Cycle:

- 1. Design or Manufacturing Engineering creates and maintains finish goods, assemblies, raw materials and an accurate bill-of-material.
- 2. Order Processing receives an order from a new customer. The customer is entered into the system, followed by the order.
- 3. The Credit Department establishes a credit limit for the new customer.
- 4. Order Processing issues pack slips for shipment of finished goods on scheduled ship dates, or as goods become available.
- 5. Industrial Engineering creates and maintains accurate *Routings* for all manufactured parts.
- 6. A *Material Plan* is generated by running the *Material Requirements Planning* program. The key outputs include a *Purchase Orders To Start* screen/report of purchase part requirements, and a *Work Orders To Start* screen/report of manufactured part requirements (planned orders).
- 7. Purchasing works with the *Purchase Orders To Start* program and creates purchase orders. Purchase Orders are then printed and subsequently sent to the vendors.
- 8. Stores receive the parts delivered from the vendors, establishing data to be used by Accounts Payable to make subsequent payments.
- 9. Planning converts planned Work Orders from the MRP Generation.
- 10. Production Control releases Work Orders to the shop and Picklists to stores indicating the material to be issued.
- 11. Stores issues the material on the Picklist to the Shop, or stages it for release on a future date.
- 12. The Shop dispatcher prioritizes the work-in-process and monitors Work Center load. Labor is reported against Work Orders for accurate job status and cost control.
- 13. Stores receives the work orders into stock through work in process receipts.
- 14. Stores ships the products indicated on the packslips and records the shipments, creating data to be used for invoicing.
- 15. Accounts Payable runs programs that calculate discounts, process the payables for automatic payment, prints checks, and creates data for the General Ledger. Checks are mailed to the vendors.
- 16. Accounts Receivable runs programs which calculate and print invoices, and create receivable data.
- 17. Cost Accounting reviews the costs associated with producing the product, processes closed Work Orders, and creates data for the General Ledger.
- 18. General Ledger transactions generated from A/P, A/R., Order Processing and Inventory Control are posted and a trial balance is produced.

Chapter 3: Before We Begin

The MRP Plus demo software has been provided for evaluation purposes only. It will deactivate in 14 days from the date the link was sent to you. If you need more time to evaluate MRP Plus please contact your sales representative or email sales@hznsoft.com for an extension.

If you have questions concerning this demo, please email them to Sales@hznsoft.com or call (888) 205-0097 x2. For more information about MRP Plus, please visit Horizon Software's web site at http://www.MRPPlus.com.

This demo is a full working current release version of the MRP Plus system.

Note: Since this is a working version of the software, you may go into other areas of the software, however if you enter information out of sequence, this could cause varying results for the next stage in the demonstration. We suggest for the first time through, following the demonstration script for all entry and processing programs. You are free to substitute your data for the data listed here.

Chapter 4: Starting MRP Plus

Using the supplied remote desktop connection shortcut, connect to your assigned version of the MRP Plus demo software. If you have forgotten your login or password, contact sales@hznsoft.com. Once connected, the evaluation copy MRP Plus will open. All MRP Plus demo versions are hosted on Amazon Cloud EC2 running under Microsoft Windows Server 2008 r2.

MRP Plus is a true windows product!

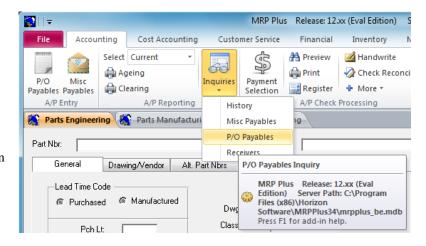
While using MRP Plus, keep in mind that you can have several programs open at the same time and it has no bearing on the numbers of licenses your company purchases. So feel free to have the *Parts Inquiry* screen up while you are entering sales orders through the *Sales* screen. Or just click on the Inquiry button on the parts screen to see relevant information about the product being ordered.

For instance; while entering product masters, have all three Inventory programs open so you can update the data at the same time. In MRP Plus, the Inventory entry programs are split into functional area for tighter security reasons. But in a smaller company where one person does more, they can simply open all the windows they need. Each window will open in its own separate tab.



The Main MRP Plus Ribbon User Interface:

After successfully starting the MRP Plus Interactive Demo, the MRP Plus Main screen appears. This ribbon interface is designed just like the Ribbon provided in the Microsoft Office products 2007 and 2010. Each functional area is labeled in tabs at the top (Accounting, Cost Accounting, Financial, Inventory, etc.) The ribbon icons are separated into groups. In each group, clicking on an icon will run that specific program. Holding your mouse over an icon will display more information about it. Clicking on a drop down arrow will display additional associated programs.

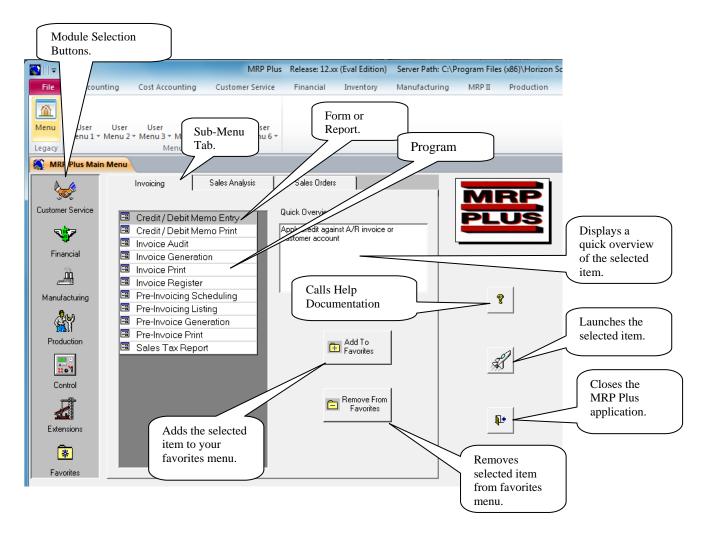


The MRP Plus User Menu:

Selecting the "User Menu" tab at the top of the screen, and clicking on the "Legacy Menu icon" will display the user definable menu. This menu can be custom tailored for each individual user

By clicking on any of the first 7 icons shown on the left button-bar menu, the MRP Plus user menu associated will appear. (In order to find which icon is associated with a particular user menu, hold the mouse pointer over the icon. A "tool tip" description will appear.) Then click on the tab that has the group of programs you want to access and select your program. It will open in its own tab.

The "Question mark" icon launches the comprehensive MRP Plus help system.



The user menu can be customized for each user so that only those programs that a user has access to appears on their user menu. (Security for each program, per each user is defined by the system administrator in a separate program.) The user may place programs in a logical order per their job description by either rearranging the MRP Plus menus or by creating their own "favorites" menu. Programs and links that are not part of the MRP Plus software can be added to this menu from the control file menu.

Chapter 5: Standard Program Features

Standard Buttons:



Help button. Accesses MRP Plus help documentation.



Lookup button. Pops up a search dialog box.



Cancel button. Aborts the current operation.



Save button. Saves a record and writes it to disk.



Close Form button. Closes a program (but does not also write a record).



Print Preview button. Prints a report to the screen for inquiry or review before printing.



Print Button. Spools a report to the printer.



Export Button. Exports a report to Microsoft Word, Excel or Web format.



The Process/Generate button. Will run a calculation or process.

Chapter 6: Creating Parts

The first thing we will do in MRP Plus is to enter a new part number. From the Ribbon Interface click on the roduction tab. This will bring up the Production ribbon groups. Locate the group that says Parts. Now locate the program Engineering and highlight it by letting the mouse hover over it. Notice that the Quick Overview box now contains the description for Parts Engineering. Finally launch the program by clicking on the launch icon. (You may also launch any program just by double clicking it).

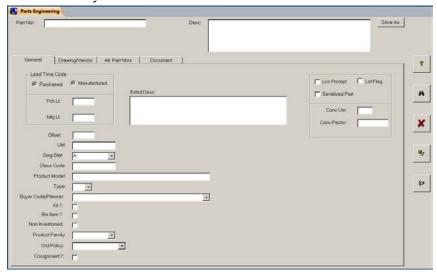
Parts Engineering: Provides a method of entering Inventory Master Records and/or changing engineering data.

Enter the following data as shown. Use either the tab key or mouse clicks to move between fields.

Note; not all fields are required for this demonstration.

If you have a question about any of the fields on the screen, click the help button for a full description of each input.

If you would like to review the Drawing/Vendor, Alt.Part Nbrs, and/or Document tabs, feel free to do so at this time. But no entries will be required in these fields for this Part. (The Document tab allows you to attach a folder or specific document to a part number.)



Data To Be Entered Field Name Part Nbr: Heat Core 18 Heater Core w/18 Gauge elements Desc: Lead Time Code: "Click" Manufactured Pch Lt: 0 Mfg Lt: 4 UM: EA Dwg Stat: Α Type: 1

"A"

Description Of Entry

Product number assigned to this item. A description of what the product is. Denotes either purchased or manufactured

Days to purchase part. Days to manufacture part. A user defined unit of measure.

The drawing status. The "A" denotes active. Product type. "1" denotes a finished good.

for discreet

After finishing the entry click the Save button

to write your work to disk. If you made mistakes would like to

start over click the Cancel button

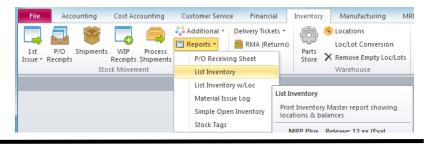
Order Policy

Click on the Close Form button

to exit the screen.

List Inventory: Prints / Previews / Exports a listing of Inventory Master file records.

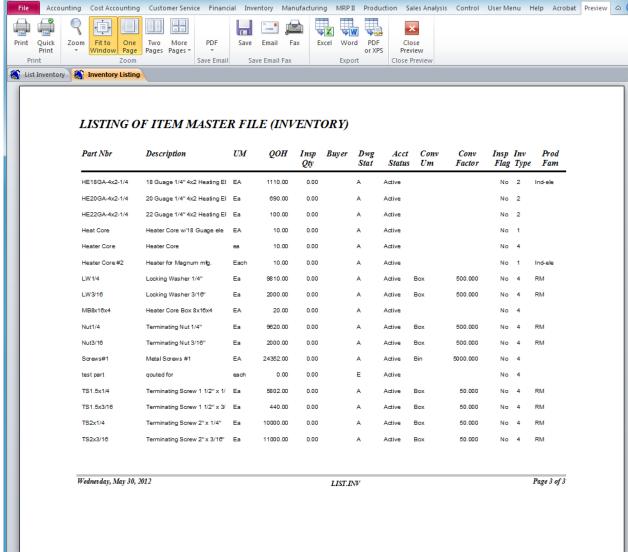
On the Ribbon Interface the List Inventory program is found on the Inventory (tab) > Stock Movement (Group) > Reports menu.



On the tab that opens, click on the Preview Report button to display the report to the screen.

This sample report contains all the test parts for the MRP Plus demo. Page 3 is shown below.





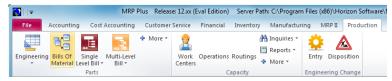
If you have Microsoft Office programs installed, note the "Export" group that appears on the Ribbon. Here you can automatically export your previewed report to an Excel Spreadsheet, Word or PDF Document.

Click on the "Close Preview" Ribbon button and then close the program



BOM MAINTENANCE: Provides a method for adding, changing or deleting Bill-Of-Material records.

On the Ribbon, the BOM Maintenance program is located at Production (tab)>Parts (group)>Bills of Material.

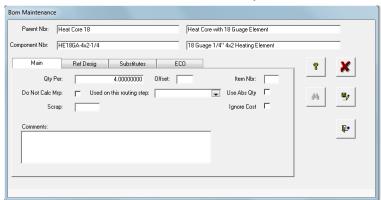


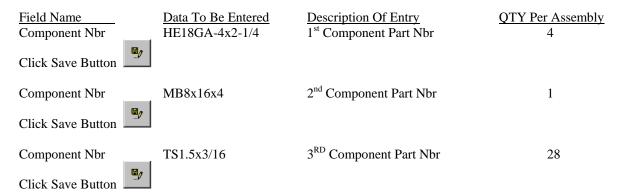
Let's begin by entering the part number "Heat Core 18". This will be the Parent Part to identify our bill.

After the Part Nbr has been entered, its description is retrieved and shown next to it.

Next, click on the Add Components button. The Bill-Of-Material component screen (shown at the right) is displayed.

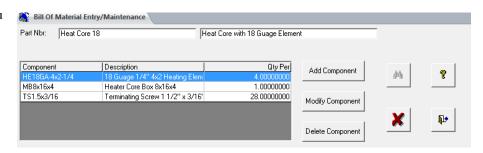
Enter the following data as shown. Either use of the tab key or mouse clicks to move between fields. Note; not all fields are required for this demonstration.





Click the Close Form Button and your screen should look like this. If you need to modify a component, simply click on the "Modify Component" button and enter as noted about. Also feel free to explore the other tabs on the component entry screen.

You will now notice that you have created a new Bill-Of-Material for Parent Part Nbr "Heat Core. If you need to make further changes like adding or deleting more Component Parts, or changing their parameters, you can do so here.



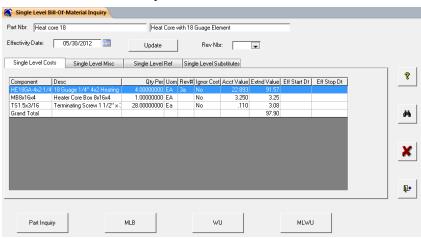
Click Close Form Button to end the program and continue the demo.

Single Level Bill: Displays a single level Bill-Of-Material for the part numbers entered.

On the User Menu the Single Level Bill program is found from Production (tab)>Parts (group)>Single Level Bill.

After you enter "Heat Core 18" in the Part Nbr field, the screen will display with the information as shown.

Next, let's transfer directly to the Multi-Level-Bill program by clicking on the MLB button.



Multi-Level-Bill: Displays a multi-level Bill-Of-Material for the part numbers entered

Click on the MLB button at the bottom of the screen and the Single-Level-Bill program immediately closes and is replaced with the Multi-Level-Bill program. Notice that it kept the Part Nbr that you were working with.

In addition, highlighting a specific component and right clicking your mouse button will give you drill down options for the specific component. Clicking on any of the Multi-Level Bill-Of-Materials Part Nbr: Heat core 18 Part Inquiry SLB Heat Core with 18 Guage Elemen MLWU Effectivity Date: 05/30/2012 Rev Nbr: Qpa UOM Rev# Ignore Cost 3.201 .430 1.084 .370 .080 Ŷ False False False False False 1.50000000 Ft 8.00000000 Ea 1.00000000 Set 2.00000000 Ea 3.4400 1.0840 .7400 .1600 Ceramic Insulator 3/4" Dia x C Ceramic Terminating Insulator Ceramic Insulator 5/8" Dia x C Locking Washer 1/4" Terminating Nut 1/4" 8x16" frame with 4 column Nut1/4 4.00000000 Ea 1000 False False False False 1.00000000 Ea False False 11.250 .110 11.2500 1.1000 01/01/2011 Terminating Screw 1 1/2" x 3 Heater Core Box 8x16x4 10.00000000 Ea

level numbers will compress or expand that level.

Note: there is no limit to the number of levels allowed in MRP Plus.

Also notice the other buttons at the top right of the grid. Clicking on them will bring the following results.

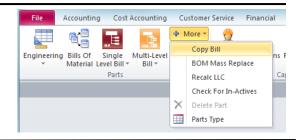
Where Used: Displays single-level component where-used information from Bills of Material for requested part numbers.

Multi-Level Where-Used: Displays Multi-Level component Where-Used information from Bills of Material for requested part numbers.

Part Inquiry: Will display all the current specifics of a part number including quantity on hand, existing plans, work orders, locations, lots, purchase orders and general information.

When you are finished please close this program continue the demonstration of MRP Plus.

This concludes our demonstration of entering part numbers and bills-of-material. If you get a chance, familiarize yourself with other parts of the BOM sub-system such as "COPY BILL" or the various options on the BOM Print screens. Again, this is just a sampling of what is available in the MRP Plus software package.



Chapter 7: Taking an Order

Let us imagine that we just received a sales order from a new customer. First we call up the Customer entry screen and input data for our new customer. Next we imagine that we are also in charge of establishing credit limits and establish one for our new customer with the Set Credit program.

We then proceed to enter our sales order. We call up the Sales Order screen, click the New Order button (which brings up the Sales Order Header screen) and proceed to enter our sales order. Later as we are entering part information, we check available-to-promise (we could have done this at any point). We then finish entering the sales order.

Finally, we then print the shipping document.

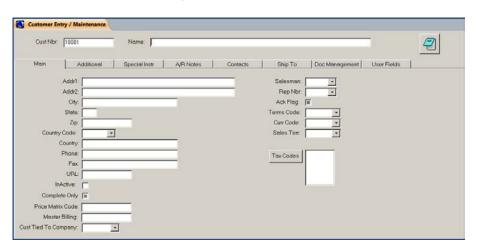
What follows are the minimal steps required by MRP Plus in order to process the order.

Customer Entry: Add/change customer records as required. (*Note*; this operation can also be accomplished from the Sales Order entry screen while entering in the sales order.)

Let's enter our new customer record information. From the ribbon, choose > Customer Service > Customers

(group)> Add/Maintain. This will execute the Customers program.

Enter the following data as shown. You can use the tab key or mouse clicks to move between fields. Note; we are putting in minimal information in this record, please refrain from the temptation of adding additional entry's at this time since it will impact the rest of the demonstration. Feel free to view the other fields and options and to look at the help!



Field Name	To Be Entered	Description Of Entry
Cust Nbr	10001	Unique number to identify this customer.
Name	Able Manufacturing, Inc.	Customer's name
Addr1	123 Main Street	Customer address line 1.
Addr2	Box 440	Customer address line 2.
City	Chicago	Customer city.
State	IL	Customer state.
Zip	60634	Customer zip.
Country Code	US	or choose from drop down.
Terms Code	6	Terms Code for this customer
Customer tied to Company number	100	The Company this customer is used for.

After finishing the entry click the Save button to write your work to disk. If you made mistakes and would like start over click the Cancel button. Close the Customer entry screen when you are finished.

Set Credit Limit: Add/change customer credit limit.

From the Ribbon, choose > Customer Service > Customers > (*Under credit click the little arrow*) Set Credit Limit

We will now establish credit terms for our customer.

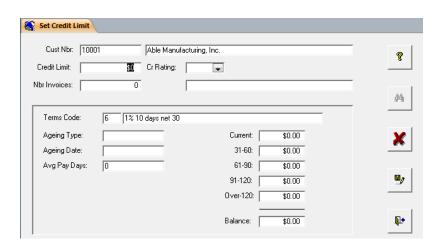


Bring up 'Able Manufacturing' by either typing the customer number "10001" in directly or using the

Lookup button

Now let's establish a credit limit by typing \$250,000 in the Credit Limit field. Enter 100 in the Nbr Invoices field.

Now just save the record and close the Set Credit Limit program.



Sales Order Entry:

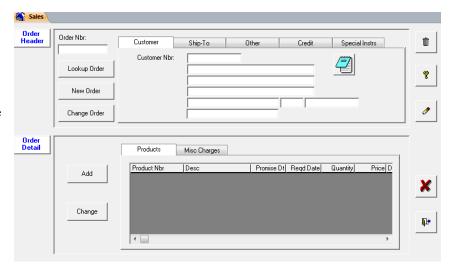
Add/change/delete sales orders.

Let's enter a new sales order.

From the ribbon, choose > Customer Service > Sales Orders (*Group*) > Sales. This will execute the Sales Order Entry program.

This program provides a method of entering or changing Sales Order records and as well as initiating shipments of product.

Click on the "New Order" button.

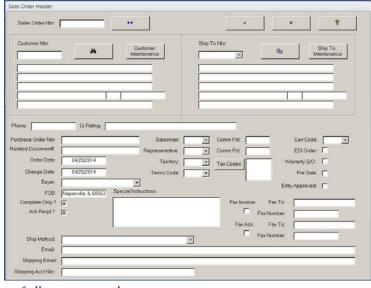


Sales Header: Clicking on the "New Order" Button to enter sales order header information will bring up this screen.

Since we are entering a new order, we will allow the system to generate the next sales order number. To accomplish this, click on the Next Nbr button.

Instead of entering a customer number or creating a new one by clicking on the Customer Maintenance button, let's view how to use the lookup feature of MRP Plus. Click the "Find Customer" button (binoculars) to activate the customer lookup dialog.

Note: this lookup feature is consistent throughout MRP Plus and is available for lookup of all master records.



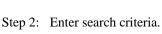
Customer Master Lookup: Here we can locate a customer's number by a wide choice of criteria.

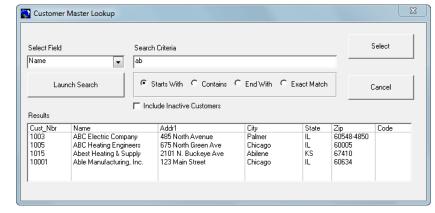
Let's see if we can find 'Able Manufacturing, Inc.'

How Customer Master Lookup works:

Step 1: Select the field to search by.

Click on the Select Field drop down box arrow. This will pull-down a list of fields that you can perform a search on. For our example, choose Name.





Type 'Ab' in the search criteria box (without the apostrophes).

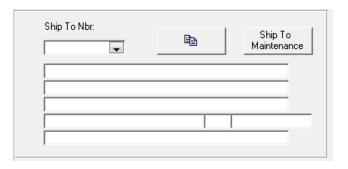
Step 3: Choose how to search.

Click on the Starts With button. Your other choices are Contains, Ends With and Exact Match.

Step 4: Click the "Launch Search" button. Your results box will fill with all customers that match our criteria. Locate 'Able Manufacturing, Inc.' and either highlight it with a single click and then click the Select button or just double-click on it.

Of course if you would like to display all of the customers, you could launch the search button without any selection and display all of the Customers. After selecting a customer, the Sales Order Header screen will re-appear with the customer information.

MRP Plus gives you 3 options for Ship-To address. The first is to set-up any permanent ship-to records required for this Customer. These can be set up from the Customer Service menu "Ship-to Maintenance" program or by clicking on the Ship to Maintenance button on this screen. If you click on the drop down arrow in the ship-to-number box, valid Ship-To numbers for this customer will appear for selection. Note; sales analysis information will get summarized by customer and ship-to instead of just by customer if we pre-assign a ship-to number.



The next option is the option we will choose for our demonstration. <u>Click on the Copy Customer button</u>. This will automatically copy customer bill-to information into the ship-to fields. This can then be modified if required.

Finally the third option is to manually type a ship-to address. This could be helpful for one-time shipments.

Now fill the rest of the data in as instructed below. When you are finished, click the OK button to return to the main Sales Order screen. If you have completed this correctly you will notice your header data has filled in and you can use the tab pages to view sections of data. Please note that you can't make any changes to data on the main Sales Order screen. You need to click the Change Order button to make changes any order header information.

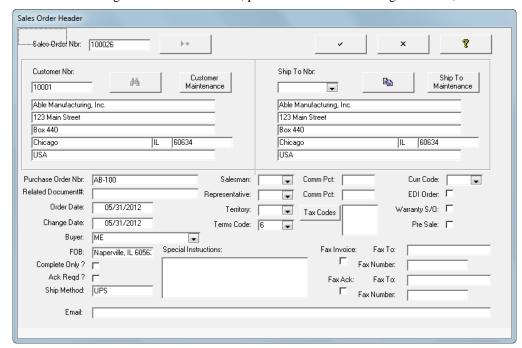
Field Name	Data To Be Entered	Description Of Entry
Purchase Order Nbr	AD-100	Customer's purchase order number
Buyer	ME	Customer's buyer identification
Ship Method	UPS	Customer's preferred shipping method

These are the only fields we will be using for this demonstration, please refrain from entering other data, but we

encourage you to browse the other fields.

Notice there are options for EDI interfacing, Warranty Sales Orders and various methods to code the shipment for sales analysis.

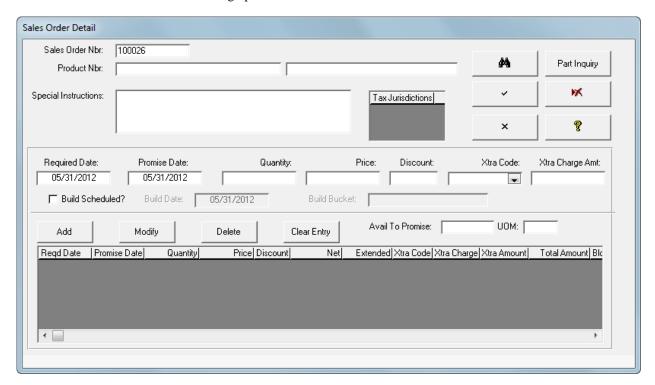
Many fields are prefilled on the order from information set up in the customer master record, such as terms, tax codes and special instructions.



After finishing the entry click the "checkmark" button to continue with this order. If you made mistakes and would like start over click the Cancel (X) button. This will take you back to the overview screen where you can start entering line items.

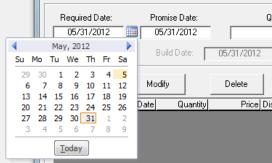
Sales Order Detail – Product Screen: Enter products for sales orders.

From the main Sales Order Screen make sure the Products tab is selected (on top of the bottom half of the screen) and click the Add button. This will bring up the detail screen shown below.



Enter our finished good part number (Heat Core 18) in the Product Nbr field. Notice the description appears. If you click on the "Part Inquiry" button, it will show us available to promise, and a whole lot more. But as this is a new part, there won't be much information to see.

Next change the Required Date and the Promise Date to be today's date plus 15 working days. The date controls give you a few options on how to do this, but the easiest may be to select the drop-down box and pick the date by clicking on it from the monthly calendar. (To move forward to the next month click on the arrow pointing right when the calendar is in full view). Once you have chosen the required date, you can just click on the quantity field and the promised date will automatically default to the required date.



For quantity enter 10. MRP Plus sales order entry accepts quantities up to 2 decimal places and will fill in the '. 00' automatically for you.

For price enter 163.90. Normally we would have established a price for our part through the Parts Marketing program or special pricing through Price Matrix, but for purposes of this demo we will just key in a price.

Don't enter anything for Discount and Extra Charge Codes as we will not be using these features in this demo. However, realize that you can enter extra charges per quantity being ordered or per line (release date), and line item discounts.

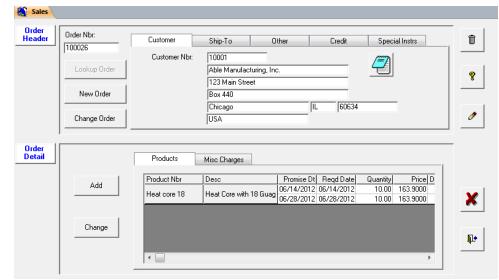
Click on the Add button next. Notice the listing filled in with our order delivery information. Also notice that the price and quantity line did not disappear. This is so we can rapidly enter multiple deliveries.

Add a second delivery with the same quantity 15 days past our first delivery date, save the release information by clicking the Add button, and then close out this line item by clicking the green OK Button.

If you get a message indicating there is no G/L period for the dates you chose, it is because the date you chose is beyond the General Ledger dates established for this demo. This particular message should not impact anything we are trying to accomplish in this portion of the demo.

At this time, we could enter more parts to be on this sales order, but will just click the Cancel button and return to the main sales order entry screen.

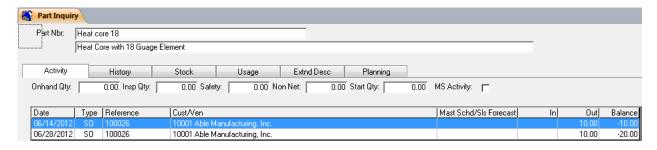
Returning to the main Sales Order entry screen we now see product information filled in for this sales order. Note also that we can add Miscellaneous Charges to our sales order as additional line items.



The order is saved at this point. Close the program by clicking on the Exit button

Parts Inquiry: Displays active and historical information about a part.

Now let's visit the Part Inquiry program. From the Ribbon, choose >Inventory > Inquiry / Lot Tracking (*Group*) > Parts Inquiry. Notice that we have two requirements (our sales order delivery dates) for part "Heat Core 18".



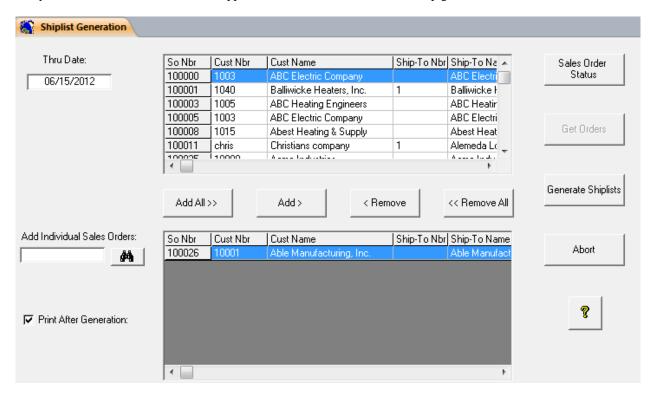
If you wanted to view the detail of these requirements, you can double click on the sales order number and it will bring up the "Sales Order Inquiry Screen".

Close the program by clicking on the Exit button

Shiplist Generation: Generates shiplists for sales orders with items due to be shipped

To start the Shiplist Generation program from the drop-down menu, choose > Customer Service > Sales Orders (*Group*) > Ship Lists and from the drop down arrow; Generate Ship Lists.

Change the Thru Date to include your first Delivery Date from the Sales Order you just entered and click on the Get Orders button. Remember that you placed this out 15 days, so don't be dismayed if it did not show up by using today's date. Your sales order should appear at the bottom of the list in the top grid. It will be the one to Able.



If you highlight your order by clicking on it, you can look at the order by clicking on the "Sales Order Status" button, and even drill into parts inquiry from there using the select buttons. We won't explain how to do that here, so just double click on the order for "Able Manufacturing". This will remove the order from the top list and add it to the lower list. Whatever is in the lower list will get generated. Leave the "Print After Generation" button checked (the default) to automatically print the Shiplist after we generate it. You will need to have a printer assigned to this system. Click on the Generate Shiplists button to process the lower list.

The Ship list that follows should print on your assigned printer. More than one ship list can be selected and printed by adding them to the lower grid before generating.

Note; There are company control options that allow automatic generation of ship lists at order entry completion. So this step would then be optional in the sales order process.

Horizon Companies, Inc. 1755 Park Street, STE200 Naperville, IL 60563

USA

SHIP LIST

Sales Order Nbr: 100026

Ship List Nbr: 1

Shiplist Date: 05/31/2012

Page Nbr: 1

Ship To:

Able Manufacturing, Inc.

123 Main Street Box 440 Chicago, IL 60634

USA

Bill To: 10001

Able Manufacturing, Inc.

123 Main Street Box 440

Chicago, IL 60634

USA

Shipped:

Customer P/O Nbr. AB-100

FOB: Naperville, IL 60563

Method: UPS

Charges: \$0.00

Part Nbr: Due Date: Pick Qty: Heat core 18 06/14/2012 10.00

Heat Core with 18 Guage Element

Reference Nbr Boxes: Weight:

If Bar Codes were enabled on the system, they would print at the top of the ship list for the order number and next to each line item for the part numbers.

This concludes our demonstration of entering a customer, establishing credit limits, entering a sales order, checking available to promise, and printing the shipping document. Again, this is just a sampling of what is available in the MRP Plus software package for sales orders. Feel free to look at the various Open Order, Backlog and Sales reports located on the Sales Analysis menu.

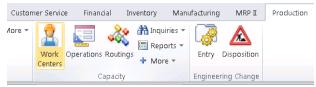
Chapter 8: Creating Routings

Before we can ship our part we will need to manufacture it. In order to manufacture it, we need to give our plant detailed information on how to do so. In addition to the shop drawings for our part (which can be attached to a part in Parts Engineering and displayed in Part Inqury), we will create a routing for our plant to follow in order to make our part.

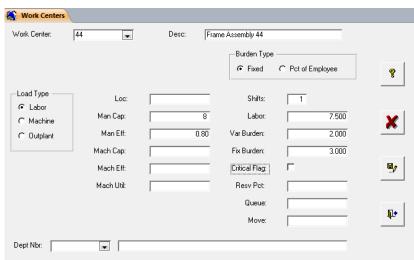
Before we can start on our routing, first we need to enter a work center. A work center is a production area that we use to define capabilities. Now let's get started.

Work Center Maintenance: Add/change work centers.

Provides a method of adding or changing Work Center file records, and assigning capacity and costs to a work center. To start the Work Center Maintenance program from the drop-down menu, choose > Production > Capacity (*Group*) > Work Centers.



Enter the following data as shown in the Work Center screen. You can use the tab key or mouse clicks to move between fields. Note; not all fields are required / used for this demonstration.



Field Name	Data To Be Entered	Description Of Entry
Work Center	44	The assigned number to identify this work center.
Desc	Frame Assembly 4	The description of this work center.
Load Type	Click 'Labor'	Designates load will be assigned by labor hours.
Man Cap:	8	Designates the capacity in hours at this work center.
Man Eff:	.80	Capacity is modified by this percentage to get the actual capacity.
Shifts	1	Number of shifts this work center is available for capacity purposes.
Labor	7.500	Standard labor rate at this work center for standard costing purposes.
Var Burden	2.000	Variable burden rate. Used for standard costing purposes.
Fix Burden	3.000	Fixed burden rate. Used for standard costing purposes.

After finishing the entry click the Save button to write your work to disk. If you made mistakes and like to start over click the Cancel button. Close the program by clicking on the Exit button.

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Routing & Copy Routing: Create/maintain and Copy routing data, provides a method of adding, changing, or deleting Routing records for manufactured parts. For this procedure, we are going to copy the routing of currently existing part # and modify it by changing one of the routing steps to use the work center we entered above.

To start the "Copy Routing" program from the drop-down menu, choose > Production > Capacity > More > Copy Routing.

Copy Routing

Heater Core w/18 Guage elements

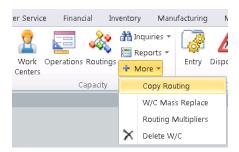
From Part Nbr

Seq Nbr Desc

15 inspection

20 Packaging

Heat Core



Oper W/C

In the "From Part Nbr." Field, enter part number "Heater Core", and in the "To Part Nbr." Field enter "Heat Core 18". Once the "from" part number is entered, the associated routing sequence will display. By clicking on the "Add All" button, the full routing will be copied to the "to" part number. Do this now and

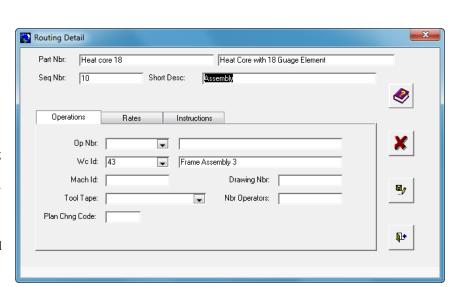
button. Then close this program.

click on the save

To start the Routing Maintenance program from the drop-down menu, choose > Production > Capacity > Routing.

Enter our part number "Heat Core". After the description is retrieved, click on the "Modify Sequence" button. This will bring up the Routing Detail screen for the Assembly Routing step which was highlighted.

We are going to change this sequence to use WC Id 44 instead of 42. Do this by clicking on the We Id drop down arrow and selecting 44; Frame Assembly 4.



To Part Nbr:

Heat Core 18

Seq Nbr Desc

Heat Core with 18 Guage Element

44

Add All>>

Add>

<Remove

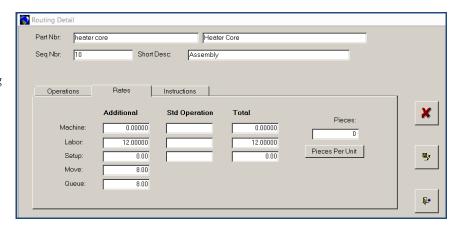
<<Remove

Oper W/C

700 70

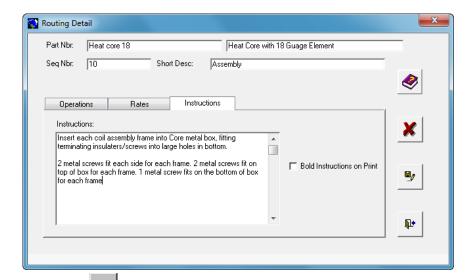
The routing serves many purposes in MRP Plus. First, it is used to compute the standard labor cost of a product. This is used for costing purposes. Second, the hours are used to compare actual operator time back against the standard. This is helpful in evaluating operator performance and finding bad standards (either high or low). Third, the hours are used to schedule load for the shop. Fourth, the router is sorted down for shop jobs to create a dispatch listing; a report that will let supervisors know what jobs are due in the work centers. And fifth, it has all the build instructions for printing on the work orders.

Click on the "Rates" Tab for our routing. We need to add the time it takes to build 1 item at this workstation. Based on our control file setup, we are entering time in minutes. So leave 12 in the "Additional Labor" field. This was carried over in our Copy Routing entry. If we had set up a standard operation record for this work center, the time would automatically be listed in the "Standard Operation" time fields.



Next click on the "Instructions" tab. Notice the information that appears which was carried over in our Copy Routing entry. Normally you would enter the instructions to appear on the work order traveling papers.

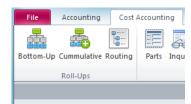
Here you can modify the instructions for this particular part number.



After finishing the entry click the "Save" button to write your work to disk. If you made mistakes and would like to start over click the Cancel button. Next click the Close Form button. This will close the Router Detail screen and return us to the main screen.

Now let's build up our costs in the Rollups.

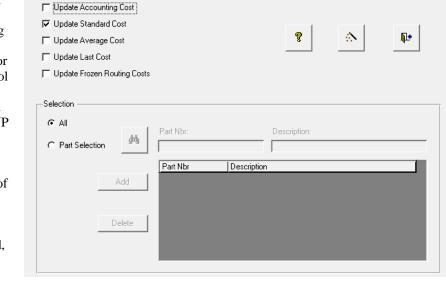
Select the Routing Rollup located on the Cost Accounting > Roll-ups (group) > Routing.



Routing Rollup

Routing Rollup: Calculates Labor and Burden costs for all or selected parts and for assemblies based on their associated Routing records. Labor and Burden rates from WORK CENTER records or default rates in the Master Control File are applied. Routing rollup should be performed prior to and in conjunction with BOTTOM UP COST.

This step is used to build up our costs for the accounting section of the demonstration. Click on the "Update Accounting Cost" checkbox, leaving the Update Standard Cost checkbox checked, and then click on the routing



rollup process button. The

costs will be adjusted for all routings in the system. We can do it for a specific part or parts by entering them in the part selection window.

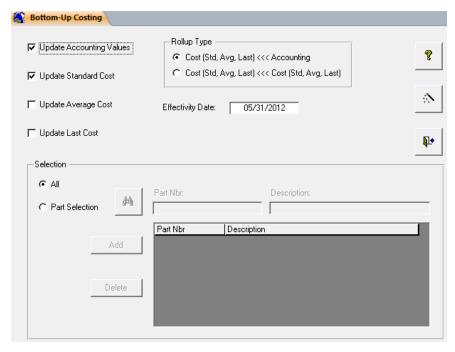
Bottom-Up Costing:

Calculates part costs and Accounting Values based on BILL OF MATERIALS, Labor, Burden and outplant costs of purchased and manufactured components. Costing methods supported are Standard, Last and Average.

To start the Bottom up Cost program from the drop-down menu choose > Cost Accounting > Roll-ups > Bottom-Up.

Click on the "Update Accounting Value" checkbox and then start the Roll Up processes by clicking on the





This concludes the chapter on routings. We entered just enough information to perform the tasks necessary for our demonstration. Normally we would enter much more data than we did. This limits us to just the basics of MRP Plus, therefore we will not be covering the advanced topic of shop scheduling or Costing. For further information on shop scheduling or costing, please see visit our web site at www.mrpplus.com or contact a Horizon Software representative. They will be happy to answer any questions you may have.

Chapter 9: MRP Generation

We use the MRP Generation program to calculate requirements for materials and assemblies. The MRP Generation program uses Master Schedules, Sales Forecasts and independent demand as its basis for calculation.

MRP Generation also incorporates the use of a shop calendar (to flag non-working days, additional days, short days, extra shifts and overtime) and a planning code to determine planned order quantity sizes.

MRP will optionally let a user choose to either calculate starting and ending dates by the use of either a manually assigned lead-time or routing times.

MRP Generation is also optionally net change. This means you have the option to only replan items that have had activity since the last MRP Generation was run.

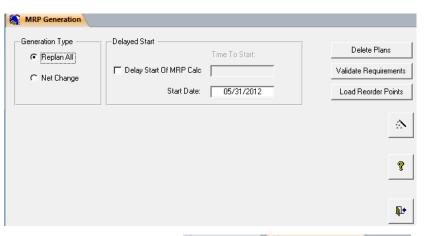
For this demo we will be running MRP Generation with just the basic vanilla options. We will only use independent demand, standard work week, no planning codes, manually assigned lead-times, and non-critical work centers. We will also replan everything.

Let's generate MRP and view the results.

MRP Generation: Process material requirements planning. Evaluates parts that have had activity since the last time MRP GENERATION was run in terms of their impact on the Material Plan of supporting demand for product. It also plans manufacturing and Purchase Orders to support demand where planning is insufficient.

To start the MRP Generation program from the drop-down menu choose > Extensions > MRP II > Material Requirements > MRP Generation.

First we need to delete any existing plans so we can start with a fresh list of requirements. Click on the "Delete Plans" Button. The screen will show options to delete selective plan types and clear older sales forecasts and Master Schedules. Click the Firm checkbox and then the process button.





Next we have to validate the Requirements which means clearing out any requirements that existed previously based on the Plans we just deleted. Typically these are requirements that were created for sub-assemblies, but may also be invalid because of changes in requirements. So Click on Validate Requirements.

On the next screen, click on the Valid and Clean Requirements button and existing invalid requirements will be removed.

After getting the message ther Requirements have been validated and cleaned, close that program.



Now let's generate our new plans based on existing valid requirements. On the MRP Generation screen still open;

make sure the "Replan All" button is checked. Then click on the Process button to generate new Manufacturing and Purchase Plans.

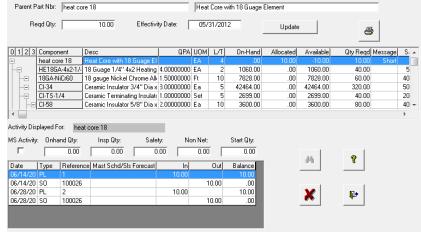
A progress bar is used to show the duration of each pass. In addition, pass number and records processed are also displayed. After successfully completing, you will need to click the OK button that will display.

We will look at the results of the MRP Generation process later when we get ready to create purchase orders and work orders for our plans/requirements. But first let's look at another process in MRP Plus that provides a quick method of seeing whether or not we can build an item. It's called Multi-Level Pegging.

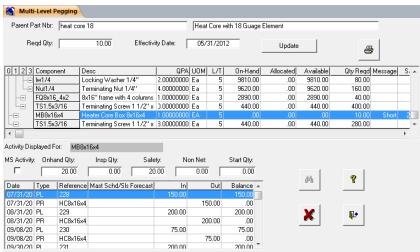
Multi-Level Pegging: Displays multi-level bills of materials showing activity for a specified part number. It also shows component requirements and availability to help in the production decision.

To start the Multi-Level pegging program from the Ribbon choose Inventory> Inquiry > Multi-Level Pegging.

Key in part number "Heat Core 18" and enter a Required Qty of "10". In the top window, the multi-level bill of material is displayed for this part showing what is available for all the components. The lower box shows activity for the part. In the lower box notice entries labeled 'PL' are planned orders that were generated by MRP Generation. The planned orders fill the requirements created by the sales order. Also notice the requirements are due in time to satisfy the sales order due date.



Next, Scroll down the top grid and click on part "MB8x16x4". Notice that this item is short and the lower box changed immediately to reflect that part's activity. You will find a new code 'PR'. This represents a production requirement. These 'PR' requirements reflect back to part "HC8x16x4" (the part responsible for needing that part). Notice also 'PL' type plans were created for later to fulfill any requirements and that they are due in time to satisfy any 'PR' start dates.



Exit the program when you are finished reviewing the results of the query by clicking on the Close the button.

Obviously, your company will take advantage of some or all of the more advanced features of the MRP Generation program. We hope though that you have grasped the concepts and the power behind such a program. Hopefully you will see from this demonstration that you do not have to fully implement every aspect of MRP in your organization right away, to reap the many benefits that are available by just implementing this small segment.

Next, we will purchase raw materials required to build our finished goods and sub-assemblies by converting the plans generated by MRP into Purchase orders and create work orders for our shop to produce.

Chapter 10: Purchase Orders

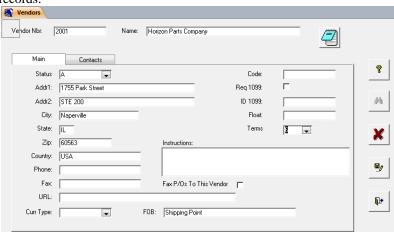
After generating requirements by running the MRP Generation process, we will need to check to see if we have any requirements that we need to place on order. MRP Plus allows many ways to address material needs. We will only show several possible ways.

To begin, we will need to enter a vendor to use. We will first create our vendor. Then, create the purchase order, print the purchase order and receive the materials.

Vendor Entry: Vendor master data entry provides a method of adding new Vendor Master records or changing and deleting selected fields of existing Vendor records.

Let's enter our new vendor record. From the Ribbon, choose > Manufacturing > Vendors > Entry. This will execute the Vendor Maintenance program.

Enter the following data as shown. Use the tab key or mouse clicks to move between fields. Note; not all fields are required for this demonstration.



Field Name Data To Be Entered Description Of Entry Vendor Nbr 2001 Unique number to identify this vendor Name Horizon Parts Company Vendor's name Vendor status – A=active I=inactive Status Α 1755 Park Street Vendor address line 1 Addr1 Addr2 **STE 200** Vendor address line 2 Naperville Vendor city City Vendor State Vendor State IL60563 Vendor zip Zip Country Vendor Country USA F.O.B. **Shipping Point** Fob responsibility **Terms** Terms code for this vendor

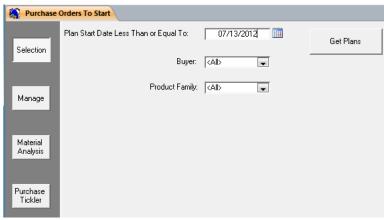
We will not be entering information on Contacts Screen but that screen allows any number of contact names, titles, telephone number, extension, and E-mail addresses.

After finishing the entry click the "Save" button to write your work to disk. If you made mistakes and would like to start over click the Cancel button. Close the Vendor entry program when you are finished.

We will now move to the process of placing orders for material needed to fulfill our manufacturing requirements.

Purchase Orders to Start: Using the Purchase Orders to Start program, we will create and print purchase orders that were needed based upon our MRP Generation. It is also used to identify, manage, and analyze raw material parts that we need to create purchase orders for. After creating the Purchase order from MRP generated plans, we will recheck requirements using Material Analysis to see the effects entering purchase orders has.

To start the Purchase Orders to Start program from the Ribbon choose > manufacturing > Purchase Orders > P/O's To Start.

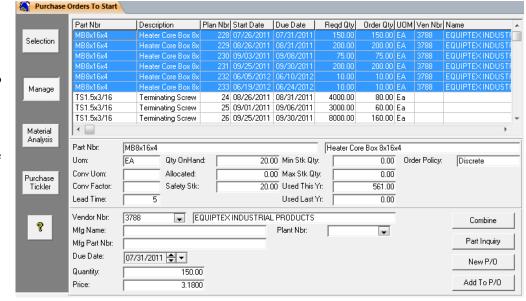


Enter a plan start date approximately 6 weeks from the last date used in Sales Order Entry and click the Get Plans button.

This screen now becomes our basis for creating purchase orders.

Purchase Orders to Start shows transactions that were generated by MRP and suggests we create purchase orders for listed purchase parts.

Let's start out by combining all of the like requirements together. We do this by depressing



the Ctrl key and clicking on the common items.

Let's do "MB8x16x4". Click on the 1st occurrence of this part, and then depress the Shift key while you click the following 6 occurrences. (if you wanted to combine only specific entries, click them individually holding down the ctrl key). When they are all highlighted, click on the combine button located at the lower right hand side of the screen. A message will ask you if you are sure you want to combine these plans. Click the yes button. You will notice that you now have one plan that contains the sum of the all previous plans, using the earliest Due Date.

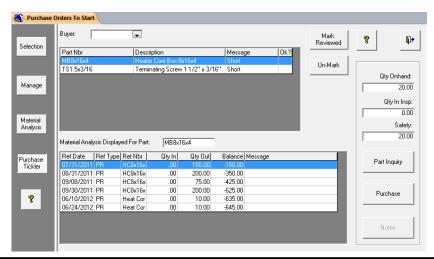
Before we create the purchase orders, let's get more complete analysis by looking at the P/O Tickler.



Click on the Material Analysis button. This will display a screen and a message to click on the wand button. This step generates information for both P/O and MFG Tickler.

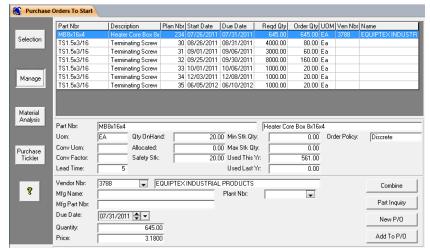
Now click on the Purchase Tickler button.

This gives us an opportunity to review all the activity for a part in greater detail. In the bottom window for a part highlighted in the top window, all current activity will be displayed, such as plans, production requirements, and existing P/O's. This is helpful to track down active P/O'S that are potentially late. Tickler messages such as "Late", "Expedite" and "Delete" will appear for items needing attention.



Now let's go back to the management screen by clicking on the manage button. Notice purchasing information in the center of the screen and the Vendor information in the lower part. If multiple vendors are assigned to this part, clicking on the drop down list will show them all with their associated pricing and part information.

Click on the 1st item, highlighting it and let's make a new P/O by depressing the "New P/O" button.



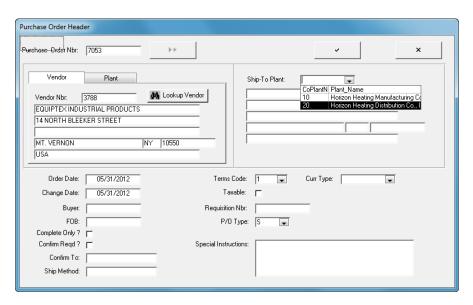
This will take us to the Purchase Order Entry Screen.

Purchase Orders Entry:

First, click on the next number button to assign the next purchase order number. Notice that the vendor information that was associated with the record is brought forward automatically.

We won't be manually entering any vendor plant information, but this can be used to direct the vendor where to ship the order from.

Click on the "Ship-To Plant" drop-down list and choose plant number 10. Now fill in the rest of the data as instructed below.



Field Name
Buyer
Requisition Nbr

<u>Data To Be Entered</u> (your initials) 1500

Description Of Entry
Buyer's initials for this P/O
A user defined requisition number

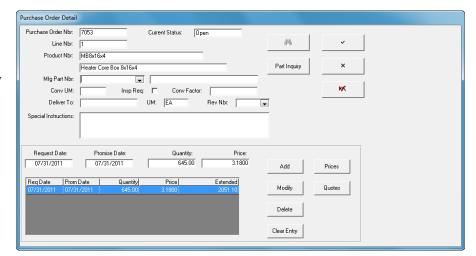


When you are finished, click the

"Save Changes" button.

Now you should be at the Purchase Order Detail screen. Notice that the ordering information such as Part number, Dates, Quantity and Price have already been input for you for the one release you are creating this P/O for.

You can add additional releases of this part or look up the part in Part Inquiry. You can change the release information, set up quotes and view previous prices for



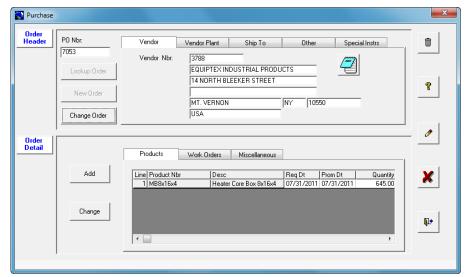
this item by clicking on the associated buttons. Special Line Item Instructions for printing on the P/O can entered here also. Press the OK (Check mark) button and then the Cancel button to return to the main Purchase Order screen.

If you have completed this correctly you will notice your header data has filled in and you can use the tab pages to view sections of data.

Please note that you can't make any changes to data on the main Purchase Order screen. You need to click the Change Order button to make changes any order header information.

Now let's close this P/O by

clicking on the button.
This will take you back to the

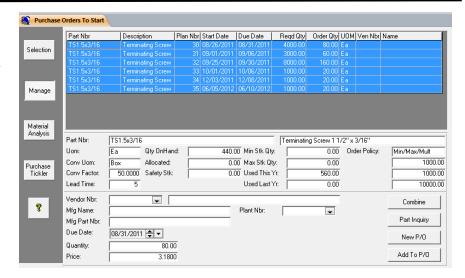


P/O's to Start program and ask you if you want to "Delete this plan now"? We will answer yes leaving us one more part to satisfy.

Notice that the required quantity in each of the plans for the remaining item is different than the order quantity. This is because as noted in the center of the screen, there is a conversion factor of 50 per box. Also notice that the Order Policy is Min/Max/Mult and the Min and Multiple is 1000. This means that MRP generated requirements will always be create for multiples of 1000 (20 boxes).

For this item, first click on the first plan even though it is highlighted in the top window and then, holding down the shift key, click on the last plan; highlighting them all.

Click on the New P/O button to go to the Purchase Order entry header screen.



At the Purchase Order Header screen, click on the Next Number button to assign the next sequential P/O number available. (You can also manually assign the P/O number as desired.)

This part did not have a Vendor Number assigned to it, so we will manually assign one. Let's use the vendor lookup button to find the vendor we added before.

First, click the Lookup Vendor button to activate the vendor lookup dialog.

Vendor Master Lookup: Locate a vendor's number by a wide choice of criteria.



Let's see if we can find the 'Horizon Parts' vendor.

- Step 1: Select the field to search by.
 Click on the Select Field drop down box arrow. This will pull-down a list of fields that you can perform a search on. Choose Name.
- Step 2: Enter search criteria.

 Type 'Horiz' in the search criteria box (without the apostrophes).
- Step 3: Choose how to search.

 Click on the Starts With button. Your other choices are Contains, Ends With and Exact Match.
- Step 4: Launch the Search.
 Click on the Launch Search button. Your results box will fill with all customers that match our criteria.
 Locate 'Horizon Parts Company' and either highlight it with a single click and then click the Select button or just double-click on it.

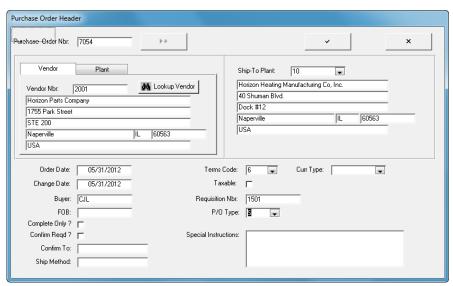
Now let's go back to the Purchase Order Header screen and finish entering our purchase order.

Notice that the vendor information has filled in. Again we won't be entering any plant information.

Click on the "Ship-to Plant" drop-down list on the right side of the screen and choose a plant number.

Now fill in the rest of the data as instructed below.

When you are finished click the OK button to return to the main Purchase Order screen. If you have completed this correctly you will notice your



header data has filled in and you can use the tab pages to view sections of data.

<u>Field Name</u> <u>Data To Be Entered</u> <u>Description Of Entry</u>

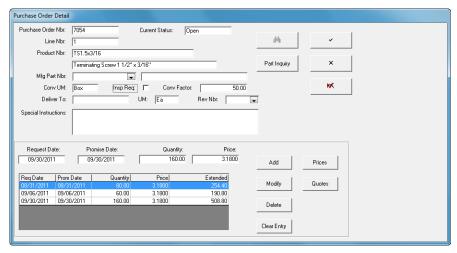
Buyer (your initials) Buyer's initials for this P/O

Requisition Nbr 1501 The requisition number

Enter OK button when complete (upper part of screen, "check mark".

Purchase Order Detail - Product Screen: Enter product for purchase orders.

This will bring up the detail screen. Part number TS1.5x3/16 will come up and much of the information available to MRP Plus will be displayed in this screen. Here again, we could check the prices option and display all of our previous prices we had purchased this for. We could also enter a quote in if we wanted to have a formal process for this price or for future prices



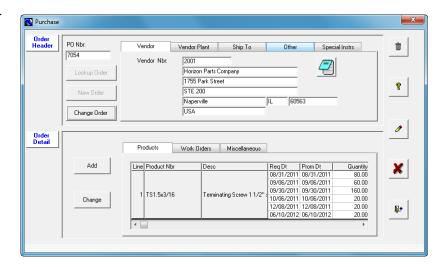
Notice that only 1 release date

came up. This is because, when you click on the check mark to 'ok' this screen, the next release will be added for possible modifications. This will continue until all releases have been added to the line item screen for this part.

Keep clicking the check mark until all release have been added and the program returns to the PO Header Screen.

This is how to enter a purchase order for a part that is stocked. To order material or out plant services for a Work Order, or to enter a general item, the procedure is almost the same. Just click on either the Work Order or Miscellaneous tabs prior to clicking on the Add button from the Main Purchase Order screen. This will bring up the appropriate detail screen to accomplish the entry.

To enter a purchase order without a pre-existing plan, there is a separate purchase order entry program called PURCHASE.

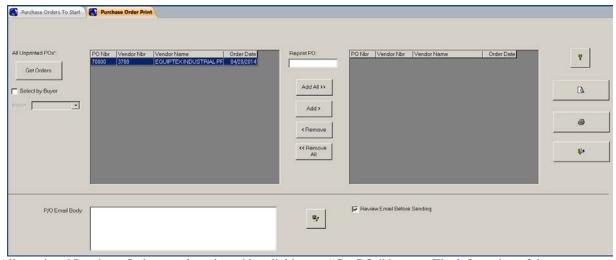


As you close the forms , you will eventually return to the management screen that will ask if you want to delete this plan. Click Yes.

At this point, lets close the P/O's to Start Program Tab by clicking the "X" in the upper right corner of the window and print the purchase orders we entered.



Purchase Order Print: Select Manufacturing>Purchase Orders>P/O Print to Print/reprint/fax/email one or many purchase orders.



All unprinted Purchase Orders can be selected by clicking on "Get POs" button. The left section of the screen displays all unprinted Purchase Orders. These orders can be selected as a whole by clicking on "Add All>>" button or they can be selectively printed by highlighting an individual Purchase Order number and clicking on "Add>" button or double clicking a purchase order. The selected list of Purchase Orders that will be printed are displayed in the right half of the screen. Selected Purchase Orders to print may be unselected individually with the "<Remove" button or as a whole with the "<Remove All" button.

Individual Purchase Orders that have previously printed may be printed again by typing in the Purchase Order number in the 'Reprint PO:' field.

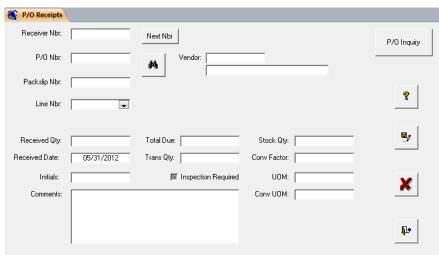
Once you have selected the two Purchase Order(s) you have entered by adding them to the right grid window, you may click on the Print button to print them.

Purchase Order Receipt: Lets you receive materials or outside services against an open Purchase Order. The receipt will update average and last cost data and accounting value for parts received into inventory. The on hand inventory will also be increased by the receipt quantity. Receiver records are processed and matched to Vendor Invoices in Accounts Payable.

From the Ribbon choose > Inventory > Stock Movement > P/O Receipts. This will execute the Purchase Order Receipt program.

First, click on the Next Nbr button to assign the next receiver number. Second, click on P/O

Nbr Lookup button to activate the purchase order lookup dialog.



Purchase Order Lookup: Locate a purchase order number by a wide choice of criteria.

Let's see if we can find the Purchase Orders we have just entered.

How Purchase Order Lookup works:

- Step 1: Select the field to search by.

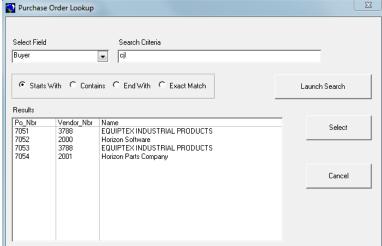
 Click on the Select Field drop
 down box arrow. This will pulldown a list of fields that you can
 perform a search on. Lets choose
 "Buyer".
- Step 2: Enter search criteria.

 Type your initials in the search criteria box.
- Step 3: Choose how to search.

 Click on the Starts With button. Your other choices are Contains, Ends With and Exact Match.
- Step 4: Launch the Search.

 Click on the Launch Search button. Your results box will fill with all Purchase Orders that match our criteria. Locate Purchase Order number 7053 (one of the ones you entered) and either highlight it with a single click and then click the Select button or just double-click on it.

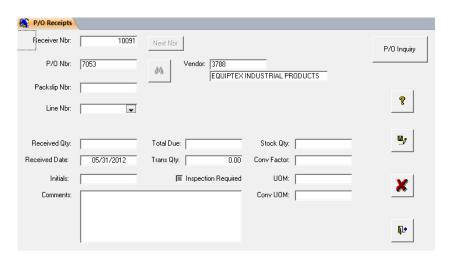
Now let's go back to the Purchase Order Receipts screen and finish entering the other parts.



Fill in the rest of the data as instructed below.

Note that at any time, you can view the Purchase Order Inquiry screen for this P/O#. This will show you previous receipts, other line items on the P/O and quantities outstanding.

Now fill in the following.



Field NameData To Be EnteredDescription Of EntryPackslip Nbr12345Packslip number from vendor's formLine Nbr1Click on the drop down box to locate the item numberReceived Qty645Quantity being received. Note: partial receipts can be made.

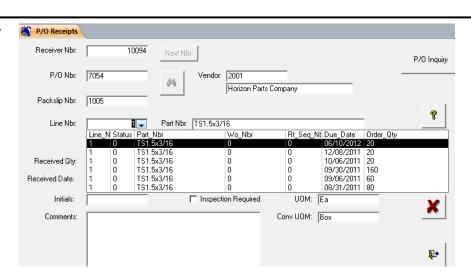
Click Save button and then click on the cancel button to clear the P/O number so we can start with the next one. The P/O number remains so you can receive more line items from a single P/O.

Now let's repeat the process for the second P/O you created.

First, click on the "Next Nbr" button. Then enter the next P/O number. (It should be one more than the previous one. If you aren't sure of the number, just do the look up again.)

Enter the information as noted below.

This line item has multiple releases. We are going to receive lines 1-4.



Note that when you enter the received quantity of 20 the stock quantity calculates to 1000 because of the 50 unit conversion factor. Also, the Total due will be the sum total of all boxes due for that line item and decrease as they are received.

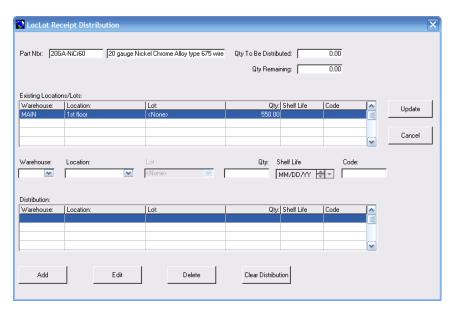
Field NameData To Be EnteredDescription Of EntryPackslip Nbr1005Packslip number from vendor's formLine Nbrs1,2,3,4Click on the drop down box to locate the item numberReceived Qtys20,20,20,160Quantity being received. Note: partial receipts can be made.

Click Save button and then click on the Close program button when you are finished.

The two Purchase Order receipts have now been entered and are ready for invoice processing by Accounts Payable. Quantities have been updated to inventory and General ledger transactions have been written to the Inventory Journal.

If any of these items were coded for inspection, they would not have been entered into inventory until they were received through the "Inspection" program (also located on the Inventory> Stock Movement> +More> ribbon.

If any of these items were coded for Location and/or Lot Control, an additional screen would have been displayed for the distribution to the associated locations and/or Lots. A sample of that screen is shown for a different item. The quantity remaining must be 0 for the user to be able to update the inventory being received or distributed. This item is not coded for locations, Lot/Serial# so the associated field is grayed out.



Chapter 11: Work Orders

For many manufacturing companies, this is will be one of the most important parts of MRP Plus – the work order flow. We start off by converting the plans we generated from MRP to a work order. We then release this work order to the shop floor. Paperwork is printed (routing and picking documents) and issues are made (if the item is not backflushed). Shop time is recorded and charged to work order. Status is checked. Finally, the finished product is received and the work order is closed.

We start by creating the work order. The sales order we previously entered created an item in the W/Os To Start through MRP Generation because there was none on-hand to ship.

Work Order to Start: Converts Planned Work Orders To Production Orders

Let's convert work orders. From the Ribbon, choose > Manufacturing > Work Orders (Group) > W/Os To Start.

This will execute the W/Os to Start program. Set the date to ensure it is far enough in the future to include your requirements 6 weeks should do it. Click on the Get Plans button (it is a finger pointing to the right). This will

populate the plans grid.

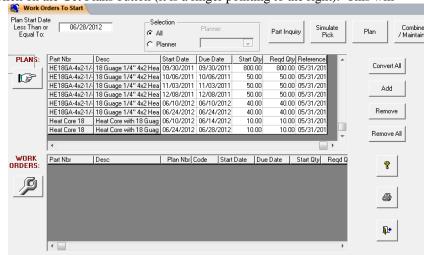
The results should be a screen with plans listed in the top grid window. These are the releases in MRP Generation. We are going to scroll to the bottom and choose the 2 work order plans created from the Sales Order you entered.

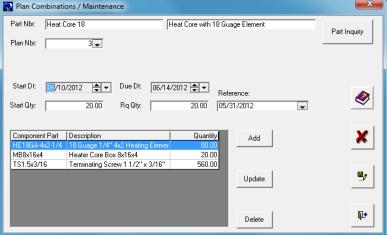
First, let's combine the 2 plans into one plan, scheduling it for the earliest start date. We do this by holding down the "Ctrl" key and highlighting both lines for Heat Core 18. Then we click on the "Combine/Maintain button. This will bring up the Plan Maintenance screen, showing the combined requirements from the Bill of Materials for the item. Here, we can modify the BOM structure for "this plan only", change the start and end dates, and/or the quantity to produce on the plan.

We will just click on the save button. That will take us back to the W/O's to Start screen, with the 2 plans combined into 1.

Now lets see if we have enough inventory on hand of all the

components, to build the product on this work order.

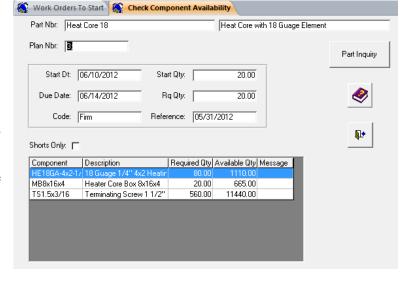




Click on Part Nbr. "Heat Core 18", which is now a "combined" plan and the "Simulate Pick" Button. This will display the Check Component Availability Screen and show if we have the raw materials available.

Note: that if you double click on any of the components listed, it will drill down to the parts inquiry screen for that component. So, if you didn't have enough on-hand, you could see what receipts were coming in the future and plan accordingly.

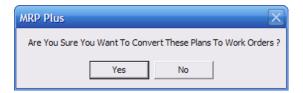
For long BOM's, if you click the Shorts only checkbox, only items that are short quantity on-hand will display.



Close the Check Component screen.

Back on our Work Orders to Start screen, double clicking on an item, highlighting it and clicking "Add" or clicking on the "convert all" button will move our plans into the lower work order grid. Do that for part "Heat Core 18". Then convert the plan by clicking on the Process Conversion button (the wench). A message box will appear asking if you are sure you want to Convert These Plans to Work Orders?

Click the Yes button and close the Work Orders to Start program when you are finished.



Work Order Entry: Allows entry of manual work order

In addition to having the system plan orders, you may elect to enter work orders manually or modify of existing Work Orders.

This is done through Work Order Entry program found on the Ribbon at Manufacturing > Work Orders> Entry.

You may pull up an existing Work Order by selecting the drop down box and selecting one of the existing Work Order

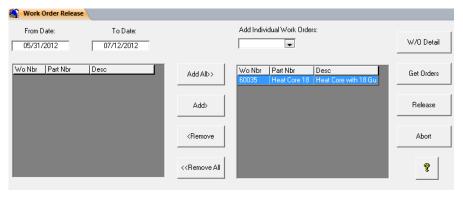
Numbers. Close the Work Orders Entry program when you are finished.



W/O Release: Release work order to shop floor.

This will extend standard times from part Routing records, and schedule operation start and complete dates.

From the Ribbon choose > Manufacturing > Work
Orders> W/O Release. This
will execute the Work Order
Release program. The work
order numbers that have not
previously been released may
be selected by start date span
or from the drop down list
under "Add individual Work
orders". Select a date to
include the earliest work order

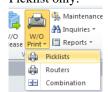


for the From Date and the latest work orders you want to release in the To Date fields, and then click on the Get Orders button. After all unreleased work orders are displayed in the left grid, they may be added to the Release list by clicking on the Add All button or double clicking them individually. The W/O Detail button will allow you to review the work order quantities and information entered through Work Order entry.

We will select our work order by highlighting our work order for 'Heat Core 18' and clicking on the Add button. Click on the Release button to release the work order. This will end the program when complete.

W/O Router / Picklists:

There are several ways of printing the Work Order Routing papers and the Picklist. W/O Print allows for the printing of just the Work Order Routing itself. Picklist Print will print the Picklist only.



There is also the W/O Router/Picklist Combo that prints them both together. Which one you use will be based on your production set up. We are going to print the Combination for this example.

Select it from the ribbon at Manufacturing> Work Orders>W/O Print. A screen similar to Work Order Release is displayed with the same options. We will choose our Work Order from the drop down menu in the

Pa	rt Nbr He	eat Core 18			I	escription H	eat Core with 1	8 Guage E	lement		
Drawii	ıg Nbr			Rev Nbr							
Sta	rt Date	06/10/2013	2 Start Qty	20.00	Reference	05/31/2012					
Est Finis	h Date	06/10/2013	2 Reqd Qty	20.00	-						
Instruct	ions										
Seq Nbr	Wc Id	Oper Nbr	Operation Descript	on	Setup Hrs	Run Hrs	Accept Qty	Reject Q	ty Reje	Ins ect Nbr Sta	
1	0 43				0.00	1.00			П		
	Assembly	,									
	Insert eac terminatin	h coil assembly g insulaters/scr	frame into Core metal bo ews into large holes in bo	x, fitting ttom.							
		for each frame.	ide for each frame. 2 meta . 1 metal screw fits on the								
1	5 70	700	Inspection		0.50	1.00					
	inspection	1									
	tolerance	at 5%									
2	90				0.00	0.50					
l	Packagin	9									
		non mills if more of	lidae								_
Comp	onent			Ot	per Nbr UOM	Reqd (Oty Used	Qty Qty	Issued	Date Issued	Cm
HE180	GA-4x2-1	/4			EA	80	.00	0.00			
18 Gu	age 1/4" 4	1x2 Heating	Element								
								L			
MB8x*	16x4				EA	20	.00	0.00			
Heater	Core Ba	x 8x16x4									
	3/16				Ea	560	.00	0.00			
TS1.5:											

"Add Individual Work Orders" box. Then click on the Print button. A two page document will print out as shown.

[&]quot;Bin" is printed for items that are automatically backflushed as setup on their "Parts Engineering" record.

First Issue: Method of issuing parts to Work Orders. After a First Issue has been made, all other issues or returns must be recorded through the "Issues" program. MRP Plus also allow for automatic "Backflushing" of inventory to be used on a work order at the time of Wip Receipt. If you are not Backflushing inventory, you must release it through "First Issue".

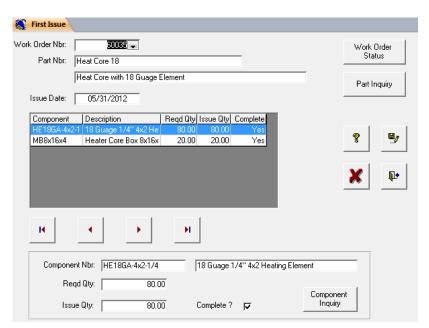
Parts on the Picklist are only entered if they are issued in a quantity that is less than or greater than the required quantity. The exceptions are issued in the quantities entered, and all other parts are automatically issued in their required quantities.

From the ribbon, choose > Inventory > Stock Movement > 1st Issue.

Enter the work order number or use the drop down box to retrieve it from a list of open work orders. The part number and description will be displayed.

The W/O Detail button will allow you to review the work order quantities and information entered through Work Order entry. The Part Inquiry button will allow you to review the history and onhand information for the finished part number.

All components from the Picklists will be displayed with the Issue Quantity defaulting to the Required Quantity. If you need to modify the Issue Quantity you may highlight the line item or use the |< < > >|



buttons to page through the component list. The component information will be displayed at the bottom of the screen. To review the history and onhand information for the component parts click on the Component Inquiry button.

For our demonstration we will not be modifying the Issue Quantities and you should click on the Save button



Close the First Issue program when you are finished.

Move w/Employee: Provides a method of reporting quantities of work completed, quantities of work scrapped, standard labor, and burden dollars, setup and/or run hours at a routing sequence for Work Orders.

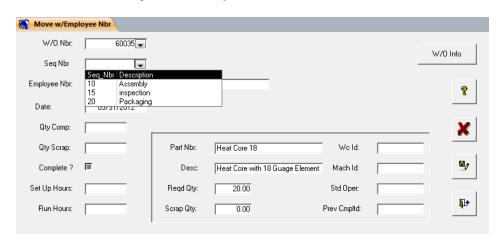
Standard labor, fixed and variable burden rates may be specified by Work Center; these rates will be used by the program when hours are posted to Work in Process. The Work Centers (and therefore, the rates) are referenced through Work Order Operations that are based on part routings. Default rates are stored in CONTROL item MASTER CONTROL - COST. Default rates are used when no Work Center is referenced or when the Work Center referenced does not specify either a standard labor, fixed or variable burden rate.

The actual employee hourly rate is maintained by the Employees screen and will not be covered in this demo.

From the drop-down menu, choose > Manufacturing > Time (*Group*) > Move.

Enter the work order number or use the drop down box to retrieve from a list of released work orders. Use the work order # for our **Heat Core** item.

Enter the Sequence number "10" or use the drop down box to retrieve it from a list of Routing Sequence numbers.



The part number, description, current required quantity, previous quantity scrapped, Work Center ID, Machine ID and Standard Operation number will be displayed.

Now fill the rest of the data in as instructed below and clicking the Save button after each entry.

Field Name	Data To Be Entered	Description Of Entry
Employee Nbr	100	Employee number for Tim Weigel
Qty Comp	20	Quantity complete
Complete	Check	Space bar or mouse click marks sequence complete.
Run Hours	1.25	The employees actual hours worked on this work order
Field Name	Data To Be Entered	Description Of Entry
Work Order #	60034	Select from drop down or enter manually
Routing Seq. Nbr.	15	Sequential routing step
Employee Nbr	90	Employee number for Trieste Sorenson.
Qty Comp	20	Quantity complete
Complete	Check	Space bar or mouse click marks sequence complete.
Setup hours	.50	Time for Setup at Work Center
Run Hours	1	The employees actual hours worked on this work order
Field Name	Data To Be Entered	Description Of Entry
	20	
Routing Seq. Nbr.		Sequential routing step
Employee Nbr	110	Employee number for Brian Zoolander.
Qty Comp	20	Quantity complete
Complete	Check	Space bar or mouse click marks sequence complete.
Setup hours	.50	Time for Setup at Work Center
Run Hours	1	The employees actual hours worked on this work order

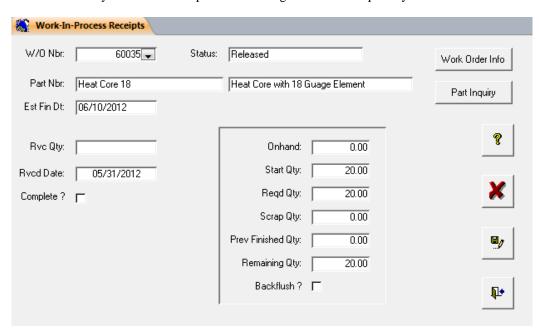
To continue to the next step, close the program button.

WIP Receipts: Work in Process Receipts, provides a method of recording receipts from Work Orders and changing the Work Order status from 'release' to 'complete'.

Calculations and updates of cost data for receipts of parts are based on each part's cost type. The cost type may be maintained through PARTS ACCT. If a cost type has not been specified at the part level, the default cost type in the Master Control item COST.

The Inventory account number to debit or credit is necessary when writing the Inventory Transaction record. If an Inventory account number has not been specified at the part level, the default Inventory account number in the Control G/L Control item is used.

Work Orders may be marked 'complete' even though the received quantity is less than the start or required quantity.



From the Ribbon, choose > Inventory > Stock Movement > WIP Receipts.

Enter the work order number or use the drop down box to retrieve from a list of released work orders. Use the Work Order with the **Heat Core 18** on it. The work order status, part number, description and estimated finish date will be displayed.

The W/O Info button will allow you to review the work order quantities and information entered through Work Order entry. The Part Inquiry button will allow you to review the history and pegging information for the part number.

Now fill the rest of the data in as instructed below. When you are finished click the Save button



 Field Name
 Data To Be Entered
 Description Of Entry

 Rvc Qty
 20
 Quantity Received

Complete Check Space bar or mouse click marks sequence complete.

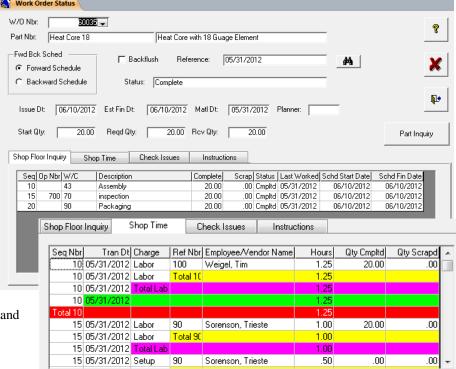
We have now completed the entry, release and manufacture of our finished good. We will look at the Work Order Info screen and the Work Order Close next, and then move on to Shipping and Invoicing of our Sales Order.

Close Form button. to continue.

W/O Status: Work Order Status screen displays history and outstanding requirements.

From the Ribbon, choose > Manufacturing > Work
Orders> Status.

Enter the work order number or use the drop down box to retrieve from a list of work orders. The work order part number and description will be displayed. The Part Inquiry button will display the history and pegging information for the part number.

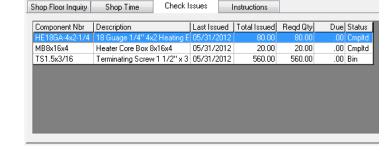


The Shop Floor Inquiry screen displays the Routing sequences and quantities for this work order.

When you click on the Check Issues tab the screen displays all components and their associated issue dates, quantities and status.

Here are status screen samples of a completed work order.

Close Form button. to Finish.



Be sure also to check out the Work Summary Inquiry Screens and reports. This is located at Cost Accounting> Work Order Reporting> Summary Inquiry. These screens/report will show all the above information along with costing information showing variances of Actual vs. Standard.

Work Order Close: Makes Journal Entries for the WIP and WIP Clearing accounts for received work orders. Also changes a work orders status from released to closed.

From the Ribbon, choose Cost Accounting> Work Orders > Close. Your dates should encompass the dates for which you did the WIP Receipts above.

Click the Process button to close all eligible work orders.

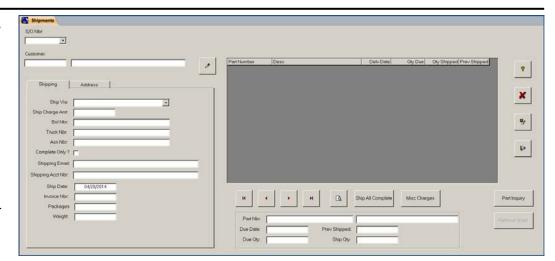


Chapter 12: Shipping and Invoicing

This section will show the steps that are used to ship products, and record the necessary shipping information for invoicing our order.

Shipments: Records shipments against Sales Orders. From the Ribbon, choose Inventory > Shipments.

Enter the sales order number or use the drop down box to retrieve from a list of open sales orders. Select the Sales order from Able Manufacturing that we created earlier.



The customer number and description will be displayed. Clicking on the Part Inquiry button will display the history and activity information for the part number.

Note the Quantity due at the bottom of the screen is only 10. This is because we are only going to ship the first scheduled release, even though we produced the total order quantity of 20.

On the shipping tab, enter the following:

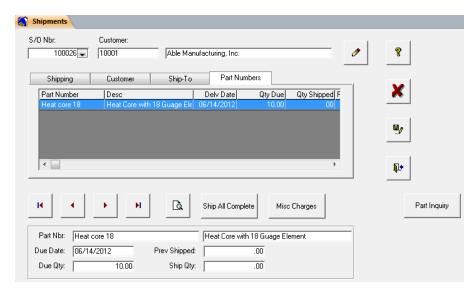
Field NameData To Be EnteredDescription Of EntryShip ViaFederatedTrucking CompanyShip Charge Amt50.00Freight chargeBol Nbr123456Bill of Lading number

The Customer tab screen is for information only and cannot be modified. The Ship-To tab screen may be modified but we will not be doing this for this demonstration.

Click on the Part Numbers tab. This screen will display all the ordered parts. We will be shipping a quantity of 10 of our part Heat Core. Put 10 in the Ship Qty field at the bottom of the screen.

When you are finished click

the Save button ...



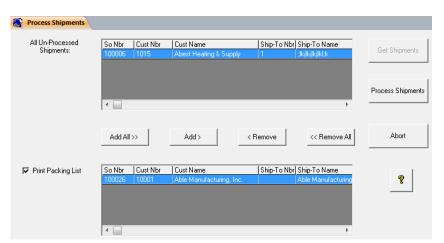
Since we have no other sales orders to ship, click the close Form button.

Process Shipments: Prepares shipments for invoicing. From the Ribbon, choose Inventory > Process Shipments.

All unprocessed shipment records are selected by clicking on Get Shipments button.

Select your sales order and click on the Add button to add it to the lower part of the screen. If a packing list is required, make sure the "Print Packing List" checkbox is checked.

Next, click on the button; Process Shipments to print your packing list and process the shipment.



Let's proceed to the next step; INVOICE GENERATION.

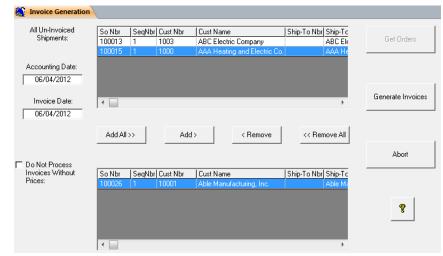
Invoice Generation: Generates invoices from shipments. Non-invoiced shipments are selected between dates specified.

From the Ribbon, choose > Customer Service > Invoicing > Generation.

All unprocessed shipment records are selected by clicking on Get Orders button. Select the sales order for Able Manufacturing that we have been working with and click on the Add button (or double click it).

Once the sales order has been added to the bottom window, click on the Generate Invoices button.

The accounting date is the date that this Invoice will be effective in General Ledger. The Invoice Date will be the date of the actual Invoice.



Invoice Print: Prints invoices and the Invoice Register from shipments. From the Ribbon, choose > Customer Service > Invoicing > Print.

The screens and processing are identical to the Invoice Generation process noted above. The Invoice will print as shown in the sample shown next. Additionally, an Invoice Register will print showing all items invoiced in this run, and all Invoices printed will be added to Accounts Receivable.

Below is a sample format of an invoice. Your invoice will be different because of the data and setup. Your own logo can be assigned to print at the top of specific forms with MRP Plus based upon an assignment in the Company master file setup.

Horizon Companies, Inc. 1755 Park Street, STE200 Naperville, IL 60563 USA			Invoic	е			0017 04/2012
Bill To: 10001					Ship To:		
					Able Manufacturi	ng, Inc.	
Able Manufactu 123 Main Street					123 Main Street		
Box 440					Box 440		
Chicago USA	IL	60634			Chicago USA	IL 60634	
Sales Order Nbr: 100026					Ship Date:	06/04/2012	
Customer P/O Nbr: AB-100					Method:	Federated	
Ship-To P/O Nbr:					Fob:	Naperville, IL 6056	3
Order Date: 05/31/20)12				Terms:	1% 10 days net 30	
Representative					Currency:		
Salesman							
Part Nbr:							·
Description:	Promise Date	Ship Date:	Ship Qty:	Uom:	Unit Price	e: Discount Pct:	Extende
Heat core 18	Heat Core with	18 Guage Elen	nent				
	06/14/2012	06/04/2012	10.00	EA	163.900	0.00	1639.0
Special Instructions					Ta	ub Total: ax: nipping:	1639.00 0.00 50.00
						voice Amt	1689.00
		nts.					
Please reference above invoice no	umber on paymer						

This concludes our demonstration of processing a shipment and printing an invoice.

Chapter 13: Accounts Payable

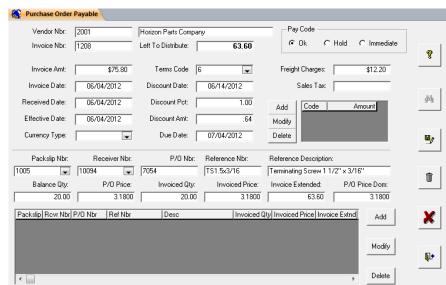
The demonstration of our Accounts Payable starts with the previous entry on a Purchase Order. You will see how MRP Plus will provide a method of matching VENDOR Invoices to RECEIVING records that are created when goods are received from Purchase Orders, how items are selected for payment and how they are paid.

Purchase Order Payable: Provides a method of matching VENDOR Invoices to RECEIVING records that are created when goods are received from Purchase Orders. The program creates Accounts Payable records against which checks may be issued.

Before running this you may want to run the "Accounts Payable Clearing Report" located at Accounting >A/P Reporting >Clearing. This will show you all the receiving records that are waiting for invoices from vendors to be matched.

To match the invoices to Purchase Orders run the Purchase Order Payable program located at Accounting > A/P Entry > P/O Payables.

Enter the information as noted below.



Field Name	Data To Be Entered	<u>Description Of Entry</u>
Vendor Nbr	2001	Vendor number
Invoice Nbr	1208	Vendors' invoice number
Invoice Amt	75.80	Invoice total (notice the Discount Automatically Calculated)
Freight Charges	12.20	Freight In charges from Vendor
Packslip Nbr	1005	Vendors' packslip
Receiver Nbr	Click on drop down butto	on and choose your receiver number (1st)
Invoiced Qty	20	Invoice quantity
Invoiced Price	3.18	Invoice unit price
Click on the Add button	and the receipt information	will be displayed at the bottom of the screen.

If the invoiced price is different than the purchase order price, a message will ask you to accept and a transaction will be written to the Purchase Price Variance Account.

Note that terms discounts are calculated automatically, but not taken until the actual check print, where the G/L distribution will take place.

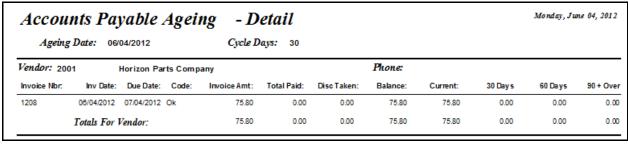
Freight Charges may be entered here or on a Miscellaneous Payable record. Miscellaneous Payable Entry allows for the entry of invoices for non-inventory receipt items.

Your distribution amount should be zero.

Click on the Save button to save the invoice. We have now entered our vendors' invoice and we are ready to pay it. Close out of this program by clicking on the Close Button.

Payment Selection: Allows multiple selection criteria for vendor payments.

Before we run this you may want to run the **Accounts Payable Ageing Report**. This also is located on the Accounting >A/P Reporting >Ageing. Following is a cut-out showing the Invoice to the vendor we are working with.



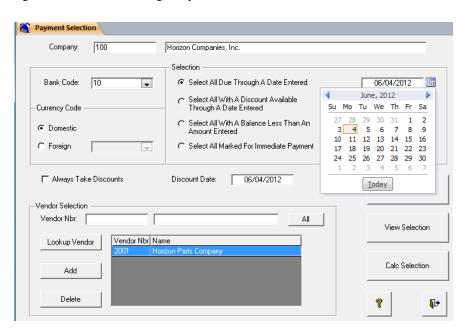
Note that the Due date is set 30 days in the future because of the vendor terms.

Now let's continue with the Payment to that vendor.

From the Ribbon, choose Accounting > A/P Check Processing > Payment Selection.

Select the Bank Code 10 from the Bank Code Drop Down list. Notice that Bank Codes for payment can be Credit Cards, Foreign Banks and/or Write off Codes.

We will be selecting to pay only our vendor. In order to do this we must first get rid of the <All> vendors' selection.
Highlight the line <All> and click on the Delete button.
Enter your vendor number, 2001, and hit the Enter key.
Click on the Add button to display the vendor in the selection box.



We will be selecting all invoices due through a date entered. Click on the drop down box for the calendar and choose a date that is *greater than the Due Date* noted on the A/P Aging report. The other options allow greater control over the selection of invoices to be paid and will not be covered in this demonstration.

Click on the *Clear Selection Button* to clear out any previous selection scenarios and then the *Calculate Selection* button. Once the invoices have been selected they may be viewed by clicking on the *View Selection* button.

The View Payment screen details the invoices to be paid by vendor number. The invoices are totaled and may be toggled to pay or no pay by double clicking on the individual invoice. Partial payments are also allowed from this screen as well as viewing vendor history by depressing the appropriate button and double clicking on the payment line.

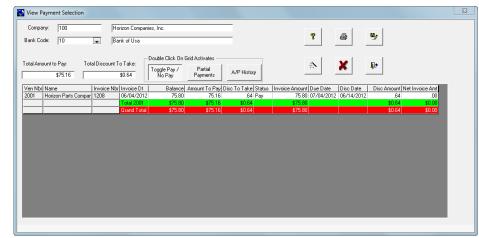
This screen may also be printed as a report by clicking on the "Print" Button.

In order to finalize selection, we will need to

do a proof check run_

Once this check is complete, press ok and save the payment

selection



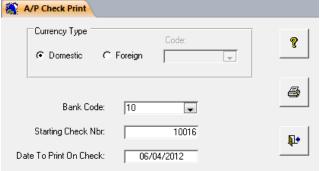
We will be paying our invoice so you may click on the Close Form button for both payment screens.

Now let's go print the check!

Check Print: Prints all checks previously selected by Payment Selection. From the Ribbon, choose Accounting > A/P Check processing > Print.

Choose Bank code 10 which is the bank account we said we would pay the invoice from during Payment Selection. Notice that the next available Check Number will display. If this is different then the starting check number you are going to use, you can change it at this time.

The Date to print on check will default to today but can be changed. This is also the accounting date for General Ledger.



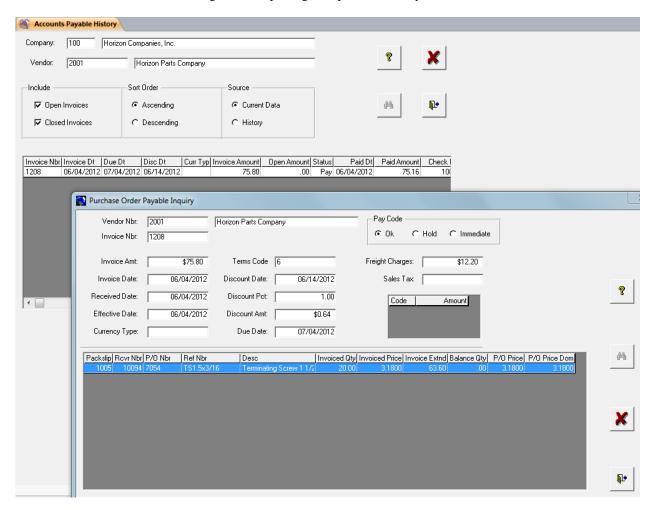
The checks will print on the printer currently assigned to your PC, and the program will exit automatically. When you are ready and have the checks in the printer, click the Print button.

MRP Plus uses a Double Voucher Check with the Check on the top and the 2 vouchers on the bottom.

Printed checks can be viewed on the check register available from Accounting > A/P Check processing > Register.

A/P Inquiry: Accounts Payable inquiry by vendor number.

From the Ribbon, choose Accounting > A/P Reporting > Inquiries > History.



Enter your vendor number, 2001 or select it using the Look-up function.

Click the closed invoices to display the invoice we just printed.

Open or closed invoices may be displayed in ascending or descending order with current data or data purged to history.

Double click on the invoice number in the grid, and you will drill down into the P/O Payable Inquiry screen for that invoice.

Please feel free to review other aspects of the A/P section on your own, but for the purposes of this demonstration, we have completed our demonstration of the Accounts Payable section.

We will now move on to Accounts Receivable.

Chapter 14: Accounts Receivable

In this section, we will take a look at looking at ageing information on customers, receive payments, and inquire on A/R related information for customers.

Ageing: Accounts Receivable Ageing report by current invoice or due date.

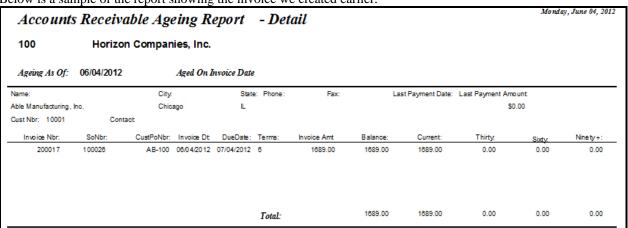
From the drop-down menu, choose Accounting > A/R Reporting > Ageing.

The Ageing date can be entered to set your ageing periods. The report can be sorted by Customer number or Name and can print in Detail or Summary by Customer.

Click on the Preview button to review the report on the screen.



Below is a sample of the report showing the invoice we created earlier.



You may wish to print or just close the screen and exit it.

Let's continue the demonstration with receiving payment from our customer.

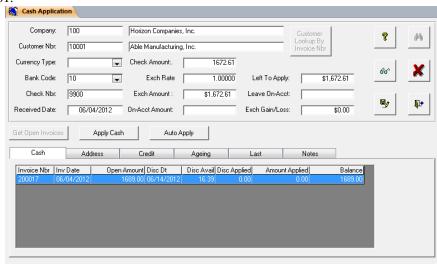
Cash: Cash receipts entry. From the Ribbon, choose Accounting > A/R Entry > Cash Application.

Enter your customer number, 10001.

The customer number can also be retrieved automatically if you have the Invoice number. Simply click on the "Customer Lookup by Invoice Nbr" button, enter the invoice number and the Customer number will be retrieved.

As you may have noticed before, there is a Currency Type drop down on many of the financial, sales and purchasing screen. MRP Plus does support multi-currency environments.

Click on the eye glasses and the A/R Inquiry screen will display for the selected customer.



Fill in the rest of the screen as instructed below.

Description Of Entry Field Name Data To Be Entered

Bank Code Bank Code 10

Check Number 9900 Customers check number Check Amount 1672.61 Customers check amount

Click on the Get Open Invoices button to populate the open invoices grid. At this point we have two options for applying cash. We can click on the "Auto Apply" button and the check amount plus any On-account balance will be automatically distributed to all open invoices starting with the earliest one.

We can also manually apply the check amount to specific invoices. If you click on "Apply Cash" button, the following screen is displayed:

Enter 16.39 in the Discount applied, enter 1672.61 in the Amount Applied field, and click on the OK button.

Notice that the invoice balance

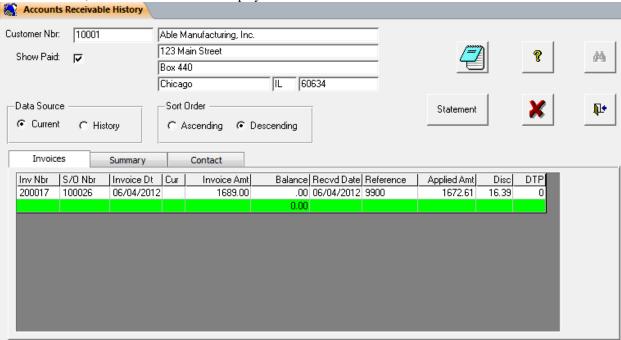
and the left to Apply box is now at zero fully distributing the check amount received.

CashSub Invoice Nbr Invoice Date Discount Available Discount Date Open Amount 200017 06/04/2012 1689.00 16.39 06/14/2012 1689.00 Discount Applied Amount Applied ОΚ Cancel 0.00 0.00

Click on the Save button , and then exit the program. **A/R Inquiry:** Accounts Receivable Inquiry screen.

From the Ribbon, choose Accounting> A/R Reporting > History Inquiry.

Enter your customer number, 10001. Only open invoices will be displayed on the screen unless you click on the Show Paid field, then all invoices will be displayed.



The screen can be sorted in Ascending or Descending sequence.

Additionally, if you drill down (double click) on the Sales order number; you will bring up the Sales Order Inquiry screen, showing sales order information including shipments and back-orders.

If you drill down on the Invoice number, a copy of the actual invoice will appear on the screen, which can then be re-printed by clicking on the printer icon.

Clicking on the Statement button will allow you to print a customer statement to send to your customer.

Click on the Close for Button.

This is the end of the Accounts Receivable demonstration. There is much available to you in the A/R sub-system, so please look through the other options when you get a chance.

Now lets move on to a summary of Costing.

Chapter 15: Costing

MRP Plus Costing Brief Overview

MRP Plus supports the following costing methods for inventory:

- 1. Average
- 2. Last
- 3. Standard

The components of all costs maintained are:

- 1. Material
- 2. Labor
- 3. Outplant
- 4. Variable Burden
- 5. Fixed Burden
- 6. Material Burden

In addition to the average, last and standard cost fields, there is the Accounting Value field. Parts are always transacted at Accounting Value and changes to parts accounting value causes re-valuation of on-hand inventory. If costing under the Average or Last methods, part accounting values are subject to change every time receipts are recorded. Accounting value changes are recorded in General Ledger Transactions.

It is not necessary to enter accounting values for newly established parts in the PARTS ACCOUNTING program. If you have selected Last or Average as your default costing type the value will be assigned upon first receipt into inventory. If parts are transacted without an Accounting Value, they will be noted as such on the Inventory Journal, which details or summarizes all inventory transactions and records their financial impact on the appropriate General Ledger Transaction.

You may specify costing method at the part level through Parts Accounting and/or by Product Category. A default cost type must be entered in the MASTER CONTROL FILE, however, if all parts are being costed under the same method, it is much easier to use the default cost type then enter a cost type for each Category or part.

Source data that is entered or changed in various programs are available to "roll up" cost to the related parts. Information entered through Parts Accounting, Operations, Work Centers, Routing, Departments, Employees, and P/O Receipt all have the potential to establish or change the cost of inventory.

The ROUTING ROLLUP program is used to incorporate changes in the standard cost of manufacturing a part. If the standard times or rates change in the manufacturing process, running the Routing Rollup incorporates these results into the ROUTING COST. Then, the next time the Routing Rollup is run, these revised costs are incorporated into the standard cost of the product.

The BOTTOM UP COST program is used to move component level cost up to the parent level as material cost. For example, the material cost of this level is the sum of all costs from previous levels plus the additional material and labor cost required for this level.

Variances occur when actual costs differ from Standard Costs. These variances are tracked in purchasing price and work in process and reported as General Ledger Transactions. When using average or last cost, variances flow directly to inventory value and therefore are booked as they occur.

All Inventory Transactions are recorded. These records are summarized to General Ledger Transactions with the printing of the Inventory Journal. How closely you want to audit inventory transactions and the number of transactions you process daily are considerations in deciding how often to run this journal.

Most of the reports applicable to Costing can be found on the Cost Accounting Ribbon Tab.

The **AUDIT W/O** report lists all active Work Orders and provides a status for each order.

WORK ORDER STATISTICS displays summary information for Work Orders that have been Financially Closed and Financially Summarized.

WORK ORDER COSTS displays the cost to date of open Work Orders by part number broken out by order number.

INVENTORY COSTS provides a report displaying all cost data for a part.

WIP VALUE and WIP CLEARING Reports show current actual vs. standard costs applied to open and received Work Orders.

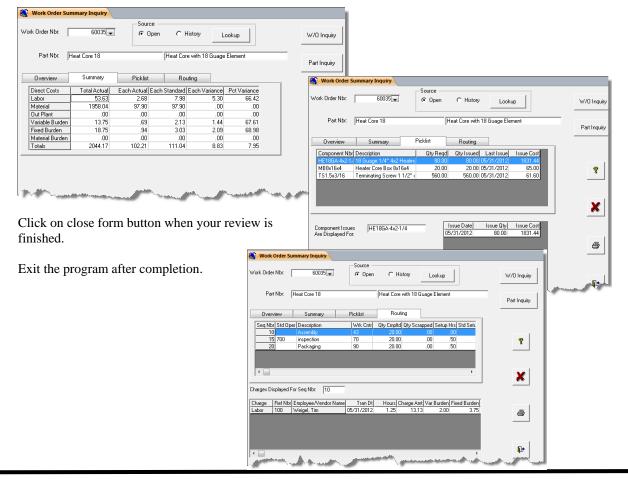
PARTS ACCOUNTING INQUIRY displays all cost parameters and criteria for individual parts.

WO Summary Inquiry: Displays costs (both material and labor) charged to a work order and compares them to standards established. This program reports the full details of any work order regardless of status. The program allows for inquiry into both the active work order and the work order history.

From the Ribbon, choose Cost Accounting > Work Order Reporting > Summary Inquiry. Enter or lookup our work order number. Click on the various tabs to see different categories of costs applied to the work order. As you see, MRP Plus has captured in detail all the costing for a Work Order. Since in our demo, we did not put standards in, some of the information is not showing correctly, but you can see the types of information that MRP Plus captures. You may also print this report by clicking on the Print button.



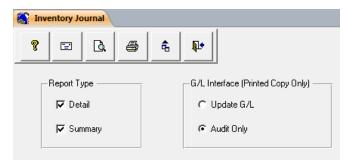
Here is a sample of a closed work order showing all the summary screens.



Chapter 16: General Ledger

Before we update our General ledger with all the financial transactions we did in this demonstration of the MRP Plus manufacturing application, we must process all the inventory financial transactions to General Ledger by running the Inventory Journal Update program. This is located on the Financial> G/L Journals> Inventory.

This program will print a detail list of all financial transactions originating from the



Inventory/Production sub-systems and send summarized transactions to General Ledger for Posting.

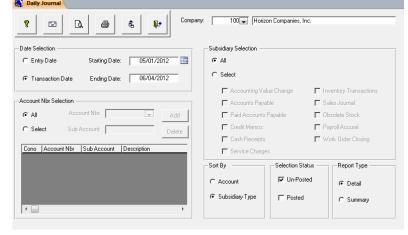
MRP Plus requires you to print a hard copy of this report because of the importance of the transactions. So, click on the "Update G/L" checkbox and then the Printer Icon.

Daily Journal: General Ledger Detail report of transactions. This is found at Financial > G/L Reporting > Daily Journal.

Let's print a detail report of all the transactions we made in the process of this demonstration. Select company number 100 from the company drop down list. Then set a date range over the timeframe of your doing this Concepts Manual.

This program is a versatile tool in finding and showing general ledger transactions current and historical.

Click on the preview button to view your transactions.



Below is a sample of a report.

Daily	Journal Re	eport For F	Period 05/01/2012 Thru	06/04/2	012	By Source 7	ype			
Туре:	Entry Date:	Trans Date:	Reference Nbr:	Comp	pany/Acco	unt/Sub-Account:	Description:	Post Code:	Debit Amt:	Credit Amt
AC	05/31/2012	05/31/2012	CI-TS-1/4 Bottom Up Costing	100	1300	0010	Raw Materials		0.00	0.0
AC	05/31/2012	05/31/2012	CI-TS-1/4 Bottom Up Costing	100	5100	0500	Inventory Adjustments		0.00	0.0
AC	05/31/2012	05/31/2012	CI-TS-3/16 Bottom Up Costing	100	1300	0010	Raw Materials		0.00	0.0
AC	05/31/2012	05/31/2012	CI-TS-3/16 Bottom Up Costing	100	5100	0500	Inventory Adjustments		0.00	0.0
AC	05/31/2012	05/31/2012	CTS-1/4Kit Bottom Up Costing	100	1300	0010	Raw Materials		0.00	0.0
AC	05/31/2012	05/31/2012	CTS-1/4Kit Bottom Up Costing	100	5100	0500	Inventory Adjustments		0.00	0.0
AC	05/31/2012	05/31/2012	CTS-3/16Kit Bottom Up Costing	100	1300	0010	Raw Materials		0.00	0.0
AC	05/31/2012	05/31/2012	CTS-3/16Kit Bottom Up Costing	100	5100	0500	Inventory Adjustments		0.00	0.0
AC	05/31/2012	05/31/2012	HE18GA-4x2-1/4 Bottom Up Costing	100	1300	0010	Raw Materials		0.00	0.0
AC	05/31/2012	05/31/2012	HE18GA-4x2-1/4 Bottom Up Costing	100	5100	0500	Inventory Adjustments		0.00	0.0
AC	05/31/2012	05/31/2012	Heater Core #2 Bottom Up Costing	100	1300	0010	Raw Materials		0.00	0.0
AC	05/31/2012	05/31/2012	Heater Core #2 Bottom Up Costing	100	5100	0500	Inventory Adjustments		0.00	0.0
									0.00	0.0
AP	06/04/2012	06/04/2012	1208 2001 Horizon Parts Company	100	2100	0020	Accounts Payable Clearing		63.60	0.0
AP	06/04/2012	06/04/2012	1208 2001 Horizon Parts Company	100	5300	0010	Freight In		12.20	0.0
AP	06/04/2012	06/04/2012	1208 2001 Horizon Parts Company	100	2100	0010	Account Payable - Trade		0.00	75.
									75.80	75.8

G/L Post: Posting process of transactions from subsidiary modules to the General Ledger. From the Ribbon, choose > Financial > G/L Processing > Posting.

This procedure can be run as often as needed to post new transactions to the General Ledger. We will be posting to the current period. This means that even if our transactions were previous to the current posting period dates, they will be updated to our current closing period. Earlier transactions may post into back periods by clicking on the Post

Click on the drop down box to choose the current period to post. Also make a note of the periods that are listed here. These are the periods that are still open and

will need to be closed in the next

Based on Transaction Date field.

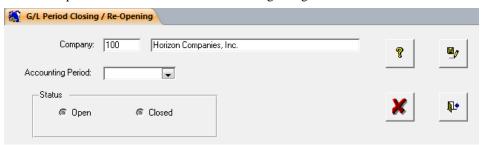
step; G/L Close.

We will be posting from all subsidiaries but we could select any number of subsidiaries to post from. Post General Ledger Company: 100 Horizon Companies, Inc P Posting Subsidiaries Period To Post: 2012-06 C Select Transactions Prior To Cutoff Date Accounting Value Change @ Post To Closing Period Accounts Payable □ Sales Journal C Post Based On Transaction Date Paid Accounts Pavable C Obsolete Stock Credit Memos Payroll Accural Cash Receipts □ Service Charges

Once the posting is completed you may close the period to further transactions by completing the next step, G/L Close.

G/L Close: This procedure closes the period and creates the next months beginning balances.

From the Ribbon, choose > Financial > G/L
Processing > Closing.
Periods may be open or closed for transactions with this screen. You may not close a period if the previous period is still open. That being the case, we will have to



close all periods that showed as being open up to and including the period we are using during the G/L Post procedure.

You can manually enter the periods, or click on the drop down box to choose the period to close. To close the selected period, click on the closed checkbox. As you close each period previous to and including the current period, click on the Save button and then close out of the program when completely finished.

Now we can run the Trial Balance Reports and if desired, custom built Financial Reports.

Micro Trial Balance: Trial Balance with detail of all transactions for the period.

There are 3 Trial Balance reports available in MRP Plus. We are going to run the "Micro Trial Balance" here, but feel free to run the others.

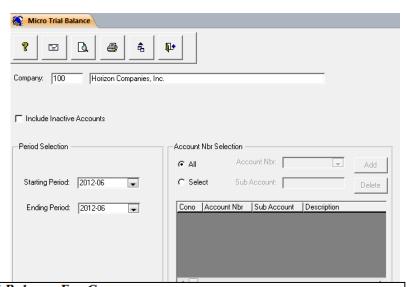
The Micro Trial Balance combines all entries; computer generated and general journal entries; and lists them on the report.

From the Ribbon, choose > Financial > G/L Reporting > Micro Trial Balance.

Click on the drop down box to choose the current period you just posted to and closed, as the starting and ending period.

Report button to send the report to the screen or the Print

button to print to your assigned printer.



	100 Horizon Cor	npanies, Inc.				
Per	iod: 2012-06					
Account:	Sub Acct:	Description:		Beg Bal	End Bal:	
1200	0020	Deposits on Account		\$0.00	\$0.00	
	Source:	DocNbr:	Reference:		Db Amt	CrAmt:
Account:	Sub Acct:	Description:		Beg Bal	End Bal:	
1200	0030	Employee Advances		\$0.00	\$0.00	
	Source:	DocNbr:	Reference:		Db Amt:	CrAmt:
Account:	Sub Acct:	Description:		Beg Bal	End Bal:	
1200	0040	Sales Tax Collected		\$0.00	\$0.00	
	Source:	DocNbr:	Reference:		Db Amt	CrAmt:
Account:	Sub Acct:	Description:		Beg Bal	End Bal:	
1200	0050	Notes Receivable		\$0.00	\$0.00	
	Source:	DocNbr:	Reference:		Db Amt	CrAmt:
Account:	Sub Acct:	Description:		Beg Bal	End Bal:	
1200	0090	Allowance for Bad Deb	ts	\$0.00	\$0.00	
	Source:	DocNbr:	Reference:		Db Amt	CrAmt:
Account:	Sub Acct:	Description:		Beg Bal	End Bal:	
1300	0010	RawMaterials		\$190,954.66	\$193,413.14	
	Source:	DocNbr:	Reference:		Db Amt	CrAmt:
	GL	1022	Inventory Transactions		3568.75	0.00
	GL	1027	Inventory Transactions		0.00	1110.27
			Totals Debits & Credits:		3568.75	1110.27
Account:	Sub Acct:	Description:		Beg Bal	End Bal:	
1300	0020	Work In Process		\$0.00	\$0.00	
	Source:	DocNbr:	Reference:		Db Amt:	CrAmt:
	GL	1008	Work Order Close		0.00	2044.17
	GL	1023	Inventory Transactions		1958.04	0.00
	PJ	995	100 Weigel, Tim		19.38	0.00
	PJ	999	90 Sorenson, Trieste		35.25	0.00
	PJ	1003	110 Zoolander, Brian		31.50	0.00
			Totals Debits & Credits:		2044.17	2044.17
Account:	Sub Acct:	Description:		Beg Bal	End Bal:	
1300	0030	Work In Process - Cle	aring	(\$103.20)	(\$103.20)	
	Source:	DocNbr:	Reference:		Db Amt:	CrAmt:
	GL	1007	Work Order Close		2220.54	0.00
	GL	1024	Inventory Transactions		0.00	2220.54
			Totals Debits & Credits:		2220.54	2220.54

Financial Reporting: Financial Reporting in the MRP Plus application is entirely user defined. You can take your current Balance Sheet, P & L, and other financial reports, and in a spreadsheet format, enter them in to the MRP Plus financial sub-system. You can then print financial reports for any period you have data for.

These financial reports can also be saved as Excel Spreadsheets so you can create a work book of your financials by year.

MRP Plus also provides for manual Journal Entries, Re-occurring Journals, and Chart of Account Entry, Inquiries, and reports.

Conclusion and About Horizon Software, Inc.

This concludes our demonstration script. Thank you for taking your valuable time and exploring the MRP Plus application. We feel MRP Plus is an exceptional value priced manufacturing and financial software application and hope you do too.

Feel free to browse the rest of the General Ledger application and the other sub-systems available. Such as Shop Capacity Scheduling, Timecards, ECO, Physical Inventory, Quoting and Production Scheduling.

We encourage you to enter your data and try the system out. The demonstration version of MRP Plus should stay active for approximately 15 days.

If you have additional questions about MRP Plus or the many services offered by Horizon Software, Inc., please give us a call at 888-205-0097 x2 and speak to our sales department.

We are also available to perform an online demonstration in areas that you would particularly like more detail information.

Horizon Software Inc. has been providing software solutions to the manufacturing community for over 25 years.

MRP Plus is the result of a 4 year in-house R&D effort, with an APICS Certified Staff, to provide the small to midsize growing manufacturer with an **affordable and comprehensive** enterprise wide software solution. It was first installed in a 27 user environment in 1998 and currently being used by over 200 companies in the US, Canada and Mexico.

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