pc/MRP
by Software Arts

This Manual is available for download at:

pc/MRP for Windows
Version 8.80
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1 pc/MRP Introduction

1.1   pc/MRP General Overview

Slideshow for pc/MRP walkthrough part 1: http://www.pcmrp.com/mrp101/walkthru1addressnew.htm
Slideshow for pc/MRP walkthrough part 2: http://www.pcmrp.com/mrp101/walkthru2overview.htm
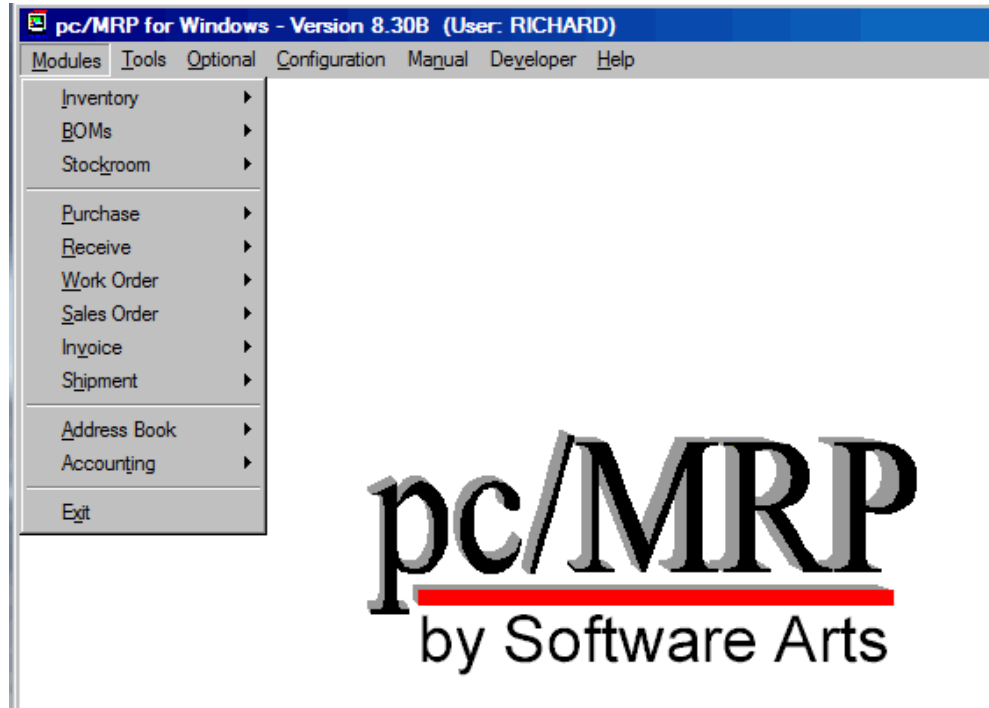
pc/MRP is a fully integrated MRP/Accounting program for Windows. pc/MRP comes complete with eleven integrated modules: Address Book, Inventory, Purchasing, Receiving, Sales Order, Work Order, Invoicing, Shipments, Bills of Materials, Stock Room, and Accounting (GL, AP, AR). All of the modules can be accessed through pc/MRP's Main Menu shown above. Modules can be used on a stand-alone or integrated basis. pc/MRP also comes with a Configuration Utilities Module that allows you to configure pc/MRP to best suit your business operations. There are also nineteen Optional Modules available.

pc/MRP can be configured to support manufacturing, distribution, retail or many other types of business operations. pc/MRP's multi-user version allows a user to open multiple instances of pc/MRP and/or multiple people to enter purchase orders, invoices etc at the same time on PCs networked with any of the multi-user networks such as Windows XP, Vista, Windows 7 or Windows 8.

pc/MRP's Large Business and Multi-user Versions can track up to 1 billion part numbers. Please see the web site for current prices. http://www.pcmrp.com/pricing.htm   Users can upgrade from one version to a higher version by contacting Software Arts, Inc. and paying the price difference between versions (no data will be lost).

1.2   Standard Modules

The modules menu of pc/MRP is the first of the menu selections. Within the modules menu we have Inventory, BOMs, Stockroom, Purchase, Receive, Sales, Work Order, Invoice, Shipment, Address Book, and Accounting. Clicking on any one of these items will bring you to the sub-menu for that module.

1.2.1 Inventory Module

pc/MRP's Inventory Module (Partmaster) allows users to enter, edit, and scroll for part numbers. Users can also print inventory reports, track inventory movement between the 20 areas and WIP, take physical inventories and cycle counts, print out labels, roll up assembly costs, and update selling prices automatically. Advanced features include digital imaging, price quantity breaks, 6 alternate part numbers, unlimited alternate vendors, 9 alternate manufacturers, and model numbers per part. Users can link infinite number of files, folders and URLs to a part.

1.2.2 Bills of Materials Module

pc/MRP's BOM Module allows users to enter, edit, and scroll through BOMs infinite levels deep. Where used, digital images, alternate part numbers, routing sheets, reference designator information and unlimited comments can be displayed at a touch of a button while scrolling through a BOM.

1.2.3 Stock Room Module

pc/MRP's Stock Room Module allows parts to be issued and received from manufacturing, shipping, receiving, and alternate warehouses. Parts issued to manufacturing under a specific work or sales order number are decremented from on-hand and placed into Work In Process (WIP). When the assembled parts are received from manufacturing, the parts are removed from WIP and the on-hand quantity of the completed assembly(s) is incremented. The Stock Room Report Module provides job cost and lot tracing data. The Stock Room Module also provides options to automatically convert parts into assemblies and to check the availability of parts for specified assemblies.

1.2.4 Purchasing Module

pc/MRP's Purchasing Module allows you to enter, edit, duplicate, and print out purchase orders and reports. In addition, POs can be faxed or e-mailed directly from your PC (fax functionality requires an installed FAX/modem card and connected telephone line). Vendor address and part number information is automatically imported from their respective modules. Entering a PO automatically increments the on-order quantity in inventory. Over 100 different reports can be generated including "Consolidated Order Requirements", "ISO 9000 Vendor Performance”, and "Purchase Price Variation". Each Purchase Order line item can be taxable or non-taxable, have its own due date, and discount. Blanket POs can be created at the touch of a button. POs can be created automatically with pc/MRP's optional Infinite Bucket MRP Module. Users can link infinite number of files, folders and URLs to a Purchase Order.

1.2.5 Receiving Module

pc/MRP's Receiving Module allows you to enter, edit, and print out receivers and receiving reports. Entering a receiver against a PO will automatically enter all necessary information from the purchase order, decrement the on-order quantity and increment the on-hand quantity in the Inventory database, calculate a new average cost, and create an accounts payable voucher. If pc/MRP is set in the auto accounting mode it will also debit and credit the general ledger automatically. If the quantity received completes the order for that line item, the purchase order's *Complete* field will be marked "Y" to close out the line item. Users can link infinite number of files, folders and URLs to a Receiver.

1.2.6 Work Order Module

pc/MRP's Work Order Module allows manufacturing to enter, edit, and print out work orders and work order reports. Sales orders entered by sales, automatically become work orders and will appear in the work order module and reports. Manufacturing can use work orders to build to stock or build to existing sales orders. Users can link infinite number of files, folders and URLs to a Work Order.

1.2.7 Sales Order Module

pc/MRP's Sales Module allows you to enter, edit, duplicate, and print sales orders and sales order reports. If the order entered is cash and carry or on account and carry, pc/MRP will create an invoice and decrement the on-hand quantity in inventory. If it is an 'order entry' order (to be delivered later), pc/MRP will create a sales order and increase the on demand quantity. pc/MRP's Sales Module will provide numerous reports including: All Overdue Sales Orders, All Sales Orders for a Month, Sales Tax, Sales Commission, and Cost of Sales. Each line item can be taxable or non-taxable, and have its own due date and discount. Blanket sales orders can be created at the touch of a button. Users can link infinite number of files, folders and URLs to a Sales Order.

1.2.8 Invoice Module

pc/MRP's Invoice Module allows you to enter, edit, and print out invoices, shippers, and invoice reports. Entering an invoice against an 'order entry' sales order will automatically enter all necessary information from the sales order, decrement the on-demand and on-hand quantities in inventory, and create an accounts receivables voucher. If pc/MRP is set in the auto-accounting mode, it will also debit and credit the general ledger automatically. If the quantity received completes the order for that line item, the sales order's *Complete* field will be marked "Y" to close out the line item. Each invoice can contain up to 99 line items. Each line item can be taxable or non-taxable and have its own due date. Users can link infinite number of files, folders and URLs to an Invoice.

1.2.9 Shipment Module

pc/MRP's new shipping module integrates pc/MRP with UPS's WorldShip or FedEx's Ship Manager. Users will no longer have to re-enter the customer addresses. Users can also select 'BOL' from the Carrier Type dropdown list and create a Bill of Lading shipping document. Users can link infinite number of files, folders and URLs to a Shipment.

1.2.10 Address Book

pc/MRP's Address Module allows you to create and maintain a customer and vendor database. pc/MRP will automatically export address information to purchase orders and sales orders. Invoices, Receivers, etc. created by pc/MRP, as well as Balance Due, and Average Days to Pay information can be displayed at the touch of a button. pc/MRP has numerous report options allowing customer data to be parsed as desired. Users can also pick from an address list, and automatically create mail merge files and address labels. Users can link infinite number of files, folders and URLs to an Address.

1.2.11 Accounting

pc/MRP's Accounting Module consists of fully integrated GL, AP, AR, and a check-writing module. Debiting and crediting is automatic and all entries automatically update all journals. pc/MRP's accounting package supports multiple divisions and departments. The Pay Bills module will automatically create and print one check per vendor for the invoices selected. Up to 12 accounting periods can be active. The Accounting Report Module supports drill down reports such as "All Accounting Transactions For A Specified Invoice". Additional accounting reports include: sales tax, sales commissions, cost of sales, check reconciliation, and cash projections.

1.2.12 Configuration Utilities Module

pc/MRP's Configuration Utility Module allows you to configure pc/MRP to best suit your business operations. The configuration menu contains such items as Module Activation, Settings & Utilities, and information about pc/MRP. The Module Activation selection allows users to activate the Optional Modules. Settings & Utilities allows for the configuration of your pc/MRP to work optimally for your business needs. Note: Appropriate configuration codes are required to change these settings.

1.3   Tools

The Tools menu contains your basic Windows elements including cut, copy, paste, a calculator, and macro creator. The macro command is used for repeating sequences of keystrokes when a single key combination is entered. One reason to use a macro is in the instance of having repetitive tasks.

1.4   Optional Modules

Software Arts has created nineteen Optional Modules that you can use to enhance the efficiency of your business. The optional modules can be tested in both the trial version and the full version. Once tested, if the user wants the Optional Module(s), they can be purchased through Software Arts. Call Software Arts at (408) 226-7321 for further information or for activation codes. Please see the pc/MRP web site for current pricing: http://www.pcmrp.com/pricing.htm

1.4.1 Alternate Currency Module

The optional Alternate Currency Module allows the end user to enter several different currency types and their related multiplier into pc/MRP. The user would then be able to select the desired currency for Purchase Orders, Sales Orders, and Invoices.

1.4.2 Audit Trail Module

The optional Audit Trail Module provides a means of tracing edit changes made to any or all of the pc/MRP modules with the exception of accounting. Whenever a change to a record occurs during an editing session, the Audit Trail module will record the *Date, Database, Time, User, and Field Name* as well as the *Record & Item numbers, Part/BOM number*, or *Address ID* number. A flexible search feature allows retrieval of the recorded change based upon a variety of criteria.

1.4.3 Corporate Reporting Module

The optional Corporate Enterprise Module allows companies to select one of three methods to have their parts list and BOMs automatically synchronized (including all indexes) across the world in real time. They can switch from one division to another by selecting that division from the drop down menu. Companies can print out consolidated financial reports for all divisions, business units, and the entire corporation. Currencies are automatically reconciled if pc/MRP's Alternate Currency Module is active.

1.4.4 Customer Bulk E-mailer

The optional Customer Bulk E-mailer Module utilizes the address book to allow users to send newsletters, advertisements, or other types of documents in bulk to specified address types. (Customers, Vendors, Employees).

1.4.5 ECN Module

The optional Engineering Change Notice Module creates, edits, and prints out ECNs and ECN Reports. In addition, it will also print out ECN reports that provide Purchasing with a list of all open POs affected by ECNs issued in the last 30 days.

1.4.6 EDI Import & Export Module

The optional Electronic Data Exchange (EDI) Module allows you to have electronic data exchange between you, your customers and vendors.

1.4.7 Employee Time Tracking Module

The optional Employee Time Tracking Module consists of two modules. The first module, Employee Information, is used by accounting to create and manage employee records. The second module, Time Sheet, is used by individuals and/or accounting to create and manage employee time sheets.

1.4.8 Infinite Bucket/MRP Module

pc/MRP's advanced optional MRP Module will generate a master production schedule / infinite bucket reports. The reports contains data that can be expressed in a daily schedule or consolidated into weekly, monthly, or a quarterly schedule, for a user definable time period. Running the MRP generates action items for purchases, issues to be made, makes, sales, buys, and labor actions. Users can display or print action item reports, timelines or item graphs.

1.4.9 Inspections Module

The optional Inspections Module allows users to set individual inventory items to require an inspection at four different stages of use: receiving, manufacturing, invoicing, and/or shipping.

1.4.10 Password Module

The optional Password Module allows an unlimited number of user name and password combinations to control access rights (delete, edit/create, view only, or no access) to each pc/MRP module.

1.4.11 Purchase Request Module

The optional Purchase Request Module creates, edits, and prints out purchase and quote requests. In addition, it can automatically convert PO requests and quotes into purchase orders.

1.4.12 QuickBooks® Export Module

The optional QuickBooks® Export Module allows users to routinely export AP, AR, inventory, and address data out of pc/MRP and import into QuickBooks®.

1.4.13 Routing Module

pc/MRP's optional Routing Module allows you to create routing records. You can then move and track work orders and sales orders through the factory floor from work station to work station.

1.4.14 Sales Analysis Module

The optional Sales Analysis Module contains several programs that will analyze sales history and set stocking and ordering requirements. The SALES TREND REPORTS can be used to spot sales trends over four user-defined time periods and subtotaled by part number, vendor, or customer. The BOOK TO BILL REPORTS can analyze book to bill ratios and goals by customer and territory (DOS version only). The ESTIMATED USAGE AND MIN QUANTITY REPORTS automatically fill in each parts *usage* and *min quantity* fields based on prior sales. The CONSOLIDATED BOM REPORTS consolidate parts within various levels of a BOM and print out the consolidated quantity for each part. Multiple BOMs can be consolidated together and printed spreadsheet style to analyze the purchasing requirements as a whole.

1.4.15 Sales Quote Module

The optional Sales Quote Module creates, edits, and prints out sales quotes. In addition, it can automatically convert sales quotes to sales orders if you receive the order.

1.4.16 Serial/Lot Tracking Module

pc/MRP's optional Serial/Lot Number Module will store current on hand quantities of each serial/lot number. It also keeps records of all transactions adjusting the serial/lot number quantities as transactions are made. Entering an invoice will allow you to decrease the on hand quantity of the serial/lot number being shipped (I type transaction). Entering a receiver will allow you to increase the on hand quantity of the serial/lot quantity (R type transaction). Issuing parts to an assembly in the stock room will allow you to decrease the on hand quantity of the serial/lot number being issued (S type transaction). Users can print advanced tracking and composition reports.

1.4.17 User Task Manager & Tickler Module

The optional User Task Manager & Tickler Module allows the user to quickly enter a tickler and reminder date/time for notification. You can enter detailed information about a task or project to track.

1.4.18 Web Orders

The optional Web Orders Module allows users to manage orders created on a web sales site (currently ShopSite) by downloading and uploading the orders into pc/MRP's Sales Order module.

1.4.19 Barcode Package

Companies can purchase the optional Barcode Package, which contains barcode fonts. These fonts are used with the report generator to add a barcode to labels and reports.

2 Installing pc/MRP

2.1   Recommended Minimum Hardware Requirements

Workstations: Windows XP – 1GB RAM
                       Windows Vista – 2GB RAM
                       Windows 7 – 4GB RAM

Server: Windows 2003 – 2GB RAM with 10+ GB free disk space
                       Windows 2008 R2 – 4GB RAM with 10+ GB free disk space
                       Windows 2012 – 4GB RAM with 10+ GB free disk space

Software Arts, Inc. does **NOT** recommend using a workstation as a Server for pc/MRP.   If the workstation crashes or is turned off, nobody can access pc/MRP.   A crash would also greatly increase the chances of data corruption.

2.2   Desktop Environment

Select the Windows 'Start' button, select the Control Panel and then Regional Settings and verify the following information:
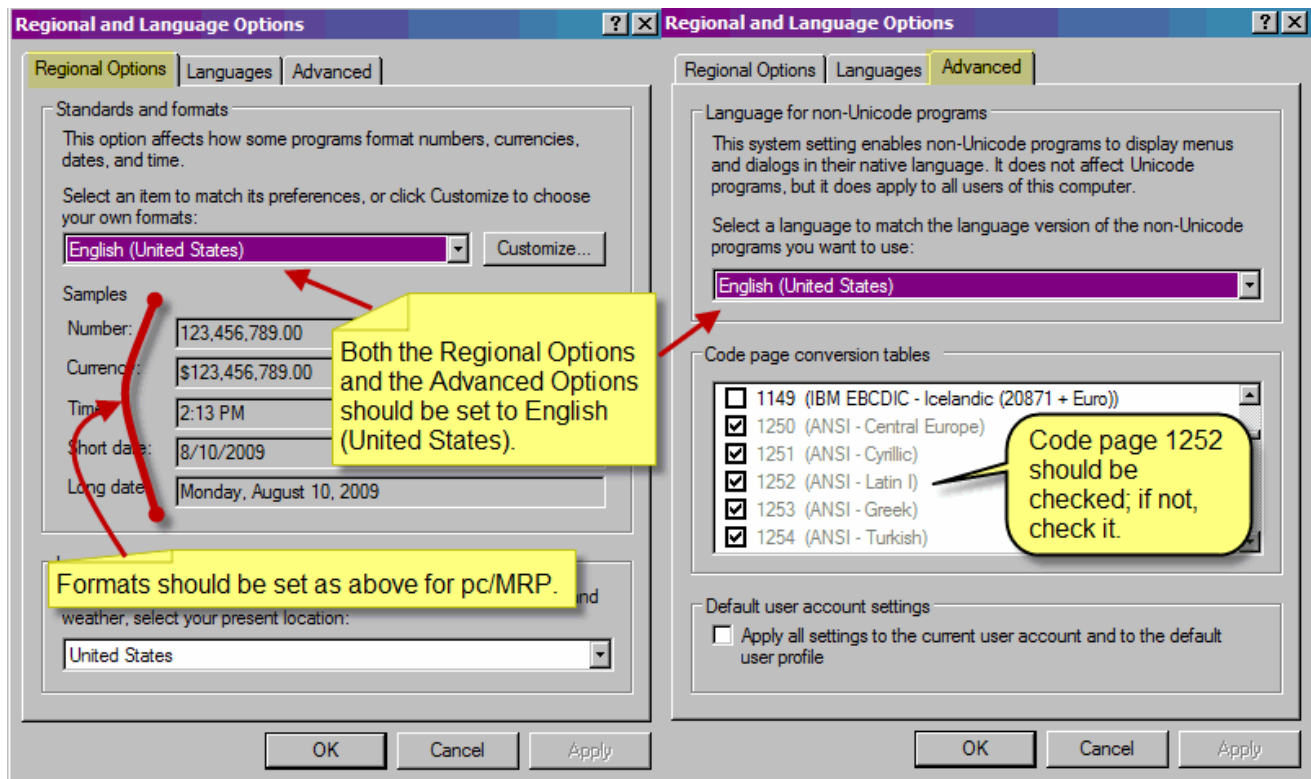
2.3   Initial Installation (first time only)

Do not install pc/MRP in the Windows 'Program Files' or 'Applications' directory.   Instead, allow it to install itself in its own directory such as C:\pcmrpw.

In a multi-user environment, pc/MRP runs as a client on a Windows workstation connected to a server.

Slideshow for pc/MRP install: http://www.pcmrp.com/mrp101/installpcmrpclickonlink.htm

If you are installing pc/MRP from a downloaded file, simply double click on that file.

The installation program will prompt you to read the end-user agreement and select a suitable location for pc/MRP to be installed. Once the installation is complete, pc/MRP can be accessed either by your computer's Start and Programs menu, or the shortcut created on your desktop.
The first time you start pc/MRP, pc/MRP will require that you define a password for future access to the program and then to enter your company's name, address, phone and FAX number.

If you have installed a single user version of pc/MRP, you are finished with the installation. If you are installing a multi-user copy, follow the instructions listed below.

For the server you should:
Double click on My Computer
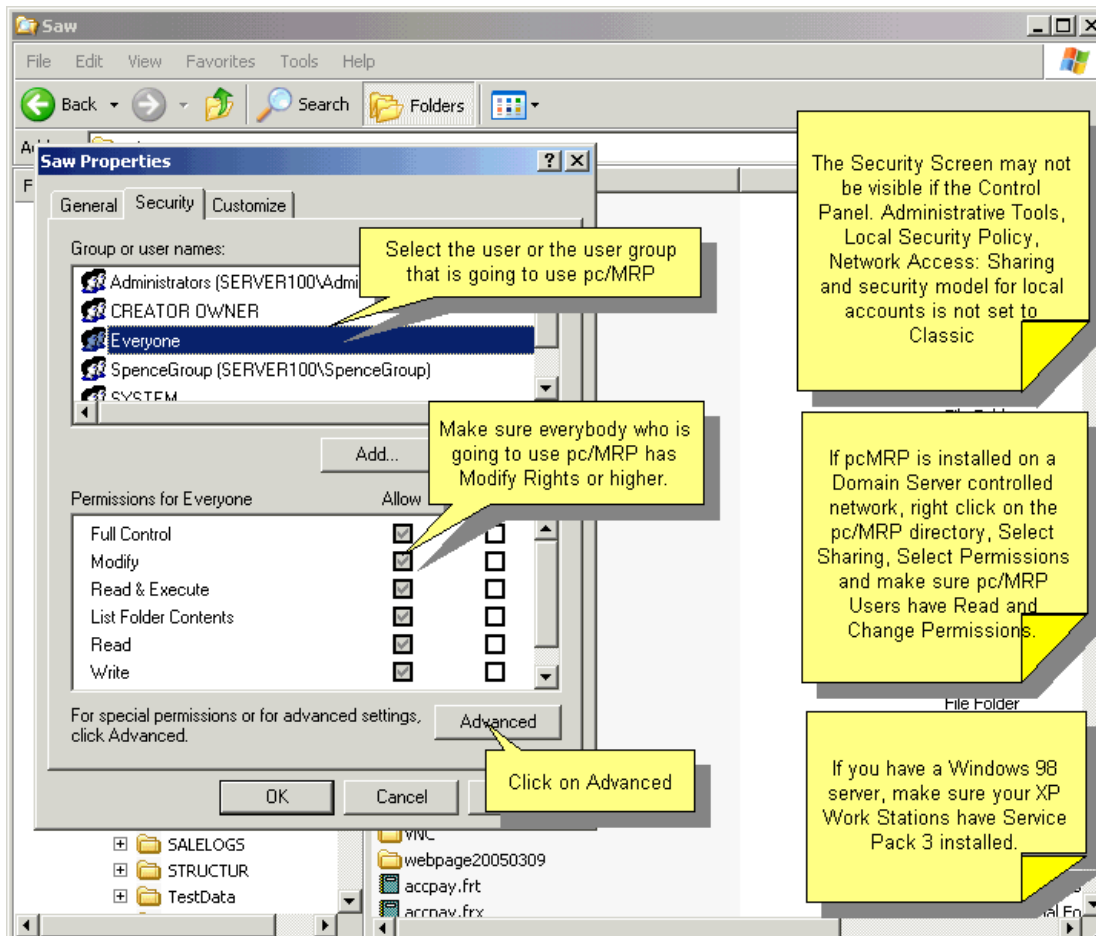Right click on the server's folder that contains the pcmrp files.
Select Properties (select Sharing and Security on a workstation)
Select the Security tab
Select the Everyone group
Provide all pc/MRP users (or the group) with a minimum of 'Modify' rights or higher

Please refer to the screenshot below:

For every workstation, on the network that you want to run pc/MRP, create an icon as follows:

1. Double-click on '**My Network Places**' (Icon in the open space on your desktop or in Windows Explorer).
2. Double-click on the server. On Windows 2000, double-click on "Computers near me" and then the server.
3. Double-click on the server's directory containing pc/MRP (if pc/MRP is not located at the 'Root' level).
4. Double-click on the folder containing pc/MRP.
5. **Right-click** on the pcrmpw.exe file and drag it to the desktop (note the 'W' at the end of pcmrpw).
6. Select '**Create Shortcut**'.

2.4   Possible Installation Errors

- An "Error writing file" message usually indicates there is not enough room on the hard disk to install all of the files. Your hard disk should have a minimum of 400 MB of free space prior to installing pc/MRP. The pcmrpw directory could grow to several GB over time.
- If you are installing pc/MRP from a download file (dem999x.exe) and the installation program asks you for Disk 2: The downloaded file is not complete. Re-download the file and attempt to reinstall pc/MRP with the new dem999x.exe file. (999x is replaced with the current version and revision, currently with 880a)
- If mapped drive says 'No space available' or there is an 'x' in the computer list icon, use the UNC location in the 'Network Connections' list.
- Also see 17.7.45

2.5   Moving or re-storing the pc/MRP system

pc/MRP can be "moved" from one computer to another by COPYING and PASTING the pcmrpw directory. Never MOVE the pcmrpw directory as a network failure during the MOVE will cause all sorts of problems. Follow the instructions above to re-create the shortcuts.

After testing that pc/MRP is up and running, you can delete the original pcmrpw directory if you wish.

T**his is also how you would backup the pcmrp directory each night; but you would copy to a USB disk drive. Software Arts recommends an odd day, even day, week-end, and month-end rotating back-up media.**

You may need to do this if switching servers or moving from a Peer-to-Peer workstation to a regular server.

3 pc/MRP Tutorial

3.1 Tutorial Overview

The Tutorial is designed to teach new users about pc/MRP. The Tutorial has 18 lessons. Below is a description of each lesson.

3.1.1 pc/MRP Manual and Contents	A brief discussion about the Manual and where to find things.
3.1.2 The Bicycle Shop	Discusses what the Bicycle Shop is and how to utilize the Tutorial.
3.1.3 Settings and Utilities	Explains a few custom settings that users should learn.
3.1.4 Creating a Practice Directory	Shows users how to make a backup copy and a practice directory of pc/MRP.
3.1.5 Address Book Module	Discusses where all of your vendor and customer information resides.
3.1.6 Inventory Module	Covers where all of you part information exists and how to enter and edit parts.
3.1.7 BOM Module	Explains how to build the recipes that are your assemblies.
3.1.8 Inventory Flow Model	Explains the general flow of material from order entry, to production, and shipping.
3.1.9 Sales Order Module	Order entry for customer sales.
3.1.10 Work Order Module	Order entry for scheduling or building to stock.
3.1.11 Single Bucket MRP Purchasing	Material Requirements Planning. This tells you what you need to buy based on your demand from Sales Orders and Work Orders.
3.1.12 Infinite Bucket MRP	Advanced Material Requirements Planning. This tells you what you need to buy, when you need to buy it, and schedules your builds and issues to and from manufacturing. (MRP)
3.1.13 Purchasing Module	Ordering from your vendors.
3.1.14 Receiving Module	Vendors fulfilling Purchase Orders and creating Accounts Payable.
3.1.15 Stock Room Module	Using the stockroom to convert parts to assemblies and adjust inventory.
3.1.16 Invoice Module	Creating invoices and building Accounts Receivable.
3.1.17 Accounting	Posting GL transactions, paying bills, receiving payments from customers, and Posting Financials.
3.1.18 Some Final Thoughts	Discusses where to go from here.

3.1.1 pc/MRP Manual

The Manual for pc/MRP is broken down into five sections: Overview and Implementation; Modules; Settings, Utilities and Special Cases; Optional Modules; Troubleshooting. Take a few moments to review the chapter headings and become familiar with how the Manual is formatted. The Manual will become an invaluable tool while you are learning pc/MRP. The Manual is available both in the drop down menus within pc/MRP and from Software Arts' website: www.pcmrp.com.

3.1.2 The Bicycle Shop

The Bicycle Shop is the fictitious company that will be used in this Tutorial. Throughout running the bicycle shop, we will carry out several tasks that companies perform in their day-to-day operations. You will often be asked to refer back to pc/MRP.

This is the Tutorial. You are in the Tutorial NOW. The Tutorial is a written tutorial. There are no parts to load and or data sets available. Users should learn how to enter parts and build BOMs and run the program. That is why the Tutorial was written. You can expect the Tutorial to take about 2-4 hours.

3.1.3 Settings and Utilities

pc/MRP can be configured to operate in several different business environments. The Utilities and Configuration Chapter covers in detail all of the custom settings available pending on your business circumstances. Before you start using pc/MRP "live", you should have a thorough understanding of what these settings are and what they mean to your company. For the sake of this Tutorial, there are just a few that will be addressed now. To access the Settings and Utilities menu from within pc/MRP select: **C**onfiguration, and **S**ettings & Utilities.

Option 4, Inventory Adjustment Method (S/A/P/W/R)
> We recommend "A." The Tutorial is designed around inventory adjustment method "A." This is the recommended method for manufacturers, distributors, and retailers. By default, pc/MRP is set to "A". You might find a setting that better fits your specific requirements. However, to successfully utilize the Tutorial, you must have this Option set to "A".

Option 8, Auto accounting -or- Make accounting separate (Manual)
> We recommend "M." The Tutorial is designed around manually entering GL transactions. By default, pc/MRP is set to Manual. It is also recommended that it be always set to manual and never changed to automatic.

Take the time to study the Settings and Utilities Chapter. You may find several things that are of specific interest to your circumstances. By reading this section, you will be able to form ideas on how pc/MRP will work for your company. Be sure to make a list of all of the settings that will need changing for pc/MRP to run successfully with your company.

Note: The trial version of pc/MRP does not need a configuration code number or password.

Note: Throughout the Tutorial references will be made to executable paths in pc/MRP. These paths will always begin in the drop down menus accessible on the main screen in pc/MRP.

Example: Select **C**onfiguration, **A**bout pc/MRP. This means select from the drop down menus, **C**onfiguration, and then **A**bout pc/MRP. These executable paths will be used in performing specific tasks associated with completing the Tutorial. When a letter is underlined, you can press the Alt key and the underlined letter of the desired function. You can also use your mouse. At this time, press **O**K to return to the main pc/MRP screen.

To view your current Settings and Utilities start pc/MRP and select **C**onfiguration, and then **S**ettings & Utilities. Scroll up and down as desired. Hit **C**ancel to exit the Settings and Utilities.

Note: Throughout using pc/MRP you will constantly accessing the drop down menus. At this time, take a few minutes to review all of the options accessible from the drop down menus.

3.1.4 Creating a Practice Directory and Backup Copies

A practice directory or practice copy of pc/MRP should be created to run the examples in this Tutorial. This practice directory can be created by following the commands listed below after you have initially installed pc/MRP.
1. Open Windows Explorer.
2. On the left scroll up to your **C** drive and find the pcmrpw directory.
3. Do a right-click on the pcmrpw directory and select **Copy**.
4. Right-click on the **C** drive and select **Paste**. This creates a "Copy of pcmrpw" on your **C** drive.
5. Press File and Close to close Explorer

We are finished creating a backup copy. You will want to become familiar with creating backup copies and practice directories. The file pcmrpw.exe starts pc/MRP and whenever you want to do a test run on something, simply make a copy of the pcmrpw folder and double click on the exe file. Do not however leave a lot of practice copies throughout your network. This simply confuses end-users.

Furthermore, for practice copies of pc/MRP, we recommend going to Configuration, Settings & Utilities, and Option 1. Edit the 'Division/Dept' line to contain the word 'practice'. This will put a red practice logo in place of the standard pc/MRP logo alerting users that they are in a practice copy and not the standard copy of pc/MRP.

We have thus far built a reasonable framework. You should have an understanding of how to: find things in the pc/MRP Manual, navigate through the pc/MRP menus, how to find and change the settings and utilities, and create and use practice directories. We will continue with explaining how to enter vendor/customer, inventory, and BOM information. This will be the foundation that we use to enter orders and complete the Order-to-Cash process.

3.1.5 Address Book

The primary source of all of your data is found in the Address-book, Inventory, and Bills of Materials modules. All of this data, once entered, is automatically carried into sales orders, purchase orders, work orders, and receivers. We will first discuss the Address Book Module. The Address Book Module is the location in pc/MRP where all customer, vendor, employee, and contact information will be stored. At this time, take a few minutes to read the Address Book Module. This lesson will assume the chapter has been read.

3.1.5.1 Entering an Address

While using pc/MRP in the course of running your business you will need to add addresses. To add new addresses simply select Modules, Address Book, and New.

Note: You will find that all of the modules are set up very similar. To make a new purchase order select, Modules, Purchase, New. To make a new sales order select: Modules, Sales, New. This is constant throughout the program.

After selecting Modules, Address Book, New, you will be prompted to enter the company name that you wish to add to the address book. Please enter "ABC TIRE COMPANY."

Note: when entering an address where most of the customer information exists in an address that is already entered into the address book, you can select "Import Address information from existing address" on this screen, to save time.

After entering the company name press: OK

As you can see, there are many options and fields to enter data for each entry. Most are self-explanatory. For further details on what each field does refer back to the chapter in the Manual on the Address Book. At this time, take a few moments to look over this screen and refer back to the Manual if there are questions about specific fields.

Enter the data as described in the picture below. Except for the **Start Date**, this will automatically be populated by the date in your computer.

Notice that several tabs exist to allow users to enter additional data. The additional tabs consist of: unlimited number of Contacts, Sales Contact Information, Billing and Shipping addresses, and Invoice and Receiver history. Salesperson information, the billing address, and the shipping address will automatically be populated in sales orders and invoices. Select the **Billing/Shipping** tab and enter separate address information into the fields provided. We will use this address entry later to enter purchase orders and sales orders.

3.1.5.2 Viewing an Address

To view the address just entered select Modules, Address Book, and Edit.

Note: The EDIT function is similar throughout pc/MRP. If you wish to edit a Sales Order, select Modules, Sales Order, and Edit. To edit a receiver select Modules, Receiver, and Edit.

To edit choices you must choose "Edit" under the Action square. To simply view, without being able to edit data, select "View." Users can also search address information in a number of different ways: Account ID Number (a unique address ID number per customer created by pc/MRP), company name, company telephone number, and serial number. You can save these setting by clicking at Save Settings.
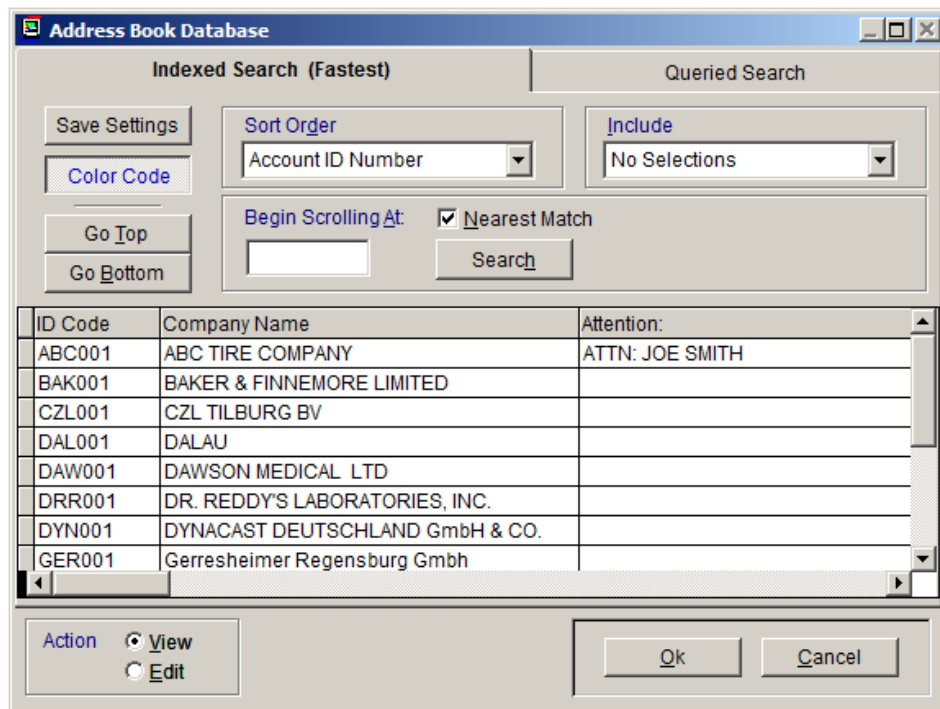
Note: This scroll selection and actual scroll screens are similar throughout pc/MRP. Sales Orders, Work Orders, Invoices, Receivers, Purchase Orders, Stockroom Transactions, and the BOM engine all utilize this same screen.

At this time, within the Address Book Scroll screen, select the entry we have created and press OK or enter.

After viewing the record, click Cancel to close.

3.1.5.3 Editing an Address

Repeat the above process, but choose Edit this time.

If the OK button is not highlighted you are not in **Edit** mode. Select Cancel and attempt to edit the address entry again. This time, with the address scroll screen present select the **E**dit radio button in the Action square.

Note: Several fields have drop down menus. (Addr Type, Status, and under the sales contact information tab: source, purpose, priority, interest, and concern.)These fields are user definable through Option 52 in the Settings and Utilities, and are used in address reports to further parse customer/vendor data.

Example: ADDR TYPE allows users to define their relationship with the entry. Examples: EMP for employee, VEN for Vendor, CUS for customer, PRB for accounts on probation.

When you are done editing, click OK. This saves the changes made.

Look up the address again and see if the changes were saved. If the changes are not there, then you never made the changes, you selected cancel after making the changes. If the changes are there, congratulations, you have successfully edited an entry.

3.1.5.4 Deleting an Address

Create another address entry with a company name of "Bad Company." This will be the entry we remove. To delete an address or any record within pc/MRP is a two step procedure. The record must first be marked for deletion, and then the records marked for deletion must be removed from the database.

To mark the entry "Bad Customer" for deletion, select Modules, Address Book, and Edit. Make sure the Action square is set to edit and scroll for the "Bad Customer" entry. Select that entry. With the address book open to this customer entry click on the **D**elete button from the row of buttons on the bottom of the screen and then OK.

To remove records marked for deletion select, Modules, Address Book, and Remove Marked Records for Deletion. This two-step deletion method is the same throughout pc/MRP.

Note: Once your software is activated into the full version, deleting records marked for deletion will be secured by your configuration code.

You have now successfully deleted a record.

The steps above can be repeated for entering, looking up, editing, or deleting any address in the address book. For reports and label making, refer back to the Manual. We will continue with the lesson on data entry with the Inventory module.

3.1.6 Inventory Module

The Inventory Module contains price, quantity, lead-time data, and a number of other fields associated with parts, labor parts, and assemblies. The Inventory does not contain information about how the assemblies are built. That is in the Bills of Materials. BOMs will be covered in the BOM lesson.

To become familiar with what the various fields do in the main inventory screen, please take a few minutes to read the Inventory Module Chapter. You should not begin this lesson without having an understanding of the Inventory Module.

Several things should be considered when entering your own parts and creating a part number scheme. For the purpose of this Tutorial, we will keep all of the standard settings. As you begin entering your own parts, you will want to read about Options, 28, 29, 48, and 49 in the Settings and Utilities module. For special cases and consignment parts, read Chapter 15.9.5, Special Cases.

3.1.6.1 Entering New Parts

Similarly to the Address Book, when you want to enter a new part, simply select: Modules, Inventory, and New. Then select "Next Available Partnumber".

pc/MRP will automatically assign the next available part number or users can simply highlight the pc/MRP built part number and enter their own.

Press OK to accept part number 000000001.

The part number data entry screen is presented. Enter data as described in the picture below.

Notice that similarly to the address book entry screen, several tabs exist in the inventory entry screen. A tab exists for Quantities/Costs, Vendor Information, Sales Prices, Manufacturers/Model Number/Alternate Part numbers, and Miscellaneous data. Each tab is explained in detail in the Inventory Chapter. For purposes of this Tutorial, be sure to enter the part description, a lead-time of 1 day and under the Sales Prices a price of $1,500.00 for Level 1 Quantity 1.

With all of the information entered, select OK to have this entry saved. Congratulations, you have entered your first part.

3.1.6.2 Editing Parts

At this time, we will edit the part we just entered.

Select Modules, Inventory, and Edit. Select the same part number we just entered. Edit this part so that the Lead-time is 2 days. Click Save.

Note: Did you select "EDIT" in the action square?

After making sure you successfully changed the lead-time for the bike assembly, take a few minutes to enter two more addresses, Smith Bikes and Canonwale, INC., and the remaining parts for the bike assembly. The picture below lists the parts to create and the vendor to use for each part. For the sake of time, many of the basic fields are left blank. Please however enter:

- 2 days for the lead times on all parts and assemblies while in the Quantities\Costs tab.
- A STD cost of $5.00 for every inventory item using the Cost window, Standard section.
- A purchase price of $5.00 using the Vendor tab.

Associate each part with the applicable vendor using the vendor tab and ellipsis button next to the **ID #** field. The ellipsis button allows users to scroll through the address book to find an applicable vendor.
Finally, when you get to the bolts enter a purchase price of $0.2500 for quantity 1 and enter quantity 100 at $0.1000. Furthermore, be sure to enter a PO ratio of 100 for the bolts. We purchase bolts for the bicycle assembly in boxes of 100.

PART NUMBER	DESCRIPTION	VENDOR
000000001	BICYCLE TOP ASSEMBLY	
000000002	WHEEL	
000000003	FRAME, BICYCLE FRAME	CANONWALE INC.
000000004	DIRT TEASER TIRE	SMITH BIKE
000000005	GEAR CHANGER ASSEMBLY	CANONWALE INC.
000000006	BANANA BICYCLE SEAT	SMITH BIKES
000000007	PEDALS	SMITH BIKES
000000008	NGF INTERTUBE (NEVER GOES FLAT)	SMITH BIKES
000000009	SPOKES (WHEEL SPOKES)	SMITH BIKES
000000010	STEM FOR TUBE	SMITH BIKES
000000011	BRAKE ASSEMBLY	SMITH BIKES
000000012	TUBE ASSEMBLY	
000000013	BOLTS	SMITH BIKES

Note: If you edit the part number, you must select "Change Part Number" from the Inventory drop down menu. Using this feature, pc/MRP will automatically change the part number in all applicable modules in just one step.

Similar to the Address Book there are numerous fields that do a variety of things. All of these fields can be manually edited. Most of these fields require manual data entry. Most of these fields are self-explanatory. Several of these fields are automatically updated through performing specific actions. All of the following fields (except of the STD cost) are automatically calculated by pc/MRP. Users should not manually change these data.

STD COST/UNIT: Standard Cost per Unit.
Component part Standard Costs are entered and edited by hand. Use Inventory's Cost Roll-Up Option to roll-up the total component standard costs into their respective BOM/Assembly Standard Costs.

AVE COST/UNIT: Average Cost per Unit.
Component part Average Cost is recalculated every time a component is received. Use Inventory's Cost Roll-Up Option to roll-up the total component average costs into their respective BOM/Assembly Average Costs.

LAST PO COST: Last Purchase Order Cost.
This field brings in the cost of the last purchase order made for this part. This cost type is not fully supported by pc/MRP as far as accounting is concerned.

ON ORDER: Quantity on Order.
This field contains the quantity on order from purchase orders. This field increases when purchase orders are made and decreases when receivers are made. This feature will be further discussed in purchasing.

ON DEMAND: Quantity on Demand.
This field contains the quantity on demand from open work orders and open sales orders. This field increases by creating work orders or sales orders. This field decreases when sales orders are invoiced or parts are converted into assemblies from the work order. Furthermore, this field can be updated when edits are made to sales orders and work orders by running the Audit On-Demand Quantities feature in the Sales Order Module.

MRP AVAILABLE: Quantity Available.
This field contains the quantity available after allocation. This field is updated by running the single bucket (MRP) purchasing report or the optional module Infinite Bucket MRP. The MRP programs will allocate parts on hand and on order and populate the Quantity Available field with the quantity available after allocation.

These features will become more obvious as we make sales and work orders and run MRP reports. For the time being, we will just let this sink in.

Note: pc/MRP does not allocate things every time an order is entered. The quantity available field is only updated as described above. Therefore users should run the MRP once a day, to keep this number as close to accurate as possible.

Note: If the optional Infinite Bucket MRP has been activated, the date when the MRP was last run is displayed next to the MRP Available field. If there has been more than 24 hours since the MRP was last run, this date turns red and bold. (pc/MRP version 8.73D and above.) Software Arts, Inc suggests to run the MRP every night as part of the Scheduled Tasks (see Ch. 15.16 in this Manual).

3.1.6.3 Deleting Parts

Deleting parts is exactly like deleting addresses. You must first mark the record for deletion and then remove marked records for deletion. To test this, delete the TUBE ASSEMBLY, part number 000000012. Once again, in the full version, deleting entries will be secured by your configuration code.

You should now be familiar with entering, viewing, editing, and deleting parts. If you have any questions about what these fields do or how to perform the tasks above, start the lesson over and refer back to the Manual.

Up to this time, we have discussed the Address Book and Inventory Modules. This next section completes the Data Entry Lesson by covering the Bills of Materials Module.

3.1.7 BOM Module

The BOM module is where all of your bills of materials (or recipes for assemblies) will be stored in pc/MRP. At this time, take a few minutes to read the Bill of Materials Chapter in the Manual. This lesson assumes you have read the BOM Chapter.

The BOM module is set up very similar to all other modules. To enter a new BOM simply select New from the BOM menu. To edit a BOM simply select Edit from the BOM menu. Most modules when printing have the Report option. For the address book and BOM module end users select Print.

Note: All **parts** within a BOM must exist as an entry in inventory before you can create that BOM. Assemblies can exist in inventory but do not have to. If an assembly does not exist in inventory the BOM module will automatically create one.

Before we create a BOM in pc/MRP, it would be best to see one on a piece of paper.

Bicycle BOM

```
BOM NUMBER       : 000000001                      REV    :
BOM DESCRIPTION: BICYCLE TOP ASSEMBLY             MODELNO:
DATE             : 01/31/2000
QTY              : 1.0000

UNCOSTED EXPLODED LEVEL BOM REPORT

P/B ITEM BOM/PART NUMBER                  DESCRIPTION
BOM  0001 000000002                       WHEEL
.PART 0002 000000004                      DIRT TEASER TIRE
.PART 0001 000000009                      SPOKES (WHEEL SPOKES)
.BOM  0003 000000012                      TUBE ASSEMBLY
..PART 0002 000000008                     NGF INTERTUBE (NEVER GOES FLAT)
..PART 0003 000000010                     STEM FOR TUBE
.PART 0004 000000013                      BOLTS
PART 0003 000000003                       FRAME, BICYCLE FRAME
PART 0005 000000005                       GEAR CHANGER ASSEMBLY
PART 0006 000000006                       BANANA BICYCLE SEAT
PART 0002 000000007                       PEDALS
PART 0004 000000011                       BRAKE ASSEMBLY
PART 0007 000000013                       BOLTS
```

Notice how all of the various levels are separated by periods. Parts are labeled as PART and bills of materials are labeled as BOM. From this picture, we can deduce that parts and assemblies: 000000002, 000000003, 000000005, 000000006, 000000007, 000000011, and 000000013 are all on the first level of the Bicycle BOM. The WHEEL assembly contains parts 000000004, 000000013, and 000000009 and the BOM 000000012. The TUBE assembly contains two parts, 000000008 and 000000010.

To reinforce this idea of indented bills of materials we will make this BOM using the parts entered into pc/MRP in the Inventory lesson.

3.1.7.1 Entering Bills of Materials

We are now going to begin by entering the lowest level of the Bicycle BOM. Users can start by entering the top of their assembly or at the bottom. For this Tutorial, we will start at the bottom.

Select Modules, BOM, New.

Enter BOM number: 000000012 with a description of TUBE ASSEMBLY.

Select OK

You should now be at the main BOM data entry screen as depicted below.

```
┌─────────────────────────────────────────────────────────────────┐
│ Add a new component to BOM 000000012                              │
│                                                   Alternate Part#s│
│   ☒  Item #    4      BOM Qty       1.0000       ┌──────────────┐ │
│                                                  └──────────────┘ │
│      Part #  ┌──────────────┐ ┌─┐  Type ┌──────┐ ┌──────────────┐ │
│              └──────────────┘ └…┘       └──────┘ └──────────────┘ │
│  Description ┌────────────────────────────────┐ ┌──────────────┐ │
│              └────────────────────────────────┘ └──────────────┘ │
│ Manufacturer ┌────────────────────────────────┐ ┌──────────────┐ │
│              └────────────────────────────────┘ └──────────────┘ │
│      Model # ┌────────────────────────────────┐ ┌──────────────┐ │
│              └────────────────────────────────┘ └──────────────┘ │
│         Unit ┌──────┐   Ave Cost ┌──────────┐   Staging Bin       │
│              └──────┘            │   0.0000 │   ┌──────────────┐   │
│                       Std Cost   │   0.0000 │   └──────────────┘   │
│                    Last PO Cost  │   0.0000 │                      │
│                                  └──────────┘   ┌────────────────┐ │
│  Reference Designators                          │    Delete      │ │
│  ┌────────────────────────────────┐▲           │                │ │
│  │                                │             │ Create New Part│ │
│  │                                │             │                │ │
│  │                                │             │   Settings...  │ │
│  │                                │             │────────────────│ │
│  │                                │             │      Ok        │ │
│  │                                │             │                │ │
│  │                                │▼            │    Cancel      │ │
│  └────────────────────────────────┘            └────────────────┘ │
└─────────────────────────────────────────────────────────────────┘
```

We have just created the TUBE ASSEMBLY; now we have to add the parts for this BOM level. We will add the tube and stem inventory items to this assembly.

To add these items to this assembly enter:
The desired quantity. (2)
Then press the ellipsis button next to the **Part #** field.
Search for the stem and press OK.
To add this to the assembly press OK again.

Notice that we are now at the basic BOM edit screen. This screen allows users to edit the BOM, add additional items, save changes, enter reference designators (through the reference designator tab), view miscellaneous data (through the miscellaneous tab), and even revert the BOM. (Revert allows users to place the BOM back at the original condition, before editing.)

Select the Add Item button and add the NGF TUBE quantity 1 to this assembly. (After pressing Add Item button enter a quantity of 1 and press the ellipsis button to search and select the NFG TUBE.)
Select: Save and Finished to save the changes and then exit the BOM module.

Note: Bills of Materials are assembled in the BOM module one level at a time.

Note: Labor parts can also be entered into BOMs. This allows users to calculate theoretical job costs.

Now we are going to add our next level. This level we will add not only parts, but also the newly built TUBE ASSEMBLY.

Select Modules, BOM, New.

Enter BOM number: 000000002 with a description of WHEEL.

Select OK

This entry is a little different however. The WHEEL already exists in inventory. pc/MRP is going to warn you about this. Go ahead and select Yes.

Creating a new BOM

BOM Number

New BOM number exists in Inventory [×]

(?) BOM number 000000002 already exists in the Inventory table. Do you want to Re-use this part number?

[Yes] [No] [Cancel]

[OK] [Cancel]
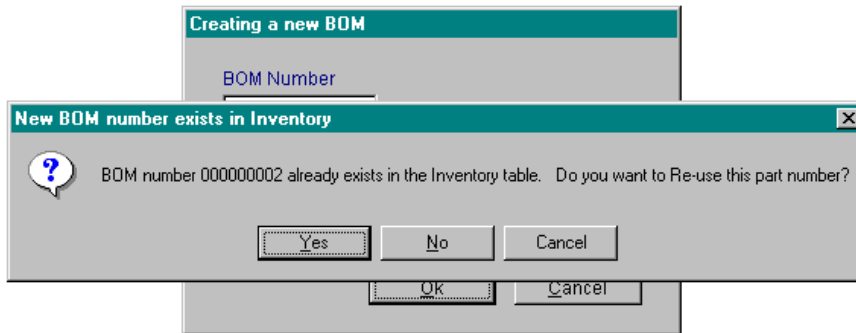
Now we can add our parts just as we did before. Enter the first part, Dirt Teaser Tire. Click on Add Item.

Now simply add the remaining items. Add the spokes, quantity 40. Add a few bolts, quantity 4. Finally, add the TUBE ASSEMBLY just like you would any regular part. Press Save and Finished when you done.

Now on your own...

Select <u>M</u>odules, <u>B</u>OM, <u>N</u>ew.

Enter BOM number: 000000001 with a description of BICYCLE TOP ASSEMBLY.

Select <u>O</u>K

Enter the items that finish off this assembly so that it matches the picture below.

000000001: BICYCLE TOP ASSEMBLY -- (Edit Mode)

Item	Type	Part Number	Part Description	Quantity
1	A	000000002	WHEEL	2.0000
2	P	000000007	PEDALS	2.0000
3	P	000000003	FRAME, BICYCLE FRAME	1.0000
4	P	000000011	BRAKE ASSEMBLY	1.0000
5	P	000000005	GEAR CHANGER ASSEMBLY	1.0000
6	P	000000006	BANANA BICYCLE SEAT	1.0000
7	P	000000013	BOLTS	10.0000

Component | Ref. Designators | Miscellaneous

Item # [1]   BOM Qty [2.0000]   Alternate Part #s [ ]

Part # [000000002]   Type [Assembly]
Description [WHEEL]
Manufacturer [ ]
Model # [ ]
Unit [ ]   Ave Cost [0.0000]
Standard Cost [10.0000]
Last PO Cost [0.0000]   Staging Bin [ ]

Add Item...
Edit Item...
Move to:
Sub-Assy
Parent Assy
Changes:
Sa<u>v</u>e
Revert
Finished

We have just completed the entire Bicycle BOM.

3.1.7.2 Editing the Bills of Materials.

Similar to everything in pc/MRP if you wish to edit something, select the module you wish to edit and select edit.

Select, Modules, BOM, and EDIT. Select BOM 000000001. When you select an item that is an assembly (depicted by an A in the Type column), you can use the **Move To: Sub-Assy** and **Parent Assy** features to scroll through the various levels of your assembly. Scroll to the TUBE ASSEMBLY. In the quantity field under BOM DATA, enter "1.0000" for the STEM quantity. We do not want to double up on STEM ordering.

Now just to see what we have done select Modules, BOMs, Print BOMs/Pick List/Where Used and select the Costed Exploded Report. Scroll to enter your BOM number. Select Print - Narrow and press the OK button. Your report should look very similar to the example report at the beginning of this section. If it does not, edit the BOM and run the report again. The BOM you created must be exactly like described above, for our purchasing results to match.

3.1.7.3 Deleting Parts within a BOM

Similar to all other areas of pc/MRP the deletion process is a two-step process. You must first mark the entry for deletion and then delete marked records. If you go into a BOM to delete a part and the delete button is not accessible, you do not have the Action Item Edit selected, or you do not have deletion rights in the Advanced Password Module.

Note: There are several useful options in the BOM drop down menu. From that menu, you can delete a BOM, duplicate a BOM, change a BOM number, change the BOM description, and Audit BOMs.

Note: You can view the image for that specific part or BOM by selecting BOM Image or PART **I**mage from the miscellaneous tab.

Note: Users can also view where used for a part or assembly and recalculate assembly costs in the miscellaneous tab

3.1.8 Inventory Flow Model

pc/MRP has a simple Order-to-Cash process. Take a few minutes to view the diagram below.
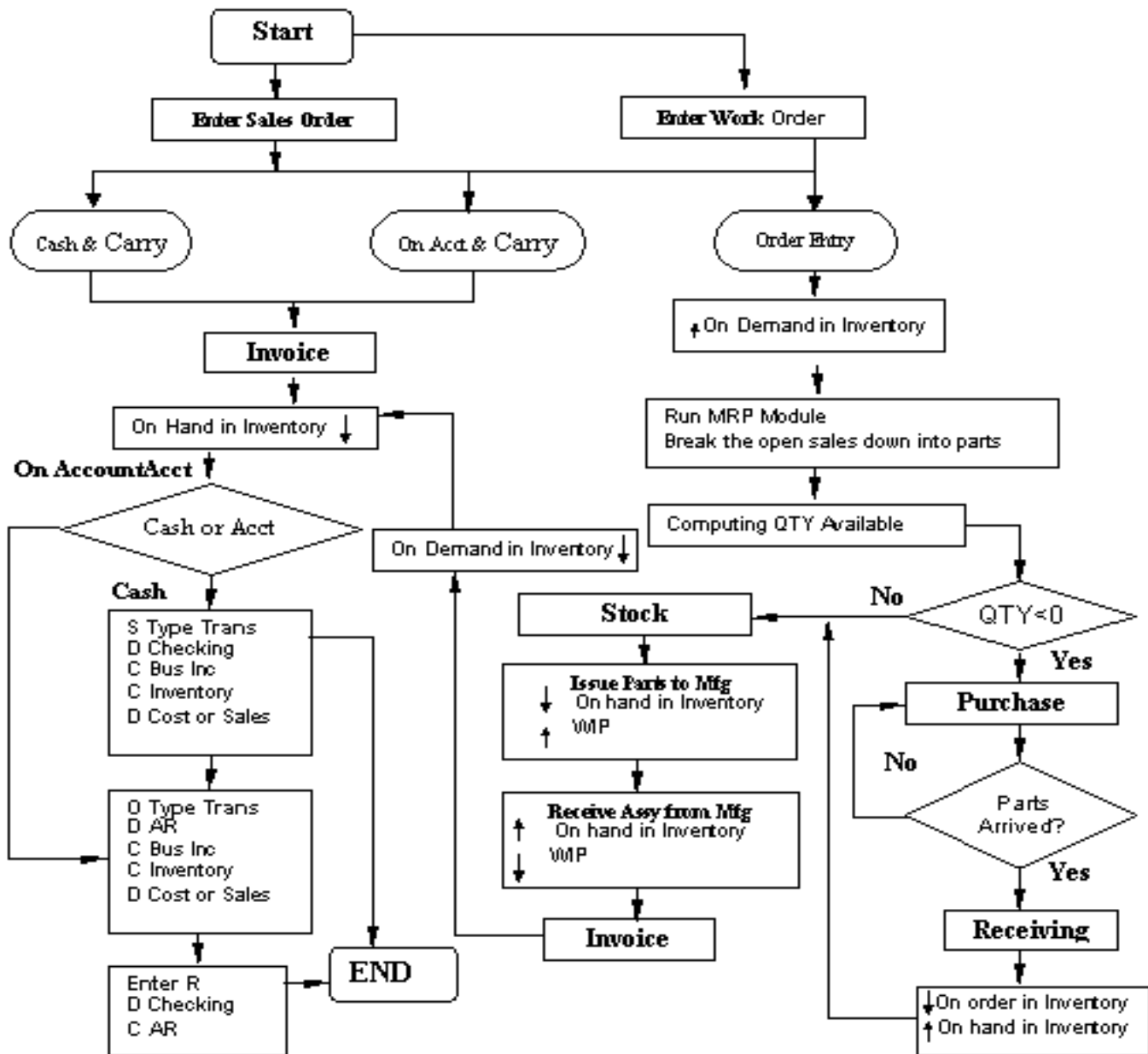
As you can see, Sales Orders and Work Orders start the entire process. These orders are based on your demand from customers or a desire to build items to stock. Items that are available for sale are directly invoiced, inventory is automatically deducted from stock, and we can begin building some A/R (Accounts Receivable). Sales Orders on order entry and Work Orders that have to be built take a different path. The will go through the MRP process. Purchase orders and receivers will be made for the piece parts required and build A/P (Accounts Payable), the stockroom will be used to convert parts to assemblies, and finally we will sell the item once again building A/R. It is important to understand this basic process. Through the next several sections, we will follow this process.

3.1.9 Sales Orders

Sales orders and work orders generate demand for parts and assemblies. This demand sets in motion your purchase orders, receivers, stockroom, invoicing, and inevitably accounting. pc/MRP can use work orders and sales orders in a number of different ways since both can be issued into manufacturing. For complete details, refer to the Sales Order Module and Work Order Module in the Manual.

In short, one method uses work orders to build to stock and sales orders to build per customer order. Another method uses work orders to forecast demand while sales orders represent actual demand. pc/MRP can do this because demand from Sales Orders and Work Orders can be included or excluded from purchasing requirement reports. The differences between these two methods will become apparent once we run our MRP purchasing reports. For now, this Tutorial will use method one, where we use work orders to build to stock and sales orders for customers. The important thing to consider is once you have chosen how you are going to utilize Sales Orders and Work Orders, you should stick to this method. If you are keep changing how requirements are generated, you are increasing the probability of making mistakes.

3.1.9.1 Entering a Cash and Carry Sales Order

We will first simply create a Sales Order for a few bikes. To do this, first view the bicycle assembly in inventory (part 000000001). Make sure the quantity in Area Stores is 2. If it is not, edit the quantity so that it is 2. (Note: This is for testing purposes. In your production copy, users should not manually edit the onhand quantities.)

Now, select Modules, Sales Order, and New.

The next screen allows the user to select sales type, terms, tax code, product issuing area, and shipping method. For the purpose of this Tutorial, we will really only discuss the Sales Type. The other fields are explained more in the Sales Order Module Chapter. Understanding the Sales Type field is essential however and deserves more attention.

The Sales Type field is essential to understand, because it directly affects inventory and invoicing. Sales Types entered as Cash and Carry or On Account and Carry automatically decrease the stores quantity of the line items on the sales order and creates an invoice. Thus, if you have these items in stock or not, by telling pc/MRP you are carrying the line items out the door, on-hand quantities will decrease.

Note: pc/MRP will not automatically convert parts into assemblies or back flush in the sales order module. All back flushing is done through the Stockroom Module or by running the convert parts into assemblies command.

Select a sales type of On Account and Carry, issuing from area 1, press OK.

On the sales order entry screen notice that there is a **Part Lookup** checkbox and the part can be looked up by **Part Number, Description, or Model Number**. Having the **Part Number** and **Root Address Lookup** check boxes checked means that data from the Address module and Inventory module will automatically be entered when you choose an address or part that already exists in those DBF files. To make an address or part from this screen select one of the check boxes under Data. If the applicable address has an alternate Bill to Address or Ship to Address, they will automatically be populated in the sales order.

Note: To change the BILL TO or SHIP TO address, the customer address or part after initial selection simply check the desired box, highlight the root address of the desired entry, type in a partial for the entry and hit enter. This will bring back the scrolling box for selection of the correct entry. The Invoice form does **NOT** have these check boxes.

At this time, check "Create Address." We need to enter our new customer, TIM. Tim is purchasing two bicycles today. Once you have pressed Make Address, enter some applicable data for Tim in his address entry. Then select OK to finish the address entry. Now put the cursor back into the top left CUSTOMER field and type T and press enter. This allows you to scroll to the applicable address. Select Tim as our customer and press enter.

The customer data for TIM should have automatically appeared on the sales order screen. Now put the cursor down into the description field and type the first few letters of "BICYCLE" and press enter. This automatically brings up the part number, model number, description, and price. We could have also selected the "BICYCLE" by entering the applicable part or model number.

Enter two for the quantity of bikes being purchased.

With the address entered and the bicycle assembly selected press F1. This is a shortcut method to view the part selected in the sales order. The inventory screen for this assembly should appear. Notice that we just happen to have 2 finished bikes in area Stores (1). Press Cancel to get back to the sales order screen

Select Finish on the sales order screen.

This next screen confirms that an invoice is going to be made since the sale was entered as On Account and Carry or Cash and Carry.

Press OK.

This screen explains that two bicycles are being removed from inventory area One.

Press OK.

If you wish to print the Invoice, you can do so at this screen.

On this next screen, if you wish to view or print a shipping label press OK.

On the final screen, we can select NO.

At this time go to the inventory module and view the bicycle assembly part. Notice that in area one the quantity was driven to 0. As explained above and reinforced with this sales order, if you choose a sales type as cash and carry or on account and carry, it is automatically invoiced and the quantity field will decrease in the area chosen and by the quantity chosen in the sales order.

3.1.9.2 Entering Order Entry Sales Orders

Now, enter a new sales order for Tim but select Order Entry as the Sales Type. Put in quantity 1 and a DATE REQ (date required) of one week from today's date.

Note: to add additional line items we can select Add Item. To view these various items you can press Back and Next.

After entering the sales order, view the bicycle assembly in inventory. Notice that since this is order entry we have only created demand for this assembly. The QTY ON DEMAND field should be 1.

Take a few seconds to view the other parts in this assembly. Notice nothing has changed with these parts and the various quantity fields associated with these parts. Once again as mentioned above, when we run our purchasing report (single bucket MRP) or the optional Infinite Bucket MRP, the MRP available field will be updated.

3.1.9.3 Editing a Sales Order

To edit a sales order or work order is similar to editing any other entry in pc/MRP. Simply select edit in the drop down menu for that module. It is important to note however, that if you frequently edit sales order item quantities that you should run the Audit sales order function. This function re-populates the on-demand quantity in inventory and is representative of the updated sales orders. Edit the 'order entry' sales order for TIM to be quantity 2. Make sure the edit took.

Go back and look in inventory. Notice that the On Demand field did not change. Run the Audit On-Demand Quantities Feature under Sales Orders to correct this.

3.1.10 Work Order Module

Besides our existing sales order, we want to build three bicycles to stock. At this time, enter a Work order for three additional bicycles with a DATE REQ of 14 days from now. Work orders are entered the same way sales orders are. You do not need to enter a customer though. Simply enter the desired assembly or subassembly, the quantity and date desired, and press Finished.

Note: Work orders only allow one line item.

Note: There is no need to enter a Work order for an existing Sales Order. That would be double entry and would create false data in the On Demand field for the top assembly.

Once again, editing work orders is similar to all other modules. Simply select edit in that module.
At this time, we have entered demand for 4 bicycles. Take note in the inventory module that none of the subassemblies has been affected yet.

3.1.11 MRP, Scheduling Production, and Purchasing

Since we have nothing on hand to build these bicycles, we will now run our MRP. Then we will print/display reports. These reports will tell us everything we need to buy to fulfill our orders. We will generate action items two different ways. First, we will use the standard MRP Single Bucket report, and then the optional Infinite Bucket MRP. After that, we will briefly compare the two. From there, we will make purchase orders to fulfill the demand, receivers to receive the parts necessary to build, issue the parts to the stockroom, receive finished goods back into inventory, and then we will be ready to invoice.

The Purchasing MRP (all parts required) report and Infinite Bucket optional module is where all of the demand calculations are made. Once we run one of these reports, demand will populate all parts necessary to build everything that has been entered as a sales order or work order.

3.1.11.1 MRP, standard MRP purchasing report

We will first run the standard MRP purchasing report.

Select Modules, Purchasing, Reports. On the drop down menu, scroll to the bottom of the list and select the MRP Report (all parts required).

Note: End users can choose to include or exclude demand from Sales Orders or Work Orders. As mentioned above, this allows users to use work orders in several different ways and prioritize demand.

Note: The Consolidated report looks at both true demands from Sales Orders and Work Orders and takes into consideration MIN and MAX quantities set up in inventory. The MIN/MAX report only takes into consideration MIN and MAX quantities that were populated in the inventory entry screens.

Note: Print Trace Calculations creates a report that shows where demand is coming from for each individual part.

In the 'Include Demand from' field, leave the Sales Order and Work Order check boxes checked. Select Consolidated, area 1 Stores, Sort by Vendor, Display and press OK.

A report is created that shows all current demand. Take note that all demand is representative of needing to purchase parts to build 4 bicycles. Furthermore, even though our sales order is not due for a week and our work order is not due for 2 weeks the standard MRP not utilizing lead-times does not schedule purchasing or builds.

MRP CONSOLIDATED SHORTAGE REPORT

DESCRIPTION	MODEL NUMBER	VENDOR	PHONE #	COST	UNIT	QTY REQ
FRAME,	X234-987	CANONWALE INC.	111-111-1111		0.0000	4.000
GEAR	ABTTR-445778	CANONWALE INC.	111-111-1111		0.0000	4.000
DIRT TEASER		SMITH BIKE	111-111-3211		0.0000	8.000
BANANA		SMITH BIKE	111-111-3211		0.0000	4.000
PEDALS		SMITH BIKE	111-111-3211		0.0000	8.000
NGF		SMITH BIKE	111-111-3211		0.0000	8.000
SPOKES		SMITH BIKE	111-111-3211		0.0000	320.000
STEM FOR		SMITH BIKE	111-111-3211		0.0000	8.000
BRAKE		SMITH BIKE	111-111-3211		0.0000	4.000
BOLTS		SMITH BIKE	111-111-3211		0.0000	72.000

After examining this report, press OK.

The Excess Inventory Report allows users to more closely track inventory. Go ahead and view this report as well by choosing the constraints you would like. At this time, there will not be any misallocation.

After viewing the Excess Inventory Report or hitting cancel, the next option is to automatically create purchase orders. At this time, select **NO**. We are not quite ready to make purchase orders yet.

Take a few minutes to see all of the changes made in inventory. For all parts required, the quantity available decreased since we do not have these parts available. Once again, the quantity available field in inventory is only updated through running the MRP reports. If we had parts in inventory, the quantity available field would be the difference between existing inventory, on order parts, and demand representative of the constraints chosen. Furthermore, nothing in the sub-assemblies used has changed. pc/MRP does not place demand on these sub-assemblies unless they are directly created through a Sales Order or Work Order. Only the quantity available field for individual parts utilized in the builds has changed.

You might want to print this report or to make a screen shot, to compare it against the Infinite Bucket report. Once again, select **NO** when you are prompted if you want to "Automatically create Purchase Orders".

3.1.11.2 Infinite Bucket MRP

This time we will run the more advanced MRP, the Infinite Bucket. What this will do is utilize our lead times and provide a schedule to buy, issue, make, and sell.

Note: The Infinite Bucket MRP is an optional module. This module like most of the other optional modules is fully testable in the trial. To activate this module or any other optional module, select Configuration, Module Activation, Activate, and Yes. Optional modules are testable throughout the use of the trial. Once the trial is activated into a single user or multi-user version, optional modules can be activated for a 10-day trial period.

After activating the Infinite Bucket MRP module, select optional, Infinite Bucket MRP. You should have the options as depicted below.
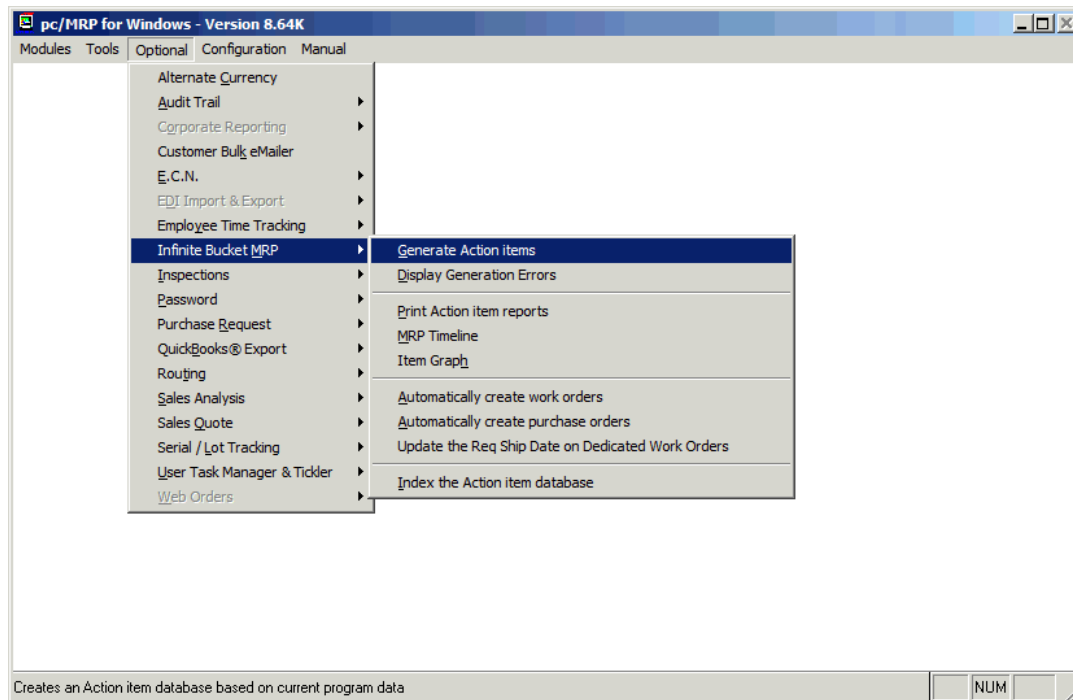
Select Generate Action Items. This step creates a database that we will access to create our purchasing reports. This action should be performed once a day, depending on how fast things are in your business.
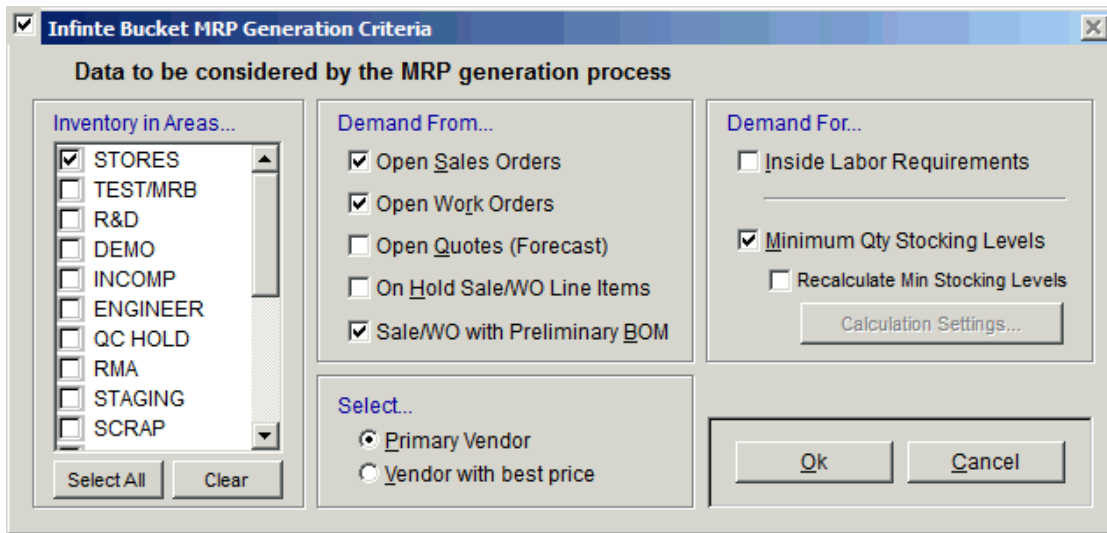
Select to run your MRP on both Sales Orders and Work Orders and use just inventory area 1. Click OK.

You will see several screens flash in front of you. If you receive any errors in this process, you will have to view the errors and go back and fix them. Once the MRP generation process is complete, you will be back at the main pc/MRP screen.

Now select Optional, Infinite Bucket, and Print Action Item reports.
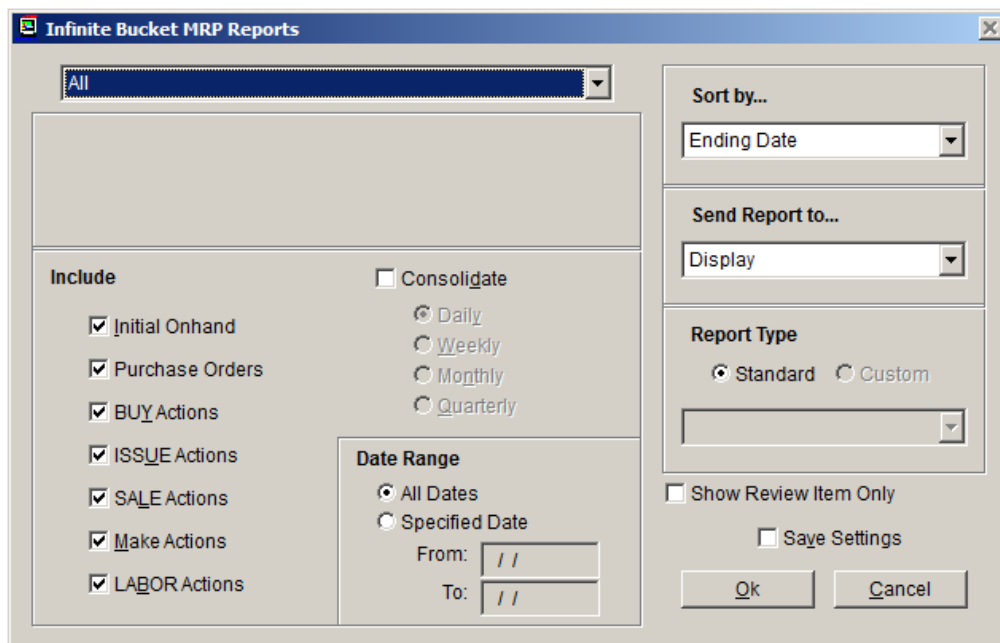
We will keep the default settings to look at this report. However, you should take note at all of the different options available to sort parse the data. Your report should look similar to the picture below.

```
   DATE: 07/16/2000                    ACTION ITEM REPORT
   ALL, FOR ACTION TYPES(PO, BUY, ISSUE, SALE, MAKE, LABOR), SORTED BY DATE


           DRIVING                                                  START    END
   ACTION  SALES/WO  ITEM#  VENDOR  PART/ASSY #   DESCRIPTION   QTY  DATE     DATE     REVIEW
   DATE       07/17/2000
   BUY     000002    0001   SMI001  000000004    DIRT TEASER TIRE  *****  07/14/2000 07/17/2000
   ISSUE   000002    0001           000000004    DIRT TEASER TIRE  *****  07/17/2000 07/17/2000
   BUY     000002    0001   SMI001  000000008    NGF INTERTUBE (N  *****  07/14/2000 07/17/2000
   ISSUE   000002    0001           000000008    NGF INTERTUBE (N  *****  07/17/2000 07/17/2000
   BUY     000002    0001   SMI001  000000009    SPOKES (WHEEL SP  *****  07/14/2000 07/17/2000
   ISSUE   000002    0001           000000009    SPOKES (WHEEL SP  *****  07/17/2000 07/17/2000
   BUY     000002    0001   SMI001  000000010    STEM FOR TUBE     *****  07/14/2000 07/17/2000
   ISSUE   000002    0001           000000010    STEM FOR TUBE     *****  07/17/2000 07/17/2000
   MAKE    000002    0001           000000012    TUBE ASSEMBLY     *****  07/17/2000 07/17/2000
   BUY     000002    0001   SMI001  000000013    BOLTS             *****  07/14/2000 07/17/2000
   ISSUE   000002    0001           000000013    BOLTS             *****  07/17/2000 07/17/2000

   DATE       07/18/2000
```

Take note that everything is sorted by date with an action item listed for each part and assembly. Take a few minutes to examine this page. The Infinite Bucket can be an invaluable tool if businesses want to plan and keep inventory (costs) to a minimum.

Once again, print this report by going through the same steps as above and sending it to the printer. If you have additional calculations that need to be performed, you can also send it to an XLS spreadsheet.

3.1.11.3 MRP, comparing the two MRP options

Note: At this time, nothing has changed in inventory after running our regular purchasing report. Companies do not have to run both MRP reports. Companies either want the extra planning module or simply use the standard MRP Report (all parts required).

Take a few minutes to study the differences between the two different MRP reports. If you have a small company and like to take the time to plan things yourself, you might find the standard MRP in the Purchasing module adequate. If you want to schedule things, and produce more detailed reports about what to do and also when, then the Infinite Bucket is your best bet.

We are now going to act on the recommendations of our MRP reports and purchase the required parts for the sales order and work order entered above.

3.1.12 Purchasing Module

When entering purchase orders, we are entering individual parts or purchased assemblies and choosing a vendor. At this time, take a few minutes to read the Purchasing Module Chapter.

Choose the Banana Bicycle part in inventory. Make sure this part has a vendor. If this part does not have a vendor add an applicable address or choose and existing vendor. After viewing this part in inventory, take note that the quantity available field is -4. Now go to the Purchasing module and select New. Choose the bicycle seat by entering in the part number or entering the description. Vendor data should automatically appear.

Once again, take note of the Auto Look-up and Data check boxes. These can be used to save time.

By entering the part number or description first, a vendor list will pull up. Try to enter the quantity first, and the STD/COST per unit price break is automatically entered with the best vendor for that quantity.

To add items to this purchase order select <u>A</u>dd. These buttons by now should be very familiar.

Note: The Clone button and Breakdown buttons can be utilized to automatically duplicate or break down orders to have multiple shipping dates.

After selecting the Banana Seat, enter the quantity of 4 and a due date of tomorrow. Press Finished. Now, go back to the inventory module to see what fields have changed. The QTY ON ORDER should now be 4.

Now that we have made our first purchase order, we will have pc/MRP do the rest of the work. Go to the optional module, the Infinite Bucket, and select to Generate Action Items. By creating the purchase order, our requirements have changed. After generating our action items, you can view the reports and see that we no longer have a buy requirement for the seats. Now select Optional, Infinite Bucket, and Automatically create Purchase Orders. Select **W**eekly Orders under ORDER CONSOLIDATION. This will consolidate all of the multiple orders for the same part by week.

Note: Automatically creating purchase orders is very handy. However, look at the purchase order for my BOLTS. It did two things that we could have prevented. #1, we did not enter a standard order quantity into inventory. If we had entered a standard order quantity of 100, then we would have had one purchase order for quantity 100. #2, when we choose to automatically create purchase orders, pc/MRP does not take advantage of any price/quantity breaks. To take advantage of our price break, we would have had to manually enter the purchase order. These are all things to watch for.

After automatically creating the purchase orders, we will bypass a few days and receive these purchase orders into inventory.

3.1.13 Receiving Module

The Receiving module is the next logical step in this process. We must receive parts and inform pc/MRP that we have parts to build our assemblies. This is what the Receiving module does. Refer to the Receiving Module Chapter for complete details.

At this time, enter a Receiver for the Banana Seat. As with the creation of new entries throughout pc/MRP, to do this, select New in the receiving module. You will be able to scroll for the associated purchase order and press OK. Once we have went through several screens informing us of everything that pc/MRP is doing we can accept this transaction. Continue to enter the rest of the receivers. You may also notice once you have started on a purchase order that has multiple line items you do have the option to automatically receive the remaining line items. You may want to take advantage of this to expedite this process.

Note: pc/MRP can receive partial shipments. You can also edit receivers. However, there is not an audit function to correct edited receivers. Once a receiver is edited, pc/MRP will offer to update the received qty for the purchase order, adjust the average cost, inventory area qty and on order qty. Users should keep these boxes checked.

Now that we have received our parts into inventory, we are ready to begin building. We will next utilize the Stockroom Module to convert parts into assemblies. Once again, view several parts in inventory. Your stores quantity should have increased. Also, notice that for the top bicycle assembly still nothing has changed. You could even run an additional MRP and you will find that the Single Bucket MRP has no Action Items. The Infinite Bucket however will still have issues, sales, and, makes.

3.1.14 Stockroom Module

The Stockroom module is where we turn piece parts into assemblies, or back-flush. Select **M**odules, Stoc**k**room **N**ew. There are several types of transactions available. To issue sales orders and work orders to the manufacturing floor use the **I** type transaction. To review the rest of these transactions refer to the Stockroom Module.

At this time select the **I** type transaction and select the order entry Sales Order that we created. Enter and accept the issuing quantities. Notice in inventory that parts have now moved from stores area 1 into WIP.

To receive this back as a finished assembly enter the **R** type transaction in the stockroom. Choose the Sales Order issued and receive this Sales Order back into area 1. WIP for the parts used was cleared, and onhand qty for the assembly has increased.

Take a few minutes to review this process entire process. Go into inventory and view a few parts and the final Bicycle assembly. You will notice that all of the individual component parts have decreased the precise amount used to build the bicycles. The bicycles in inventory have now increased.

Note: Once received, pc/MRP will only track one serial number per invoice line item. For multiple serial numbers per line item, the optional module Serial/Lot Number Tracking can be utilized.

Note: You have the choice to issue sub-assemblies or parts only. You can also do partial issuing and then utilize the **P**, **F** or **M** stockroom transactions for makeup issues. There is also an undo feature; transaction **T** that takes back issued parts.

Note: If you are often editing stock room transactions, you can use the audit WIP function in the Inventory module to help clean up things.

Note: It is always best to utilize the various stockroom transactions to help clean things up when mistakes have occurred. This creates a record for each transaction. When inventory is simply edited, there is often no paper trail. (See Chapter 16.8 for the optional Audit Trail Module.) To help with this you can lock-up various editing processes from the end-users through Option 62 in the Settings and Utilities.

Note: Work orders are issued and processed in the exact same way as sales orders.

Go ahead and build the work order too.

The final step in this process is invoicing. In this step, we will relieve quantities in the storage areas representative of the 'order entry sales order' we entered. This step is taken in the Invoicing Module.

3.1.15 Invoice Module

To enter a new invoice, select Modules, Invoicing, and New. You will have to choose the terms of the sale and accept the invoice information. Once again, if the invoice must be edited, you may wish to edit the sales order as well. You may even want to edit the sales order first, (before creating the invoice), thus the invoice will be automatically representative of the sales order. For more information, refer to the Invoice Module in the Manual.

Go ahead and invoice the sales order on account. Once you have invoiced the sales order, go into the Inventory Module and view what has changed. Inventory for the finished assemblies has decreased by the amount of the sales order. The sales cycle is now complete. The process to pay vendors and track accounts receivable has just begun. If you anticipate using pc/MRP for accounting, continue. If pc/MRP is going to be just an inventory and planning tool, now might be a good time to clean up this trial copy and start entering some of your inventory.

3.1.16 Accounting

The fastest way to become familiar with pc/MRP's Accounting System is by actually using it. By entering the work sheet transactions on the following page, you will become familiar with pc/MRP's easy to use accounting system.

The first entry, labeled **000001** represents a typical transaction for starting an account or business. pc/MRP will automatically increment this transaction number by one as transactions are made. Do not create your own transaction numbers. Transaction numbers should be chronological with no missing numbers.

To set up your company all of the company's assets are debited, and the starting capital account is credited an equal amount. Then the company's liabilities are credited and the starting capital account is debited an equal amount.

To make the same starting entries in pc/MRP, go to **M**odules, Accoun**t**ing, **G**L Transactions, and **N**ew Transaction, select **A** for All types of transactions and press OK. pc/MRP will give you the next available transaction number. You will now see the transaction data entry screen. Take note that the transaction number is **000001**.

Transaction 000001

Click on the Description field and enter the description as **STARTING BUSINESS**. Throughout all of these first three transactions, enter a description of **STARTING BUSINESS**. Now go to the first **debit** account field. Enter **10100000** and you will see the description, **CASH ON HAND** appear next to the account number. Enter the sum $5000 under the AMT Field. Next **debit** account 10200000 for $10,000 and account 12100000 for $6000 (pc/MRP will take up to four debit accounts and five credit accounts in one bite). Notice at the bottom right in red pc/MRP says the transaction is currently **UNBALANCED**. To balance the three debit accounts, **credit** Account 25100000, STARTING CAPITAL with $21,000. If the transaction is now balanced, press **S**ave to enter this transaction. pc/MRP will ask, "Do another record?" Select **Y**es. If the transaction is not balanced, review the steps above and look to see where you made a mistake in entering the dollar amounts.

After selecting **Y**es, you should now be at transaction number **000002**.

Transaction 000002

Now, **debit** accounts 13100000 for $15000, account 11100000 for $4000, and account 15100000 for $1000. To balance the debit accounts, **credit** account 25100000, STARTING CAPITAL for $20,000. Once again make sure the transaction is **Balanced**. If the transaction is balanced, press **S**ave to enter this transaction and **Y**es to continue to the next transaction. If the transaction is not balanced, review the entries and make the necessary corrections.

Transaction 000003

Debit account 25100000, STARTING CAPITAL $25000 and credit account 24100000, NOTES PAYABLE $25000. If the transaction is balanced, select **S**ave to save this transaction and select **N**o when asked if you wish to enter another record. If the transaction is not balanced once again review the dollar amounts entered.

Transaction 000004

This final starting entry, labeled **000004**, prepares the inventory for purchase and sale transactions during the month. It does so by moving the stock from an asset account 12100000 to an expense account 40100000.   This type of transaction is only necessary for companies using periodic accounting methods and not companies using perpetual accounting methods.

To make this final starting entry in pc/MRP, similar to above, go to **M**odules, Accoun**t**ing, **G**L Transactions, **N**ew Transaction, select **A** for All types of transactions and press OK. Enter **STOCK INVENTORY ADJUSTMENT** in the description field. Debit account 40100000 for $6,000 and credit account 12100000 for $6,000.

Transaction 000005 - Transaction 000015

Enter the remaining transactions shown on 3.1.17.1

Transaction 000014 is only necessary for companies using periodic accounting methods and not companies using perpetual accounting methods. It moves the months end remaining inventory back into the asset account so that the month's retained earnings will reflect the changes in inventory levels.

Once all transactions have been entered, return to the Main Accounting Menu. Print out the transactions you have just entered by selecting Accounting, Reports, General Ledger Transactions. Select All Transactions (3 places), and select Print. Your Transaction Report should match the sample Transaction report found in the Accounting Report Section of this Manual.

If the Transaction Report looks good, return to the Main Accounting Menu and post the month by selecting Post/Re-post a Month and Print Financials. Enter the month and year that contain the above entries. Since pc/MRP stores the transactions in a database, you can edit incorrect transactions and repost the month if necessary.

pc/MRP's posting program begins by making sure the initial debit and credit balances are equal.

When pc/MRP finishes posting the month, it automatically initializes the next month by: (1) zeroing out all starting balances of revenue and expense accounts; (2) transferring forward all asset, liability and equity accounts; (3) adding the retained earnings (rev - exp) to the YTD earnings.

Finally yet importantly, pc/MRP's posting program will automatically print out the month's financial statements such as Income Statement, Expense Distribution Report, Trial Balance, YTD Revenue and Expense Report, and a Detailed Transaction Report. If you entered all the transactions correctly, your reports should match the sample reports found on the following pages.

3.1.17.1.1 General Ledger Transactions Report for Transaction Lesson

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GENERAL LEDGER ALL TRANSACTIONS

PAGE NO:1
PRTRAN.FRX

TRANS#	DATE	CHECK#	DESCRIPTION	COMPANY	INVOICE#	RELATED DOC#	ACCT		DEBIT AMT	CREDIT AMT
000001	03/07/07		STARTING BUSINE				10100000	CASH ON HAND	5000.00	0.00
000001	03/07/07		STARTING BUSINE				10200000	BANK	10000.00	0.00
000001	03/07/07		STARTING BUSINE				12100000	STOCK INVENTORY	6000.00	0.00
000001	03/07/07		STARTING BUSINE				25100000	STARTING CAPITAL	0.00	21000.00
000002	03/07/07		STARTING BUSINE				13200000	SHOP EQUIPMENT	15000.00	0.00
000002	03/07/07		STARTING BUSINE				11100000	ACCTS RECEIVBLE	4000.00	0.00
000002	03/07/07		STARTING BUSINE				15100000	PREP EXPENSES	1000.00	0.00
000002	03/07/07		STARTING BUSINE				25100000	STARTING CAPITAL	0.00	20000.00
000003	03/07/07		STARTING BUSINE				25100000	STARTING CAPITAL	25000.00	0.00
000003	03/07/07		STARTING BUSINE				24100000	SHOP EQUIPMENT	0.00	25000.00
000004	03/07/07		STOCK INV ADJUS				40100000	START INVENTORY	6000.00	0.00
000004	03/07/07		STOCK INV ADJUS				12100000	STOCK INVENTORY	0.00	6000.00
000005	03/07/07		KMART				41100000	PURCHASE	3000.00	0.00
000005	03/07/07		KMART				41400000	FREIGHT	400.00	0.00
000005	03/07/07		KMART				20100000	ACCTS PAYABLE	0.00	3400.00
000006	03/07/07		P GOMEZ				50100000	WAGES	500.00	0.00
000006	03/07/07		P GOMEZ				22100000	PAYROLL TAX PAY	0.00	50.00
000006	03/07/07		P GOMEZ				10200000	BANK CHECK	0.00	450.00
000007	03/07/07		STARTING BALANC				11100000	ACCTS RECEIVABLE	15000.00	0.00
000007	03/07/07		STARTING BALANC				10200000	BANK CHECKING	12000.00	0.00
000007	03/07/07		STARTING BALANC				61500000	RENT	1000.00	0.00
000007	03/07/07		STARTING BALANC				60100000	ADVERTISING	50.00	0.00
000007	03/07/07		STARTING BALANC				61000000	INSURANCE	700.00	0.00
000007	03/07/07		STARTING BALANC				61400000	OFFICE EXPENSE	8.00	0.00

3.1.17.1.2 General Ledger Transactions Report for Transaction Lesson Continued

pc/MRP for Windows - Version 8.20F

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PAGE NO:2
PRTRAN.FRX

GENERAL LEDGER ALL TRANSACTIONS

TRANS#	DATE	CHECK#	DESCRIPTION	COMPANY	INVOICE#	RELATED DOC#	ACCT		DEBIT AMT	CREDIT AMT
000007	03/07/07		STARTING BALANC				10200000	BANK CHECKING	25.00	0.00
000007	03/07/07		STARTING BALANC				12100000	STOCK INVENTORY	1500.00	0.00
000007	03/07/07		STARTING BALANC				70100000	DEPRECIATION EXP	125.00	0.00
000007	03/07/07		STARTING BALANC				30100000	BUSINESS INCOME	0.00	15000.00
000007	03/07/07		STARTING BALANC				11100000	ACCTS RECEIVABLE	0.00	12000.00
000007	03/07/07		STARTING BALANC				10200000	BANK CHECK	0.00	1000.00
000007	03/07/07		STARTING BALANC				10200000	BANK CHECKING	0.00	50.00
000007	03/07/07		STARTING BALANC				10200000	BANK CHECK	0.00	700.00
000007	03/07/07		STARTING BALANC				10100000	CASH ON HAND	0.00	8.00
000007	03/07/07		STARTING BALANC				80100000	OTHER INCOME	0.00	25.00
000007	03/07/07		STARTING BALANC				42100000	ENDING INVENTORY	0.00	1500.00
000007	03/07/07		STARTING BALANC				14100000	DEPREC ACCRUED	0.00	125.00
									106308.00	106308.00

Prtrntmp   Record: EOF/36   Exclusive

3.1.17.2 Profit and Loss Report for Transaction Lesson

PROFITANDLOSS.FRX

Software Arts

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YTD PROFIT AND LOSS REPORT FOR 03/2007

ACCOUNT#	DESCRIPTION	CURRENT MONTH	YTD
REVENUE		15000.00	15000.00
COST OF GOODS SOLD		-7900.00	-7900.00
COST OF LABOR		-500.00	-500.00
OPERATING EXPENSES		-1758.00	-1758.00
WRITE OFF EXPENSES		-125.00	-125.00
OTHER REVENUE		25.00	25.00
OTHER EXPENSES		0.00	0.00
INCOME TAXES		0.00	0.00
RETAINED EARNING TOTAL		4742.00	4742.00

Profitandloss   Record: EOF/48   Exclusive

3.1.17.3 YTD Expense and Revenue Report for Transaction Lesson

```
pc/MRP for Windows - Version 8.20F
Modules  Tools  Optional  Configuration  Manual  Printer
Print Preview - PRYTD.FRX
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YTD EXPENSE AND REVENUE REPORT 03/2007 FOR

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Print Preview
|◀  ◀  🔁  |  ▶  ▶|  100% ▼  ▯◆  🖶
```

ACCT	DESCRIPTION	Current Month	YTD	Budget	YTD Budget	%Var	YTD % Var
30100000	BUSINESS INCOME	15000.00	15000.00	8000.00	8000.00	187.50	187.50
80100000	OTHER INCOME.INTEREST	25.00	25.00	0.00	0.00	0.00	0.00
REVENUE TOTALS		15025.00	15025.00	8000.00	8000.00	187.81	187.81
40100000	STARTING INVENTORY	6000.00	6000.00	0.00	0.00	0.00	0.00
41100000	PURCHASES	3000.00	3000.00	0.00	0.00	0.00	0.00
41400000	FREIGHT	400.00	400.00	0.00	0.00	0.00	0.00
42100000	ENDING STOCK INVENTRY	-1500.00	-1500.00	0.00	0.00	0.00	0.00
COST OF GOODS SOLD TOTALS		7900.00	7900.00	0.00	0.00	0.00	0.00
50100000	WAGES	500.00	500.00	5000.00	5000.00	10.00	10.00
COST OF LABOR TOTALS		500.00	500.00	5000.00	5000.00	10.00	468.50
60100000	ADVERTISING	50.00	50.00	0.00	0.00	0.00	0.00
61000000	INSURANCE. GENERAL.	700.00	700.00	0.00	0.00	0.00	0.00
61400000	OFFICE SUPPLIES	8.00	8.00	0.00	0.00	0.00	0.00
61500000	RENT	1000.00	1000.00	0.00	0.00	0.00	0.00
OPERATING EXPENSES TOTALS		1758.00	1758.00	0.00	0.00	0.00	0.00
OTHER EXPENSES TOTALS		0.00	0.00	0.00	0.00	0.00	0.00
INCOME TAXES TOTALS		0.00	0.00	0.00	0.00	0.00	0.00
70100000	DEPRECIATION EXPENSE	125.00	125.00	0.00	0.00	0.00	0.00
WRITE OFF EXPENSES TOTALS		125.00	125.00	0.00	0.00	0.00	0.00
RETAINED EARNING TOTALS		4742.00	4742.00				

```
Chartacc (c:\pcmrpmanualdemo\chartacc.dbf)        Record: EOF/84        Record Unlocked
```

3.1.17.4.1 Trial Balance Report for Transaction Lesson

```
pc/MRP for Windows - Version 8.20F
Modules  Tools  Optional  Configuration  Manual  Printer
Print Preview - GLTRIAL.FRX
```

```
        GENERAL LEDGER TRIAL BALANCE 03/2007   (03/01/2007 TO 03/31/2007)
```

ACCT	DESCRIPTION	TYPE	DEBIT	CREDIT
10100000	CASH ON HAND	AC	4992.00	
10200000	BANK CHECKING ACCOUNT	AC	19825.00	
10300000	BANK SAVINGS ACCOUNT	AC	0.00	
11100000	ACCNT/RECVB.CUSTOMERS	AC	7000.00	
11200000	ACCNT/RECVS.-OTHERS	AC	0.00	
11900000	A/R.-BAD DEBTS RESERV	AC		0.00
12100000	STOCK INVENTORY	AC	1500.00	
13100000	SHOP EQUIPMENT	AF	0.00	
13200000	FURNITURE & FIXTURES.	AF	15000.00	
13300000	TRANSPORTATION EQUIP.	AF	0.00	
13400000	LEASHOLD EQUIPMENT	AF	0.00	
13500000	LAND	AF	0.00	
13600000	BUILDING	AF	0.00	
14100000	DEPRECIATION ACCRUED	AD		125.00
14200000	AMORTIZATION ACCRUED	AD		0.00
15100000	PREPAID EXPENSES	AL	1000.00	
20100000	ACCNTS/PAYAB.VENDORS	LC		3400.00
20200000	ACCNTS/PAYABLE OTHERS	LC		0.00
21100000	SALES TAX	LC		0.00
22100000	PAYROLL TAX. F.W.T.	LC		50.00
22110000	PAYROLL TAX. F I C A	LC		0.00
22120000	PAYROLL TAX. F.U.T.A.	LC		0.00
22130000	PAYROLL TAX.S.D.I.C.A	LC		0.00
22140000	PAYROLL TAX.S.W.T.C.A	LC		0.00
22150000	PAYROLL TAX.S.U.I.C.A	LC		0.00
22160000	PAYROLL TAX.E.T.T.CA.	LC		0.00
22900000	INCOME TAX. FEDERAL.	LC		0.00
22910000	INCOME TAX. STATE.	LC		0.00
23100000	MORTGAGES	LL		0.00
24100000	NOTES PAYABLE	LL		25000.00
25100000	STARTING CAPITAL	QN		16000.00
26100000	CAPITAL INCREASE	QN		0.00
27100000	CAPITAL DECREASE	QN	0.00	
28100000	OTHER INVESTMENT	QN		0.00
29100000	COMPANY TAXES	QN	0.00	
29900000	YTD RETAINED EARNINGS	QR		0.00
30100000	BUSINESS INCOME	RN		15000.00
30150000	FREIGHT INCOME	RN		0.00
30850000	SALE DISCOUNT	EG	0.00	
30900000	REFUNDS	RN	0.00	
40100000	STARTING INVENTORY	EG	6000.00	
40150000	COST OF GOODS SOLD	EG	0.00	

```
Chartacc (c:\pcmrpmanualdemo\chartacc.dbf)        Record: 40/84        Record Unlocked
```

3.1.17.4.2 The Trial Balance Continued

Please note that on the screen shot below the third page of the Balance Sheet shows Total Debits = 61100.00 and total credits = 61100.00.

```
pc/MRP for Windows - Version 8.20F
Modules  Tools  Optional  Configuration  Manual  Printer

Print Preview - GLTRIAL.FRX
        GENERAL LEDGER TRIAL BALANCE 03/2007  (03/01/2007 TO 03/31/2007)

   ACCT                  DESCRIPTION           TYPE        DEBIT          CREDIT

   41100000              PURCHASES             EG         3000.00
   41200000              OUTSIDE LABOR         EG            0.00
   41300000              SALES COMMISIONS      EG            0.00
   41400000              FREIGHT               EG          400.00
   41900000              PURCHASES DISCOUNTS   EG                           0.00
   42100000              ENDING STOCK INVENTRY EG                        1500.00
   50100000              WAGES                 EL          500.00
   50150000              OVERHEAD EXPENSE      EL            0.00
   51100000              PAYROLL TAXES         EL            0.00
   51200000              WORKERS COMP.INSURNCE EL            0.00
   51300000              EMPLOYEES BENEFITS    EL            0.00
   60100000              ADVERTISING           EN           50.00
   60200000              ACCOUNTANT/ATTORNEY.  EN            0.00
   60300000              BAD DEBTS             EN            0.00
   60400000              BANK CHARGES          EN            0.00
   60500000              BOOKKEEPER            EN            0.00
   60600000              CAR AND TRUCKS        EN            0.00
   60800000              DUES & SUBSCRIPTIOONS EN            0.00
   60900000              INSURANCE. AUTO.      EN            0.00
   61000000              INSURANCE. GENERAL.   EN          700.00
   61100000              INTEREST.             EN            0.00
   61200000              LAUNDRY AND CLEANNING EN            0.00
   61300000              LEASING EQUIPMENT     EN            0.00
   61400000              OFFICE SUPPLIES       EN            8.00
   61500000              RENT                  EN         1000.00
   61600000              REPAIRS               EN            0.00
   61700000              SHOP SUPPLIES         EN            0.00
   61800000              PROMOT/ENTERTEINMENT. EN            0.00
   61900000              TRAVEL                EN            0.00
   62000000              TAXES                 EN            0.00
   62100000              OTHER TAXES           EN            0.00
   62200000              PERMITS AND LICENSES  EN            0.00
   62300000              TELEPHONE             EN            0.00
   62400000              TELECOMUNICATIONS     EN            0.00
   62500000              UTILITIES             EN            0.00
   63500000              OPERATING EXPENSE     EN            0.00
   70100000              DEPRECIATION EXPENSE  EW          125.00
   70200000              AMORTIZATION EXPENSE  EW            0.00
   80100000              OTHER INCOME.INTEREST RO                          25.00
   81100000              OTHER EXP. PORTFOLIO  EO            0.00
   90100000              COMPANY TAX-FEDERAL.  ET            0.00
   90200000              COMPANY TAX. STATE    ET            0.00

Chartacc (c:\pcmrpmanualdemo\chartacc.dbf)        Record: EOF/84        Record Unlocked
```

3.1.17.5.1 Balance Sheet

```
pc/MRP for Windows - Version 8.20F

Modules  Tools  Optional  Configuration  Manual  Printer

Print Preview

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Software Arts                                    PAGE NO:1
03/07/2007 04:38:34 PM                           PRDEBIT.FRX
                                                 (Detail Report)


BALANCE SHEET 03/2007   (03/01/2007 TO 03/31/2007)


ASSETS
CURRENT ASSETS
     10100000                   CASH ON HAND              +         4992.00
     10200000                   BANK CHECKING ACCOUNT     +        19825.00
     10300000                   BANK SAVINGS ACCOUNT      +            0.00
     11100000                   ACCNT/RECVB.CUSTOMERS     +         7000.00
     11200000                   ACCNT/RECVS.-OTHERS       +            0.00
     11900000                   A/R.-BAD DEBTS RESERV      -           0.00
     12100000                   STOCK INVENTORY           +         1500.00

                                                 TOTAL             33317.00


LESS DEPRECIATION
     14100000                   DEPRECIATION ACCRUED       -         125.00
     14200000                   AMORTIZATION ACCRUED       -           0.00

                                                 TOTAL              -125.00


FIXED ASSETS
     13100000                   SHOP EQUIPMENT            +            0.00
     13200000                   FURNITURE & FIXTURES.     +        15000.00
     13300000                   TRANSPORTATION EQUIP.     +            0.00
     13400000                   LEASHOLD EQUIPMENT        +            0.00
     13500000                   LAND                      +            0.00
     13600000                   BUILDING                  +            0.00

                                                 TOTAL             15000.00


OTHER ASSETS
     15100000                   PREPAID EXPENSES          +         1000.00

                                                 TOTAL              1000.00


                                      TOTAL ASSETS                 49192.00


Chartacc (c:\pcmrpmanualdemo\chartacc.dbf)    Record: EOF/84    Record Unlocked
```

3.1.17.5.2 Balance Sheet Continued

```
pc/MRP for Windows - Version 8.20F
Modules  Tools  Optional  Configuration  Manual  Printer

Print Preview
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```

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Software Arts                              PAGE NO:1
03/07/2007 04:52:08 PM                     PRCREBIT.FRX
                                           (Detail Report)


BALANCE SHEET 03/2007  (03/01/2007 TO 03/31/2007)


LIABILITIES
CURRENT LIABILITIES
   20100000                  ACCNTS/PAYAB.VENDORS     +          3400.00
   20200000                  ACCNTS/PAYABLE OTHERS    +             0.00
   21100000                  SALES TAX                +             0.00
   22100000                  PAYROLL TAX. F.W.T.      +            50.00
   22110000                  PAYROLL TAX. F I C A     +             0.00
   22120000                  PAYROLL TAX. F.U.T.A.    +             0.00
   22130000                  PAYROLL TAX.S.D.I.C.A    +             0.00
   22140000                  PAYROLL TAX.S.W.T.C.A    +             0.00
   22150000                  PAYROLL TAX.S.U.I.C.A    +             0.00
   22160000                  PAYROLL TAX.E.T.T.CA.    +             0.00
   22900000                  INCOME TAX. FEDERAL.     +             0.00
   22910000                  INCOME TAX. STATE.       +             0.00
                                                      TOTAL       3450.00


LONG TERM LIABILITIES
   23100000                  MORTGAGES                +             0.00
   24100000                  NOTES PAYABLE            +         25000.00
                                                      TOTAL      25000.00


EQUITY
   25100000                  STARTING CAPITAL         +         16000.00
   26100000                  CAPITAL INCREASE         +             0.00
   27100000                  CAPITAL DECREASE         -             0.00
   28100000                  OTHER INVESTMENT         +             0.00
   29100000                  COMPANY TAXES            -             0.00
                                                      TOTAL      16000.00


   29900000                  YTD RETAINED EARNINGS    +          4742.00
                                                      TOTAL       4742.00


                             TOTAL LIABILITY + EQUITY           49192.00
```

```
Chartacc (c:\pcmrpmanualdemo\chartacc.dbf)     Record: EOF/84     Record Unlocked
```

3.2 Implementing pc/MRP

3.2.1 Implementing pc/MRP

If you are ready to implement pc/MRP, and are ready to get to work, then this section is for you. Follow the steps below to get pc/MRP up and running for your company.

3.2.2 Data Entry

Data entry is critical to getting you company up and running with pc/MRP. After reading this section, you may want to step back and read Chapter 15.11.1 Importing Data Files. If your existing data is in a readable format for pc/MRP, then importing all that you can will save hours of needless data entry. This section assumes users already know the basics of each module. This chapter covers the sequence of implementing pc/MRP, not the exact method on how to perform each action. If you do not know how to enter data into a specific module, go to that chapter and learn. You could also study the tutorial slide shows and videos on our website, www.pcmrp.com. If after reviewing the applicable chapters and/or online material, things are still not clear, you can always call our support lines and we will be glad to help.

1. Register your copy of pc/MRP and obtain your Configuration Code Number by calling Software Arts 408-226-7321.
2. Select Configuration, Settings and Utilities to set the size of your part number, the start of your fiscal year, your company's Name and Address, etc.

Note: If you have been using QuickBooks, please see Chapter 16.16 to setup pc/MRP and import your customers, vendors, inventory, and BOMs and skip to step 6.

3. Enter all of your customers and vendors into pc/MRP's Address Book Module.
4. Enter all of your part numbers (description, part number, average and or standard cost)
5. Enter all of your Bills of Materials
6. Perform a cost roll up for average and standard costs (pc/MRP Manual 5.10)
7. Enter all outstanding sales orders*. Select "Order entry" for sales type. Include sales orders that have not been shipped and sales orders that have been shipped but not paid for. Do not include sales orders that have been paid for.
8. Enter all outstanding purchase orders*. Include purchase orders that have not been received and purchase orders that have not been paid. Do not include purchase orders that have been paid.
9. Configure the accounting functions and Chart of Accounts as discussed in Section 14.3.2.
10. Enter your accounts receivable detail as follows:
    a. Set the Inventory Adjustment method to "S" and Auto Accounting to "Off"
    b. Enter all open invoices* that have not been paid for. Do this by entering sales orders on "Account and Carry." This will automatically create an invoice. Do not enter any invoices you have been paid for. If you do enter invoices you have been paid for, make sure you put a "Y" in the complete field of those invoices.
    c. If you plan to implement pc/MRP's accounting module now or in the future, enter an "O" type accounting transaction for every open invoice you entered.
    d. Run an open invoice or AR report. Make sure the total amount receivable is correct.
    e. If you plan to implement accounting now or at a later date, from this point on you must enter an O type transaction whenever you enter an invoice and an R type transaction whenever you receive a payment from a customer.
11. Enter your accounts payable detail as follows:
    a. Set Inventory Adjustment method to "S" and Auto Accounting to "Off"
    b. Enter all open receivers* that have not been paid for. Do not enter any receivers you have paid for. If you do enter receivers you have paid for, make sure you put a "Y" in the complete field of those receivers.
    c. If you plan to implement accounting, now or at a later date, enter an "I" type accounting transaction for each of the above open receivers.
    d. Run an open receiver or AP report and make sure the total amount for accounts payable is correct.

e. If you plan to implement accounting now or at a later date, from this point on you must enter an "I" type transaction when you enter a receiver and an "E" type transaction or check run (multiple "E" type transactions) whenever you pay for a receiver.

12. Set up the inventory and WIP quantities and values as follows:
    a. Use pc/MRP's Physical Inventory program to enter your inventory quantities. Enter the total of the stores quantity and WIP quantity into the stores area (area 1).
    b. Run Physical Inventory Variance report. Make sure the inventory value is correct.
    c. Use the Stock Room Module "I" type issue function to issue all sales orders that are presently on the manufacturing floor to WIP. This will correctly separate out stores inventory from WIP inventory in a manner such that pc/MRP will reduce the WIP quantities correctly when they are received back from manufacturing as finished goods back into the stock room.
    d. Set the Inventory Adjustment method back to "A".

13. Enter your starting balances as follows:
    a. Make sure you have a good trial balance from the month prior to when you are going to convert over to pc/MRP's accounting program.
    b. Select "Accounting", "GL Transactions", and "New" to enter your starting balances using "A" type transactions. Be sure the transaction dates contain the date of the last day of the prior month. Transfer in all asset and liability accounts. Transfer in all expense and revenue accounts but not the YTD retained earnings amount.
    c. The inventory dollar amount should equal the inventory value report run on the last day of the prior month.
    d. The AP dollar amount should equal AP detail report run on the last day of the prior month.
    e. The AR dollar amount should equal AR detail report run on the last day of the prior month.
    f. Close (Post) the prior month and print out the Trial Balance, Balance Sheet and YTD Expense and Revenue report to make sure you balance.
    g. Once you have balanced you are ready to begin business and entering transactions for the new month (not the prior month).

14. For several of the steps described above data can be imported and or programs can be written to decrease the amount of manual labor in the data entry process. To explore these options you can either read Chapter 15.11.1 Importing Data Files or contact Software Arts directly.

*Note: If keeping your own document numbers, ensure that there are six (6) alpha-numeric characters or if not, enter leading zeroes (0).

3.2.3 Wedge Type Barcode Wands

pc/MRP will work out of the box with any wedge type barcode reader. A wedge type barcode reader is defined as a barcode reader that inserts itself in between the computer keyboard and the CPU unit (i.e. the keyboard plugs into the wedge barcode reader and the wedge is plugged into the computer's keyboard connector). The computer will then read any input from either the wand or the keyboard. The Unitek HT630 comes with a built-in program (16.4.7)

3.2.4 Portable Barcode Wands

Portable barcode wands can be used to take a physical inventory and then later download the part numbers and quantities from the portable barcode wand's docking station into pc/MRP's physical inventory program. The portable barcode wand must be programmed that it can download a comma delimited ASCII text file named physical.txt into the pcmrpw directory. The file must consist of part numbers and quantities separated by commas and line returns as shown below:

```
000000001,47.00
000000010,53.00
890000000,40.00
```

The Percon 2000 can be programmed to provide such an output. However, you or one of your programmers must create the program. The Unitek HT630 comes with a built-in program (16.4.7)

3.2.5 Downloading data from UniTech's HT630 Barcode Scanner

UniTech's HT630 (800-861-8648) comes with a program for pc/MRP built in. To take an inventory with the HT630 follow the steps listed below:

1. Turn on the HT630
2. Press and hold 'CMD'
3. Select Option 2 for Terminal from the Menu
4. Select Option 2 again for Form caching
5. At Item:, scan the barcoded parts or bin boxes
6. At Qty:, scan or enter the quantities
7. After you are finished, press 'Esc' to exit.
8. Screen clears to operating mode

To download the physical inventory count follow the steps listed below:

1. Set the HT630 into its cradle attached to the PC or connect the cable directly to the serial port.
2. Go into Start, Programs, and run PTComm3

The following screen appears:

The program recognizes the Barcode reader and displays the Form data file with the inventory data in the reader. Left-click on the file name and drag it to the directory structure you wish to save the file. This can be a server directory or your computer. Remember where you saved the data file.

After you release the mouse button, this screen appears to show that the transfer went OK.
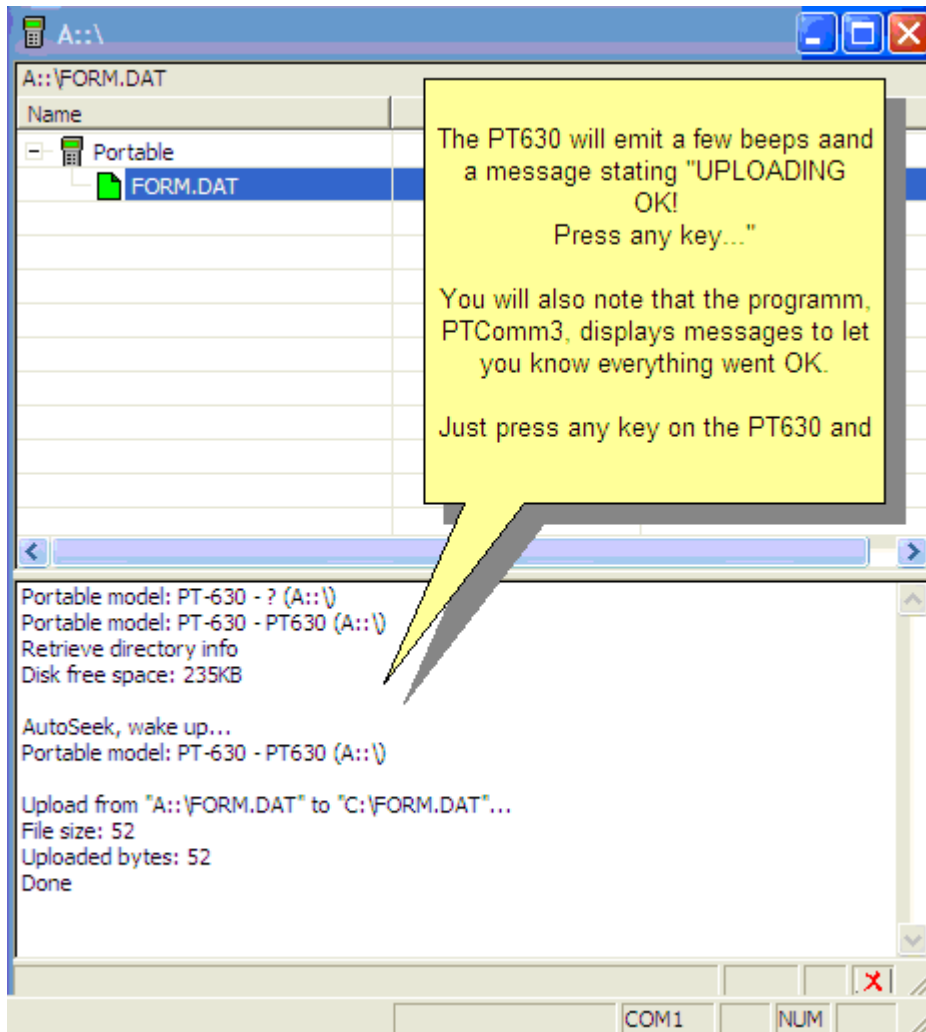
3.2.6 Import the downloaded data

To import the data with the Physical Inventory or Cycle Count, go to Modules, Inventory, Physical Inventory. For this example, Choose Physical.

Select the area to receive the inventory counts.
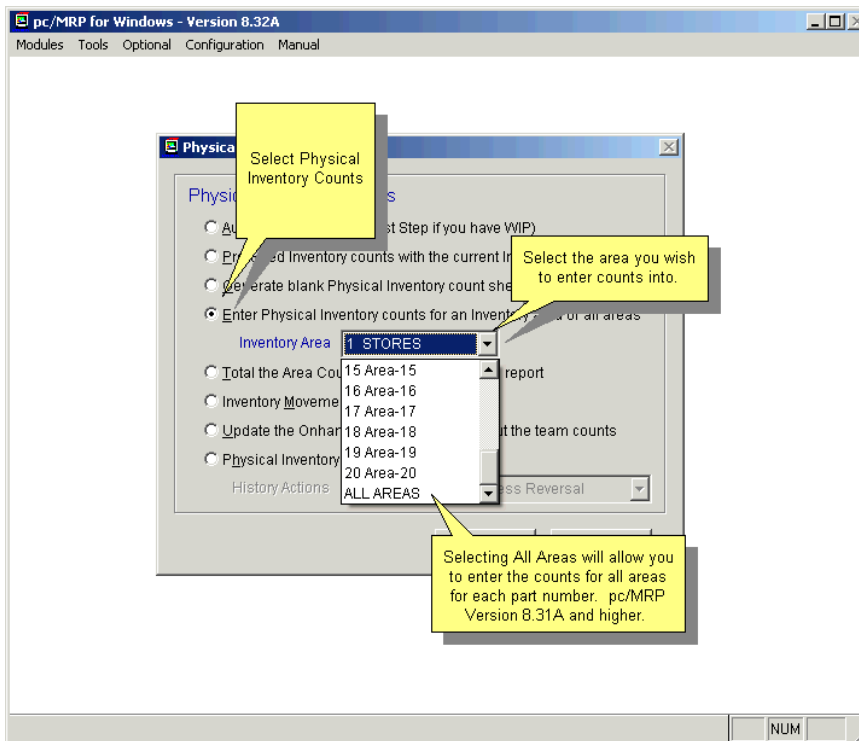
Select "Import" to get the inventory data from the data file you created. (If using the HT630, see Section 3.2.5)
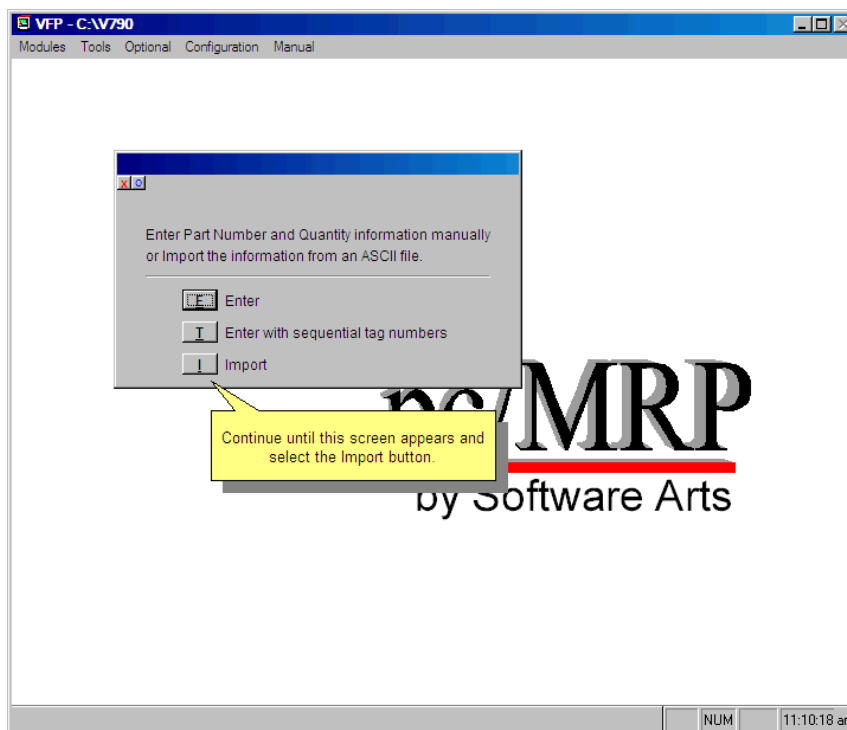
Next: Select the saved inventory data file. Choose to append or replace counts. Press 'OK'.
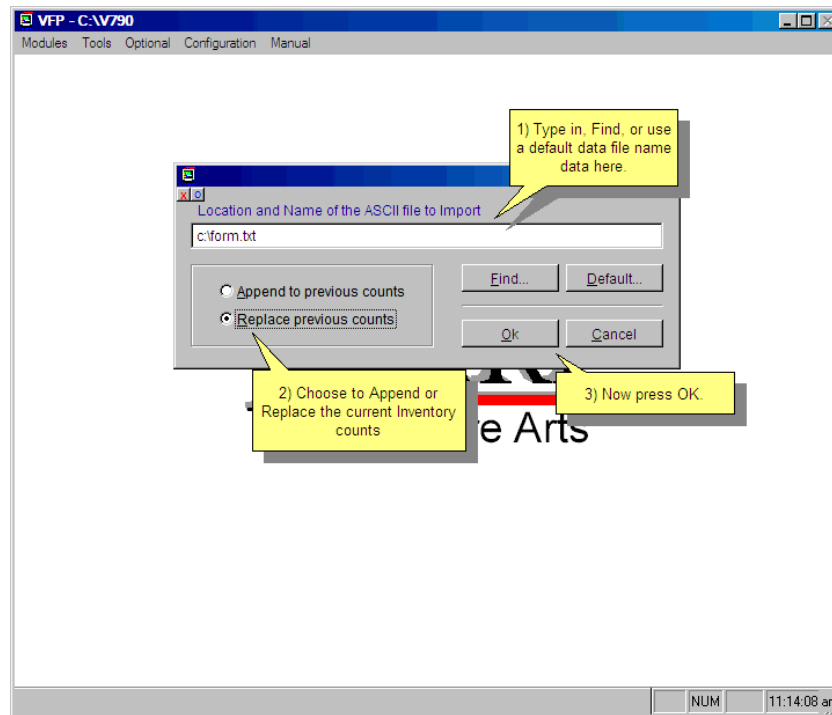
Most times, you will be replacing the previous inventory counts. A situation to "Append" would be where there are multiple storage areas for a part within a single 'STORES' area. The following screen appears (Hopefully you will not have any errors):
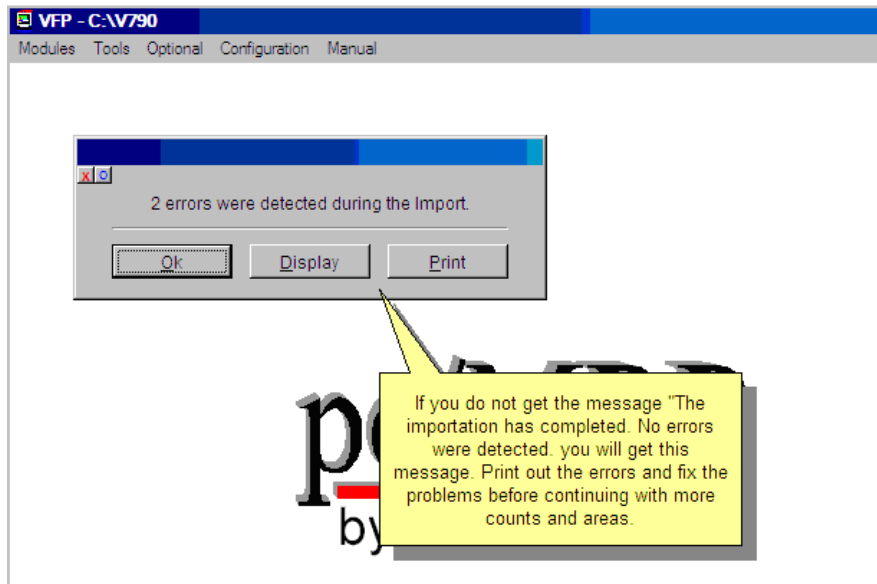
Correct any errors and re-process individually or in the next import. Now continue as described in Section 6.5 for your Physical Inventory.

3.2.7 Data Review

After entering all of your data into pc/MRP, be sure to go through an exhaustive data check. Make sure your accounting is online. Be sure to make all of the necessary changes in the Utilities and Configuration Module. Run several exploded BOM reports to make sure data was entered correctly. Perhaps, do one last check to make sure everything that is considered open, is still open. Everything considered to be in WIP is still in WIP. Where applicable, make the changes in pc/MRP to be representative of what really is going on.

4 Address Book Module

4.1   Address Book Overview
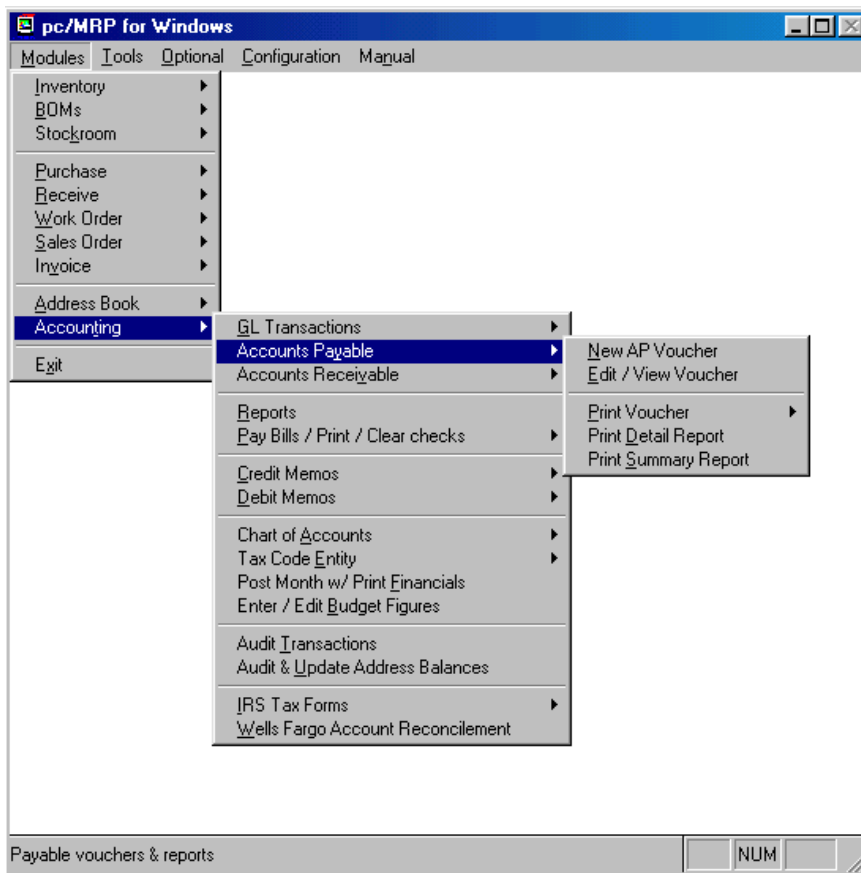
The Address Book Module in pc/MRP allows you to store, edit, and track information about customers, vendors, employees, and resellers. Address Book information is automatically imported into sales orders, purchase orders, sales quotes, and purchase request for quotes. The Address Book will be your primary source for customer data. The addrbook.dbf file is encrypted as credit card numbers are stored in this data base file. An on-line slideshow is located here: http://www.pcmrp.com/mrp101/addressoverview.htm

4.2   Enter a New Address

4.2.1 Enter a New Address, Step 1, Modules, Address Book, New

To enter a new customer or vendor address, select **Modules, Address Book,** and **New.** Enter the company name or last name of the person whose address you wish to enter. The pop up screen will ask if you wish to import address information from another address. Answer *YES,* if you have a common base address for numerous clients at one location and do not wish to keep typing in the same address repeatedly.

4.2.2 Enter a New Address, Step 2, Enter Company Name

If you have a common base address for numerous clients at the same address, check Import Address.

4.2.3 Enter a New Address, Step 3, Enter Company Type and Status
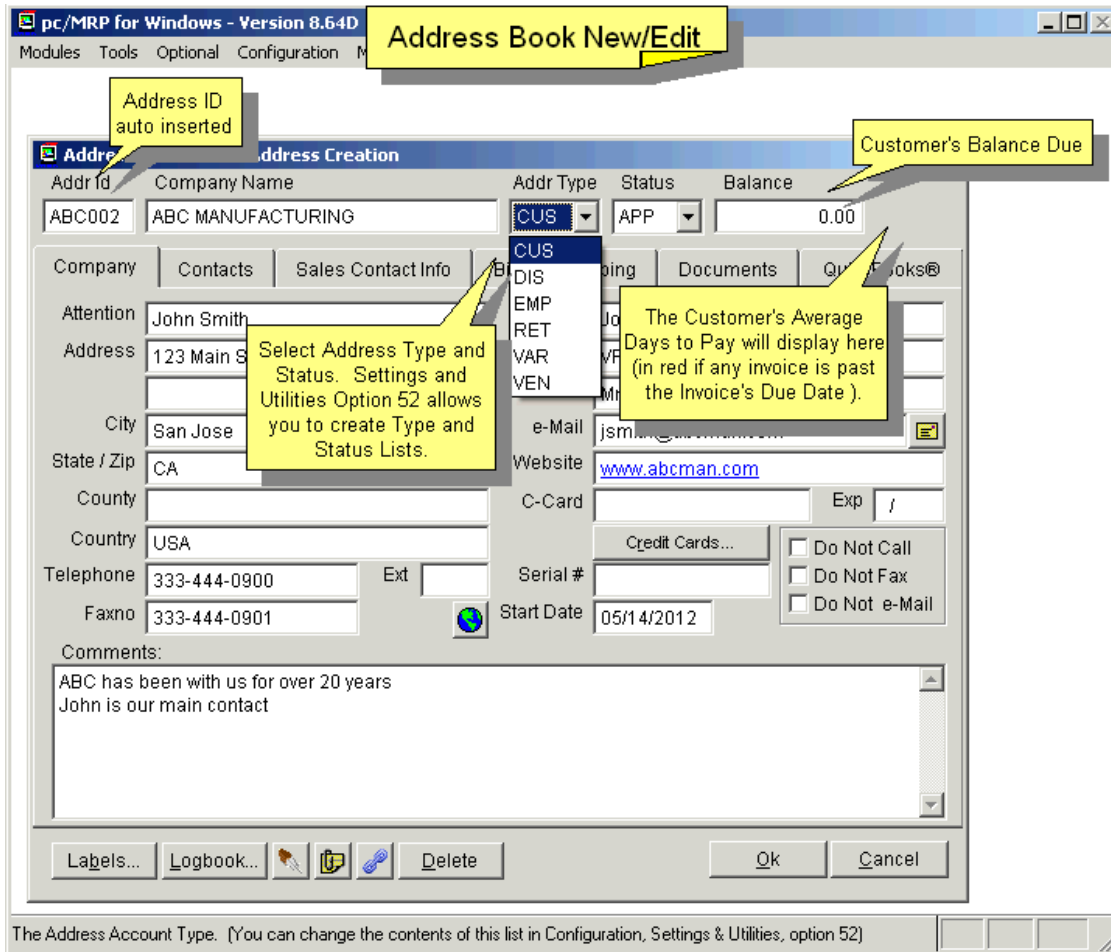
The top row of fields, **Addr ID, Company Name, Addr Type, Status,** and **Balance**, appear above the tabbed pages.

The **Address ID Code** (id) will consist of the first three alpha characters of the name followed by three numeric digits. For example, Hewlett Packard would be coded HEW001. If there were already an HEW001 in the address book, pc/MRP would assign HEW002 as the address ID code. You can override the pc/MRP ID code and enter any code you care to. We do recommend the address ID code contain some significance so that it is easier to begin scrolling close to the address you are looking for.

The **Address Type** (type) and **Status** (status) are user definable fields. The contents of these fields can be modified through Option 52 in pc/MRP's settings and utilities module. The **Address Type** may contain CUS for customer, EMP for employee, VEN for vendor, PRO for prospect, etc. The **Status** field contains the status of the account. If "BAD" is selected, a red flag reading 'Bad Account' appears on the top left of the Address. If PRB for Probation is selected as an Address Type, a red flag reading 'Probation Account' appears on the top left of the Address. If DIS is selected then this vendor is discontinued and their information will not be populated into a purchase order.

The **Balance** field contains the current balance for the customer. In addition the **Average Days to Pay will** appear next to the balance. This will be displayed in red if there is an unpaid invoice that is past the **Due Date** shown on the Invoice.

4.2.4 Enter a New Address, Step 4, Enter Company Information on Company Tab Page

The Company page of the address book data entry screen allows you to enter the: Company Name, Street Address, City, Zip Code, Country, Phone Number, FAX Number, Contact, Title, Salutation, Email Address, Credit Card Number and Expiration Date, Serial Number, Start Date and unlimited Comment information.

Note: The allowable ASCII characters for the Addresses, Part numbers, Phone numbers, and Description fields are:
upper & lowercase alpha 65(A)-90(Z), 97(a)-122(z), numeric 0-9,
and these special characters:
,./<>?;':()[]{}-=_+!@#$%^&*""

The **Email** button ⊟ allows integration with Microsoft Outlook to start an Email.

The **Credit Card Number** will be encrypted whenever the address record is saved and stored in the address book data base file.

The **Display Map** Button will display a map of the address provided you are connected to the Internet (see step 4.2.12).

4.2.5 Enter Credit Card Numbers for a Customer's Address

Address Book New/Edit

1. To enter or edit a credit card number for a customer into the Address Book, select Module, Address Book, Edit, enter the company name and select the Credit Cards Button. Please note: you must have Sales, Invoice or Accounting Create Rights or higher to access this screen. Requires pc/MRP Version 8.56 or higher and Marathon Solutions must be your credit card processor.

3. Enter/Edit the Credit Card Number, Expire Date, and CVV Code. Invalid CC Number will display an error msg. Invalid Expire Date will turn the text boxes red.

Display Card # or Card Holder.

4a. Enter/Edit the card holders name and billing address.

2. Click on the New Card Button

CAUTION: If you edit an existing credit card number, all sales, invoice and accounting transactions will be changed to that number as they are simply pointing to this file. For historical purposes it may be better to add new credit card numbers and remove old credit card numbers.

Credit Card Data will be encrypted when saved back to the data base files.

4b. 8.72K and above: Import the holder's information from the Address Book.

5. Press OK to save.

The C-Card fields on the Company tab are no longer in use in pc/MRP versions 8.56 and higher.

The more information you add to the Credit Cards associated with XXX999 (customer ID) screen, the greater possibility for a lower processing rate from your credit card processor.

4.2.6 Enter a New Address, Step 13, Display a map for the Address

Press the Show Map Button 🌐 to display a map of the address. Your computer must be connected to the internet for this to work.

4.2.7 Enter a New Address, Step 6, Enter Unlimited Contact Information
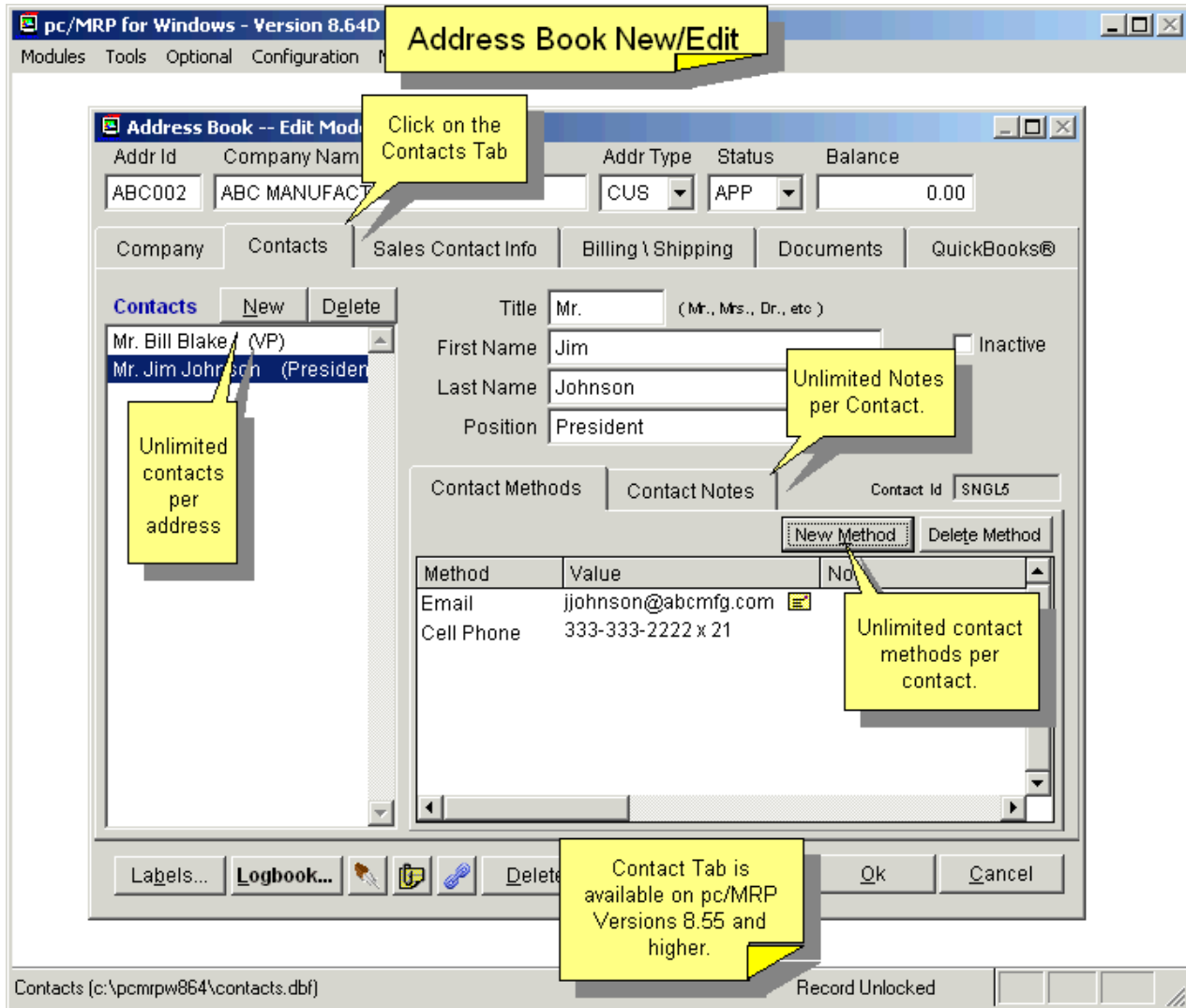
Contacts:
- **Title** (title) is 12 characters.
- **First Name** (firstname) is 30 characters.
- **Last Name** (lastname) is 30 characters.
- **Position** (position) is 40 characters.
- **Inactive** (inactive) is a 1 byte logical field of true/false, yes/no, etc.

Contact Methods:
- **Method** (method) is 20 characters.
- **Value** (value) is 50 characters.
- **Note** (note) is 50 characters

Contact Notes (notes) is a memo field of unlimited characters.

To enter a contact:
1. Press the **New** button to enter a new contact; you can also enter one contact method at this time.
2. Press the **New Method** button to add more contact methods for this contact.
   a. If you use '**Email**' as a method, an email icon will show at the end of a correctly formatted email value that is entered.
   b. Any other method value is free form data.
   c. A note value is free form text.
3. You can press the **Delete Method** button to delete the currently selected method.

To delete a contact, just press the **Delete** contact button next to the **New** button.

4.2.8 Enter a New Address, Step 5, Enter Company Contact and Tax Information

The **Salesman, Commission, Region**, and **Territory Fields** may be used to track customers and salespersons. Every time a sales order is entered for a customer, the data from these fields will be automatically entered into the sales and invoice records. If sales commissions are based on products, enter the salesman and sales commission in the Inventory Module. Note: Configuration, Settings and Utilities, Option 81 sets whether the sales commission should come from the Inventory or from the Address Book.

The **Salesman Email** address field contains the salesperson's email address.

If your company has divisions and/or departments, the first two digits of the **Division** Field should contain the Division Number and the second two digits should contain the department number. This would match the last 4 digits of the 8 character chart of accounts number if you are using pc/MRP's Accounting Module. (See Section 14.3.7 in this Manual.)

The **Sales Level** field is used to determine if a customer will be invoiced for a sales level 1, 2, 3, 4, or 5 price qty breaks listed for the item. Default is 1.

The **Discount** field contains the trade discount for customers or vendors. Default is 0. For accounting purposes, **do not** include the **Terms** discount in with the **Trade** discount, as you never know if the customer will pay his bill in time to get the terms discount.

Note: If a **Sales Level** and a **Discount** both have values, both are used in the calculation.

The **Related Document Number** field can be used to store a contract number for this address. Whenever a purchase order or sales order is entered, the related document number is transferred to the purchase or sales order's related document field.

The **Resale Number** field can be used to store the customer's state sales tax resale number.

The **Credit Limit** field allows credit limits to be established for each customer. Option 53 in the settings and utilities menu, enables or disables a warning message from popping up if a sales order exceeds the customer's credit limit. In addition Option 53 will also allow you to establish an override password.

The **Yearly Quota** field stores the yearly quota goal for each customer. This field is used in an optional sales analysis report to provide % to quota for each customer.

The **Tax Code** field stores the tax id number for each account. pc/MRP's accounting module allows users to enter and maintain a Tax Id data base file containing state and county tax rates for user defined tax code entities such as CA01, CA02, OR01, etc. When an entity's tax rate changes, the user would change the tax code entity's tax rate (in the Accounting Module) and then select "Update" to update the tax rate on all addresses that have that tax entity code. At this point the tax rate will automatically be entered into the Tax % field on this page. If you do not wish to use the Tax Id data file, and still need to have a tax included on the sales order, just enter a tax percent into the Tax % field manually.

The **Tax %** field contains the sales tax percent for each customer. Whenever a person enters a sales order and selects taxable, that customer's tax rate from the address book will automatically be inserted into the sales order. The Tax % field is automatically updated when the user updates the tax rates from the Accounting module (see Tax Code above).

Check the **IRS Form 1099** check box field if you expect you may need to print out a 1099 form for this customer in the future. At the end of the year, you can print out the 1099 forms and the 1099MISC by selecting Modules, Accounting and IRS Tax forms. See the Accounting Overview Chapter for further details.

The **Referred By** field can be used to store the name of the person or entity that referred this customer to you.

The **Source, Purpose, Priority, Interest,** and **Concern** fields are all user definable fields. These fields can be modified through Option 52 in the settings and utilities. These entries allow pc/MRP to store additional personalized information about the entry and provide various address printouts, reports, and labels parsed to the end users specifications. **Priority** may contain a HIGH, LOW, or MEDIUM designation. **Interests** may contain GOLF, SOCCER... **Concerns** could contain such things as quality, timelines, fair pricing. Inevitably, this allows Sales or any other department to keep detailed information on prospects, customers, and all entries to more efficiently meet the needs of people and their organizations.

4.2.9 Enter a New Address, Step 7, Enter Billing\Shipping or Remit To\Shipping Information

Whenever a sales order is created for a customer, pc/MRP will automatically insert the **Billing Address** and **Shipping Address** from this page.   If you leave the Billing and Shipping Addresses blank, pc/MRP will insert the main customer address into a sales order's Billing and Shipping Addresses.

If you change the Address Type to vendor, **VEN**, then instead of a Billing Address, you can enter a **Remit to Address**. pc/MRP will use the Remit to Address when you print out a check for the vendor.

The **Billing and Shipping Address Buttons** will automatically insert the main address into the Billing and Shipping Fields.

The **Show Map Button** 🌐 will display a map of the billing and shipping addresses.

4.2.10 Enter a New Address, Step 8, Documents Tab

Selecting the Documents Tab will display all of the documents for this company that were created by pc/MRP, as shown above. (The documents for this company that were *not* created by pc/MRP can be linked using the File Links button, see Section 16 later in this Chapter.) When entering an address for the first time, this page will be empty. However in the future this page will fill up with all pc/MRP documents (Purchase Orders, Receivers, Invoices, etc) for this customer.

The rows are color-coded. Rows in black are complete (Complete equals Y). Rows in green are open (not Complete), rows in red are open and also over 60 days from invoice date. Invoices get a yellow background if paid after 59 days or open and over 59 days (**8.72B** and above).

In addition pc/MRP will track UPS, FedEx, DHL, and U.S. Postal Service packages provided the document contains a valid tracking number. The user must have Internet Explorer installed to track DHL and U.S. Postal Service packages.

4.2.11 Enter a New Address, Step 9, QuickBooks Tab (QuickBooks Users Only)
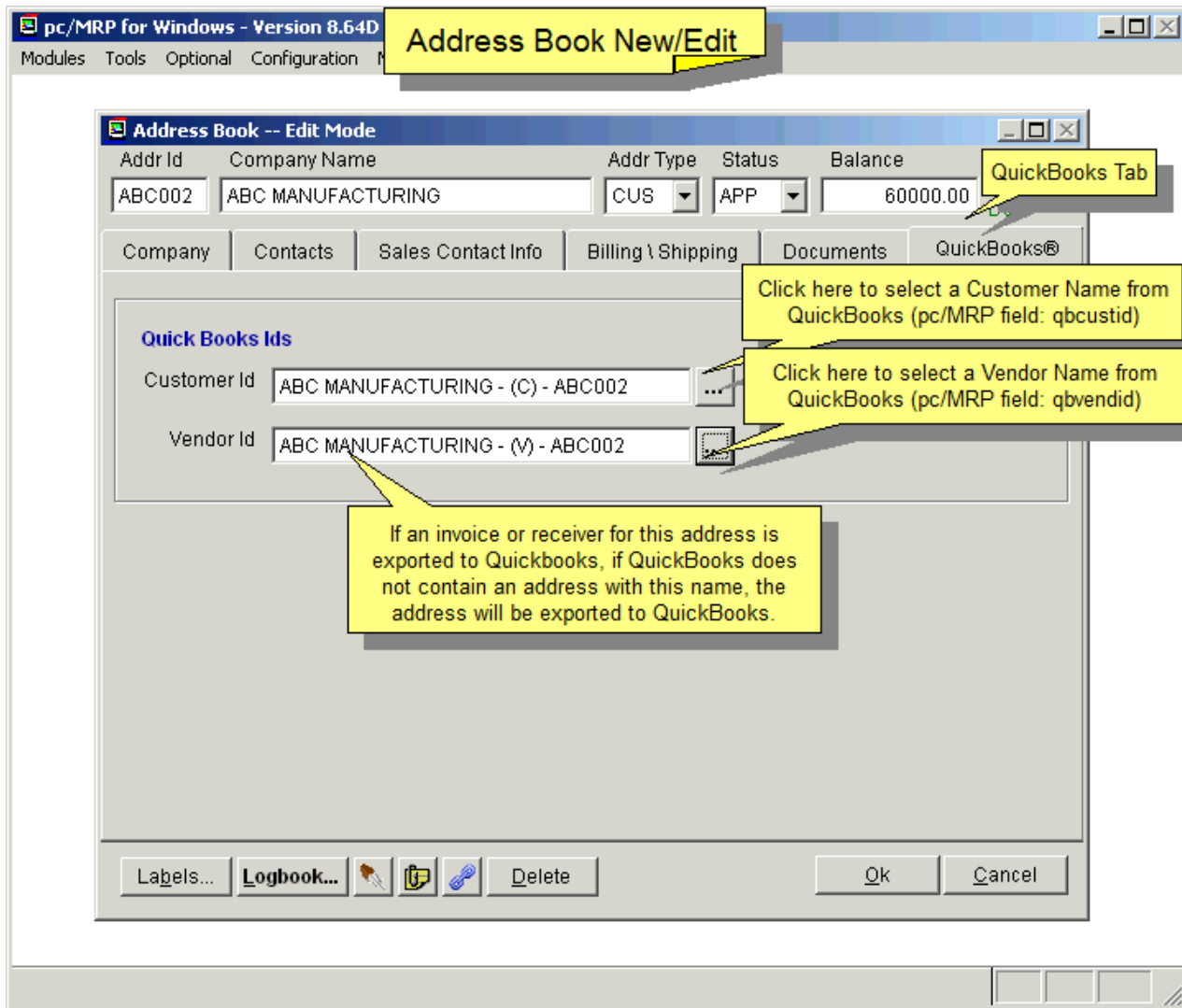
The QuickBooks Tab is only visible for users who have purchased pc/MRP's Optional QuickBooks Interface Module.

If the addresses are imported from QuickBooks, pc/MRP's Customer and Vendor ID fields will match the Customer and Vendor Name Fields in QuickBooks.

If you are entering a new address that does not exist in QuickBooks, the fields will be blank.   Enter the Customer and or Vendor Name that is to go into QuickBooks.   If you do not enter a name, pc/MRP will automatically fill out these fields as shown above.

If you are entering a new address that already exists in QuickBooks, make sure the QuickBooks Customer Id and/or Vendor Id matches the name field in QuickBooks (case does not matter).   If they do not match, the address will be added to QuickBooks the first time it is listed as the vendor or customer on an exported receiver or invoice.

4.2.12 Enter a New Address, Step 10, Print Address Labels
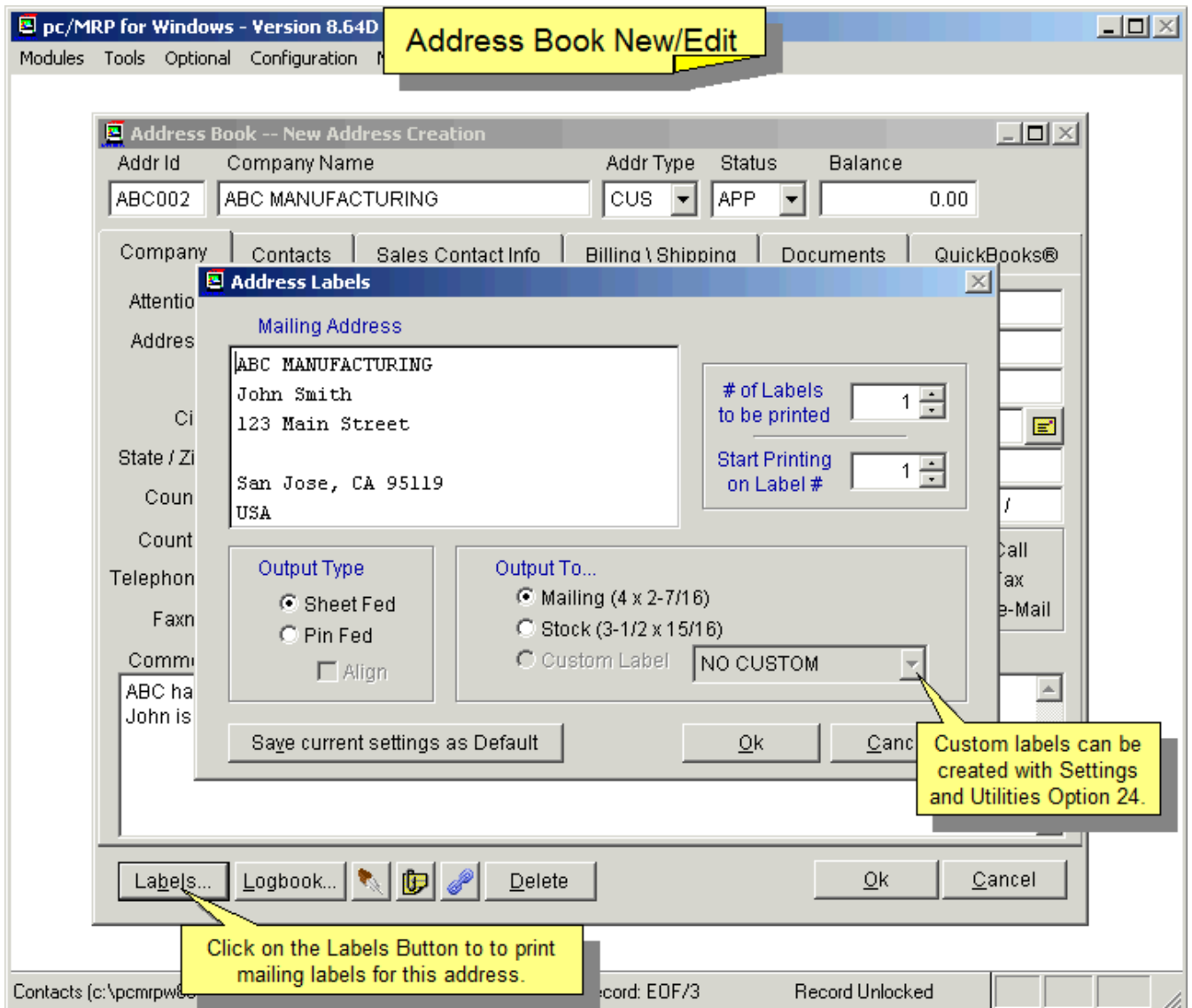
The **Labels** button at the bottom of the page will allow you to create shipping labels for this address entry. The labels used here are: ADDRLBM.LBX, ADDRLBS.LBX, and ADDRLBS2.LBX

4.2.13 Enter a New Address, Step 11, Log Book
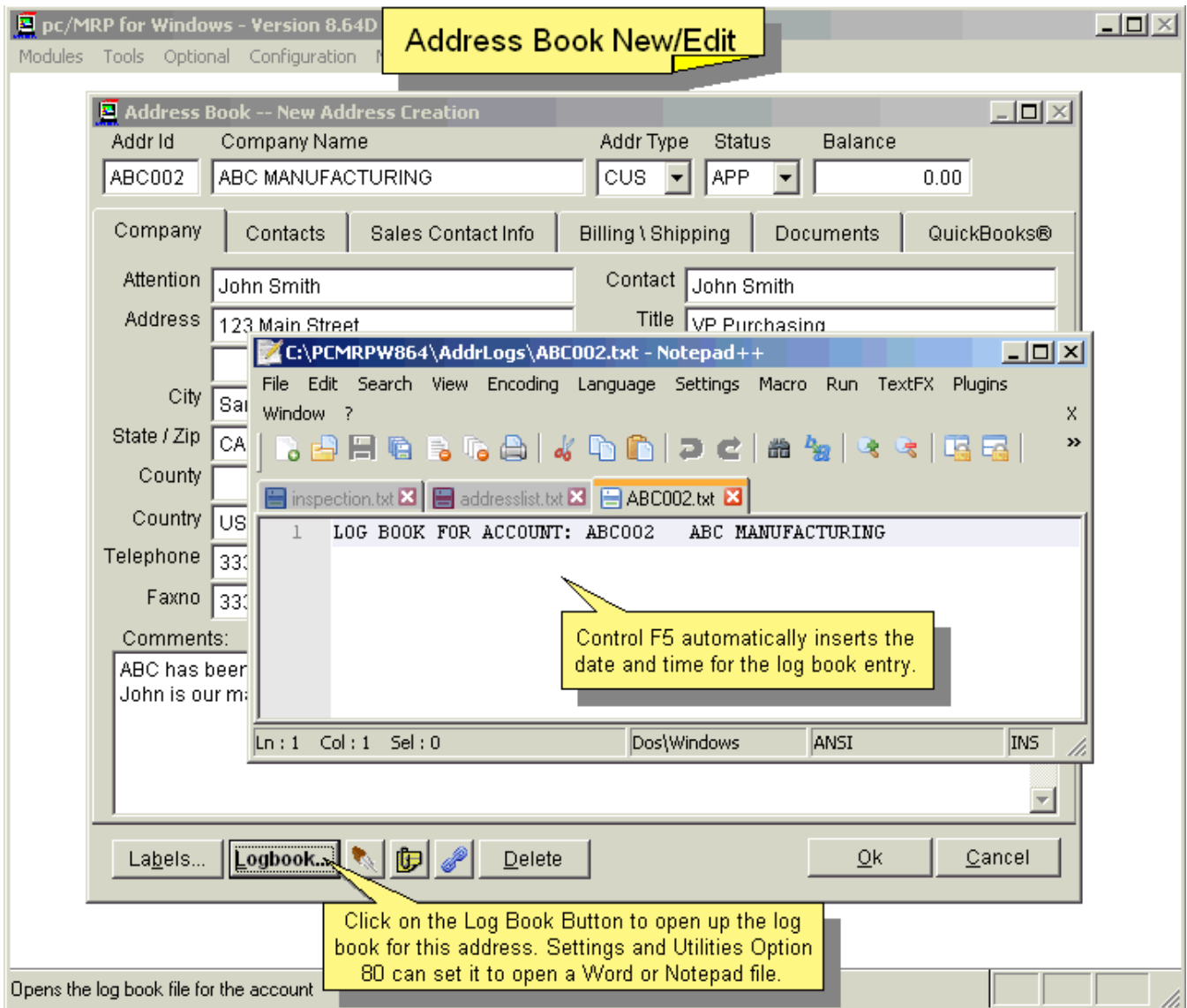
The **Logbook** button at the bottom of the page will allow you to enter a logbook for each customer and vendor to record conversations, commitments, etc. Settings and Utilities Option 80 can set pc/MRP to open up a Notepad or Word file. Pressing the F5 key in Notepad will automatically enter the date and time into your notepad text.

4.2.14 Enter a New Address, Step 14, Create a tickler message for this address
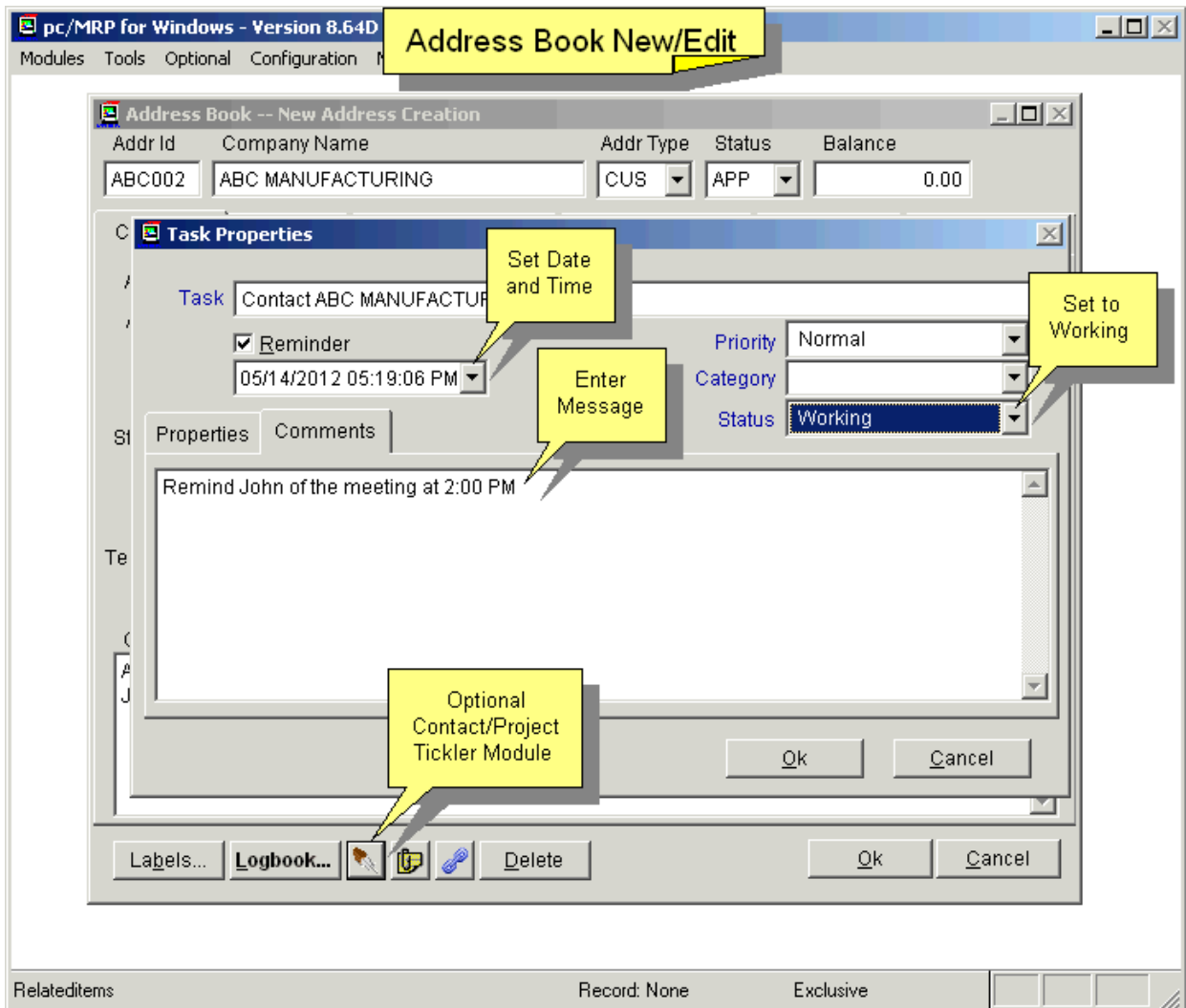
Press the Tickler button ✎ to create a tickler message for this address.   This option is only available to users who have purchased the Tickler/Task Manager Optional Module.

Pressing F4, will also allow you to create a new tickler or task from any module within pc/MRP.

Pressing Alt F4 will allow you to edit a ticker or task from any module within pc/MRP.   See Chapter 16.18 for details.

4.2.15 Enter a New Address, Step 12, Create Pop Messages for the Address
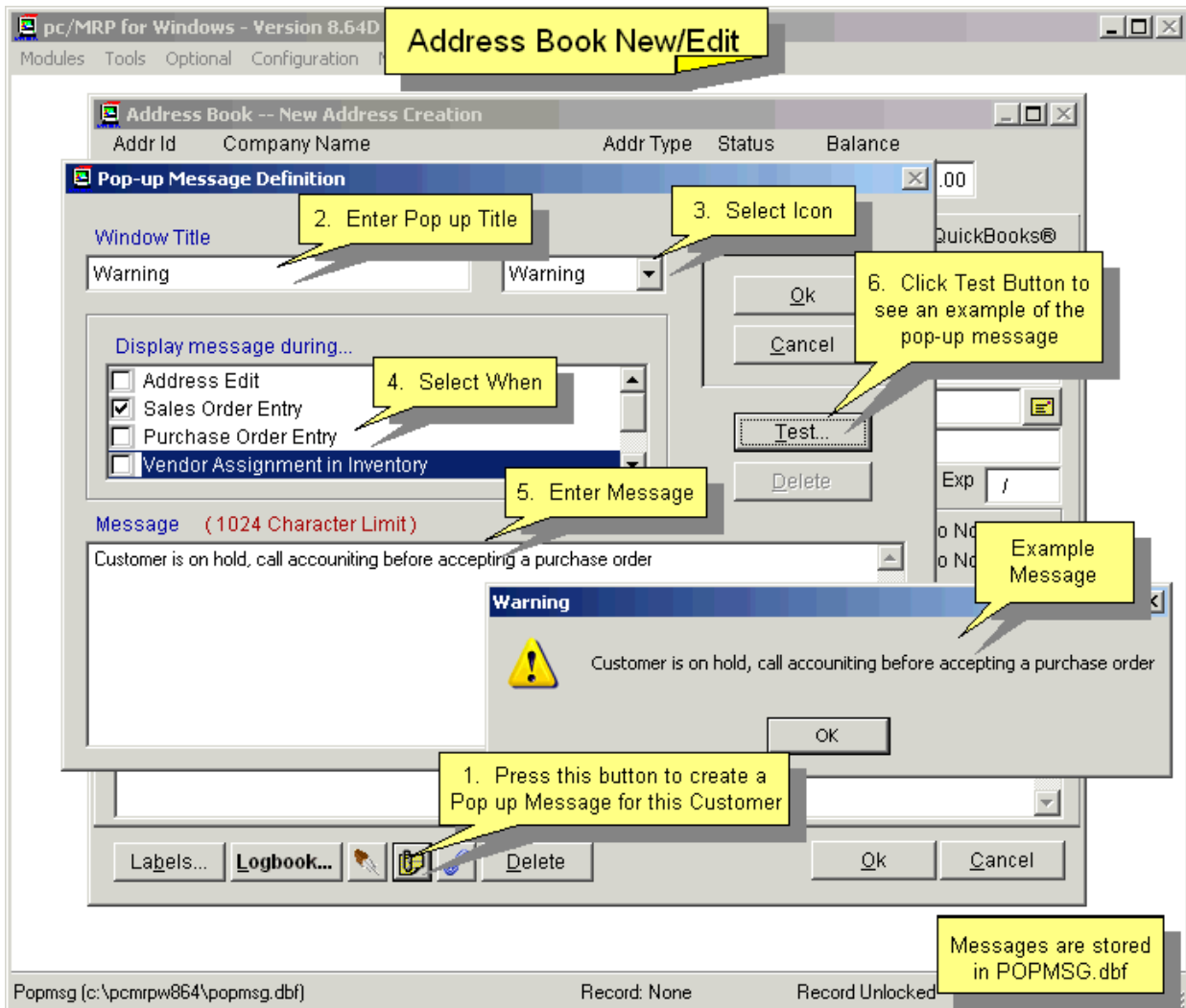
You can create **Pop-up Messages** that will appear when a user edits this address, enters a sales order, enters a purchase order, etc.   For example, you can make sure a message pops up warning the user to accept "Check or Credit Card Only" when a sales order is entered for this customer. The pop-up messages are stored in PopMsg.dbf. PopMsg contains the following fields: Module, Key, Icon, Title, Message and When.

Once you are finished entering the new address, press the OK Button down at the bottom of the address book screen.

4.2.16 Enter a New Address, File Links
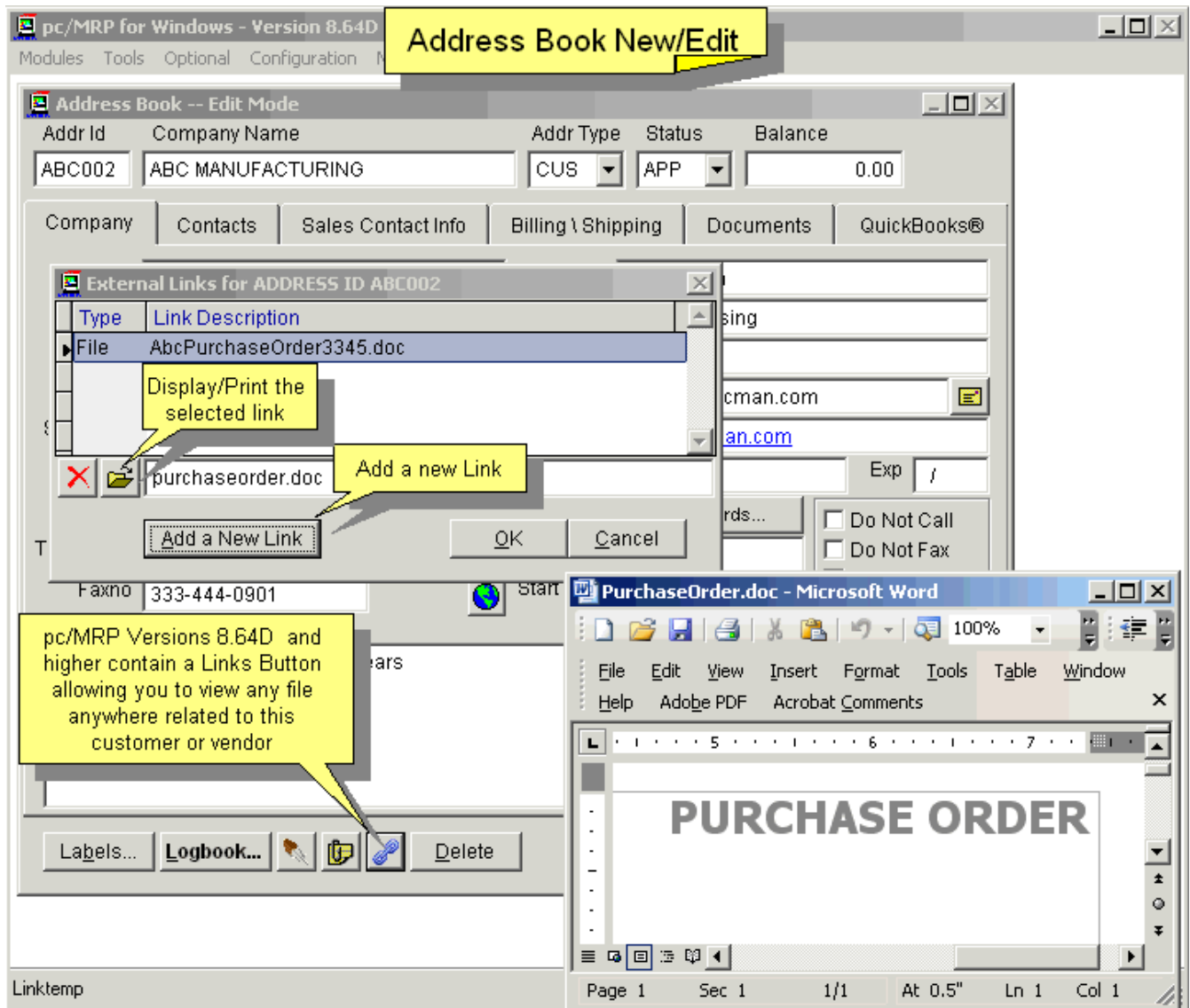
The File Links Button allows you to link unlimited number of files, folders or URLs to your customer or vendor. You can keep any documents not created by pc/MRP, like correspondence, .PDF or .DOC files, images, AutoCAD files, POs at your fingertips without leaving the address book. (Versions **8.64D and higher**)

4.3   Edit an Address

Select Address Book, Edit/View.
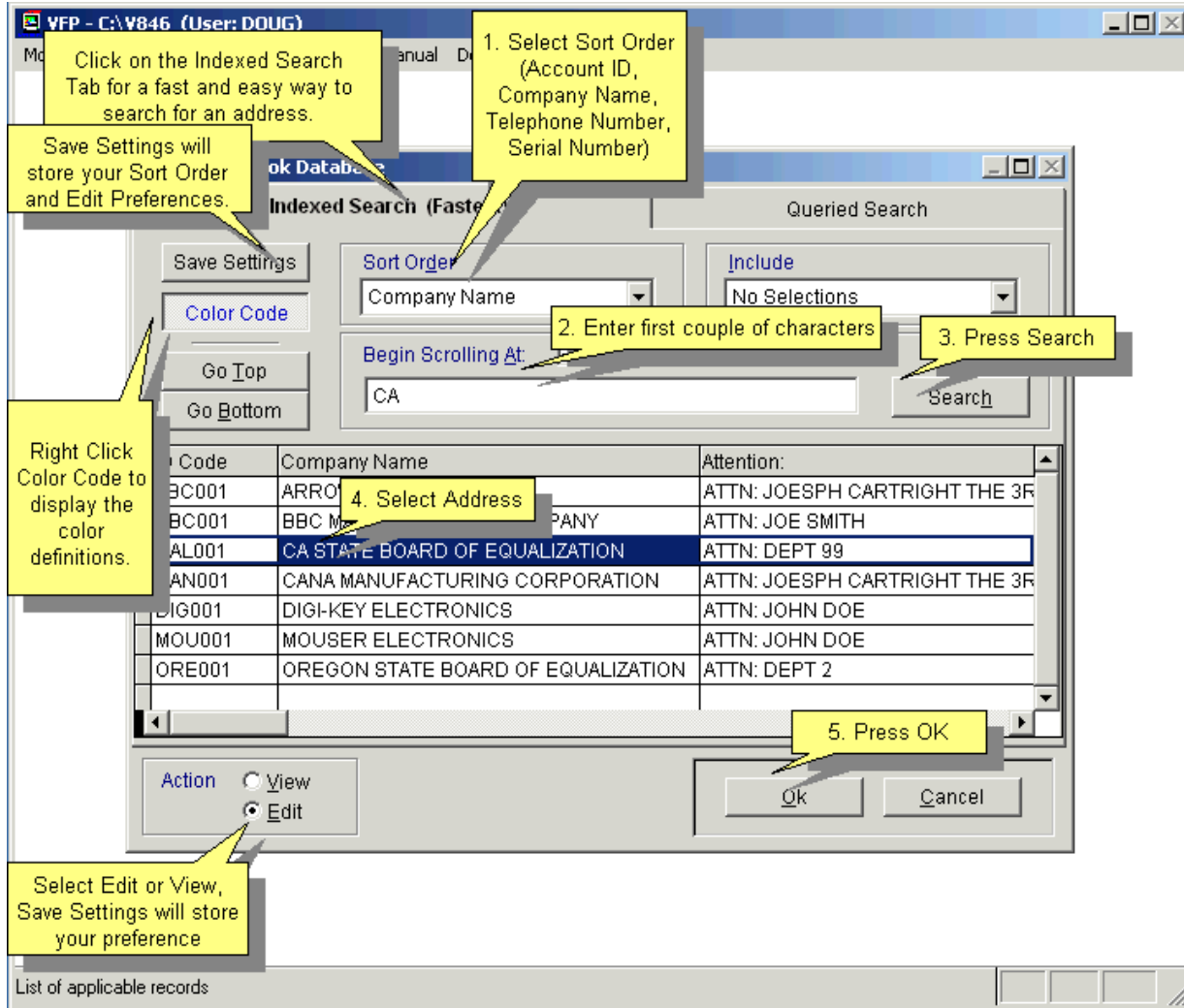
This option allows users to scroll, edit, delete, undelete, or run queries against Address Book information.

- Selecting an **Indexed Search** allows users to search on indexed fields. This allows pc/MRP to find the information much faster. For further details, see Chapter 15.14.4

- Selecting to run a **Queried Search** allows users to build, run, save, and load queries for the Address Book table. For further details, see Chapter 15.14.1.

Almost every field in the Address Book is editable. However, users must understand several key concepts:

If you have changed the Address ID Code, a pop-up screen will ask, "Change Address ID Code through out all modules, purchasing, sales, etc". Answer **Yes**, if you wish to change the address ID code in every module. (It is recommended that you answer **Yes**, otherwise you might end up with many "orphan" records.

Use the **Delete** button to mark a record for deletion. Use the Undelete button to unmark the record for deletion.

Once you are finished editing the new address, press the OK Button down at the bottom of the address book screen.

4.4   Merge Addresses

4.4.1 Merge Two Addresses Together

Select Address Book, Merge two Addresses together
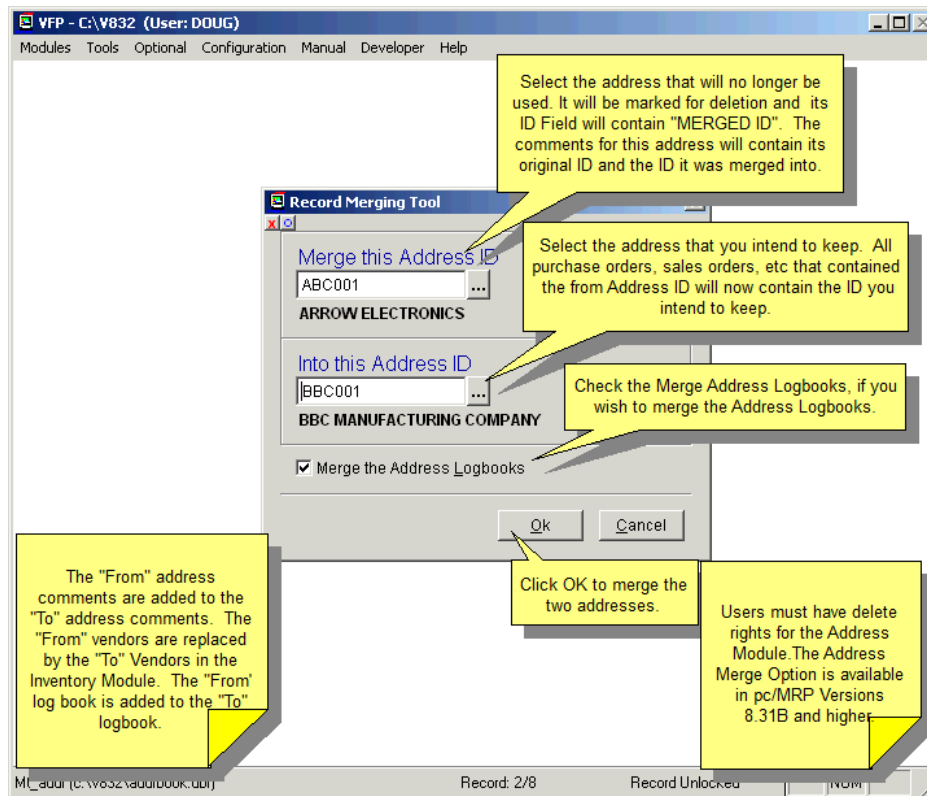
4.4.2 From Address, After the Merge
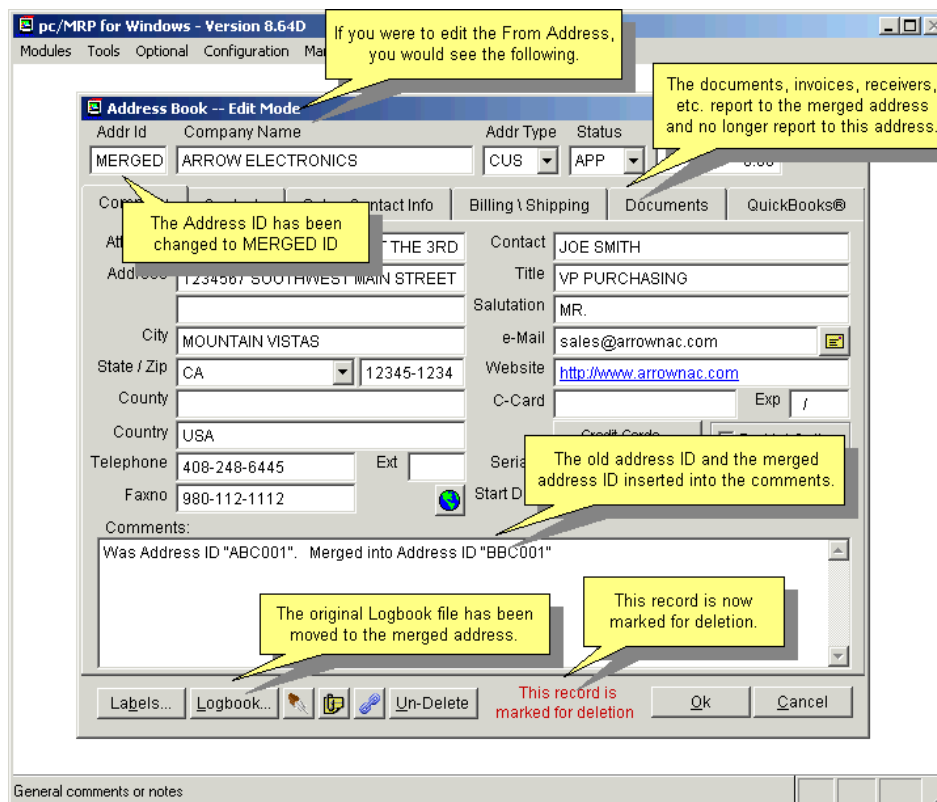
4.5   Address Reports and Labels
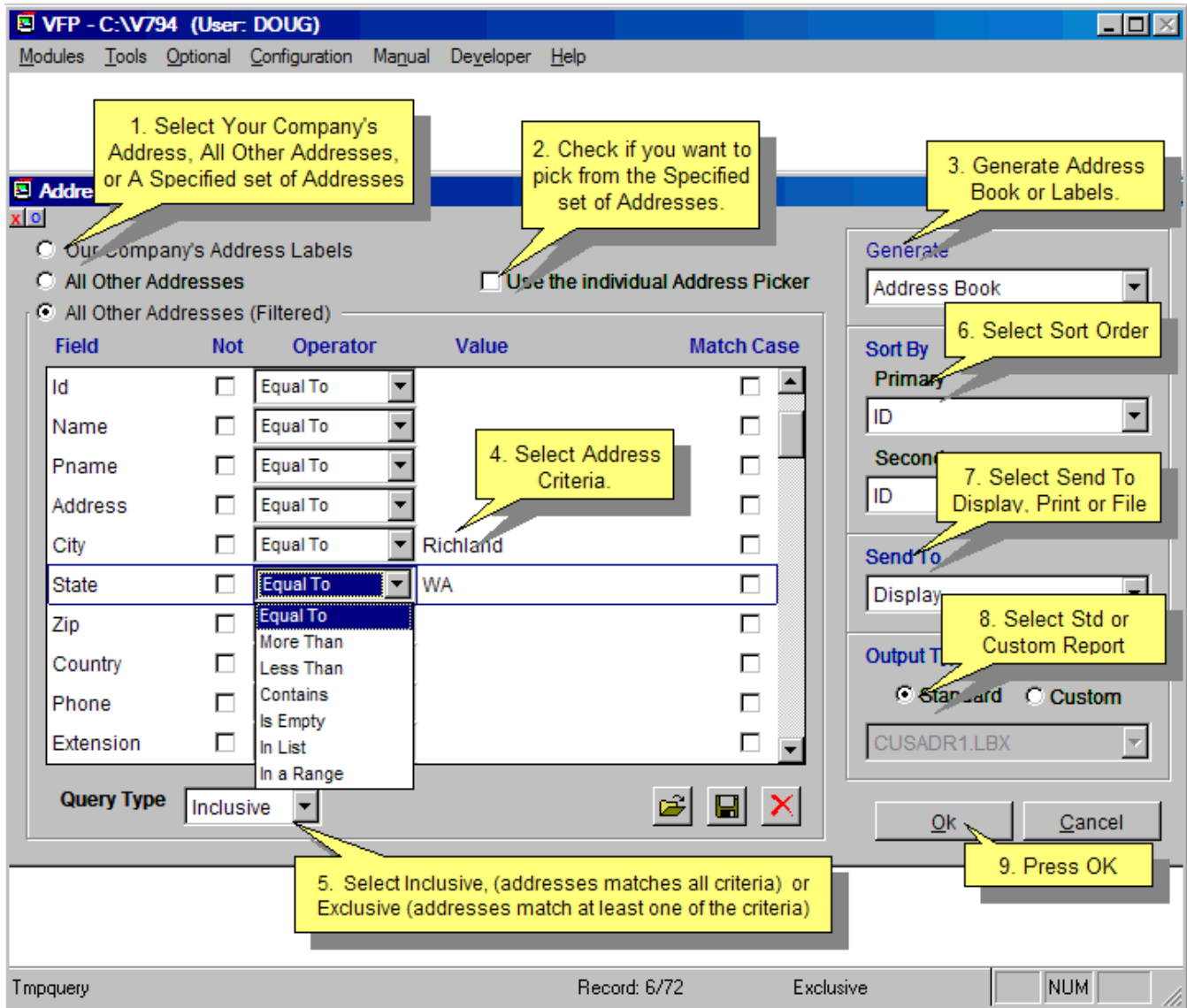
To print out an address book or a series of labels, select **Modules, Address Book, Print** and the screen shown above will appear.

By example, let us say we wanted to know every customer who's **CITY** is Richland, their **CURRENT BALANCE** is less than $1000.00, and their **INTERESTS** are GOLF.

The end user would select the **All Addresses (Filtered)** option. Then type Richland in the **City** line under **Value.** Or, they could type Rich, and select **Contains** for an **Operator**.

Scroll down to **Curbal** and select **Less Than**, and write $1000.00 under **Value.**

Select **Interest** and write in GOLF.

Note: For more information on running an address book query, please see Section 15.14.1.

Users can choose specific address entries after running the report by checking the **Use the individual Address Picker** box. After selecting the criteria for your query, you must decide what you wish to **GENERATE**. pc/MRP can **generate**: an **ADDRESS BOOK, MAILING LABELS 4 x 2-7/16,** or **STOCK LABELS 3-1/2 X 15/16**.

Any of the above may be **SORTED BY** a **PRIMARY** and or a **SECONDARY** field. The information can be sorted by: **ADDRESS ID CODE, ADDRESS TYPE, CITY, CONCERN, COUNTRY, CREDIT LIMIT, CURRENT BALANCE, DATE ENTERED, INTEREST, PHONE, PRIORITY, PURPOSE, REGION, SALESMAND, SOURCE, STATE, TAX CODE, TERRITORY, YEARLY QUOTA**, and **ZIP CODE**

The end user can select where they wish the data to go to by selecting **SEND OUTPUT TO** and utilizing the drop down menu. pc/MRP can **SEND OUTPUT TO**: the **DISPLAY, PRINT-NARROW, PRINT-WIDE,** an **ASCII TEXT FILE, XLS FILE,** or a **DBF FILE**

By selecting a **DBF FILE,** users can import information onto word processing programs such as Word or Word Perfect for creating form letters or catalogs. Specifically in Word, users can create a form letter by following these steps:

Create the desired Address Book by choosing the desired data and send it to a **DBF** file.

Open Word and select **Tools**, **Mail Merge**. You will be prompted to complete three tasks:
1. Main Document. This is where you decide what you want to make with the merged data.
2. Data Source. This is where you select the **DBF** file created above.
3. Merge the data with the document. After performing these tasks, the merged information is made available through a drop down menu under the tool-bar in Word.

Through the drop down menu, double click the desired fields putting them in their desired locations and enter the desired text. Such fields as **Salutation, Contact Name,** and **Title** may be best utilized in these circumstances.

4.6   Find by Description (All Addresses)

Searching the address book will print out or display all addresses matching the partial description you entered.

4.7   Queried Search Overview (see 15.14.1)

4.8   Indexed Searches (see 15.14.2)

4.9   Index (see 15.14.3)

4.10   Remove Marked Records (see 15.14.4)

4.11   Remove Over X Years (see 15.14.5)

5 Inventory Module

5.1.1 Overview

The Inventory Module in pc/MRP allows you to store, edit, and track information and pictures for each part and assembly number in your inventory. Part number information is automatically imported into sales orders, purchase orders, sales quotes, and purchase requests for quotes. The inventory module will be your primary source for part and assembly information. An on-line slideshow is located here:
http://www.pcmrp.com/mrp101/partnew.htm

Defining your Part Number Size

Prior to entering part numbers, the size and configuration of the part number must be defined using pc/MRP's Configuration Menu. pc/MRP's part numbers can be numeric and/or alphanumeric.

Part number size - pc/MRP's *configuration menu, Option 28*, allows the part number size to be set from 6 to 15 characters, see Section 15.1.28 in this Manual.

Part number prefix (product code) size - pc/MRP's *configuration menu, Option 29*, allows the first X characters of the part number (including any dash) to be set as a prefix. This will allow scrolling to start with the product code. See Section 15.1.29 in this Manual.

Part number suffix size - pc/MRP's *configuration menu, options 48 and 49* allow the last X characters of the part number (including any dashes) to be set as a suffix, see Section 15.1.48 and 15.1.49 in this Manual.

pc/MRP defaults to a 9-character part number size and a 2-character product code size and can be modified by the user in the Configuration Menu. Below are some additional ideas to think about if you are free to define the part number size and structure:

A straight non-encoded numeric part-numbering scheme can be employed. It is easier to maintain and expand an inventory with a non-encoded numeric part numbering system. However, with this method it is not easy to find part numbers by scrolling the inventory file.

Large part number structures slow down data input and lead to data input errors. In addition, large part number structures could make it difficult to switch over to bar coding in the future.

Alphanumeric part number structures can lead to errors due to upper and lower case letters and 0's versus O's. Companies selling to retail markets would do well to consider using a 9 or 10-digit numeric part number to match retail UPC bar coding structures. Many retailers request their products be shipped with UPC bar code labels. An 8-character part number structure could be optimal for companies that plan to use AutoCAD to generate and store their drawings.

Companies dealing with consignment parts should read the chapter in Section 15.9.5 which covers part numbering schemes (methods) for companies who carry a large number of consignment parts.

If your part numbers are larger than 15 characters, put the large part number in the 'Model Numbers 1' field and a new abbreviated partnumber in the 'Part Number' field. Purchase Orders and Invoices will include both the new Part Number and the Model Number.

Do not put your customer's or vendor's part number in the Part Number field. Create and use your own part numbers. Put the Vendor and customer part numbers in the Model Number fields. If you do not want your customers to see the vendor's model number, go to Option 22 in 'Settings & Utilities', select Invoice, and select 'Serial Number' for 'Include on Printout'. (Users can also create a custom form to display both, or neither.)

Un-displayed Inventory Fields

The Inventory table contains many un-displayed fields. The following is a list of those fields and the purpose for each of those fields.

pc/MRP's physical inventory program stores the physical inventory counts in the invarea1-invarea20 and invtot fields. Once the counts have been verified and the user pressed the update button, the counts are moved from the invarea fields to the stores and areaqty fields.

The lastqty1-lastqty20, lastqtywip fields store the physical inventory quantities recorded on the date the last physical inventory was taken with pc/MRP's Physical Inventory Module. These fields will also be filled when the part number is first entered.

The above fields allow pc/MRP's inventory movement report to calculate the physical inventory at any date. However, for this to work, the following practices must be followed.
- The inventory adjustment method must be set to "**A**" in the configuration settings and utilities module Option number 4.
- The last physical inventory was taken prior to the date being reported.
- The inventory adjustments were made using the stock room module's adjustment option rather than editing the quantity in the inventory module.

The stockroom's Issue and Receive options were used rather than the convert parts to assemblies.

5.1.2   Enter a New Part Number

5.1.2.1 Enter a New Part Number, Step 1, Enter Part Number

To enter a new part, select Modules, Inventory and New.

Note: See 15.11 Importing Data Files in this Manual about importing BOMs from other applications.

To enter a new part number, select Modules, Inventory and **New**, which brings up the screen shown below.

If you have no fixed part number scheme, select Next Available Part Number and enter the new part number.

Users can populate certain data fields from an existing, similar part's data. Option 97 in Configuration, Settings and Utilities allows users to set the fields to be copied.

5.1.2.2 Enter a New Part Number, Step 2, Enter Part Type, Revision and Description

The **Part Number** (partno) contains the part number and can not be changed from this screen. To change a part number you must select Inventory and then Change Part Number. If using or are planning to use QuickBooks for accounting, the allowable ASCII characters for the Addresses, Part numbers, Phone numbers, and Description fields are:

upper & lowercase alpha 65(A)-90(Z), 97(a)-122(z), numeric 0-9,
and these special characters:
,./<>?;':()[]{}-=_+!@#$%^&*"

Select the correct **Part Type** from the Type drop down list box.
Assembly (part_assy = "A", outsource = .F.)
Part – Inventory (part_assy = "P", outsource = .F.)
Part – Non Inventory (part_assy = "P", outsource = .T.)
Labor Inside (part_assy = "L", outsource = .F.)
Labor Outside (part_assy = "L", outsource = .T.)

Definitions for Inventory Part Types:

> Assembly:
> > Collection of parts, assemblies, and labor.

> Part – Inventory:
> > Any part or vendor assembly you invoice or include in a BOM; e.g.
> > 'finished goods'.

> Part – non-inventory:
> > Anything not invoiced or what is not a part of what you make and sell; e.g. Paper Towels, Office supplies, Office furniture. We added non-inventory part numbers to increase our compatibility with QuickBooks to be used as pc/MRP's accounting module. Classifying a part as non inventory only effects what type of account gets debited when accounting gets the vendor invoice and the receiver is posted to the general ledger. Also you can select to include non-inventory parts or not in your inventory value reports in the inventory module.

> Labor – Inside:
> > Labor used to build/create/modify the part or assembly.

> Labor – Outside:
> > Labor used to build/create/modify the part or assembly elsewhere (outsourced).

Enter the **Revision Level** (revlevel) of the part or assembly, i.e. A, B, C etc. If the part or assembly is changed such that it is still backwards compatible roll the Rev. If the part or assembly is not backwards compatible, change the part number. pc/MRP's optional ECN module will automatically increment the revision level for a part number whenever a new ECN is created for that part number.

Enter the **Description** (descript).   Descriptions should be such that similar items appear together in any report sorted by description. Option 58 allows users to create description templates that can be used when entering part descriptions. This helps create standard uniform descriptions.

Note: If you need a longer description than 35 characters, you may use the General Info field on the Details 2 tab (Section 5.1.3.10) and print this on your forms.

The **Inspection Criteria** Button is available for users who have purchased pc/MRP's Optional Inspection Module.   It allows users to set when and where the inspection criteria will be displayed.

The **Displayed Currency** Drop-Down List Box is available for users who have purchased pc/MRP's Optional Alternate Currency Module. It allows users to display the cost and pricing information in alternate currencies.

Note: The above slide shows the Inventory Data Entry Screen without the **Sales Analysis Module**, and with or without the Infinite Bucket Module. If you purchased the Optional Sales Analysis Module, see the Sales Analysis Slide Show.

5.1.2.3 Enter a New Part Number, Step 3, Average, Standard and Last PO Costs

The **Ave Cost/Unit** (cost) contains the average cost per unit. The value in this field is automatically recalculated every time a receiver is entered for that part number. The cost averaging formula and conditions are covered in the receiving Section of this Manual. The cost averaging defaults can be set with Option 50 in the configuration settings and utilities module. (Calculation is shown in Section 8.1.4)

The **Std Cost/Unit** (stdcost) field contains the list cost of the part. If your company's accounting department is using standard costs to value inventory, standard costs should only be entered and changed with their permission.

The **Last PO Cost** (lastpocost) field contains the cost of the last PO for this part. pc/MRP automatically enters the last PO cost whenever a purchase order is created for a part number. If the PO cost is changed after saving the new PO, you must manually edit the part's Last PO Cost.

The **Assembly Cost Details** button will display the sum of the component, labor, and overhead costs for an assembly. This button will not respond for a component or labor part numbers. The standard cost of labor is stored in the stdlabcost field. The average cost of labor is stored in the avelabcost field. The last PO cost of labor is stored in the lpolabcost field. Please note that the 'Overhead %' calculated value is also stored with the labor cost fields in the database. So, as an example, calculating standard component cost is: stdcost – (stdlabcost + stdoutcost).

Option 60 in the configuration settings and utilities menu sets the overhead percentage.

Option 35 setting cost of sales, recently changed. See Section 15.1.35 in this Manual.

5.1.2.4 Enter a New Part Number, Step 4, Inventory Data Entry Screen, Left Side

Note: Your screen will look different if you do not have the **Sales Analysis Module** and/or the **Infinite Bucket MRP Module** activated.
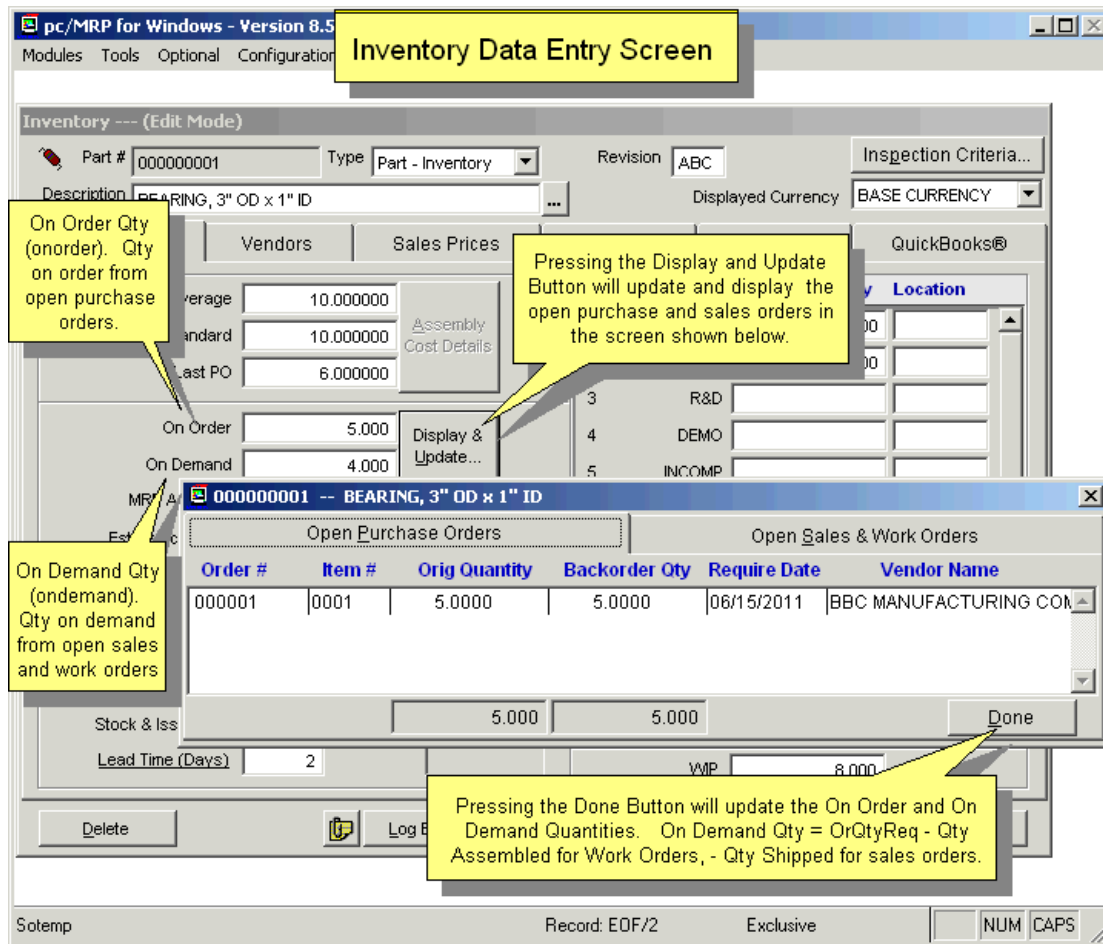
The **On Order** (onorder) field contains the quantity on order from open purchase orders. As explained above the quantity on order in inventory will be increased by the quantity ordered x the purchase ratio. When the PO is received, the quantity on hand will increase by the quantity received x the purchase ratio.

The **On Demand** (ondemand) field contains the quantity on demand from open work orders and sales orders. Whenever a work order or an "Order Entry" sales order is entered, the quantity **On Demand** for that specific assembly is increased. It is important to note, the quantity **On Demand** for the component parts that go into that assembly do not increase. Instead, whenever an MRP is generated, pc/MRP decreases the quantity available field for the component parts to satisfy the demand from the open sales and work orders. Creating an invoice for a sales order will decrease the quantity **On Demand** for the assembly listed in that sales order. Using the stockroom's "Receive completed assemblies from manufacturing" for a work order will decrease the quantity **On Demand** for the assembly listed on that work order. The **On Order** and **On Demand** can be displayed and updated by pressing the **Display and Update** button. This button will recalculate the demand by subtracting the qty shipped for sales orders and the qty assembled for sales orders from the original qty required for all of the open sales and work orders.

Inventory Data Entry Screen Left Side (Version 8.73D and Higher)

Callouts in screenshot:

- Std Order Qty (ordqty) is Used by Inf Bkt Module. Sales order needs 3, Std Qty = 12, Inf Bkt will create a Buy Action for 12 and use the excess for remaining sales/work orders NOTE: If both Std Order Qty and Order Multiple qty are greater than 0, pc/MRP defaults to the Std Order Qty.

- Order Multiple (ordmult), used by Inf Bkt Module. If pc/MRP needs 17 and Order Multiple = 12, Inf Bkt will create a Buy Action for 24 and use the excess for remaining sales/work orders

- Est Usage (usage) Without the Sales Analysis Module this is set by hand.

- Qty Available (avail) after MRP Allocation

- Min Weeks/Lock Min requires Sales Analysis

- Min Qty (minqty) Without the Sales Analysis Module this set by hand. In this case 5 per week x 2 weeks = 10

- Lead Time (ltime), set by hand 14 days = 2 weeks. Used by Single and Infinte Bucket Module. See Option 65

- Date of Last Physical Inventory or Cycle Count (lastphydat) for this part number. The last physical count fields are in the partmast.dbf but not displayed (lastqty1- lastqty20 and lastqtywip)

The **Estimated Usage/Week** (usage) field is used by pc/MRP's Inventory Cycle Count Module to automatically determine which parts are to be reclassified as Class A, B, or C parts based on usage and unit cost. pc/MRP's optional Sales Analysis Report will fill this field in automatically based on past sales (invoice) history. Class codes are not updated at this time.

The **MRP Available** (avail) field contains the quantity available after allocation. This field is updated by running pc/MRP's Single or Infinite Bucket MRP program. The MRP programs will allocate parts on hand and on order and fill in the quantity available field with the quantity after allocation. For example, if a company has 1200 bearings on hand, the quantity available might be 800 after allocation. The MRP Available field will consist of the onhand quantity + PO quantity (on order) - the allocated quantity (future issues and sales) - the minimum quantity. pc/MRP dynamically adjusts the MRP Available field (new purchase orders increase the quantity available of component parts and invoices decrease the quantity available of finished assemblies). MRP Available is based upon the stores areas checked when generating the MRP Action items.

The Infinite Bucket **MRP Time Stamp** Date was added to **Versions 8.73D** and higher. The MRP Available Field is only correct right after generating an MRP. This is why we have put a time stamp next to the MRP Available Field. If you hover your mouse over the Time Stamp Field it will display the Time as well. The time stamp is displayed in green if the MRP was last generated on the current day. It will is red and bold if the MRP is older than that. **Note:** Versions lower than 8.73 did not display the date the MRP was last generated.

Once the Infinite Bucket has finished generating an MRP, it will update the each part and assembly's MRP Available Field. The MRP Available Field will contain the qty available after allocation (onhand+POs-issues and sales action items). After that entering a PO for a part will increase the qty available. Entering an invoice for a part or assy will decrease the qty available for that part or assy. When entering a sales order line item, it could take up to 5 minutes to regenerate an MRP for all the parts and sub-assys that might be affected. For this reason, the MRP Avail Field can only be considered correct right after the MRP has been generated. We recommend using pc/MRP's Scheduler to automatically generate an MRP every night.

The **Std Order Qty** (ordqty) field is used by pc/MRP's Infinite Bucket module. If the infinite bucket module needs to create a buy action item for a part number, it will use the actual quantity required. However if the standard order quantity for that part number is greater than 0 and greater than the actual quantity required, it will use the **Std Order Qty** and use the excess qty for remaining sales and work orders.

The **Order Multiple** qty (ordmult) field is used by pc/MRP's Infinite Bucket module. If the infinite bucket module needs to create a buy action item for a part number, it will use the actual quantity required. However if the **Order Multiple** quantity for that part number is greater than 0 and greater than the actual quantity required, it will use the order multiple quantity. An example of an order multiple would be eggs that can be purchased by the dozen to a carton. If the infinite bucket required a buy of 17 eggs, pc/MRP will generate a buy action item for 24 and use the excess for remaining sales and work orders.

Note: If both **Std Order Qty** and **Order Multiple** qty are greater than 0, pc/MRP defaults to the **Std Order Qty**.

The **Min Qty** (minqty) field contains the quantity at which a part should be reordered. For example, if you use 2 parts per week and it takes 3 weeks to receive the part the min qty field should be set to 6. pc/MRP's optional Sales Analysis Module has an option that will study your sales (invoices), related BOMs for a specified period, and automatically fill in this field. If the **Cat Index** field contains the word "SAV" the sales analysis will not update that part's min qty.

The **Max Qty** (maxqty) field contains the maximum quantity to re-order. This field is used by the Min/Max report found in pc/MRP's purchasing report module.

The **Stock and Issue Unit** (unit) field contains the unit of measure (each, ft, lb, hrs, etc) that the part is issued to manufacturing and sold in.

The **Lead Time** (ltime) field is used by the Infinite Bucket optional module. This tracks lead-time by days. For component parts, this represents the delivery time needed to receive the part for the vendor. For assemblies, it represents the build time for the assembly when building the assembly from all parts, not using sub-assemblies already built. The default lead times for parts and assemblies can be set in Configuration, Settings, and Utilities, Option 65. If pc/MRP's Infinite Bucket Module finds a 0 in the lead-time it will use the default lead times found in Option 65. If it takes two weeks to build an assembly or order a part, enter 14 days, not 10 days. If any date starts or ends on a weekend, pc/MRP's Infinite Bucket MRP adjusts that date back to Friday.

The Date of Last PI/CC (**lastphydat**) field stores the date the last time a physical inventory or cycle count was taken with pc/MRP's Physical Inventory Module. The lastphydat field will also be filled when the part number is first entered.

5.1.2.5 Enter a New Part Number, Step 5, Enter Stores Quantities and Locations
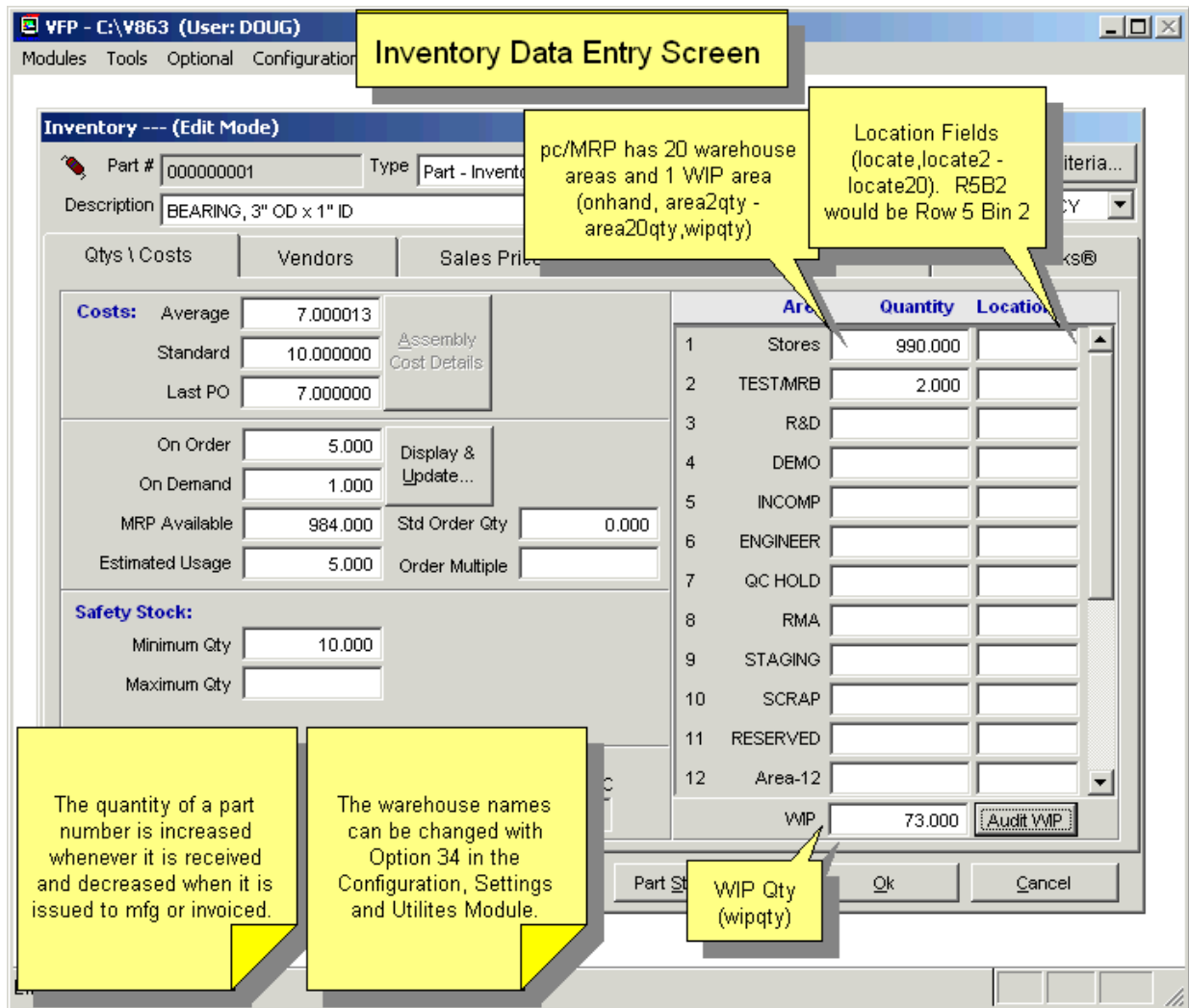
The warehouse **Area Names** such as TEST/MRB, ENGINEER, and R&D can be changed using Option 34 in the configuration, settings and utilities module. It is important to note that these are areas that store parts & assemblies, not manufacturing areas. pc/MRP has one area representing manufacturing and that area is WIP (work in progress). To move and track work orders and sales orders through the factory floor from work station to work station see the Optional Routing Module in Chapter 16.14 in this Manual.

Enter the initial **Stores Quantities** in the warehouse areas (onhand, area2qty-area20qty). After the initial entry, it is advisable to use Option 62 in the configuration settings and utilities to prevent people from editing the quantities. Instead they should use the Stockroom's "Adjusting Quantities" Option to adjust quantities as this leaves a record of the adjustment. The quantity of a part number is automatically increased whenever the receiving module receives it. The quantity of a part number is automatically decreased when they are "Issued to Manufacturing" or "Invoiced". Much of this depends on how you set your inventory adjustment method (see Option 4 in the configuration, settings and utilities menu).

Do not enter **WIP Quantities** (wipqty), instead use the Stockroom's "I-type" (Issue Parts to Manufacturing) or "L-type" (Lower Level Issue) transactions as pc/MRP will only remove parts from WIP when a sales or work order is "Received back from manufacturing as completed assemblies" ("R-type" transaction) .

The part's **Location** fields (locate, locate2-locate20) can contain any six-digit code you care to come up with to aid in locating parts. Ex. R5B2 would be Row 5 Bin 2.
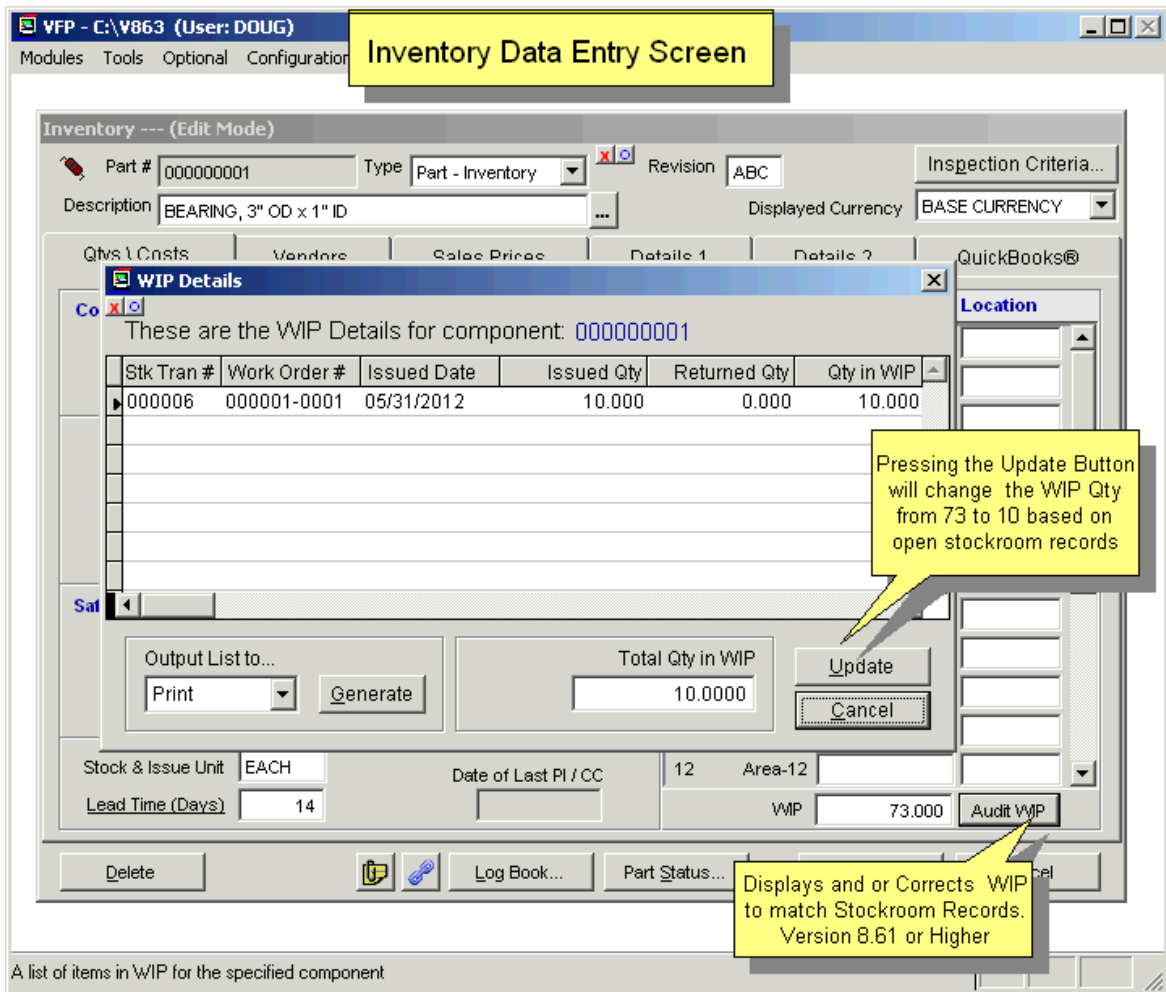
The **Audit WIP** button was added in Version **8.61**. Displays and or corrects WIP to match Stockroom Records.

Pressing the Update button will change the WIP quantity based on open Stockroom records.

5.1.2.6 Enter a New Part Number, Step 6, Enter PO Ratio, PO Unit, Buyer
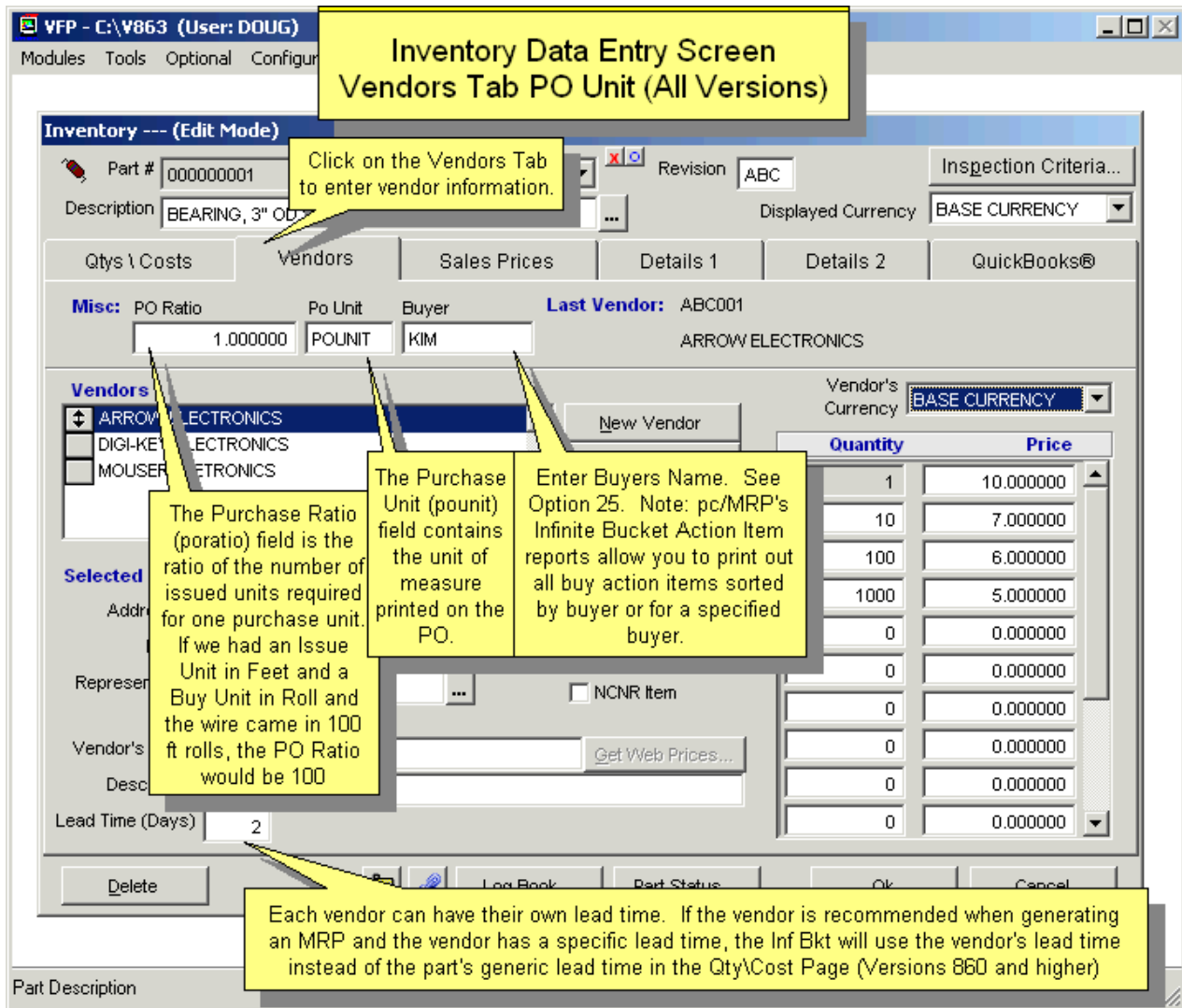
 The **PO Ratio** (poratio) field is the ratio of the number of issued units required for one purchase unit. For example, if you issue in feet and purchase in yards, the **PO Ratio** would equal 3. Whenever a part number is created or data is imported into the partmast.dbf file, pc/MRP automatically inserts 1 into this field.   We recommend keeping it simple.   Leave the **PO Ratio** at 1 and enter the same unit of measure into the **Stock & Issue Unit** and **PO Unit** fields.

The **PO Unit** (pounit) field is the purchase unit of measurement. Referring to the example above this would be one yard. When entering a PO, enter the quantity of purchase units you require. pc/MRP will insert the purchase unit and multiply the vendor's unit cost by the purchase ratio. The quantity on order in inventory will be increased by the quantity ordered times the purchase ratio. When the PO is received, the quantity on hand will increase by the quantity received times the purchase ratio.

The **Buyer** (buyer) field contains the name of the buyer responsible for purchasing this part. pc/MRP's Infinite Bucket action item reports allows you to print out all buy action items by buyer or for a specified buyer.

5.1.2.7 Enter a New Part Number, Step 7, Enter Vendors and Price Qty Breaks
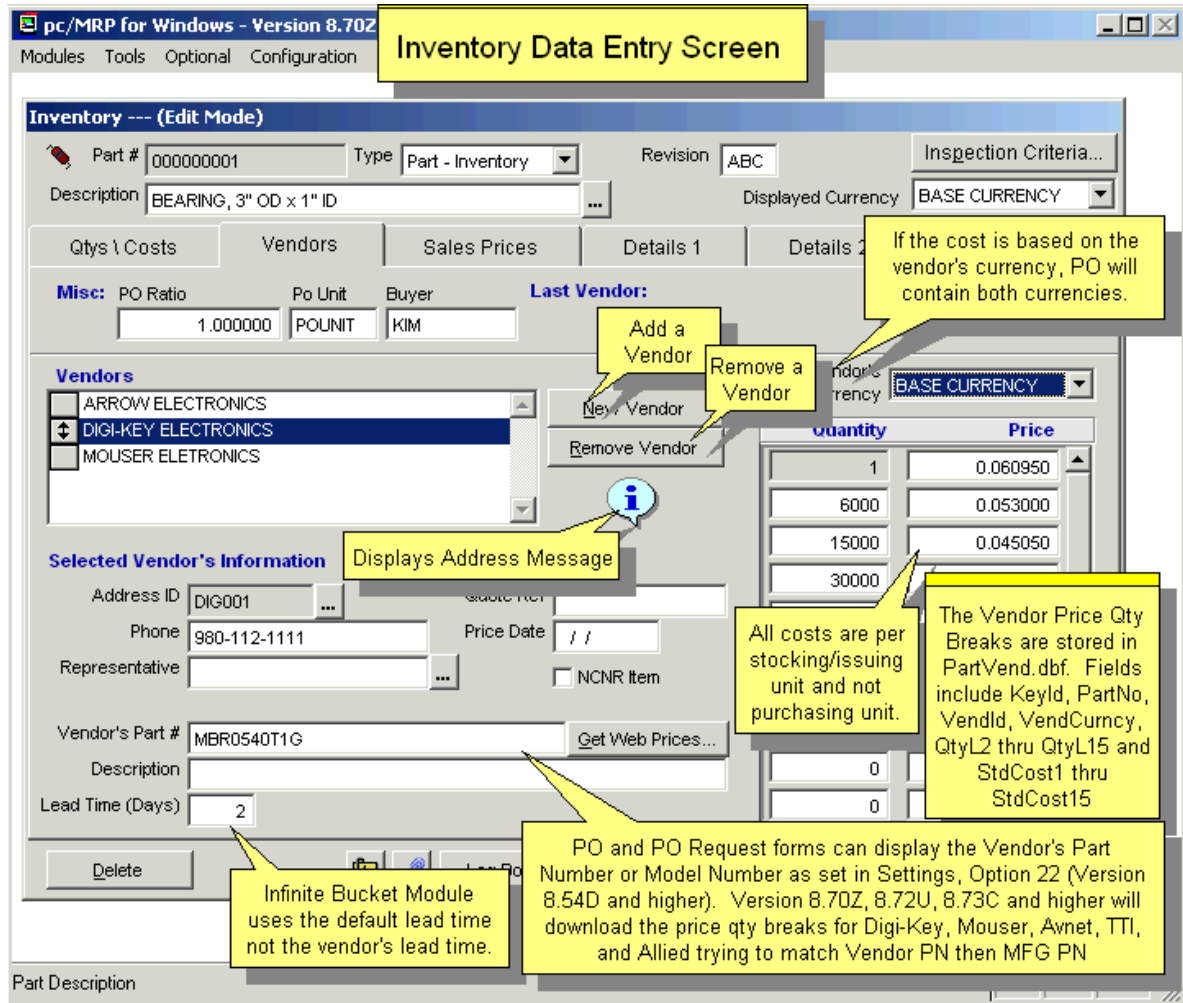
Click on **New Vendor** to scroll the Address Book and select any number of vendors for this part. The address ID and phone number will be entered automatically. You can list the vendors in order of preference using the ↕ button left to the vendor's name. You can enter up to 15 quantity price breaks for each vendor. (QtyL2-QtyL15, StdCost1-StdCost15 in the Partvend database table.) When you place an order, you will see the list of the related vendors in the order of preference, but pc/MRP will highlight the vendor with the best price for that quantity.

Get Web Prices: Version 8.70AA, 8.72U, 8.73C and higher will download the price qty breaks for Digi-Key, Mouser, Avnet, TTI, and Allied from the Internet, trying to match Vendor PN then MFG PN. (partvend.vendpn 30 ch)

For companies that own the Optional **Alternate Currency Module**:
As the currency exchange rate fluctuates, the two companies need to agree which will pay/receive a fix amount, and which will pay/receive a varied amount. If this vendor is to always get his set currency price, the **Vendor's Currency** should be set to his currency. If you are always going to pay your set currency price, this should be set to Base Currency. The vendor prices should be entered in the selected currency.

If you change a currency rate in the alternate currency module, pc/MRP will change the vendor cost for every vendor whose base currency is set at that currency. pc/MRP will calculate the new cost by using the following formula: OLD COST*(OLD RATE/NEW RATE). If you display the vendor costs in the base currency, pc/MRP displays the base currency as stored in those fields. If you select to display the cost in another currency, the standard costs for each vendor will be displayed as a multiple of the standard cost for that vendor and the selected currency.

5.1.2.8.1 Enter a New Part Number, Step 8.1, Enter Selling Prices (Option 1, Default Method)
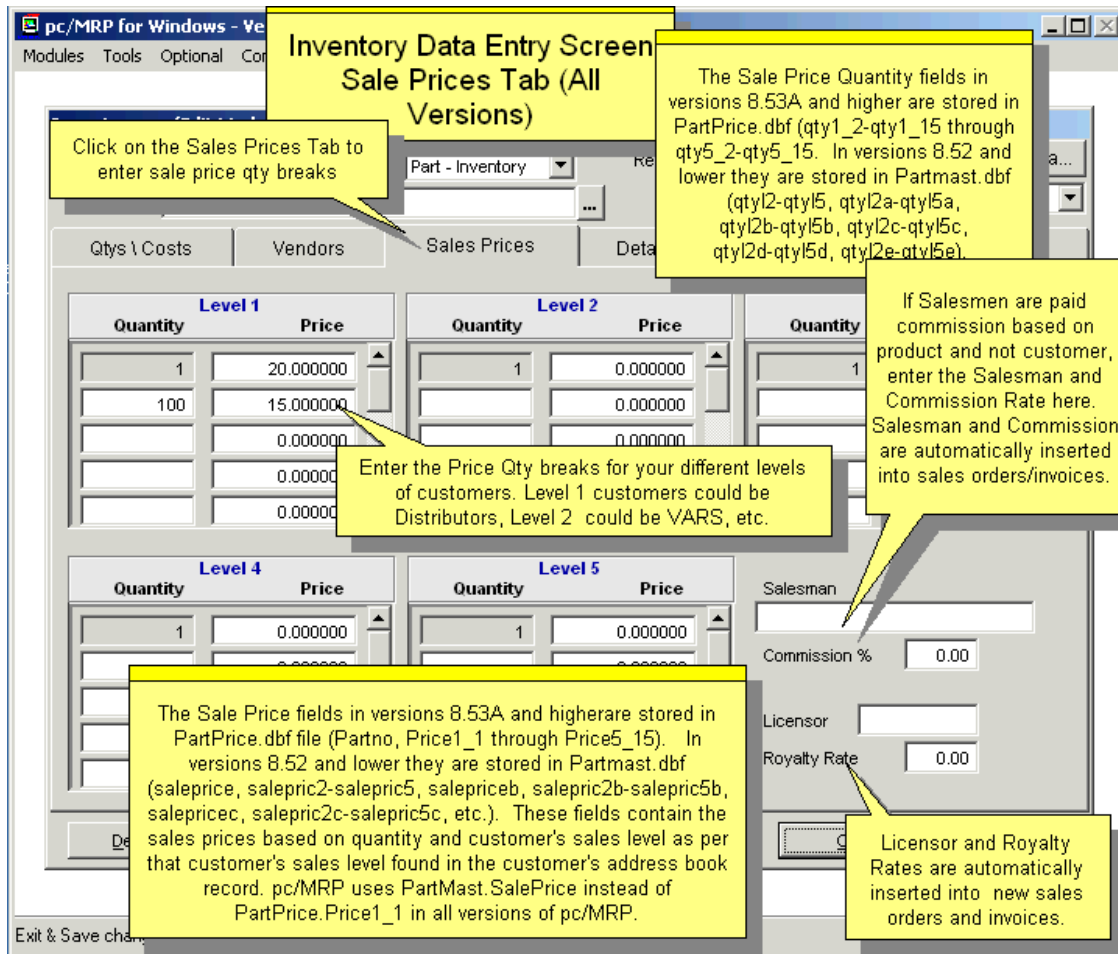
Option 67 in pc/MRP's Configuration Settings and Utilities Menu, allow users to set the method pc/MRP will use to determine the selling prices for sales orders and invoices.

Sales Level and Quantity Price Method (first option). With this method, selecting the Sale Prices Tab will display the sale price screen shown above.

The **Sale Price Quantity** fields are stored in PartPrice.dbf (qtyl_2-qtyl_15 through qty5_2-qty5_15. In versions **8.52 and lower** they are stored in Partmast.dbf (qtyl2-qtyl5, qtyl2a-qtyl5a, qtyl2b-qtyl5b, qtyl2c-qtyl5c, qtyl2d-qtyl5d, qtyl2e-qtyl5e).

The **Sale Price** fields are stored in PartPrice.dbf file (Partno, Price1_1 through Price5_15). Price 1_1 is also stored in the Partmast field Saleprice. (If importing the prices, Price1_1 must be imported into both tables.)   In versions **8.52 and lower** they are stored in Partmast.dbf (saleprice, salepric2-salepric5, salepriceb, salepric2b-salepric5b, salepricec, salepric2c-salepric5c, etc.). These fields contain the sales prices based on quantity and customer's sales level as per that customer's sales level found in the customer's address book record.

The **Salesman** (salesman) and **Sales Commission (%)** (commiss), fields are automatically inserted into sales orders, invoices, and accounting transactions to allow pc/MRP to track and report on sales commissions. A sales commission of 5.00 would represent 5%. Note: Configuration, Settings and Utilities, Option 81 sets whether the sales commission should come from the Inventory or from the Address Book.

The **Licensor** (licensor) field is automatically inserted into sales orders and contains the name of the company that may have licensed this part number for resale.

The **Royalty Rate** (royalrate) field contains the royalty rate charged for this part number.

5.1.2.8.2 Enter a New Part Number, Step 8.2, Enter Selling Prices (Option 2)

With this method, selecting the Sale Prices Tab will display the following page of the inventory data entry screen.

Each part can be assigned a category (A-9). The part in the above screen has been assigned as a Sale Price Category 'B' part. The 'Sale Price Category' (pricekey), is like a product grouping such as 'Wheel Assemblies', 'Motherboards', or 'Cabinets'. A part can only reference one 'Sale Price Category'. Each part can be assigned up to 25 different prices (A-Y). In the above example, customer's whose key assigns them level D pricing for B type parts would pay $7.00 per part.

By selecting the Sales Contact Info tab in any address entry and pressing the Sales Level button within that tab, the price key screen will pop up as shown below.

In this case, the customer shown would pay the level G price for category B type parts. As such, his price would be $9.00. We do not recommend using this pricing method, as it is not simple and straightforward. If a sales price level is left blank like **E** or **F** in the address entry or if the sales price category is left bank in inventory the sales price will default to sales price level **A**.

5.1.2.9. Enter a New Part Number, Step 9, Details 1 Tab

Inventory Data Entry Screen

Click on Details 1 Tab

1. Enter Name of the Manufacturer

2. Enter Manufacturer's Part Number

3. Press the Price Lookup

Select the website to be Queried.

- Findchips.com
- Allied Electronics
- Avnet
- Digi-Key
- Mouser
- TTI

4. Select Vendor you wish to import prices from.

Locate Image or Document

Open/View Document

5. Press OK

pc/MRP Version 8.70Z, 8.72U, 8.73C and higher will try to match Vendor PN. If it does not find a match it will try to match MFG PN. Price/Qty Breaks are standard and not customer specific.

Price Quantity Breaks imported from the vendors web site.

Do you want to insert Mouser Electronics price/quantity

Current Qty	Current Price	New Qtys	New Prices
1.000	4.810000	1.000	4.810000
25.000	4.350000	25.000	4.350000
50.000	4.010000	50.000	4.010000
100.000	3.770000	100.000	3.770000
200.000	3.660000	200.000	3.660000
0.000	0.000000	0.000	0.000000
0.000	0.000000	0.000	0.000000
0.000	0.000000	0.000	0.000000
0.000	0.000000	0.000	0.000000
0.000	0.000000	0.000	0.000000
0.000	0.000000	0.000	0.000000
0.000	0.000000	0.000	0.000000
0.000	0.000000	0.000	0.000000
0.000	0.000000	0.000	0.000000

Click Yes, if you wish to save the vendor's price quantity breaks.
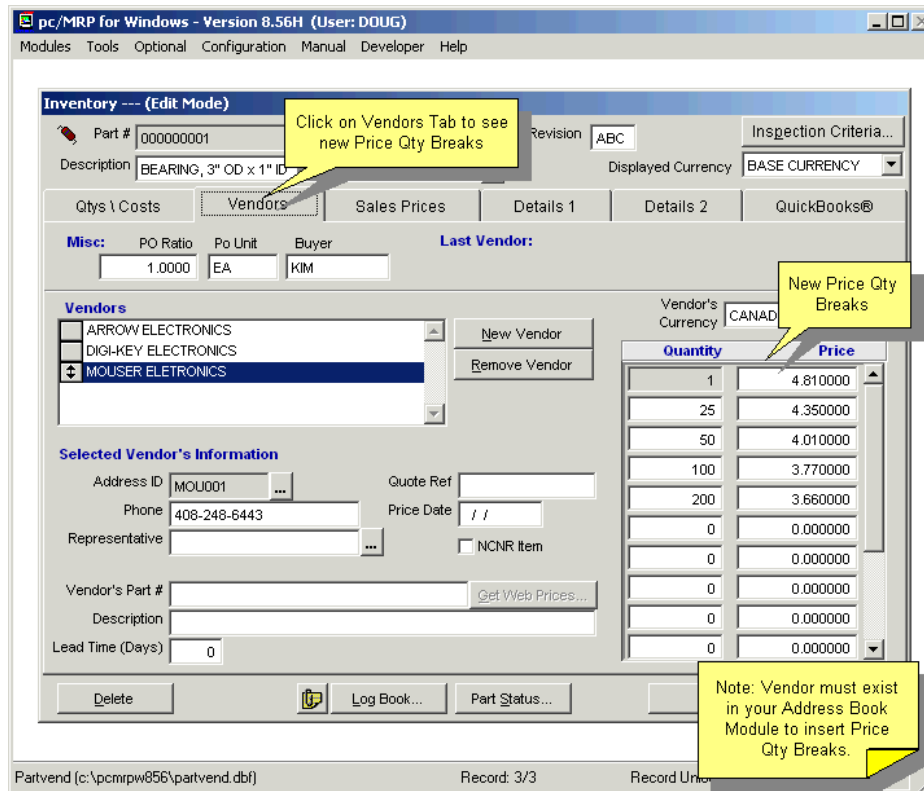
The **Details 1**' Tab will display the fourth page of the inventory data entry screen as shown on the previous page.

Enter **Manufacturers** (manufacter, mfg2-mfg9) and their respective **Model Numbers** (modelno, modelno2-modelno9). The **Alternate Part Numbers** (altpart1 - altpart6) allow users to store up to six alternate part numbers that can be used in place of this part number. Option 54 in pc/MRP's configuration settings and utilities menu will set the alternate part numbers in inventory to update or not update the alternate part numbers in the BOM file.

If the manufacturing part number is distributed by **Arrow**, **Digi-Key** or **Mouser,** the standard price quantity breaks and vendor can be automatically inserted into the Vendor Price/Quantity Breaks provided the vendor (Arrow Electronics, Digi-key, Mouser Electronics, etc.) is listed in the Address Book.
Note: If the prices returned are $0.000000, then the part is probably a "Call for prices" item.

Note: With Arrow, Digi-Key, and Mouser features, if you are using **Windows Vista** and **IE7** or higher, the **User Account Control** must be **OFF**. Click on the **Start** button, **Control Panel**, **User Accounts**, and turn the control **OFF**. You will have to also click **OK** in the warning window that pops up.

The **Image File** (image_file) field is used to store and display one picture for each part. GIF and JPG files are displayed directly within pc/MRP, while all other file types, (BMP, PDF, AVI, DOC...) are viewed by clicking the External Viewer button. We recommend that all files be deposited into a sub-directory of pc/MRP's main directory labeled *BMP*. This will eliminate difficulties that may occur when trying to view the image from workstations that have a different drive designation for the server. If you wish to view PDF files, you must install Adobe Acrobat Reader. Adobe Acrobat Reader can be downloaded from http:\\www.adobe.com/products/acrobat/readstep.html. A URL can be entered into this field. The URL must however contain the full URL. (http://www.xxxxx.xxx) **Note:** To learn how to easily *link any number of images* (and other files, folders and URLs) to each part, see File Links later in this Chapter.

The **General Info** (altpartno) field is sort of a wild card field. It can be used to store information such as purchasing specifications, additional description, alternate part numbers, etc. Option 22 in pc/MRP's configuration settings and utilities menu can be set to automatically import the contents of this field into sales and purchase order comments field. Computer manufacturers and retailers who wish to increase the length of their descriptions by including "30 gig hard drive, 128 Megs RAM", etc. can use this option.

5.1.2.10. Enter a New Part Number, Step 10, Details 2 Tab
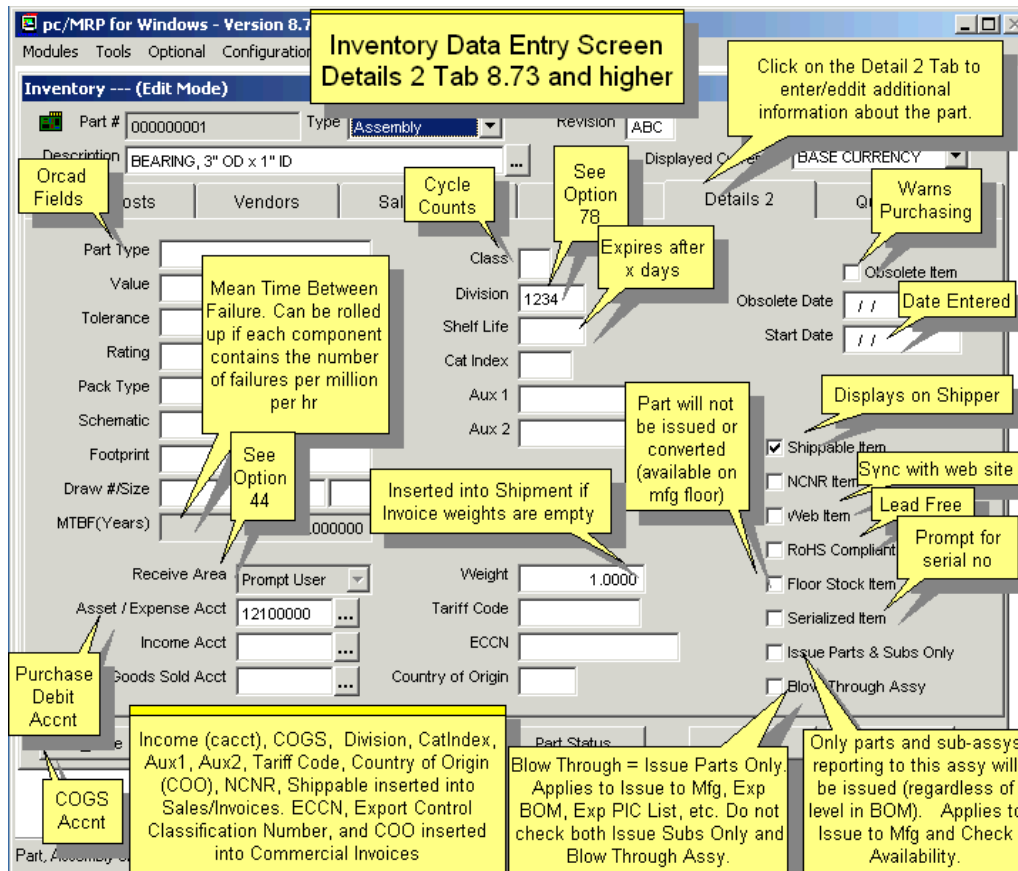
The following fields, **Part Type, Value, Tolerance, Rating, Package Type, Schematic** and **Footprint** were included to match similar fields in ORCAD.

The **Draw #/Size** fields contain the part number's drawing number (drawingno) and drawing size (drawsize).

The **MTBF** ((1/sum of the part reliability factors in the assembly)*(1,000,000/8769)) field (for assemblies only) contains the resulting mean time between failure for that assembly in years.   The MTBF field for assemblies is read only.   It can be automatically calculated and populated by entering all of the reliability factors for part numbers and then running the Cost and MTBF Roll Up option on the inventory menu.

The **Debit Account** (dacct1) field is automatically inserted into purchase orders and receivers. If a receiver's debit account field contains an 8-character chart of accounts number, pc/MRP will debit that account when posting the accounts payable voucher (receiver). If Option 11 (multi-div) is set off or the division field is empty, pc/MRP will debit the default chart of account (12100000 inventory for Perpetual or 41100000 purchases for Periodic) found in Configuration, Settings & Utilities, Option 9's account template file.

The **Credit Account** (cacct1) field is automatically inserted into sales orders and invoices. If an invoice credit account field contains an 8-character chart of accounts number, pc/MRP will credit that account when posting the accounts receivable voucher (invoice). If Option 11 (multi-div) is set off or the division field is empty, pc/MRP will credit the default chart of account (30100000 business income) found in Configuration, Settings & Utilities, Option 9's account template file.

The **Class** field (class) is used by pc/MRP's Inventory Cycle Count Module. All Class A parts are counted every 30 days. All Class B parts are counted every 90 days. All Class C parts are counted every 180 days. This field must be filled in with an A, B, or C. See the Cycle Count Module Section in this Manual for additional details on automatically filling this field. Parts that do not have an "A", "B", or "C", will be ignored. Settings & Utilities, Option 64 sets the default class for new parts. Therefore, to **not** include labor parts, you must remove the default Class code at the time of creating the Labor part number.

The **Division** (division) field is automatically inserted into sales orders and purchase orders. pc/MRP uses this field to determine what division or department chart of accounts to credit or debit for sales orders and purchase orders.

The **Shelf Life** (shelflife) field contains the shelf life in days for that part number. If you have activated pc/MRP's optional serial/lot number module, receive completed assemblies back from manufacturing, and select to enter serial/lot numbers, pc/MRP will insert the expiration date into that serial lot/number based on the date and the shelf life.

The **Cat Index** (catindex) field is utilized in the optional Sales Analysis module. This allows the end-user to leave min quantities for part numbers or assemblies unchanged regardless of usage figures by entering "SAV" into that part or assembly's catindex field.

The **Aux 1** and **Aux 2** fields were added in Version **8.73**.

pc/MRP uses the **Weight** (weight) field to insert the total weight of a shippable items into a UPS or Bill of Lading shipping document (labor for example is not a shippable item), but only if the invoice weight is empty.

The fields **ECCN** (Export Control Classification Number) and **COO** (Country of Origin) are available versions **8.73D** and higher, and will be inserted into Commercial Invoices.

To obsolete a part, check the **Obsolete Item** checkbox. The date field **Obsolete Date** (obsdate) is automatically set to the current date (you may change this). pc/MRP will display a warning if you try to purchase a part that is marked as obsolete and its obsolete date is earlier than the current date. The part will also be highlighted in yellow in the Inventory scroll window.

The **Start Date** (startdate) references to the date the part was first entered into the Part Master.

Parts checked as a **Shippable Item** (shippable) will automatically be included on a BOL Lading Shipment Document.

Checking the **Web Item** (webitem) check box will allow you to mark a part number that is to be listed on your web site.

Check the **RoHS Compliant** Checkbox if part is RoHS Compliant (lead free, etc.).

Checking the **Floor Stock** Item check box (floorstk) will prevent this part number from being decremented when the stock room module is used to issue parts to manufacturing. If a part number is stored on the manufacturing floor (such as nuts and bolts) and is not issued with the assembly, you would check the floor stock check box. Use the stock room's "Adjust Quantity" method to decrement the stores quantity when refilling the bin box on the manufacturing floor. When converting parts to assemblies, these items will not be converted.

If you have the Optional Serial/Lot Number module and the **Serialized Item** (serialitem) check box is checked, pc/MRP will display a window allowing you to enter or pick serial numbers when issuing, receiving, or invoicing for this part number.

Checking the **Issue Subs Only** Check Box (subonly) forces pc/MRP to issue parts and sub-assemblies reporting to this assembly when issuing this assembly. The Issue Subs Only Check Box is only visible for assemblies.

If an assembly reports to a parent assembly and it is checked as a **Blow Through Assembly**, pc/MRP will issue component parts and ignore any on hand quantities for that sub-assembly.   This is true for Issuing to Manufacturing, Convert Parts to Assemblies, Generating an MRP (Infinite and Single Bucket), Check Availability, Maximum Potential Build, Exploded Pick List, Costed and UnCosted Exploded BOMs (the BOM will contain an "*" next to it, indicating it is a Blow Through BOM).   Basically it is a BOM that is never pre-assembled, you always issue parts to it as though the component parts reported directly to the parent assembly.

5.1.2.11. Enter a New Part Number, Step 11, Enter QuickBooks Information
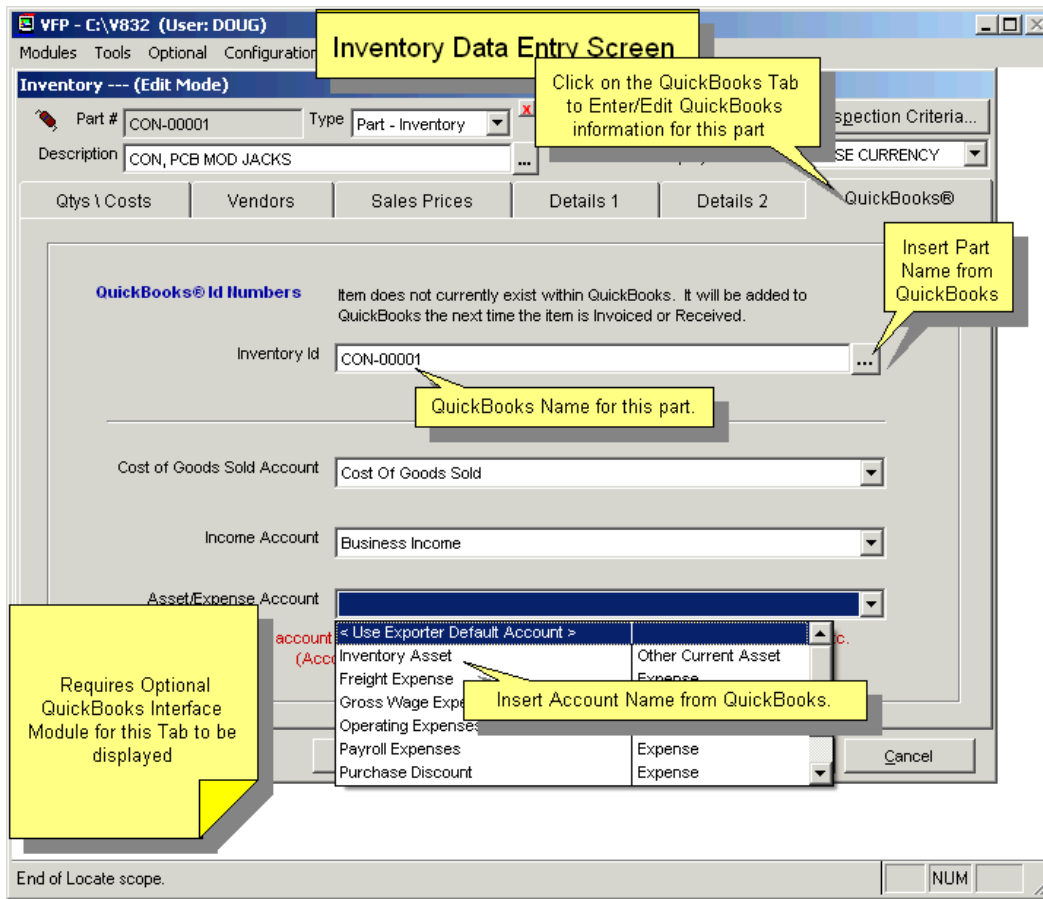
If you have activated pc/MRP's Optional QuickBooks Interface Module, Select the QuickBooks Tab to enter/edit QuickBooks information for this part number.

Whenever an invoice is exported to QuickBooks:
  The Cost of Goods Sold Account (QbCogSold) is debited for the total cost of the product.
  The Asset/Expense Account (QbAsset) is credited for the component cost of the product.
  The Income Account (QbIncome) or the Default Income Account is credited for the sale price.
  The Default Accounts Receivable Account is debited for the sale price.

Whenever a receiver is exported to QuickBooks:
  The Asset/Expense Account (QbAsset) is debited for the component cost of the product.
  The Default Accounts Payable Account is credited for the cost of the product.

pc/MRP populates the drop down chart of accounts lists from its own QbAccountsDbf.dbf instead of populating the chart of accounts lists from QuickBooks. (This is very fast.) pc/MRP creates a fresh copy of QbAccountsDbf.dbf whenever invoices or receivers are exported to QuickBooks. If the account does not exist in the dropdown list, but exists in QuickBooks, delete the QBAccountsDBF.dbf file forcing pc/MRP to get the list directly from QuickBooks. The QBAccountsDBF.dbf file will be created the next time pc/MRP exports to QuickBooks.

Note: With pc/MRP Versions **8.17A** and higher, pc/MRP's QuickBooks Accounting Fields were increased from 99 characters to 159 characters (QuickBooks own limit).   This allows for multiple sub-accounts and larger account descriptions.

See Chapter 16.16 in this Manual for details on the implementing the QuickBooks Interface Module.

5.1.2.12. Enter a New Part Number, Step 12, Buttons in the Footer

You can create **Pop-up Messages** that will display when a user edits this inventory item, enters a sales order, enters a purchase order, etc. The **Links** button allows the user to create links to files, folders and URLs. In Inventory it is used to attach drawings or travelers.
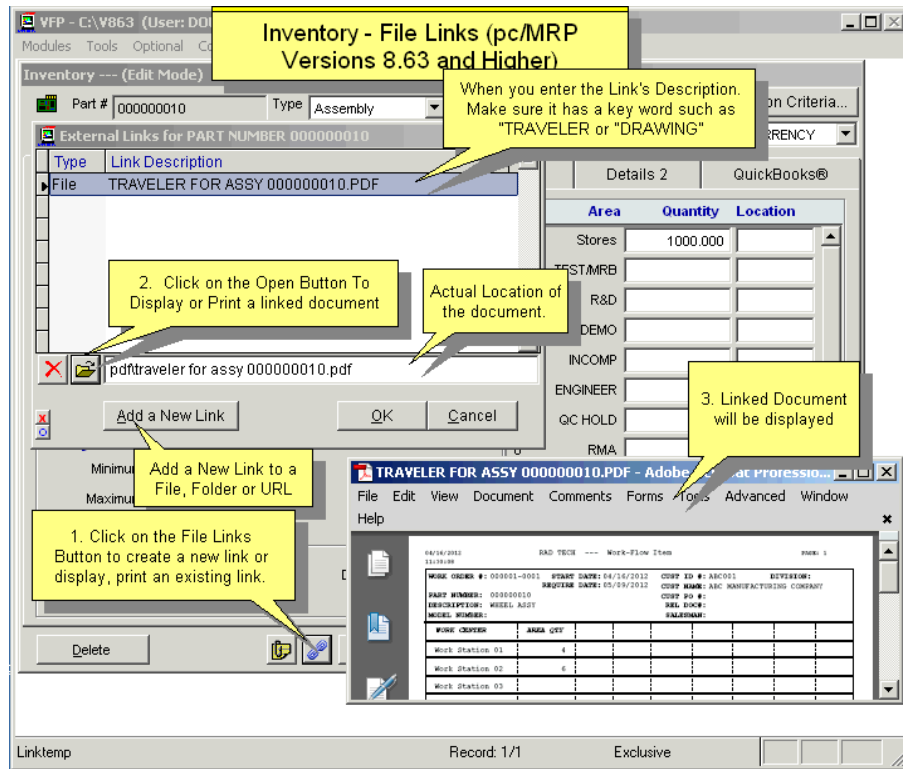
The **Logbook** button opens an ASCII text file where additional comments or instructions regarding the part may be recorded. Important: Do not change the filename assigned to the log file. pc/MRP would no longer be able to associate the file with the part number.
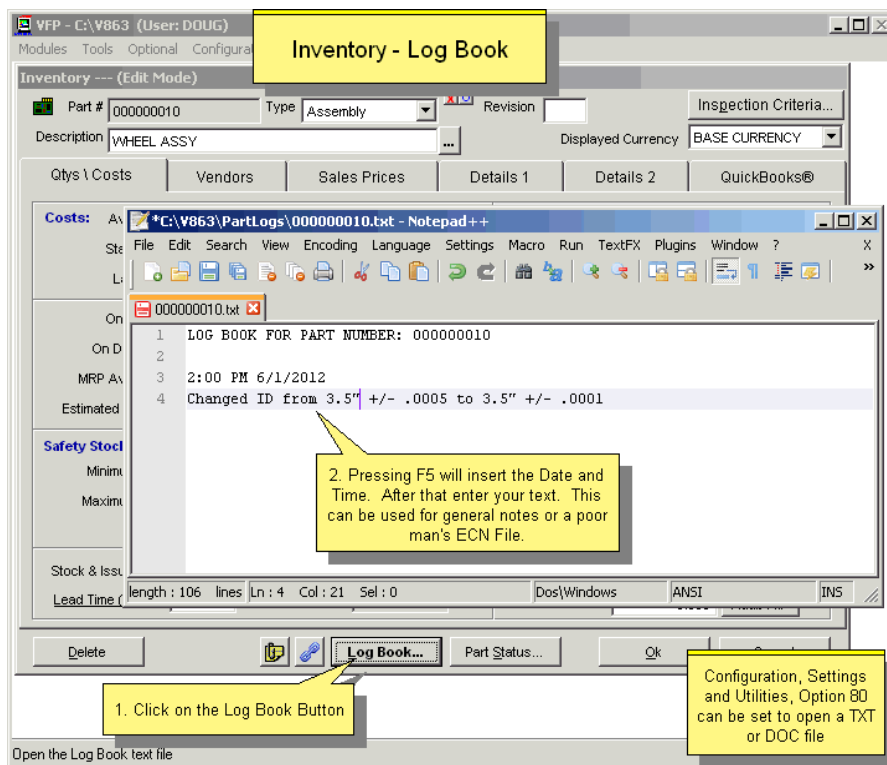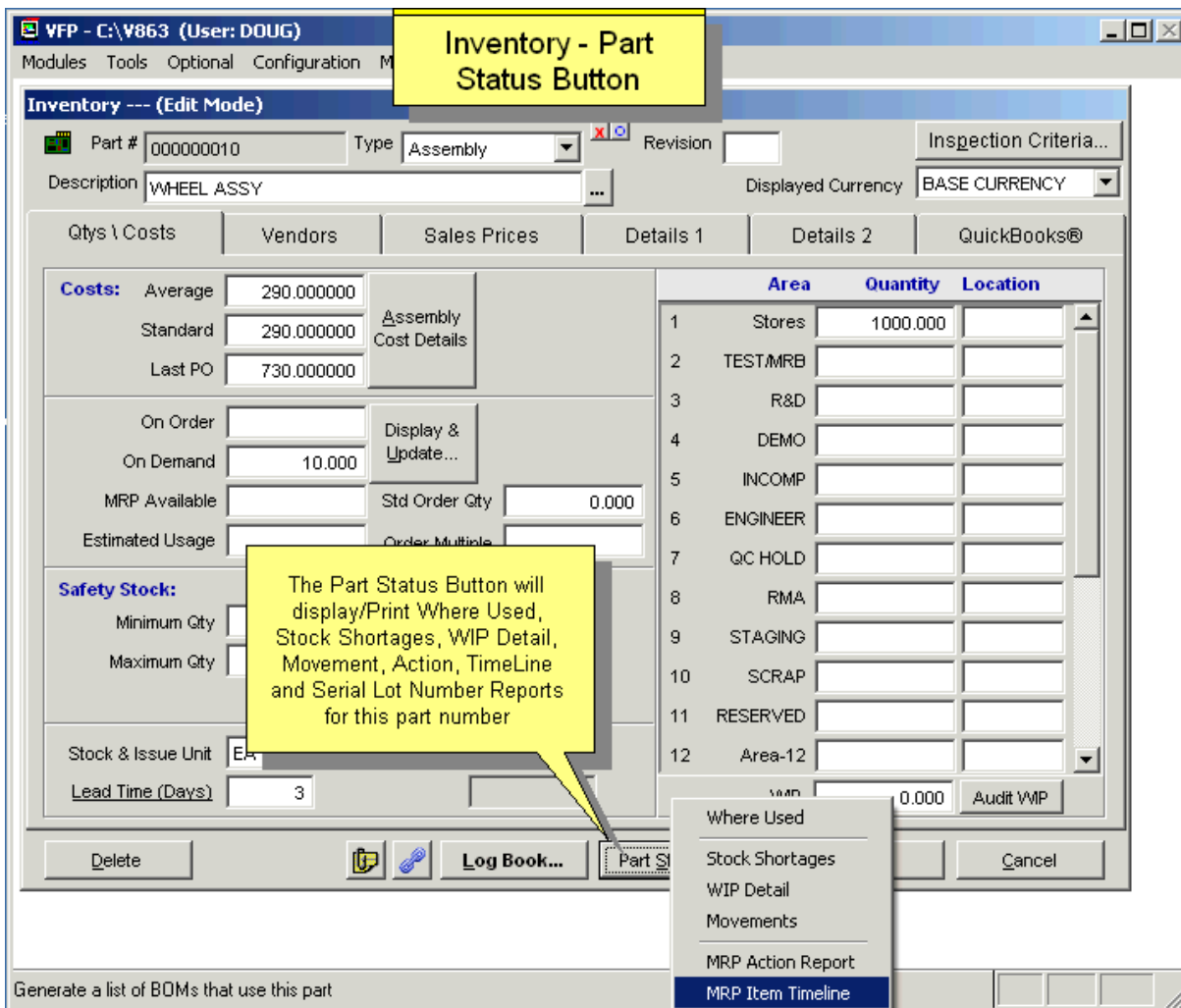
The **Part Status** button will allow the user to:

    Display/Print all BOMs that use that part number

    Display/Print all Shortages on the manufacturing floor by sales/work order for that part number

    Display/Print all Quantities on the manufacturing floor by sales order for that part number

    Display/Print all inventory movements for a specified time period for that part number

    Display/Print all MRP action items (Buys, Issues, Makes, Etc.) for that part number

    Display/Print a Graphical MRP Time Line (Buys, Issues, Makes, Etc.) for that part number

    Display/Print a Graphical Item Map of the Onhand Quantities by date for that part number

    Display/Print all Serial/Lot Number's available for that part number

The **Ok** button saves changes to the record and returns you to the main menu.

The **Cancel** button does not save the changes to the record and returns you to the main menu.

5.1.3 Edit/View a Part Number

Click Inventory, Edit/View:

Every field within the inventory edit screen is editable. Configuration, Settings and Utilities, Option 62 can be used to set various fields (costs, quantities, etc.) to be read only.

Within the inventory edit screen users can also mark inventory items for deletion or unmark inventory items for deletion (you must have "Action" right set to "Edit"). If users press the delete or undelete button, pc/MRP will locate and mark for deletion or un-deletion every occurrence of that part in every BOM. By pressing "OK", pc/MRP will ask for permission to remove those records from disk for both the inventory and BOM database files. If you have a number of parts to mark for deletion and wish to save time, do not check the check boxes to remove marked records from the BOM or Inventory tables until you are finished marking inventory parts for deletion. Mark the remaining parts for deletion, and then on the last part number allow the program to remove the marked records from disk. If you determine you do not want to remove the marked records at this time, the partnumbers will be highlighted in red until deleted via the menu (Modules, Inventory (or BOMs), Remove Marked Records 5.1.15.1 & 12.1.16).

5.1.4   Change Part Number

This option will change the part number in both the Inventory Database File and the BOM Database File.
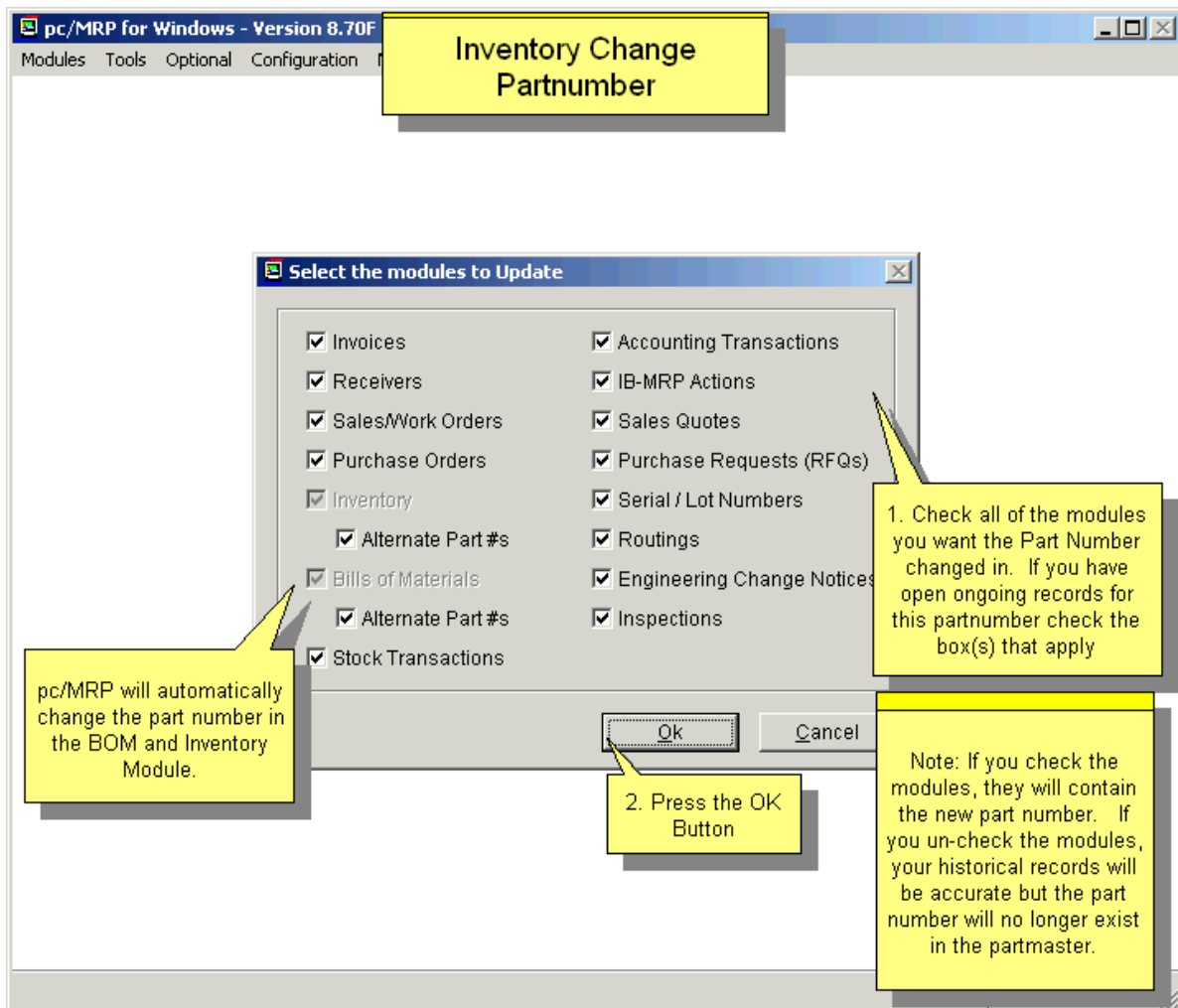
Warning: In case you would be changing a **blank** part number to a valid part number, make sure that you uncheck both "**Alternate Part #s**" fields. Keeping these fields checked will tell pc/MRP to fill up all blank altpart#s with the new part number in your entire Inventory in BOM table -- and pc/MRP will do just that.

5.1.5 Merge Two Part Numbers Together

Inventory, Merge two Part Numbers Together
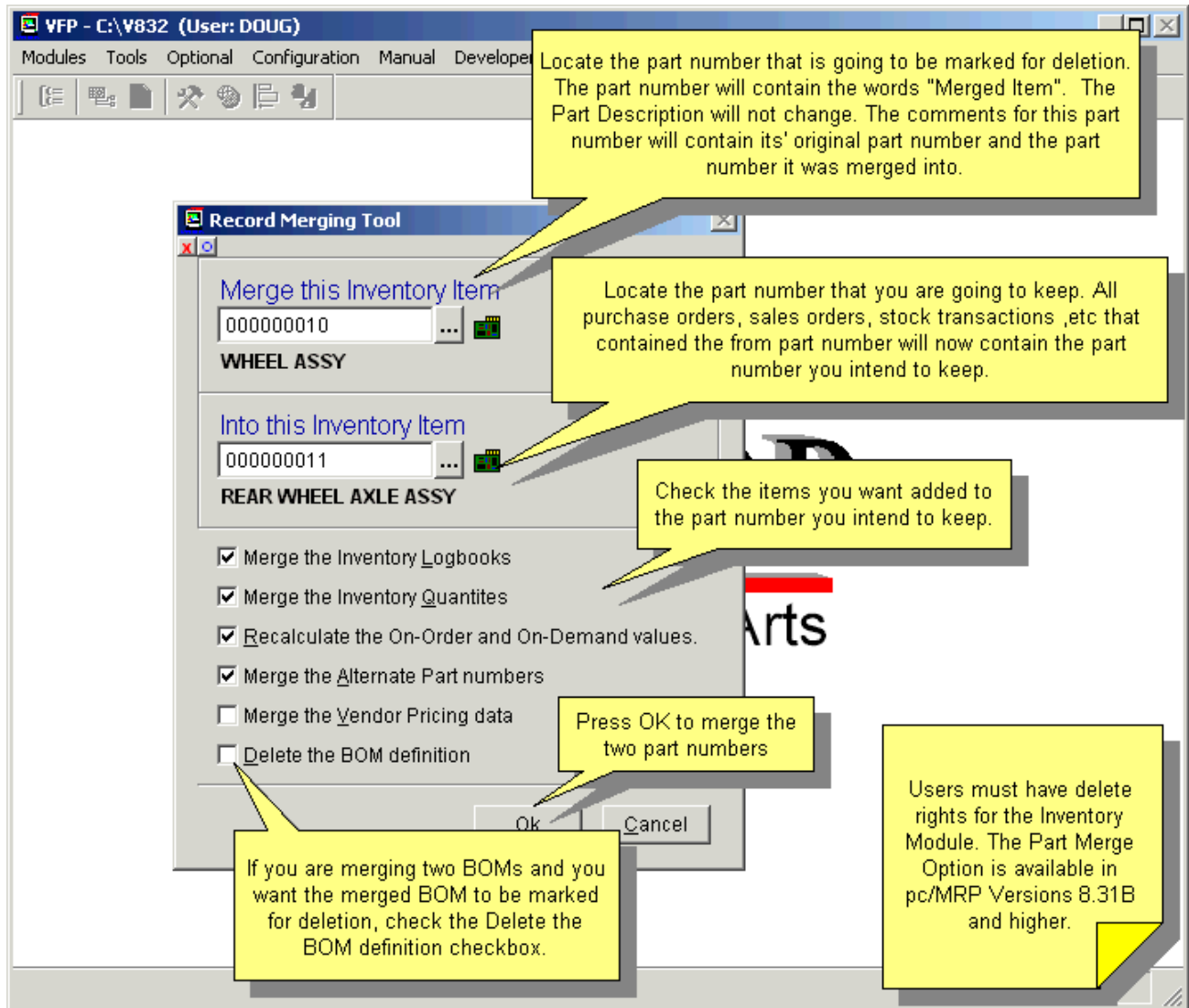
5.1.6 Find Parts (Matching a Partial Description)

Allows users to search for all parts matching a specified description in the Inventory Description Field or Memo Field. For example, to search the Inventory Description Field for all elbows you could select **D**, for search on description and enter the letters **ELB**.

5.1.7   Reports
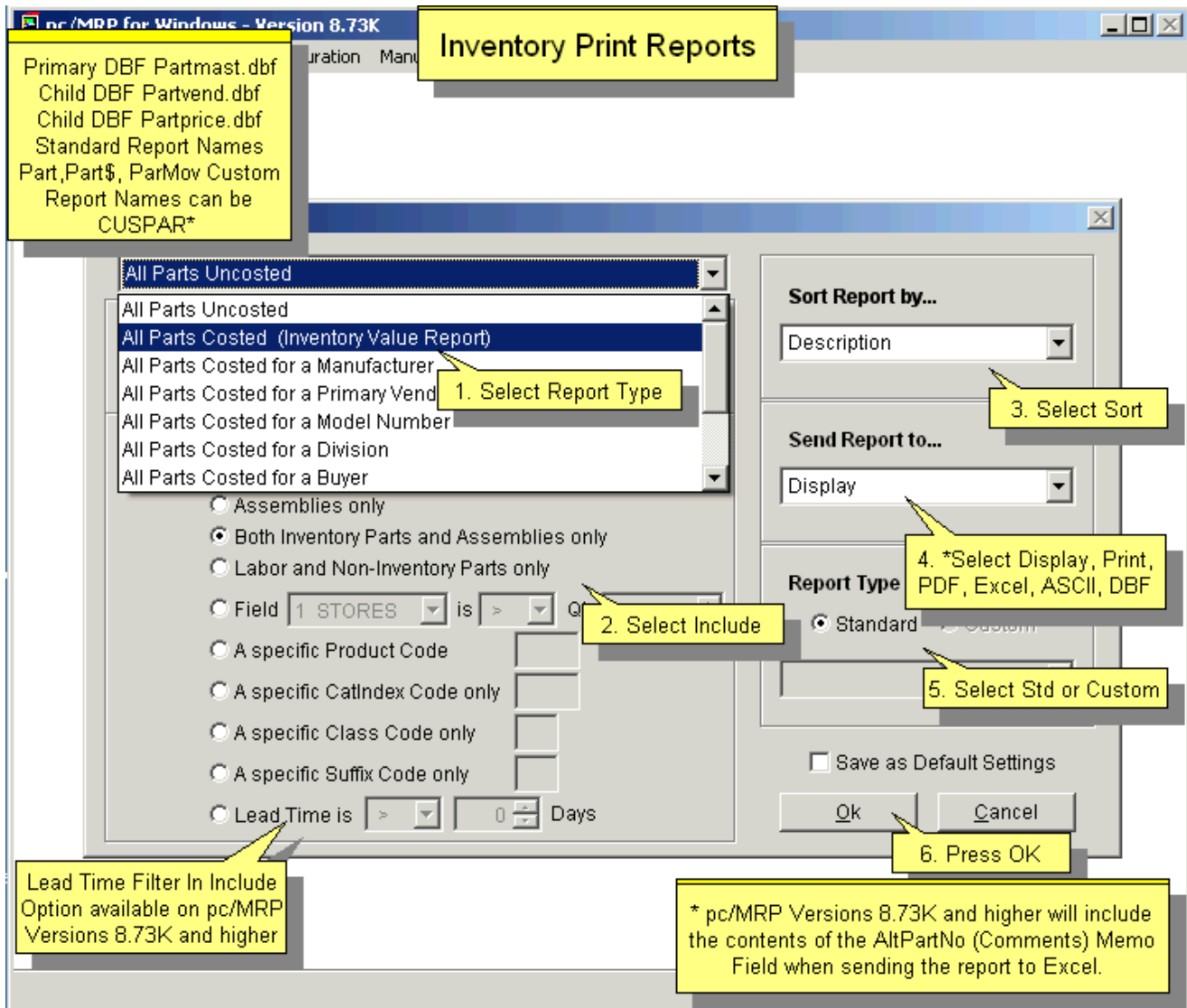
To display or print an inventory report, select Modules, Inventory, Reports and the screen shown above will display. There are a variety of standard un-costed (part.frx), standard costed (part$.frx) and custom (cuspart*.frx) reports to choose from. See Section 15.4.1 to create custom reports.

Note: All parts un-costed for single areas are cuspart0-cuspart20.frx and are available for download at
http://www.pcmrp.com/invrpt.htm

Note: The option to include inventory items based on their lead time was added version **8.73K**. This is the lead time for this part or assembly listed in inventory, not a cumulative lead time for an assembly.

Reports can be **Sent To** Display, Print, HTML, ASCII, XLS, and DBF files.   If the *Database*, *Comma Delimited* or ASCII output options are chosen, pc/MRP will create a file of that type which contains all of the raw data used by the report. If you have the Windows Generic Print Driver installed, you may select one of the *Print* output options. Then select *Print to File* to generate a text file, which mirrors the actual report. Any portion of the printed report, which normally appears in bold, will be included in the text file three times. You may edit the report forms to remove the bolding and prevent the duplication. See Configuration, Settings & Utilities, Option 24.

Note: pc/MRP versions **8.73K and higher** will include the contents of the Comments (AltPartNo memo field) when sending the report to Excel.

The **Inventory Movement Report** (*parmov.frx with movement.dbf, invmove.prg*) summarizes all part movements for a time period you specify and categorizes as Received (component parts received, AP vouchers that receive component parts, debit memos for negative quantities, and assemblies received from manufacturing), Invoiced, Issued, and Adjusted Quantities.

Check "Show Details" if you want to see the actual transactions. Select a specific area, or all areas.

Warning: The Inventory Movement Report will only be accurate if Option 4, Inventory Adjustment Method is and has been set to A during the time period covered.

The Initial and Ending Quantities will be calculated if the part number's last physical inventory date and last physical quantity fields are populated. If you check the include WIP Qtys checkbox, the WIP Qtys from the last Physical Inventory will be taken into account when calculating initial quantities. Since this report does not use WIP quantities on the current date, it is best not to check this box.

This report can back calculate to the initial quantity if the physical inventory was taken after the report's start date. These two fields are automatically populated when you take a physical inventory or you enter the quantity when the part number is initially entered into inventory. The Inventory Movement Report has the following columns: part number, initial quantity, received quantity, adjusted quantity, invoiced quantity, issued quantity, and ending quantity. The initial quantity column will display the word "Unavailable" if the initial qty cannot be displayed due to the lack of a physical inventory count. A "*" will be displayed next to the initial qty if the part's initial qty had to be back calculated to a date prior to the date the last physical inventory was taken. Ending Quantity will represent quantity in stores areas, but not in WIP. It will use the current costs to determinate value. If a physical inventory was taken on the same day as the Inventory Movement Report Start-Date, the movements made on that date will show up in the movement columns and not in the Initial Qty Column. The Inventory Movement report also includes both inventory and non-inventory items.

Version **8.73F and above**: The inventory movement report will use the actual average cost at the time of the End Date for parts instead of the current average cost. Assemblies still report current average.

5.1.8   Labels (Print Part Labels)
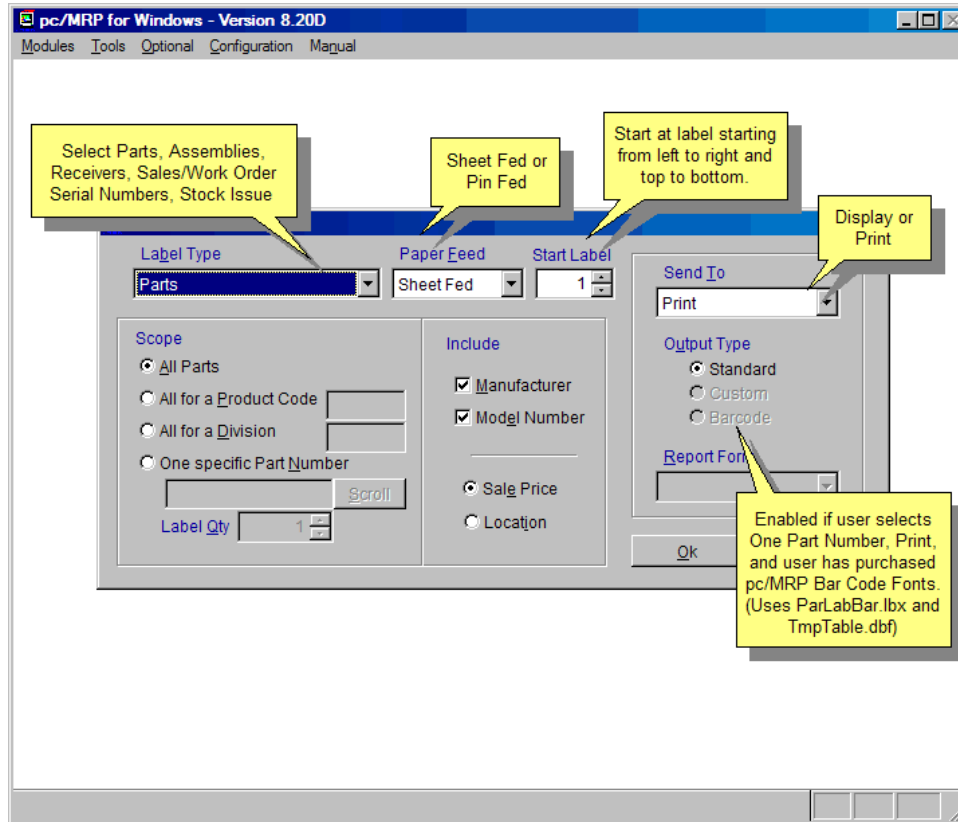
You can print out labels for Part Numbers, Assemblies, Receivers, Sales and Work Order Serial Numbers, and Stock Issues for a Sales/Work Order Number.   For laser printers, select Sheet Fed and purchase standard 1" x 4" 20 labels/ page.   For dot matrix printers select Pin Fed and purchase 15/16" high by 3-1/2" wide single row pin fed labels.

You can create custom labels by reviewing Section 15.4.2.23 of this Manual and using *Configuration, Settings and Utilities, Option 24*.

The Work/Sales Order label option creates a MEM file (*wosernum.mem*) to store the last serial number issued. It increases the serial number and prints out as many labels as received for the Work/Sales order line item.

5.1.9   Sales Price Markup

Select Inventory, Sale Price Mark-up. Automatically mark up every part's sale price to a specified % of each parts current cost or sales price.   Ex.   150% = 1.5 x   200% = 2 x

Sale Price Mark-up Screen

1. Select what type of items you wish to mark up.

2. Select the basis of the markup (current sale price, average cost or std cost)

4. All Sale Price Levels will be automatically updated unless you select One Item, Range, Product Code and one of the Roll-up Options.

3. Enter the % Mark-up

If you select Assemblies, the Roll-up Component Sale Prices can be selected. If selected it will total up the sale prices for each part and qty that goes into that Assy. It will then mark the sale price up for those assy(s) based on the sale prices of its components.

5. Press OK to update the saleprice(s) on your selected item(s).

Sale Price Mark-up Example Result

Originally the sale price on this wheel assy was $10.00 for qty of 1 and $9.00 for a qty of 10 .   The average unit cost of its bearing went from $1.00 to $1.10. We did an average cost roll up which raised the cost of the wheel to $5.10 for one wheel. We then did a sale price mark-up of 200%. pc/MRP noted that the original sale price for one was $10.00 and new price for one is now $10.20. pc/MRP changed it from $9.00 to $9.18 (10.20/10.00 x $ 9.00). pc/MRP would apply the same ratio to all existing sale price qty breaks.

5.1.10 Cost Roll Up and MTBF Roll Up
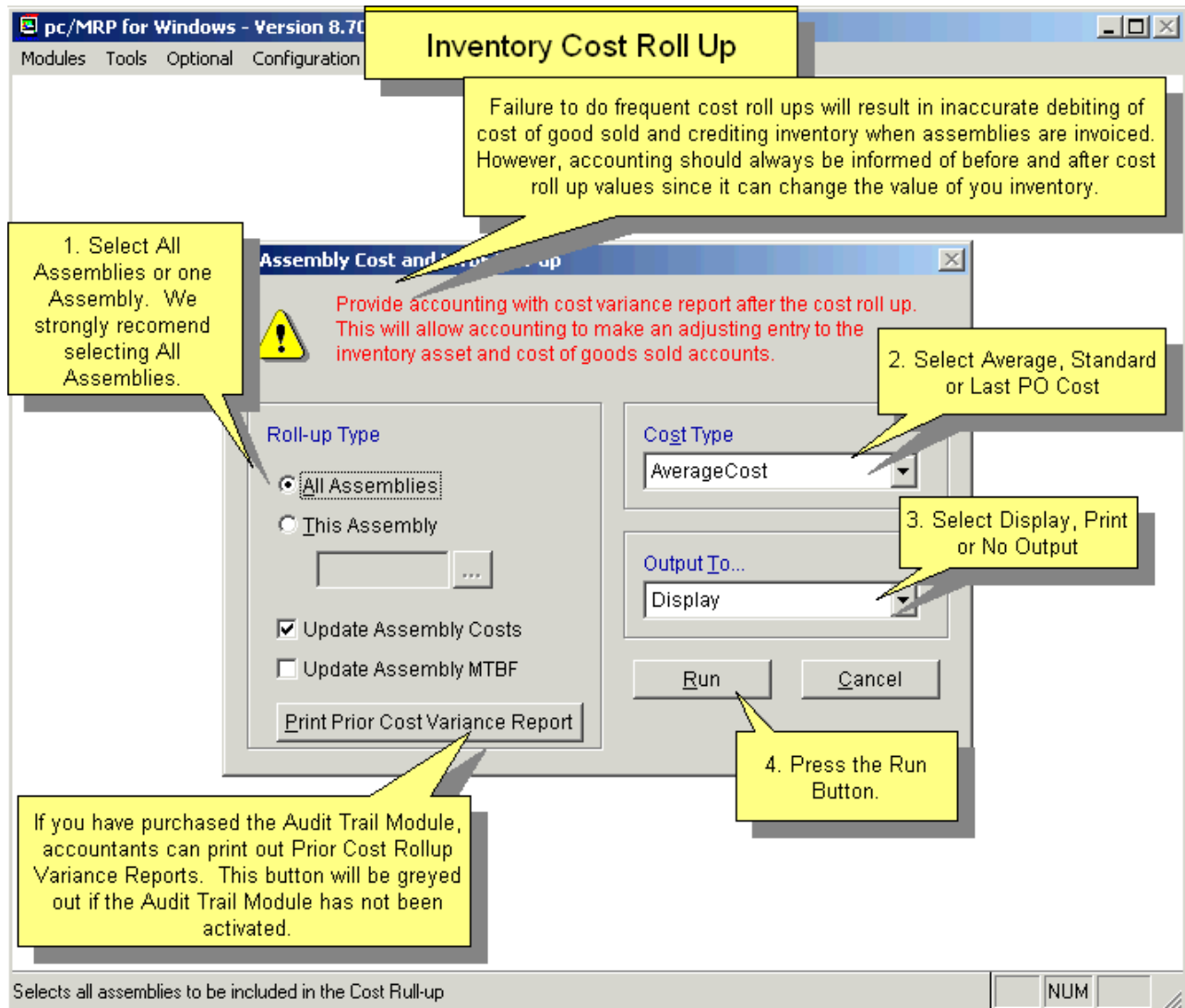
The Inventory, Cost and MTBF Roll Up option will allow users to roll up costs (average, standard or last PO) and mean time between failures for all assemblies or a single assembly.   The Cost and MTBF Roll Up screen is displayed above.

Select **All Assemblies** or **This Assembly**. If you select "This Assembly", you can scroll and lookup the assembly by pressing the ellipsis (…) button. This roll-up selection **will not** roll-up the sub-assembly's costs to the sub-assembly; it will use the cost of the sub-assembly from the inventory module.

If you do not check any of the Update check boxes, pc/MRP will display the current assembly(s) cost and MTBF. However, it will not update the cost and MTBF in the partmaster file.   If you do check these boxes, pc/MRP will update the cost and MTBF in the partmaster.   You must have enter/edit rights in the partmaster file, to check the "Update" checkboxes.   In addition, Configuration, Settings and Utilities, Option 47 can be set so that only users with *accounting* Enter/Edit rights can check the "Update the Assembly Costs" checkbox.   If you are not going to allow users without accounting rights to roll up assembly costs, be sure to set Option 61 to not allow users to update assembly costs when displaying/printing out a costed exploded BOM.

Before performing a cost roll-up, check with Accounting to see if they are using Average or Standard Costs and if it is OK with Accounting to perform a cost roll-up. Accounting should be provided with an inventory value report before and after the cost roll-up. This will allow Accounting to adjust the inventory Asset and Cost-of-Goods accounts. Option 59 can be used to set the cost roll-up default settings (average, standard, last PO costs).   Option 47 can be set to allow only users with accounting rights to perform cost rolls ups.

The "Cost Type" drop down list box allows users to roll up average, standard or last PO costs.

The "Output To" drop down list box allows users to send the report to "Display", "Print" or "None".

The **MTBF** is calculated as follows:

MTBF (years) =1/ ((part1qty x part1RF) + (part2qty x part2RF) + ….)X (1,000,000/8760)
The Reliability Factor (# of parts per million that would fail in a 1 hour time period) can be entered under the Details 2 Tab for each part.

To print the Prior Cost Variance Report below, the optional Audit Trail Module must be activated.

5.1.11   Physical Inventory (and Cycle Count Programs)

This option allows users to take a physical inventory and/or cycle count of all parts that have not been issued to the floor (WIP). See the Physical Inventory Chapter of this Manual (Ch.5.2) for a more complete description of the Physical Inventory and Cycle Count Programs.

5.1.12 Audit Inventory Data
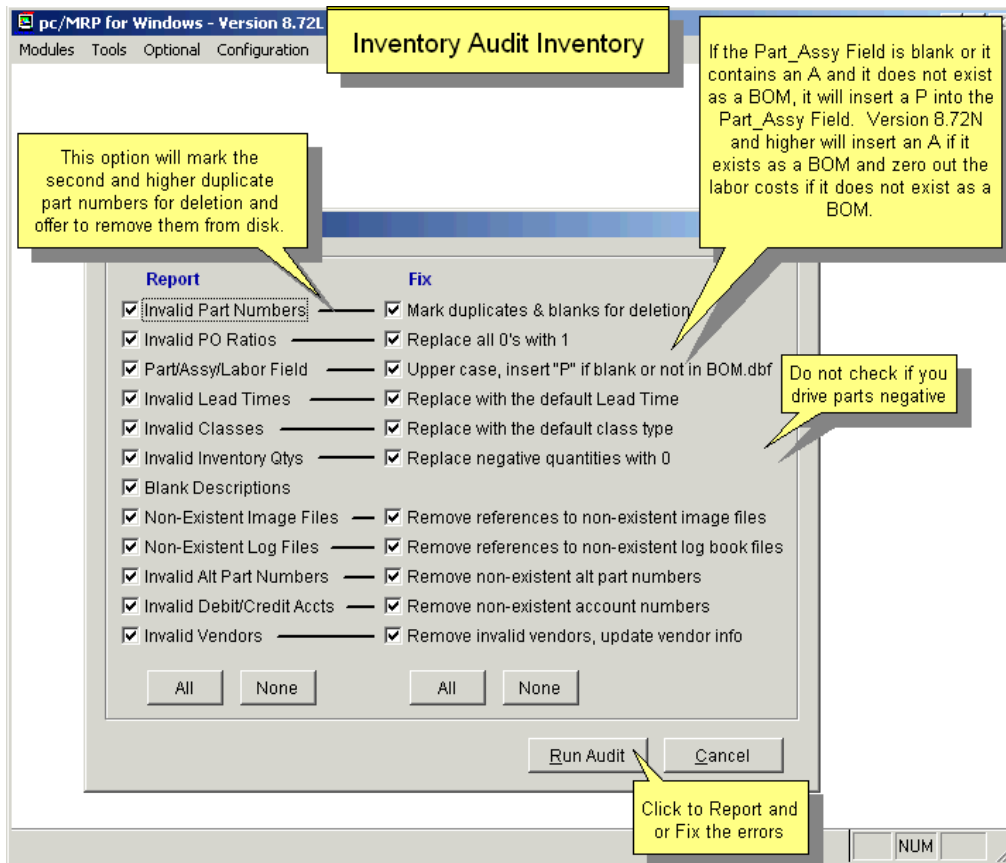
Of the multiple functions, the first one searches inventory for duplicate part numbers. You will be asked if you want to remove duplicate part numbers. If you answer yes, and it finds duplicate part numbers, it will mark the second part number for deletion. The program will continue searching the inventory database file for additional duplicate part numbers until it has marked all duplicate part numbers for deletion. The program will then remove the part numbers marked for deletion from the disk. If you answer no, pc/MRP will display or print a list of duplicate part numbers.

If the Part_Assy field is "A" but the part number does not exists as a BOM, the Audit Fix will insert a "P" into the Part_Assy field. If the Part_Assy field is blank (because the part was imported into pc/MRP without this field), pc/MRP will insert a "P" or an "A" according to whether the part exists as a BOM. Note: Versions **8.72M** and below would simple insert a "P" into a blank Part_Assy field.

5.1.13 Audit WIP Quantities

pc/MRP's Audit WIP Option allows users to correct the WIP Quantity Fields displayed in the Inventory Module to equal the quantity in WIP as per the stockroom issue records. The WIP Quantity may be off because somebody edited this field or they edited a stockroom record without editing this field in the inventory module. This option allows you to display the WIP Variance Report (WIPVAR.FRX) which contains the quantity in WIP based on the stockroom issue records and the quantity in WIP based on the WIP Quantity Fields in the Inventory Module. In addition this report allows you to correct the WIP quantities (change the quantities in the WIPQTY Fields to equal the quantities based on the stockroom issue records).

This report will only print or display sales or work orders if it is not complete (the complete field does not contain a "Y"), the order was issued to MFG (in the stockroom there is an ISSTM record), and the quantity issued is greater than the quantity returned.

An online slideshow is located here: http://www.pcmrp.com/mrp101/auditwiprun.htm

To audit and correct WIP quantities follow the steps shown below:

5.1.13.1 Audit - WIP Quantities – Step 1

Run Audit WIP by selecting Modules, Inventory, Audit WIP or Physical Inventory.

5.1.13.2 Audit-WIP Quantities – Step 2
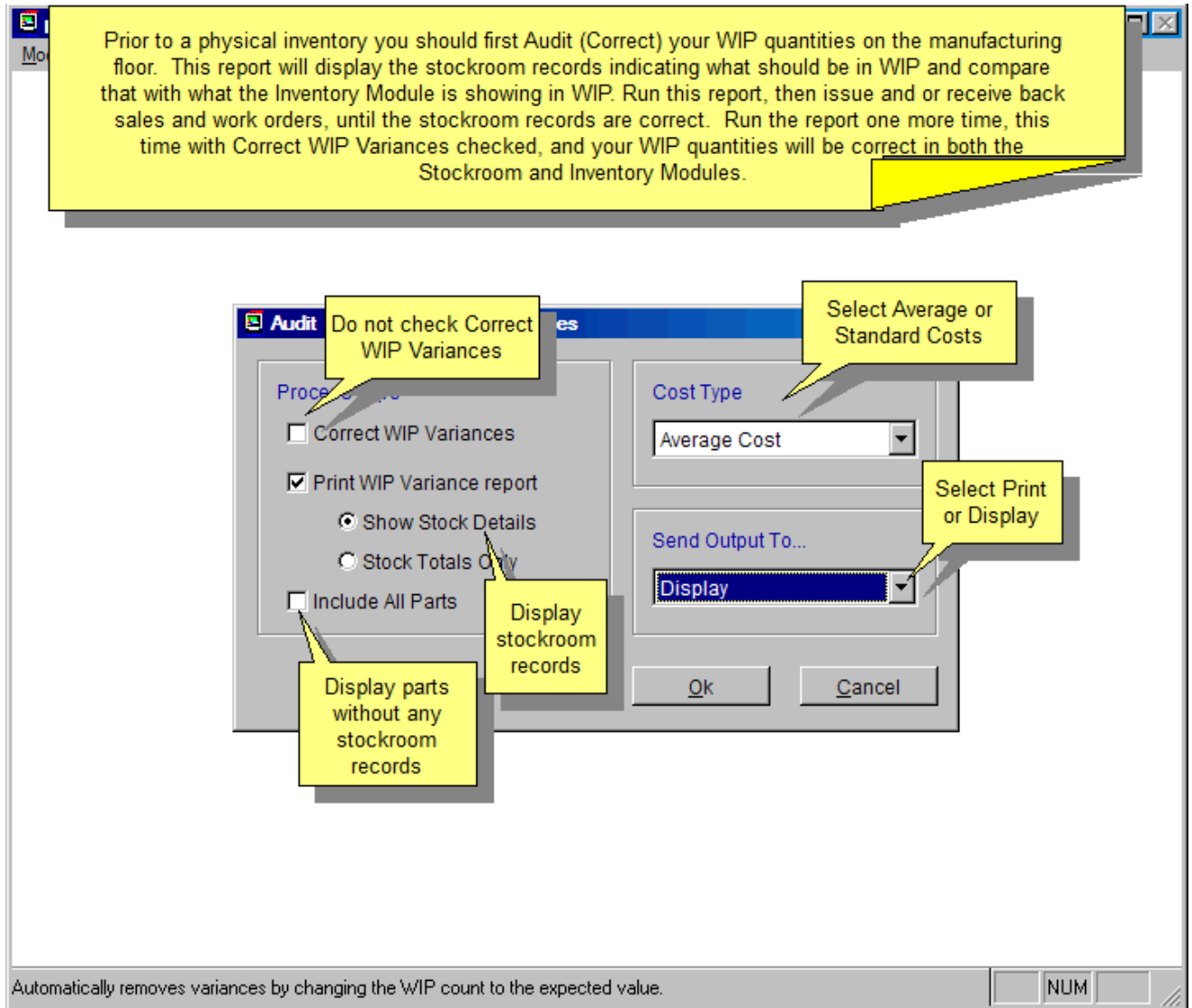
Do not select Correct WIP Variances as we want to just see what sales and work orders are out on the manufacturing floor (WIP). Once we see what sales and work orders are on the floor, we will adjust WIP quantities by issuing additional sales and work orders to the floor and by receiving back sales and work orders from the manufacturing floor.

5.1.13.3 Audit-WIP Quantities – Step 3

Make a list of sales and work orders pc/MRP is reporting as being on the manufacturing floor from the WIP Variance Report (WIPVAR.frx) report shown above.

5.1.13.4 Audit-WIP Quantities – Step 4

Remove (receive back) any sales/work orders that are not actually on the manufacturing floor by selecting Modules, Stockroom, New, Receive completed assemblies back from manufacturing. For example if SO# 101 is not on the manufacturing floor, receive it back from MFG.

5.1.13.5 Audit-WIP Quantities – Step 5

If there are any sale/work orders that are on the floor but not on the report, select Modules, Stockroom, New and Issue parts for a sales or work order for every sales order or work order that should be on the report. For example if SO# 106 is actually on the manufacturing floor but not on the report, issue it to MFG.

5.1.13.6 Audit-WIP Quantities – Step 6
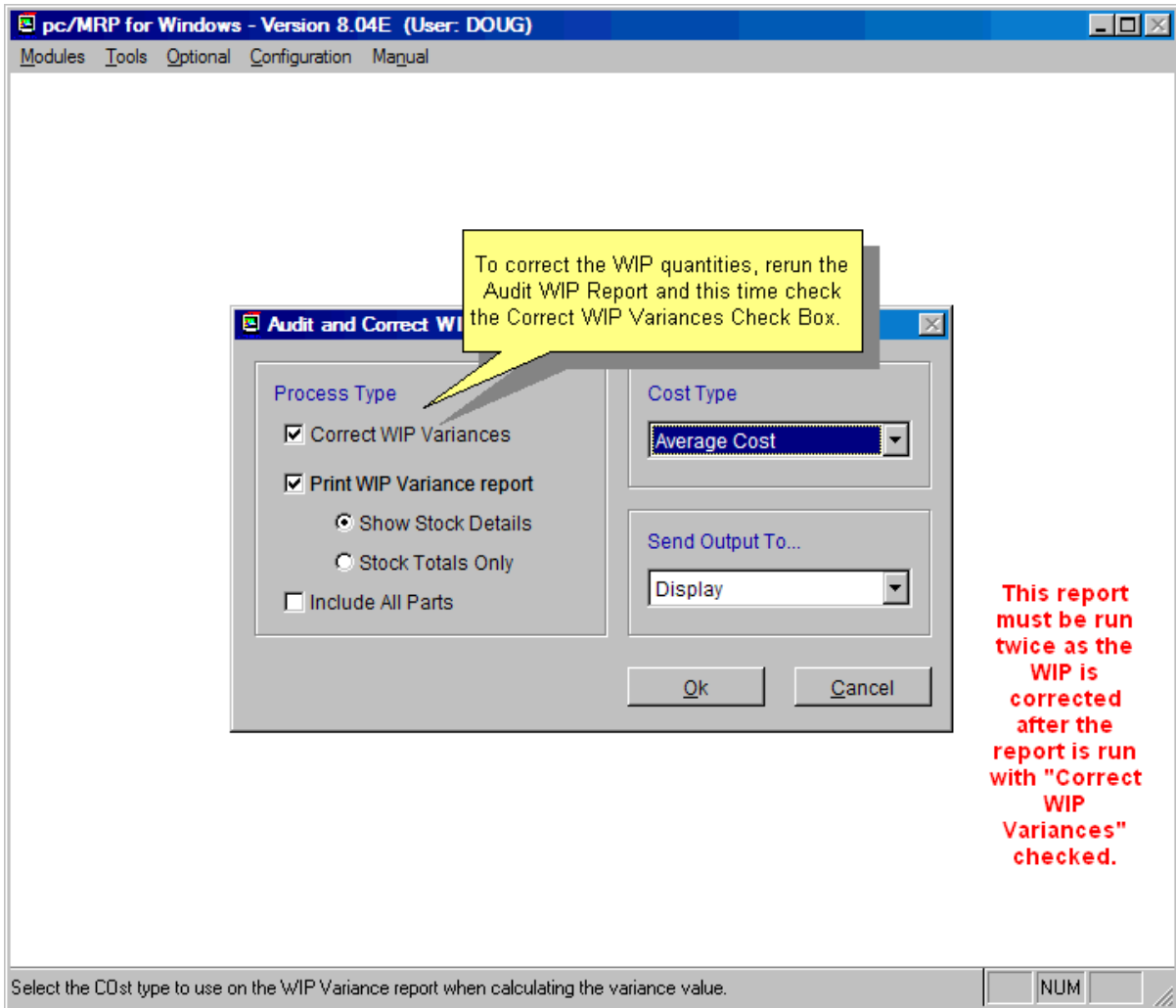
Once the report is correct, run Audit WIP one last time, this time, check the Correct WIP Variances Check Box.

5.1.13.7 Audit-WIP Quantities – Step 7

WIP VARIANCE REPORT (WIPVAR.FRX)

DATE: 10/19/2005

SO\WO #	ITEM	STOCK TRANS #	QUANTITY ISSUED	QUANTITY RETURNED	CORRECT WIP QTY (STOCKRM)	CURRENT WIP QTY (PARTMAST)	VA
PART NUMBER: 000000001			BEARING 3.00OD x 1.00ID 1				
000102	0001	000005	16.0000	0.0000	16.0000		
000105	0001	000007	1.0000	0.0000	1.0000		
		** TOTALS **			17.0000	25.0000	
PART NUMBER: 000000002			SPOKE				
000102	0001	000006	640.0000	.000	640.0000		
000105	0001	000008	40.0000				
PART NUMBER: 000000003			REAR				
000102	0001	000003	10.0000				
000106	0001	000011	1.0000				
PART NUMBER: 000000010			WHEEL				
000102	0001	000004	4.0000	0.0000	4.0000		
000106	0001	000012	2.0000	0.0000	2.0000		

> Now, the report should contain only sales and work orders that are actually on the manufacturing floor. The WIP quantities are now correct and are reflected as such in the Inventory WIP Quantity Fields. Notice in our example sales order 101 is no longer in manufacturing and sales order 106 is in manufacturing.

Rpt_data (c:\docume~1\doug\locals~1\temp\60164272.dbf)   Record: EOF/8   Record Unlocked   NUM

The report should now display the correct sales/work orders on the manufacturing floor along with the correct WIP quantities.   Since you selected Correct WIP Quantities, the WIP Quantity Fields in the Inventory File will be correct as after the report is printed or displayed.   Reprinting the report again would show no variance between the stockroom WIP Quantity and the Inventory (Partmast) WIP Qty.

The quantity issued column contains the quantity of that part number issued to that sales/work order. The quantity returned column contains the quantity returned (as part of the finished assemblies). The correct WIP quantity (stockroom) contains the quantity issued - (minus) the quantity returned. The current WIP quantity represents the quantity in the inventory WIP quantity field. The variance is the difference between the stockroom module and inventory module.

Once WIP is correct, you can run a physical inventory on the stores area(s) and correct the quantities for that area (do not include WIP quantities as they have already been corrected at this point).

The inventory WIP quantity will be higher than the Audit WIP quantity if you issue parts to a sales/work order and then manually close that sales/work order without returning completed assemblies. In addition, the inventory WIP quantity may not match the Audit WIP quantity if a person edits the WIP quantity or stockroom records.

If you select the "Correct WIP Variances" option, pc/MRP will correct the WIP quantities in inventory as per the following pseudo code:

```
Replaces all partmast wipqtys with 0
Uses open sales and work orders (complete # Y)
Do while not end of file
    If the related stock transaction = ISSTM
       in_wip = qtyissued-qtyreturned in completed assys
       If in_wip > 0
          Increase partmast wipqty by in_wip
                           endif
    endif
Enddo
```

5.1.14 Index (see 15.14.3)

5.1.15 Remove Marked Records (see 15.14.4)

5.2 pc/MRP Inventory Flow Model

5.2.1 Inventory Flow Model

The inventory flow model described below requires the Inventory Adjustment Method (select Config, Settings & Utilities, Option 4) be set to 'A'.

pc/MRP's inventory control flow model can be explained using a company that builds bicycles as an example. Assume the bicycle company has 100 completed bicycles and 600 pedals on hand and has just received an order for 500 bicycles.

Sales would enter a sales order for 500 bicycle assemblies as a sales order entry. Entering the sale as an order entry will cause the bicycle on demand quantity in inventory to be increased by 500. Please note that the quantity on demand did not increase for the individual parts that go into the bicycles (this is handled later by the purchasing consolidation report). Also note, if the sale had been entered as a "cash and carry" or "on account and carry" sale, pc/MRP would have automatically printed out an invoice (not a sales order) and decreased the on hand quantity of the bicycle in inventory by 500 (as if the bicycles would have then been carried out of the plant).

Purchasing would run pc/MRP's purchasing consolidation report or pc/MRP's Infinite Bucket report on a daily or weekly basis to find out what parts need to be ordered. This program breaks the open sales order on demand quantities down into parts required to be ordered using the quantity available field in the partmaster. If there are not enough finished assemblies, sub-assemblies, and parts on order, the consolidation report will request purchasing to order the necessary parts to fill the open sales orders using the quantity available field in inventory to track the quantity available. In this case, the pedals quantity on hand field will still show 600 but the quantity avail field will show -200 pedals on hand. The consolidation report listing all part numbers with negative quantity available fields will list 200 pedals required to be ordered.

Purchasing would then enter a purchase order for 200 pedals, which would increment the on order quantity of the pedals.

Receiving would enter a receiver for the 200 pedals when they arrive. This would decrease the on order quantity and increase the on hand quantity of the pedals in inventory by 200 giving a new on hand quantity of 800 pedals. This will be enough to build 400 bicycles in addition to the 100 finished bicycles on hand.

The Stock Room Module is used to convert the parts into assemblies by either issuing parts to manufacturing and then receive assemblies from manufacturing (2 steps, recommended) or converting parts to assemblies (1 step).

The first method, issuing "I"- and "R"-type stockroom transactions, decrements the on hand quantity and increments the WIP quantity of the parts using a sales or work order number to track the parts issued. When the assemblies are completed and received from manufacturing, this option decrements all parts issued to that work order number from WIP and the on hand quantity of the finished assemblies are incremented. This method is recommended, as pc/MRP will be able to carry shortages, and you can keep your inventory quantities straight.

The second method, "Convert parts to assemblies", does not use WIP or work order numbers. Instead, it uses the BOM to convert parts to assemblies (decrementing the on hand quantity of the parts and incrementing the on hand quantity of the assemblies).

An invoice would be entered when the bicycles are ready to ship, which would decrement the quantity on demand for the bicycle assemblies by 500.

5.2.2 The following flow chart describes each step.

Start

Enter Sales Order

Enter Work Order

Cash & Carry

On Acct & Carry

Order Entry

↑On Demand in Inventory

Invoice

On Hand in Inventory ↓

Run MRP Module
Break the open sales down into parts

On AccountAcct ↑

Cash or Acct

On Demand in Inventory ↓

Computing QTY Available

Cash

S Type Trans
D Checking
C Bus Inc
C Inventory
D Cost or Sales

Stock

No

QTY<0

Yes

Issue Parts to Mfg
↓ On hand in Inventory
↑ WIP

Purchase

No

O Type Trans
D AR
C Bus Inc
C Inventory
D Cost or Sales

Receive Assy from Mfg
↑ On hand in Inventory
↓ WIP

Parts
Arrived?

Yes

Enter R
D Checking
C AR

END

Invoice

Receiving

↓On order in Inventory
↑ On hand in Inventory

5.2.3 Overview

OVERVIEW									
		START	Create Sales Order for BICYCLE	Run IB	Create Purchase Order for PEDAL	Create Receiver	Issue to mfg	Receive from mfg	Create Invoice
BICYCLE	On Hand	100	100	100	100	100	100	500	0
	On Order	0	0	0	0	0	0	0	0
	On Demand	0	500	500	500	500	500	500	0
	MRP Available	0	0	-400	-400	-400	-400	0	0
	WIP	0	0	0	0	0	0	0	0
PEDAL	On Hand	600	600	600	600	800	0	0	0
	On Order	0	0	0	200	0	0	0	0
	On Demand	0	0	0	0	0	0	0	0
	MRP Available	0	0	-200	0	0	0	0	0
	WIP	0	0	0	0	0	800	0	0

6 Physical Inventory and Cycle Count

6.1 Physical Inventory

6.1.1 Overview

Select Inventory, Physical Inventory.
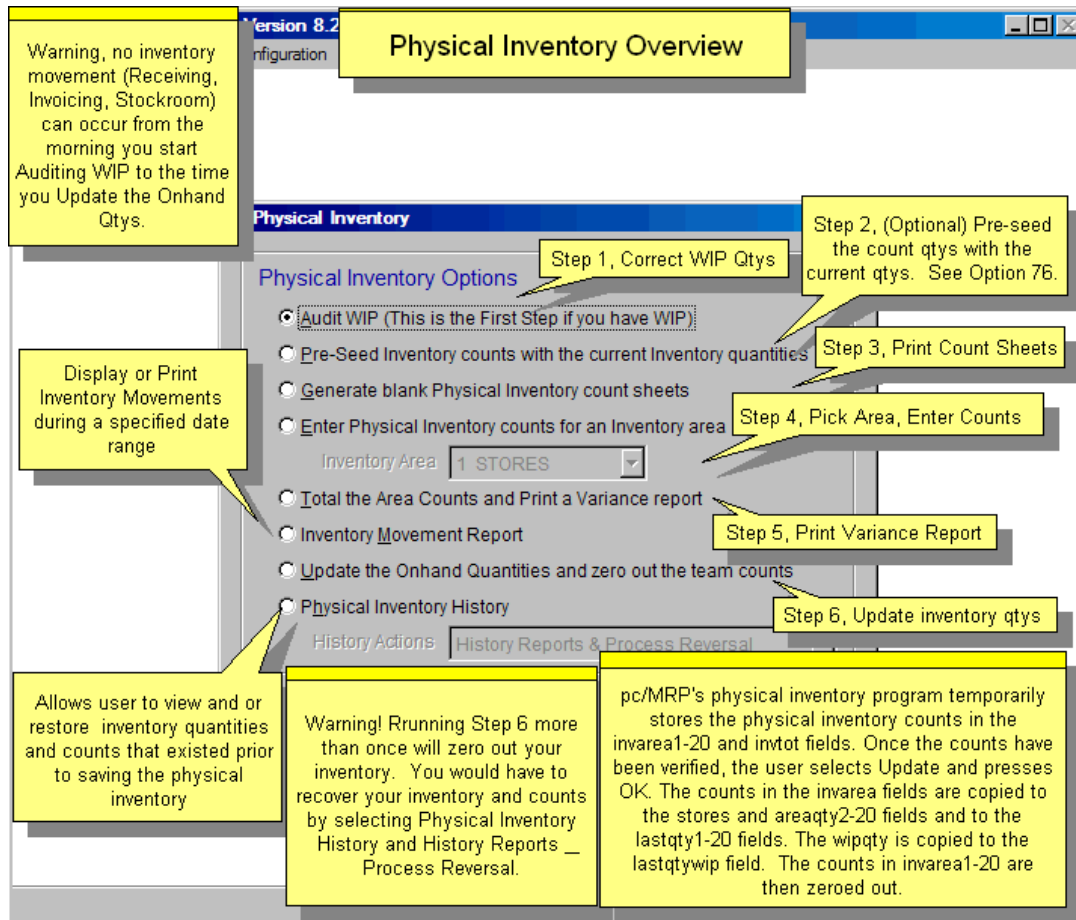
Warning: No inventory movement (Receiving, Invoicing, Stockroom) can occur from the morning you start Auditing WIP to the time you Update the Onhand Qtys.

pc/MRP's physical inventory program temporarily stores the physical inventory counts in the invarea1-20 and invtot fields. Once the counts have been verified, the user selects Update and presses OK. The counts are then moved from the invarea fields to the stores and areaqty2-20 fields. The counts in invarea1-20 are then zeroed out.

Warning: Users must perform Step 4 above for ALL inventory areas BEFORE performing Step 6.

Warning: (for versions **lower than 8.80**) If taking a physical inventory with area 11-20, update to version 8.70AF or higher. Versions 8.71, 8.72 and 8.73 should update to 8.73N or higher, as the physical inventory history database file may not save the prior qtys in areas 11-20.

6.1.2 Audit WIP

WIP stands for Work In Process on the manufacturing floor. If you have any work in process on the manufacturing floor you must make sure the WIP quantities in pc/MRP's Inventory Module are correct before Entering Physical Inventory Counts for your stores areas. WIP quantities should be corrected by running the Audit WIP Function. See Section 5.1.13 for instructions and an overview of this function.
(See on-line slide show at: http://www.pcmrp.com/mrp101/auditwiprun.htm)

6.1.3 Pre-seed Physical Inventory

This option allows you to pre-seed your physical inventory counts (invarea1 – invarea20) with your current inventory quantities for all areas. Option 76 in the Configuration, Settings and Utilities menu (Manual 15.1.76) must be set to allow physical inventory to be pre-seeded for this button to work. The pre-seed selection will only function if all team counts in all inventory areas are zero. If all team counts are zero, and this option is set to yes, when a user selects to enter a team count quantity for the first time in areas 1-20, the pre-seed option will be activated. Pre-seeding is usually not the preferred method by Accounting, as people might sometimes rely on the pre-seeded quantities, instead of actually performing the counting.

6.1.4 Generate Blank Physical Inventory Forms

This selection uses the partmast.dbf file to generate blank physical inventory forms (blankinv.frx) for inventory teams to take the inventory count. Generate as many blank Inventory Forms as there are inventory teams. The "Total the area counts and print out a variance report" option will total the count for each part number. It is important to note that WIP quantities should be corrected using the Audit WIP function (Section 5.1.18) prior to entering the physical inventory in stores.

6.1.5 Enter Physical Inventory Count
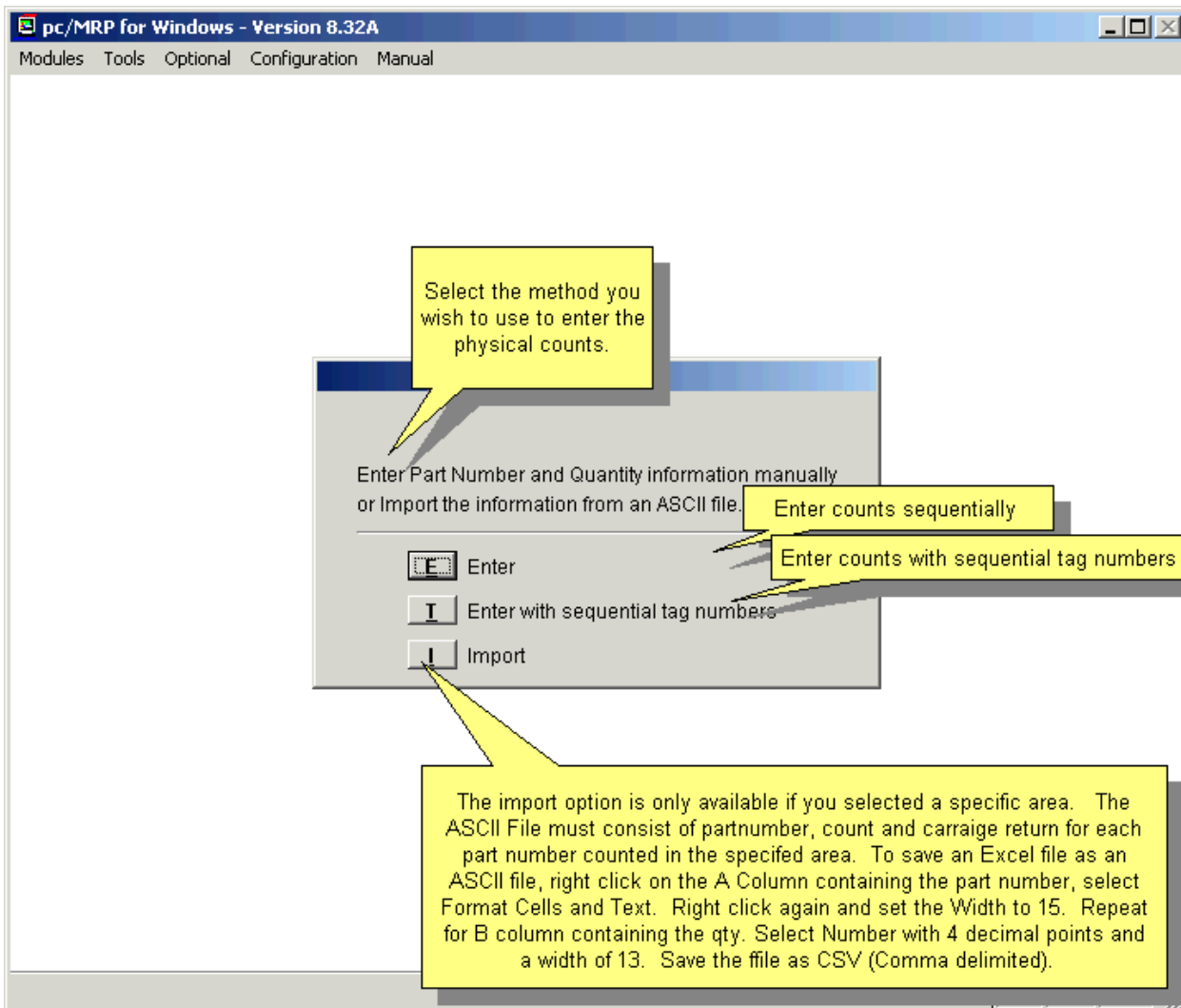
This function allows users to enter the count from each area into the inventory's physical inventory fields (invarea1-invarea20), without altering or disturbing your present inventory (onhand, area2qty-area20qty). The counts for each area may be entered manually or imported from a comma delimited ASCII file (.csv).

If you select to enter the count from a .csv file, the .csv file must have the part number and quantity as the first two data elements within the file (each line structure must be: part number 'comma' quantity & a carriage return). Any additional data elements are ignored. The file must contain every partnumber that exists in your inventory, otherwise that part will have a quantity of 0. Users could create an inventory report, all parts uncosted (both inventory parts and assemblies only), than send the report to Excel. To select the fields for the report, click Select None, then check only the PartNo field. This will create a list of all parts, as the first column of an Excel sheet. The first row ("partno") needs to be deleted. The second column should be filled out with the inventory counts (blank means 0). Next, the file needs to be saved as a .csv file.

Select "Enter Physical Inventory Counts" *for this area.* At this point, either choosing Append or Replace will work. The temporary team counts will be saved in pc/MRP. Repeat the above steps for each inventory area that the company uses; you must count each inventory area before updating inventory with the team counts.

Please see Chapter 16.4.3 & 4 to create ASCII files using a Barcode reader. If you select to enter the counts manually, pc/MRP will prompt you to enter the counts in the order you selected (by part number or by location). In either case, the counts are entered into the inventory invarea1 through invarea20 fields. pc/MRP will allow you to add or enter (replace) the current count for that part number.

If you elect to import your physical inventory counts from an ASCII file, only the part numbers in the list will be appended (added to the existing count) or replaced (replace the existing count). pc/MRP uses a program named ldtxtqty.prg to import the inventory counts. Please note that if errors occur, you should print the report. The error import counts will still be replaced or appended as you selected.

pc/MRP allows the entry of one area at a time or all areas as noted in the following screens:

ONE AREA:
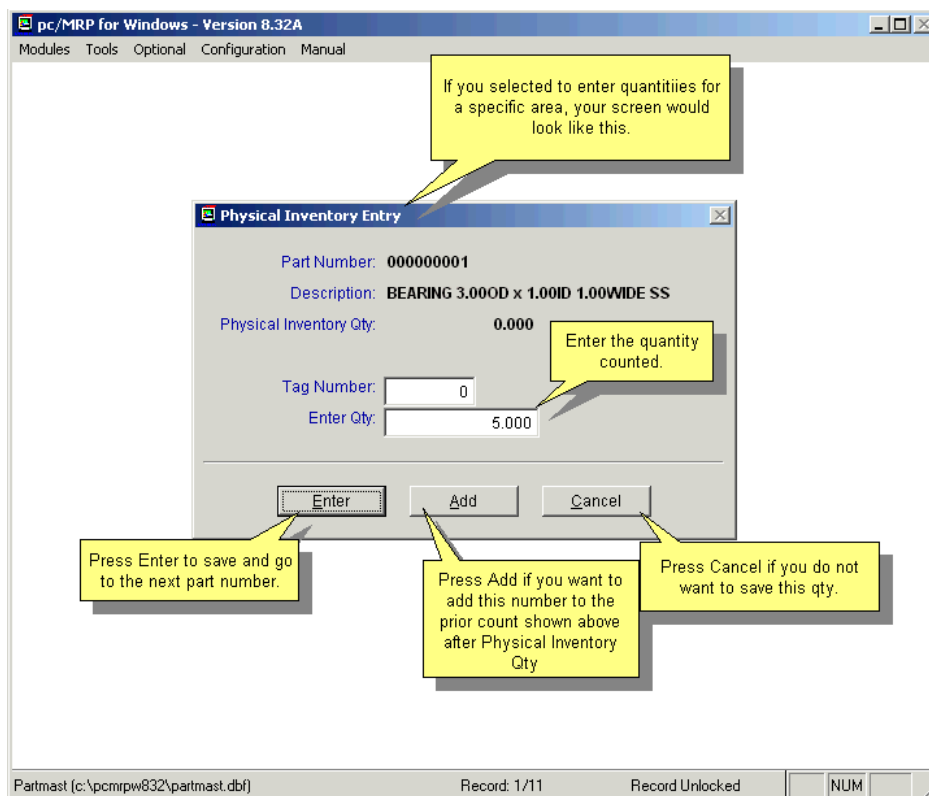
ALL AREAS:
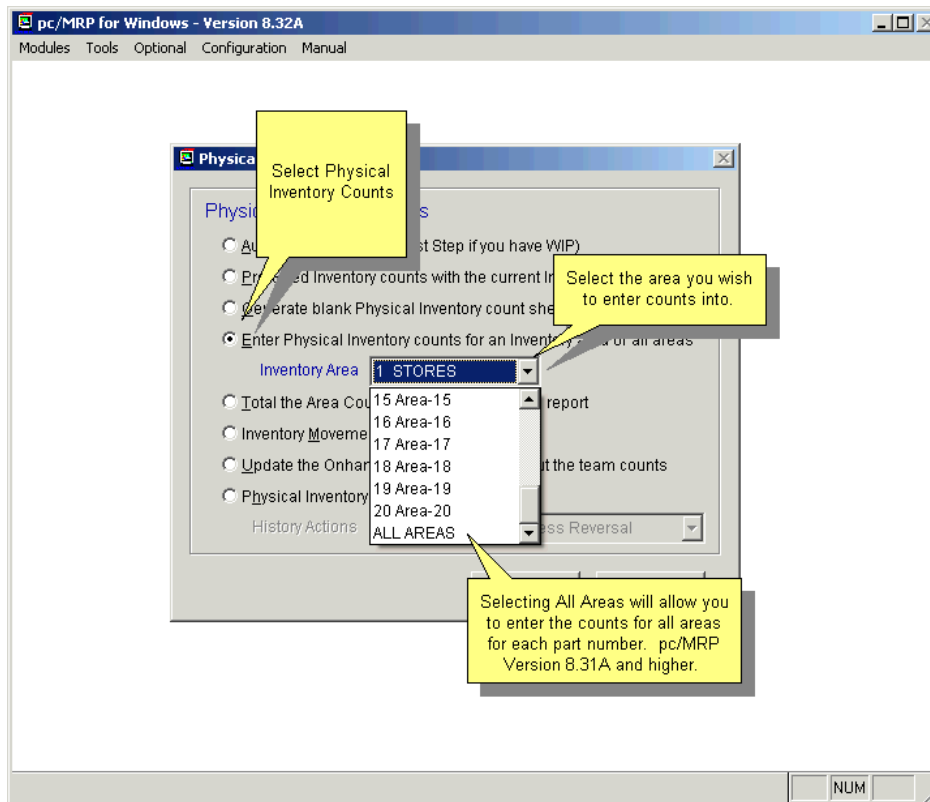
6.1.6 Total the Area Counts and Print a Variance Report

This report (costinv.frx) sums the area counts (invarea1-invarea20) and places the totals into the inventory invtot field. It also sums the current quantities (onhand, area2qty-area20qty) and places the total into the inventory prevqty field. This report allows you to compare the current counts with the current quantity in inventory. Note: The report can be modified to show the six digit numeric field TagNumber.

This report is designed to help locate any abnormal deviations in individual stocking levels and provide a dollar value for the physical inventory count with sub- totals by product type. **Once this report has been approved as to its accuracy THEN AND ONLY THEN should you run the option "UPDATE THE ONHAND QUANTITY AND ZERO OUT THE TEAM COUNTS".** If you do not run this report before updating the onhand quantities, no damage will be done. However, you will miss your chance to compare your pc/MRP's on hand quantities.

The deviation values represent the difference in dollars and quantity that pc/MRP calculates you should have as compared to the audit's count. These deviation figures would only be accurate if you had used all of pc/MRP's modules (Invoice, Receiving, Purchasing, Stock Transaction, and Sales) and the previous physical inventory had been accurately taken with pc/MRP. If you do not use the Receiving and Stock Transaction Modules, which adjust the Onhand Quantities, the deviation values represent the change in quantity and value of each part number from the last physical inventory. We recommend not including WIP with this function.

6.1.7 Update the Onhand Quantities and Zero Out the Team Counts

Replaces the present onhand inventory quantities (onhand, area2qty-area20qty) with the new count from the physical inventory count (invarea1-invarea20). It stores the count in the lastqty1-lastqty20 fields and zeros out the inventory count fields (invarea1-invarea20) for the next count. This should be done only after the "Total the Area Counts and Print Variance Report" option has been run and approved. One last time, we recommend not including WIP with this function as WIP counts were corrected using the Audit WIP function. The Update option will only run if the user has inventory delete rights (provided the password module has been activated).
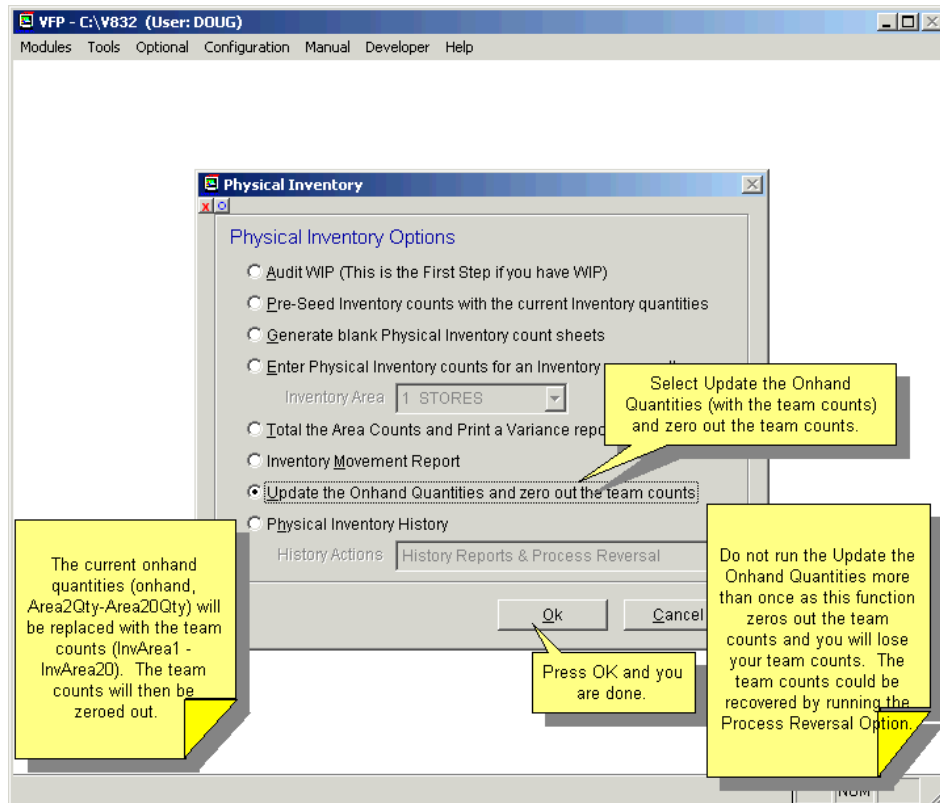
6.1.8 The Inventory Movement Report (parmovp.frx, movement.dbf)

The inventory movement report will list all inventory movements during a specified period based on the last physical inventory count, receivers, issues, adjustments, and invoiced sales orders. The report will compare the theoretical count with the physical inventory count. pc/MRP will provide the correct starting and ending balances after you have taken a physical inventory or the starting date for the partnumber was earlier than the beginning date on the inventory movement report. With this report you should check the include WIP check box.

6.1.9 Physical Inventory History
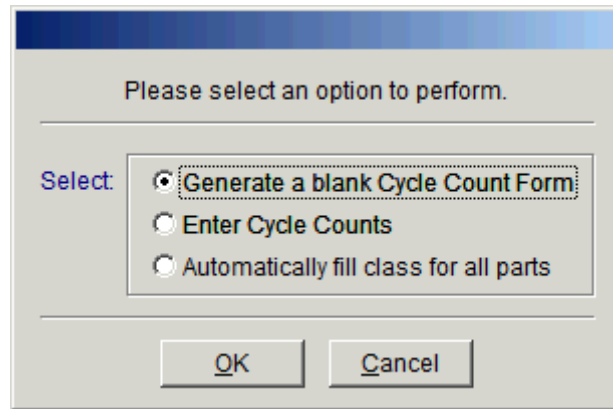
Selecting History Reports & Process Reversal will display all prior physical inventories. You can then display, print, and/or restore past physical inventories. This option will restore the last physical inventory quantities, date, team counts, and areas 1-20 quantities as they were just prior to when you pressed "Update the OnHand Qty and Zero out the Team Count". It will not change WIP quantities. If existing part numbers no longer exist after restoring, pc/MRP will give you an error message and add the part numbers without any quantities.

This option is great for restoring a physical inventory count if you have hit the U button twice and deleted your inventory and team counts.

Reprint and or Restore a Prior Physical Inventory

Physical Inventory

Physical Inventory Options

○ Audit WIP (This is the First Step if you have WIP)

○ Pre-Seed Inventory counts with the current Inventory quantities

○ Generate blank Physical Inve...

○ Enter Physical Inventory cou...

     Inventory Area [1 STORE...

○ Total the Area Counts and Pr...

○ Inventory Movement Report

○ Update the Onhand Quantities... zero out the team counts

● Physical Inventory History

    History Actions [History Reports & Process Reversal ▼]

[Ok] [Cancel]

> Selecting Physical Inventory History Report will allow the user to print/Display a prior Physical Inventory Report and or Restore Inventory Counts back to their state prior to updating the physical inventory.

Reprint and or Restore a Prior Physical Inventory

Physical Inventory Histo...

> 1. Select the physical inventory you wish to reprint or restore

Date	Time	User
07/16/2012	14:59:09	

Storage Area Grouping
● Storage areas 1 thru 7
○ Storage areas 8 thru 14
○ Storage areas 15 thru 20
☐ Include WIP quantities on report

Sort Report By
[Part Number ▼]

Send Report t...
[Display]

Report Type
● Standard

> If you click on the Reverse Button, your onhand qtys and counts will be restored to what they were before you pressed the Update Button

> If you click on the OK Button, pc/MRP will print or display (without reversing) the onhand qtys and counts before you pressed the Update Button.

[Reverse the selected Physical Inventory...]

[Ok] [Cancel]

6.2   Cycle Count

Selecting the Cycle Count Option will display the menu below:

6.2.1 Generate Blank Cycle Count Forms

The form will contain 1/20th of all the class A parts, 1/60th of all the class B parts, and 1/120 of all the class C parts. The above figures were derived from 20 working days/month, 60 working days per quarter, and 120 working days per 1/2 year. The second time the form is printed it will contain the second set of class A, B, C parts. In this manner, all class A parts will be inventoried at least once a month, all class B parts once a quarter. If you have less than 20 class A part numbers, some of the cycle counts may not contain any class A part numbers. For example if you had 3 class A part numbers, the first 3 cycle counts would display one class A to be counted. The remaining cycle counts would be blank until you got to the 21st cycle count, which would display the first class A part number. Parts that do not have an "A", "B", or "C", will be ignored. Settings & Utilities, Option 64 sets the default Class for new parts. Therefore, to not include labor parts, you must remove the default Class code at the time of creating the Labor part number.

Blank cycle count forms can be displayed, printed, or sent to Excel. (Versions **8.72K** and below, did not have the send to Excel option.)

Note: A partnumber may occur on consecutive cycle count forms if there are changes in the number of partnumbers in the inventory database (partmast.dbf).

6.2.2 Enter Cycle Count

Allows users to rapidly enter the cycle counts into the inventory ONHAND QUANTITY field for each part number counted. The counts may be entered manually or imported from a comma delimited ASCII file. The ASCII file must have the part number and quantity as the first two data elements within the file. Any additional data elements will be ignored. Please see Chapter 16.4.3 & 4 to create ASCII files using a Barcode reader.

This option also allows you to enter the count for each part number for all areas in one screen. pc/MRP stores the new quantities in the stores areas (onhand, area2qty-area20qty, and wipqty). In addition, pc/MRP also updates the last physical date and quantity fields (lastphydate, lastqty1-lastqty20, lastqtywip) similar to the physical inventory program. This provides another opportunity for pc/MRP to establish base line inventory quantity and dates allowing the pc/MRP's Inventory Movement Report to calculate and print out inventory quantities on a given date based on inventory movements prior to or following the base line date and quantities.

6.2.3 Enter Differential Cycle Counts

Users can use **Configuration, Settings & Utilities, Option 20** to set pc/MRP to accept either '**Full**' or '**Differential**' Cycle Counts.
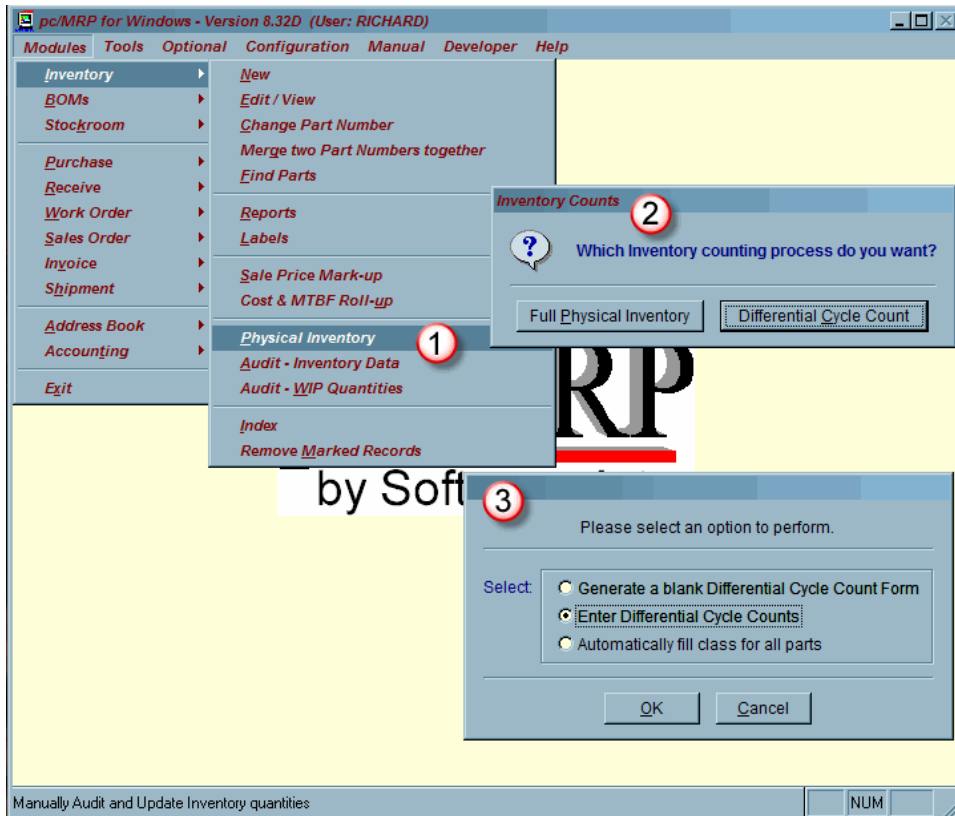
With Differential Cycle Counts, the user enters the difference (actual minus what pc/MRP has recorded as being in inventory). The differential counts do not set the last physical quantities and the last physical date fields. However, the differential counts leave an adjusting entry in the Stockroom transaction database file. This has the advantage in that the Stockroom Reporting menu selection can provide a historical report of the cycle counts. Differential cycle counts can also be entered while people are using pc/MRP.
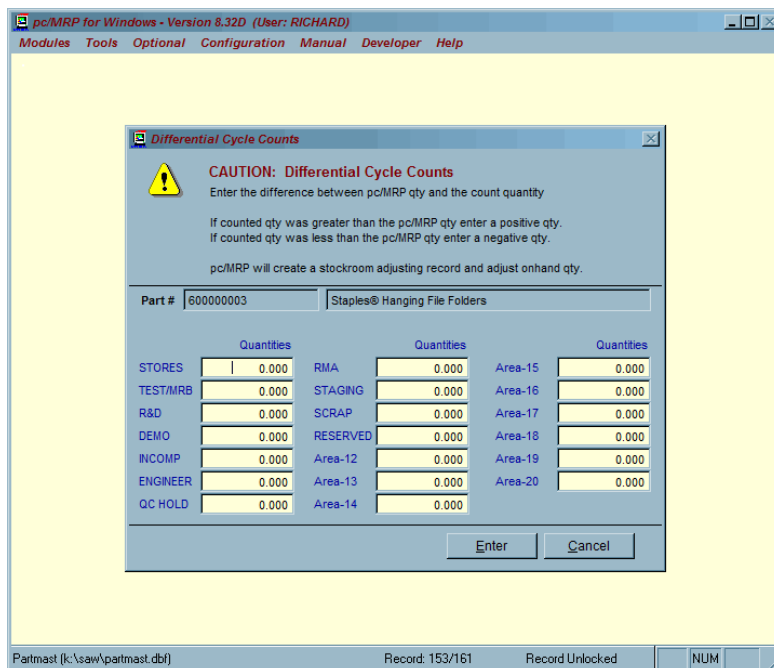
6.2.4 Automatically Fill Class Fields for All Parts
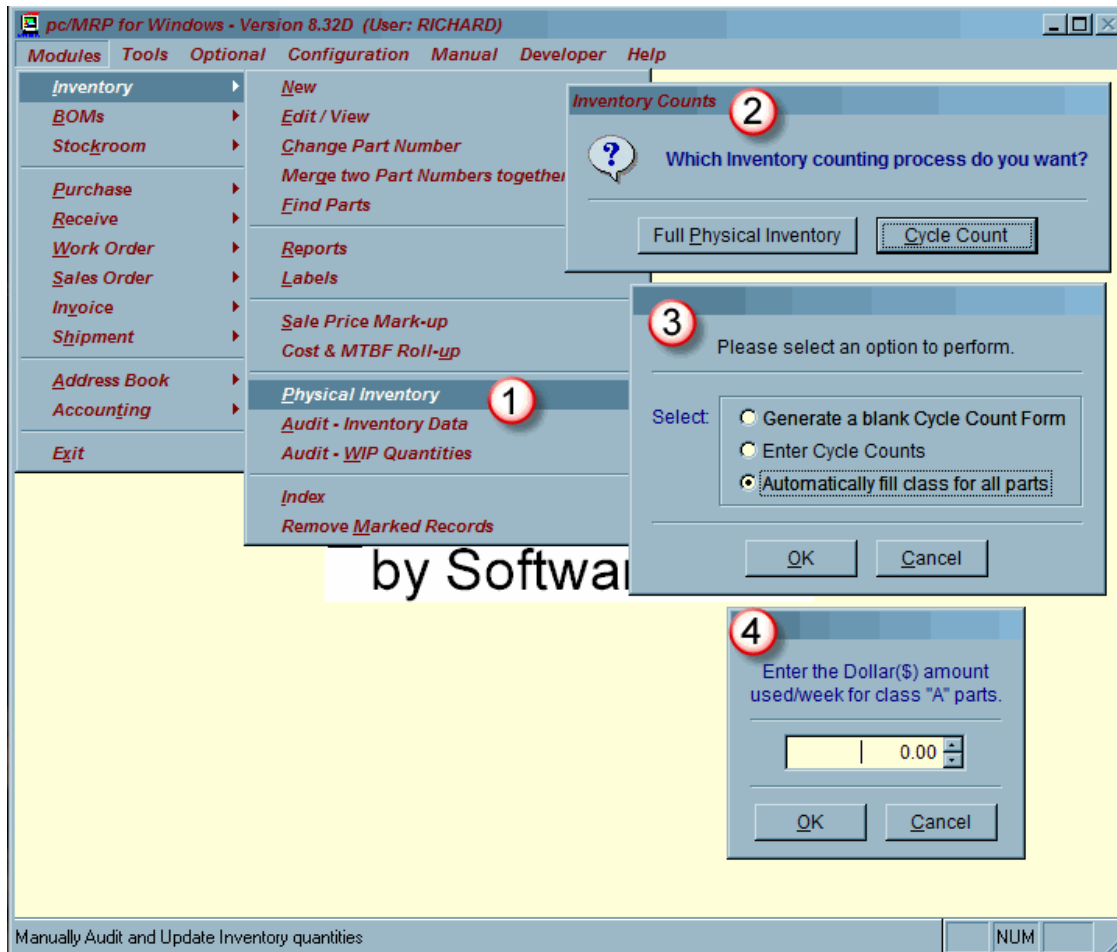
This selection will ask you to enter the dollar amount used per week to classify a part as a class **'A'** part. pc/MRP will then automatically determine the class of each part based on cost and usage.

If the cost of a part is greater than $4.99 **OR** its cost multiplied by usage/week exceeds the dollar amount you entered above, it will become a class 'A' part.

If the cost of a part is less than $5.00 **AND** greater than $0.49 **AND** its cost multiplied by usage/week is less than the dollar amount you entered above, it will become a class **'B'** part.

If the cost of a part is less than $0.50 **AND** its cost multiplied by usage/week is less than the dollar amount you entered above, it will become a class **'C'** part.

7 Purchasing Module

7.1 Overview. Enter a New Purchase Order

The Purchasing Module allows users to enter, edit, and print out Purchase Orders and reports. In addition reports can be sent to disk and POs can be emailed and or faxed directly from the PC. Address and part number information can be scrolled and imported from their respective modules. Entering a PO automatically increments the On Order quantity in the Inventory File, and updates the Last PO Cost for that part. Over 100 different reports can be generated including Consolidated Order Requirements, All Overdue Purchase Orders, All Purchase Orders for a Month, and Purchasing History Reports. Each Purchase Order can contain up to 9999 line items (settable via Settings & Utilities, Option 63). Each line item can be taxable or nontaxable, have its own due date and discount. An online slideshow is located here: http://www.pcmrp.com/mrp101/purchasenew.htm

7.1.1 Enter a new purchase order step 1, select purchase, new

From the Main Menu shown above, select "**Purchase**" and "New". The PO Data Entry Screen shown below will appear with the next available PO number and current Date as shown below on the following page. You can overwrite the PO number with your own PO number. However, the PO number should consist of only numeric characters with leading zeros. pc/MRP is unable to increment alpha characters. You can prevent the PO numbers from being edited with Option 74 in Settings and Utilities.

7.1.2 Enter a new purchase order step 2, enter the quantity
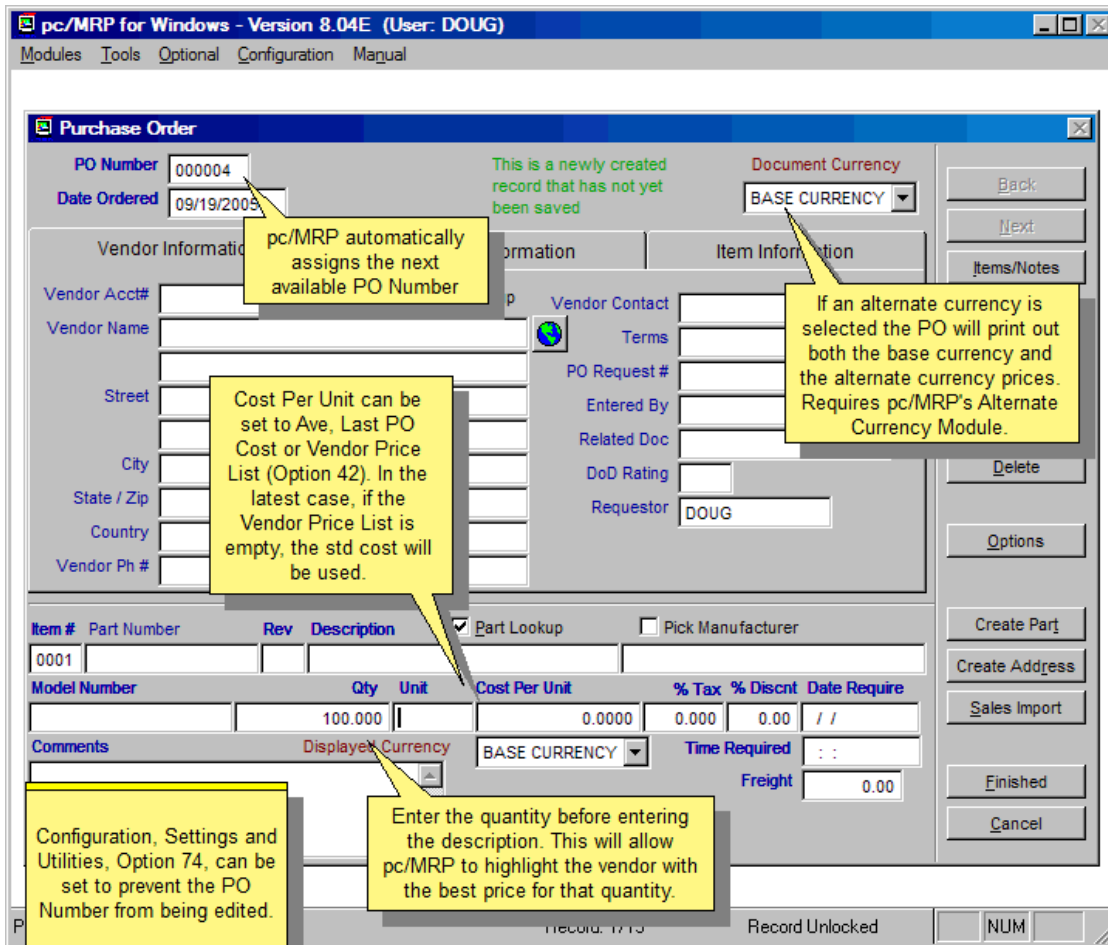
Enter the quantity before entering the description. This will allow pc/MRP to highlight the vendor with the best price for that quantity, provided Option 42 in the Configuration/Settings and Utilities menu is set to "PO cost based on vendor price list" and not "Last PO Cost" or "Average Cost". If no vendor cost exists or the vendor is not listed for the part, Standard cost is used.

7.1.3 Enter a new purchase order step 3, select a part number

Place the cursor in the Part # Field, Description Field, or Manufacturer Field. Type in the first few characters of the part number, part description, or manufacturer. A list of parts matching the characters (that you have entered) will appear.   Scroll to the desired part and hit Enter or double click. All the necessary part information (including **part #, description, model #, PO unit, cost/unit, and manufacturer**) will be entered automatically.

Note: If you just need to purchase a non-inventory item that you do not wish to assign a part number to, use "NA" as the partnumber. You will then have to enter the supplier yourself, as the vendor selection pop-up will not occur.

7.1.4 Enter a new purchase order step 4, select a vendor

Select from a list of vendors for that part number.   The vendor with the best price for the quantity listed will be highlighted.   Once you have selected a vendor from the list shown, the **Address**, **Terms**, **Tax Rate**, **Trade Discount** and **Account Number** will be entered automatically.

7.1.5 Enter a new purchase order step 5, enter remaining information

- The **Date** and **Time Required.** pc/MRP will compare the date and time required with the actual date and time delivered when generating ISO 9000 Vendor Performance Reports. Use Configuration, Settings and Utilities, Option 85 to set the allowable days early and late; Option 92 to require or not require a [Delivery] Date Required.
- The **Related Document Number** (related sales order or contract #)
- The **Contact** (This field will automatically be populated from the Address book contact field and can be manually overwritten.)
- The **PO Placed By** (This field will be populated by the Buyer per inventory part or by the User Log-In, set by Option 25. If the Buyer is selected, but the Buyer is empty, the field will be populated by the User Log-In. This field can also be manually overwritten.)
- The **DoD Rating** (Department of Defense Rating). This is used to help determine the priority of defense contracts.
- The **Freight** Amount.
- Unlimited lines of **Comments**.
- Check the **Confirmed** Check Box when the Vendor has confirmed that he has received the PO.
- You can change the **Manufacturer** and **Model Number** by checking the Pick Manufacturer Checkbox.
- Enter the **ShipVia** (UPS, FedEx) and **FOB** information in the Shipping Information Page.

7.1.6 Enter a new purchase order step 6, add additional line items

Click on the Add Button to add another line item.   Once a new line item is added to the PO you can click on the Back and Next Buttons to navigate to and from line items.   In addition you can Create Part Numbers and Create Addresses on the fly. You can also add a PO line item from a sales order line item by clicking on the Sales Import Button.

7.1.7 Enter a new purchase order step 7, enter boiler plate notes and review line items

Purchase Order Boiler Plate Notes (if any) are automatically inserted from Configurations, Settings & Utilities, Option 22.

If you want to enter boiler plate notes other than the default boiler plate notes set in Option 22 or you wish to review your line items, click on the Items/Notes Button.

7.1.8 Enter a new purchase order step 8, save the purchase order

When you are satisfied with the all the entries, click on the **Finished** Button to save. If the Purchase Order is for a non-standard part, enter **NA** in the Part Number field and pc/MRP will not check the Part Master.

7.1.9 Enter a new purchase order step 9, print, display, email the purchase order

When you are finished, you also have the opportunity to print, display, fax, send to e-mail as HTML or send to e-mail as PDF. To send to e-mail, MS Outlook (not MS Outlook Express) must be your default e-mail program. Users can also use pc/MRP's CDO instead of Outlook to email documents (see Ch. 15.1.99 in this Manual). To send to fax you must install a print driver like WINFAX.   Furthermore, if the flag file **POMAILLB.FLG** exists an address label for the vendor on that purchase order will automatically be created from the CUSADR*.LBX or the CUSTADR*.LBX.

7.1.10 Creating blanket purchase orders with the Clone Button
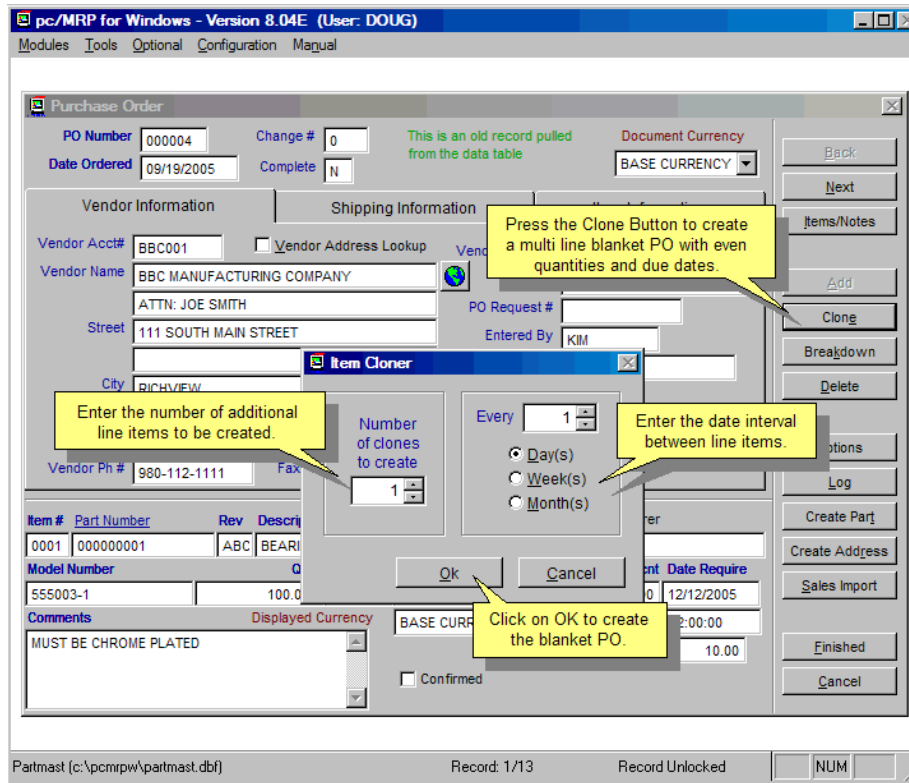
Press the Clone Button to create a blanket purchase order with even delivery dates and quantities.

7.1.11 Creating blanket purchase orders with the Breakdown Button
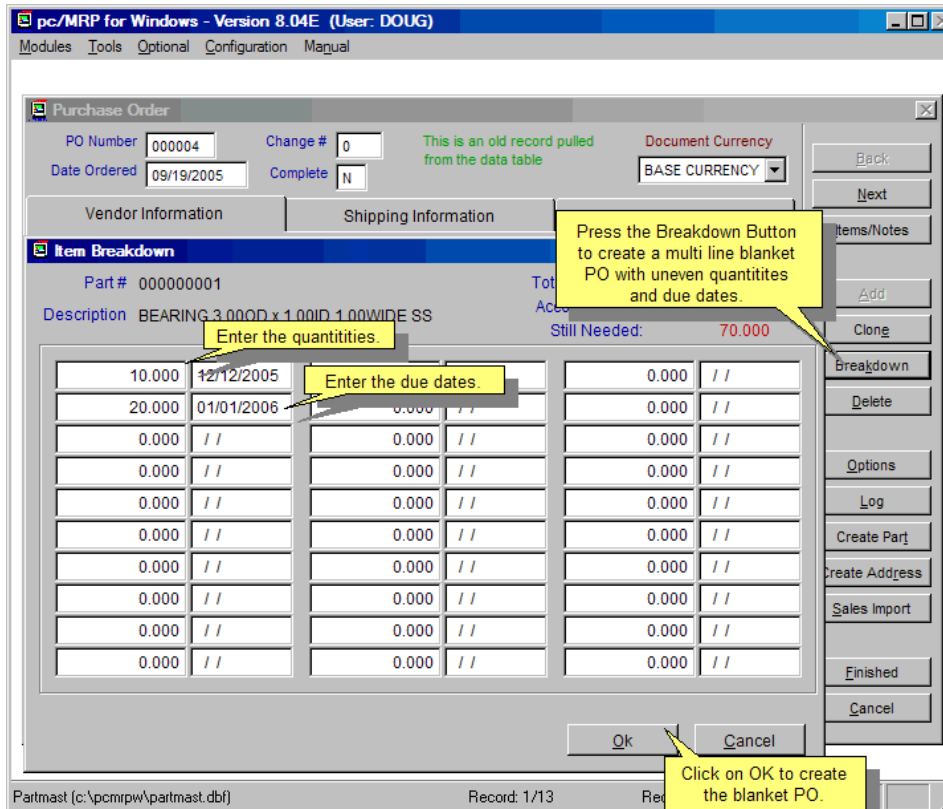
Press Breakdown Button to create a blanket purchase order with uneven dates and qtys.

7.1.12 Using the Options Button
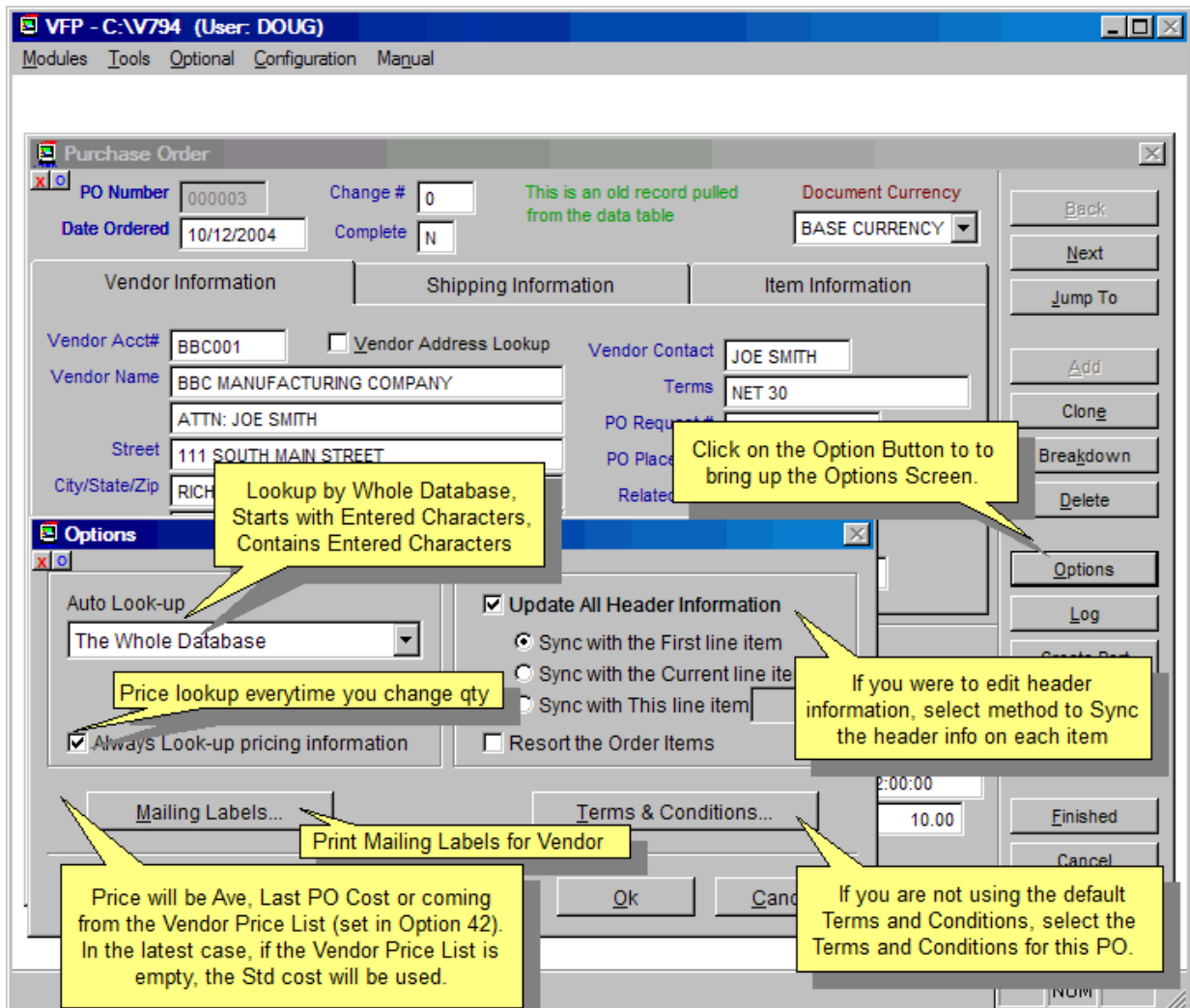
The Auto Look-Up Drop Down List Box will allow you to set the look-up method for part numbers and addresses.
- **The Whole Database** (default setting) -- The look-up window will contain the whole database starting at the first matching name. By scrolling up and down, every entry of the database can be displayed. This is the fastest look-up method.
- **Starts with Entered Characters** -- The window will only show the entries starting with the characters entered in the data field.
- **Contains Entered Characters** -- The window will show all the entries as long as they contain the characters entered. This is the most versatile look-up method but is also the slowest of the three methods with a large database.

Other options on the Option Window include:
- **Always Look-up pricing info -** When clicked, the pricing will always be looked up even when then quantity is edited. This checkbox value is set, until changed, for the user login name.
- **Resort the Order Items -** When clicked, the Items Number will be sorted in ascending order.
- **Update all Header Information -** When this option is activated, the header information (the customer information) will sync with the selection (one of the three listed)
- **Mailing Labels - The Mailing Labels** button will allow you to create shipping labels for this purchase order.
- **Terms and Conditions** – If you are not using the default terms and conditions, press the Terms and Conditions Button and select which terms you wish to include on this PO. Terms and Conditions can be created with Option 83 in Settings and Configurations.

7.1.13 Using the Terms and Conditions Button
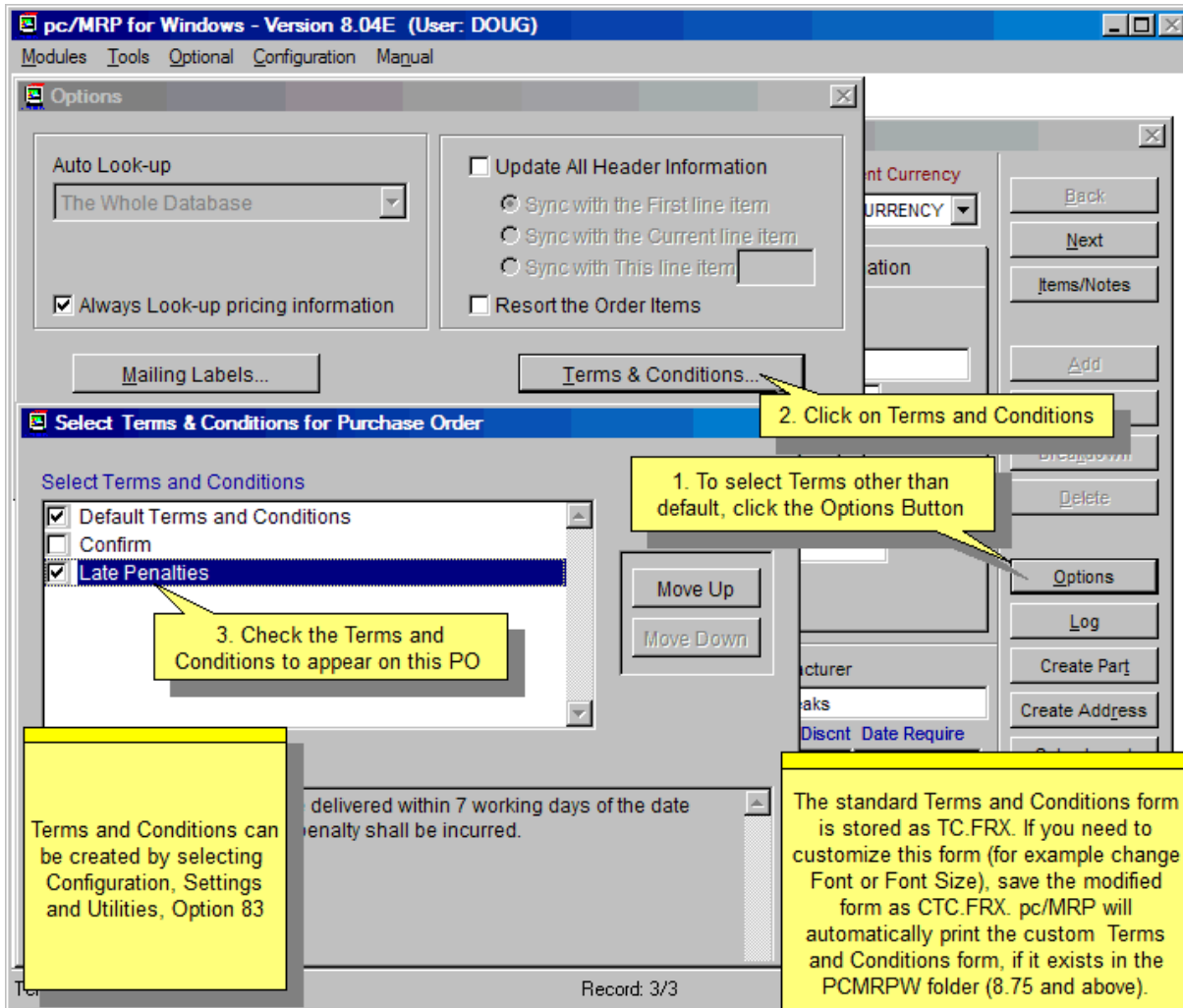
Pressing the **Terms and Conditions** Button on the Options Window allows you to select specific terms for this PO.   Terms and Conditions can be created by selecting Configuration, Settings and Utilities, Option 83.   The Terms and Conditions will be created as the last page of the PO.

The standard Terms and Conditions form is stored as TC.FRX. If you need to customize this form (for example to change Font or Font Size), save the modified form as CTC.FRX. pc/MRP will automatically print the custom Terms and Conditions form, if it exists in the PCMRPW folder (**8.73 and above**).

7.1.14 Shipping Information Page

The Shipping Information Page allows users to enter a different **Ship to Address** and **Tracking Numbers**.   The Track Button will track the packages listed in the Tracking Numbers Window.

If you wish to track the packages through pc/MRP, enter the **Tracking Number(s)**.   When you click the Track Button, pc/MRP will track the package.   pc/MRP will first look to the Ship Via Edit Box to see which shipping vendor (UPS, FedEx, DHL, Postal Service, TNT) to track.   If the Ship Via Edit Box is blank or you used multiple vendors pc/MRP will see if the tracking number is proceeded by UPS:, FEDEX:, DHL:, or TNT: to see which shipping vendor to track.   If all of the above is blank, pc/MRP will prompt you to select a shipping vendor.

When the purchase order is being created
   The OrShipDate, RevShipDate would contain the same date.
   The OrDateReq, DateReq would contain the same date.

When the purchase order is being edited
   If the OrdateReq field contains a date, it would be visible but disabled.
   If the OrShipDate field contains a date, it would be visible but disabled.

7.1.15 Item Information Page

Check **Freight is Taxable** (Taxfreight) if applicable.

Check **Discount is Taxable** (Taxdiscnt) if applicable. Tax will be paid for the full amount regardless of discount.

The **Debit/Charge Number** (dacct1) is automatically inserted from the partmaster table. You can select another inventory or expense account to be debited when the receiver is posted by clicking on the Ellipse … Button next to the Debit/Charge Text Box.

The **Standard Cost** (Stdcost) is inserted from the Inventory Data Base for that part number. It is used by the Purchase Price Variation Report found in pc/MRP's Accounting Module to compare with the actual cost on the purchase order.

The **Div** (Division) is automatically imported from the Inventory or Address Record depending on the setting of Configuration, Settings and Utilities, Option 78.

The **Rev Ship Date**, if used, is only shown on the Stockroom Shortage report. Not used by MRP.

Please note that the **Rejected Qty** is updated with a 'Return to Vendor' (Section 7.7) transaction. If you repair the rejected quantity in-house, you must modify the **Rejected Qty** manually so the ISO9000 report is accurate.

7.2   Edit a Purchase Order

Selecting Modules, Purchase, Edit will display the screen shown below and allows users to scroll, edit, delete, undelete, or run queries against Purchase Order records.

Selecting an **Indexed Search** allows users to search on indexed fields. An Indexed Search is much faster than a Queried Search.

Selecting to run a **Queried Search** allows users to build, run, save, and load queries for the Purchase Order table. For further details, see Chapter 15.14.1.

The Complete and Received Qty Fields are automatically filled in when the items are received. These fields are only displayed in the Edit Mode.

Entering a Receiver will automatically update Received Quantity, Date Received, Time Received, and On Time Delivery

Click on "Add" to add a line item to the PO

Use the Delete Button to mark PO line items for deletion. Use Remove Marked Records Option to remove the records marked for deletion.

Entering a PO Return will increase the Rejected Quantity

If you edit header information, you can propagate the change to all items by selecting Options and checking "Update All Header Information"

Deleting an entire PO is not required or recommended (Auditors look for missing PO numbers). Mark Complete with "Y", Qty = 0 and note the reason in the comment area.

If you change the quantity, pc/MRP will automatically correct the on order quantity in the partmaster, provided the PO item was not marked Complete on a prior edit or transaction.

If you edit the cost on a PO, you must edit the Last PO Cost for that part in the partmaster file. pc/MRP versions 8.72K and higher automatically update the partmaster file.

Every field in the Purchase Order edit screen is editable. There are however, several key concepts users must understand when editing.

- pc/MRP automatically corrects the part number's on-order quantity whenever the quantity in the purchase order changes. If the PO cost is changed on the last PO, pc/MRP will offer to update the Last PO Cost in the Partmast, Version 8.72K and above. For earlier versions, you must manually edit the part's Last PO Cost.
- pc/MRP prints out the vendor's address from the first line item.
- To add an additional line item to an existing PO, select the "**Add**" button while on the last current item number of the PO.
- If you make a change to the header information while editing, you can quickly propagate that change to the header of the remaining items. Just click on the **Options** button and select the "Update All Header Information" check box.
- The **Complete** and **Qty Received Fields** are displayed only in the edit mode and are filled in automatically when the items are received. The Qty Received Field contains the accumulative amount received. pc/MRP uses the Complete Field to determine if a record is overdue, open, or closed. A **Y** in the Complete Field marks the record as closed (The original quantity ordered for the line item has been received). Users should not manually edit these fields unless they wish to close the purchase order or adjust the quantity received.
- Users can use the delete and undelete buttons in the data entry screen to mark or un-mark purchase order line items for deletion. Once the record has been marked for deletion, return to the menu and select **REMOVE MARKED RECORDS.** You must then run **AUDIT ONORDER QTYS**.

7.3   Delete a Purchase Order

Deleting an entire PO is not required or recommended as Accounting does not like to see breaks in numbering.
- Option 1:
  - You should, for each line item: mark item's **Complete**' flag with a '**Y**', change the **Qty** to **0**, and note the reason in the **Comments** area, all at the same time to ensure that the **OnOrder** qty is updated when you save the record.
- Option 2:
  - Mark each line item's **Complete** flag with a **"Y"** and then run the **Audit OnOrder Quantities** from the Purchase menu. This keeps the original order qtys. The **OnOrder** qty is only updated when you click "Display and Update" next to the On Order quantity.

Once all the line items in a PO are marked **Complete** (maybe with 0 qtys), the whole PO is considered complete.

Note: You will also have to run the "**Audit Onorder Quantities**" if you delete the record without zeroing out the qtys in the PO line items or change the qty to 0 **after** you previously marked and saved the record as **Complete**.

7.4   Print, Display, E-mail, or Fax a PO

To print, display, e-mail or fax a PO select Modules, Purchase Orders, Print and the screen shown below will appear.
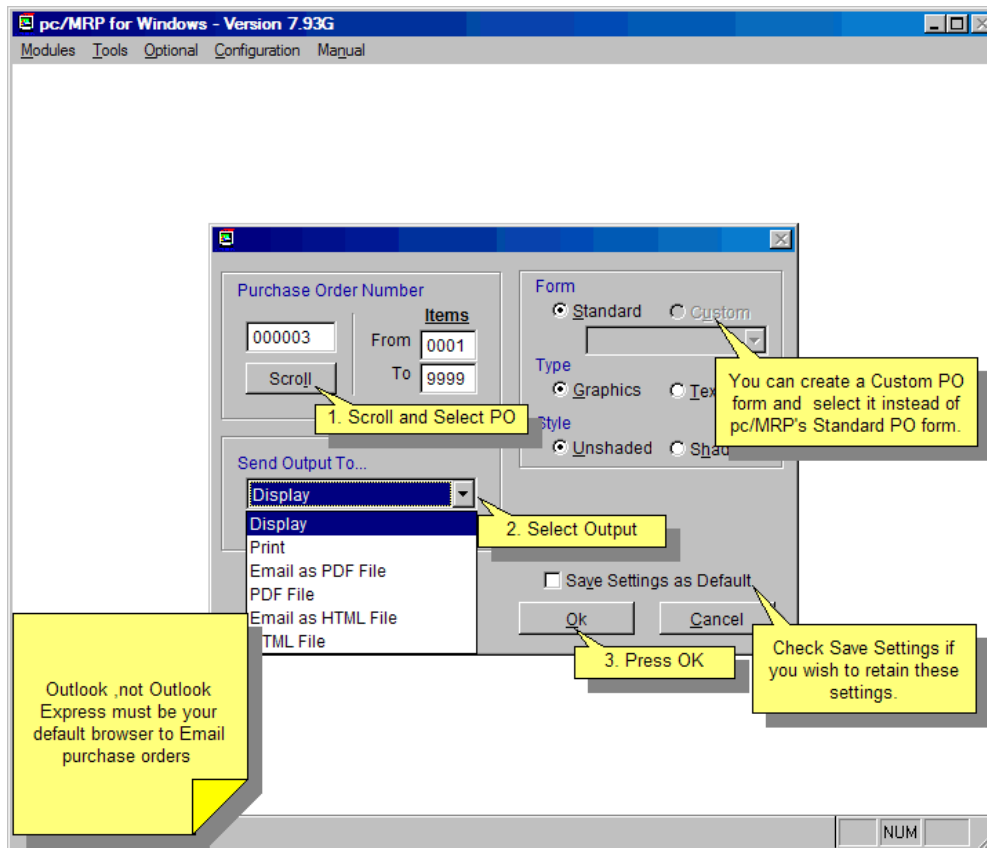
Configuration, Settings and Utilities
- Option 24 allows you to create custom purchase order forms
- Option 22 allows you to add up to nine lines of **Notes** to all purchase orders
- Option 83 allows users to add selectable Terms and Conditions for purchase orders

pc/MRP is designed to print out purchase orders on plain paper with a laser or ink jet printer. If necessary carbonless forms can be obtained as shown below:

Dot matrix printers
   You can order pc/MRP's two part (5K-2990-2), three part (5K-2990-3) or four part (5K-2990-4) carbonless forms and matching double window envelopes (5K-DW3787) from Rapid Forms, telephone number 1-800-257-8354. Be sure to give the Rapid Forms Operator pc/MRP's Keycode Number C20100.

Laser printers
   You can order the 3-part NCR carbonless paper by calling JC Paper in Mt. View, CA at (650)965-0983. Ask for the zero-form, straight sequence 3 part NCR pre-collated 8-1/2" X 11" paper. It comes in sets per package

Purchase orders may be folded in three and placed in double window envelopes.

7.5   Reports

7.5.1 Purchase Order Reports

To print or display purchase order reports select Modules, Purchase Order, and Reports.   pc/MRP will display the screen shown below.
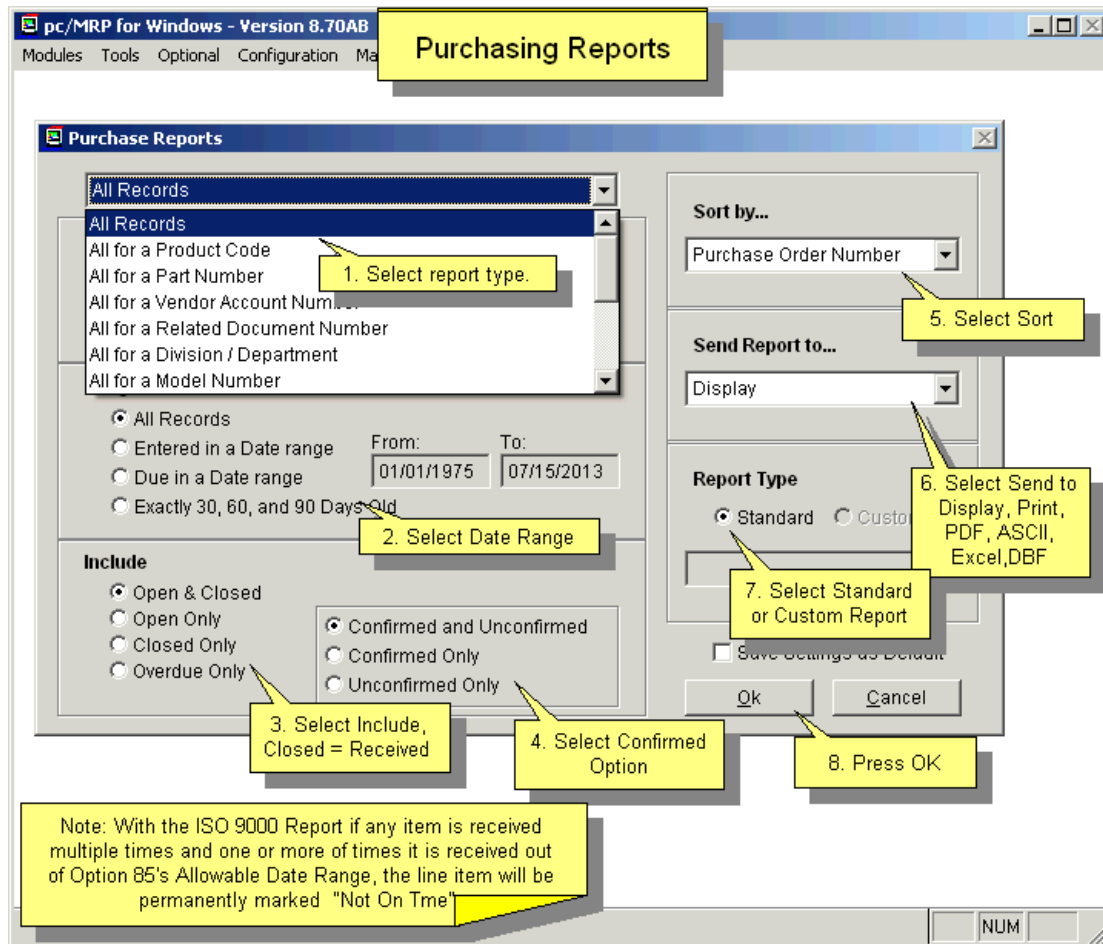
Configuration, Settings and Utilities, Option 24 allows users to create custom report forms. See Section 15.4.1 of this Manual for instructions on creating custom reports or forms.

7.5.2 ISO 9000 Vendor Performance Report

The ISO 9000 Vendor performance report allows end users to track their vendor's performance and reliability. This report is automatically generated by using information compiled within the purchasing and receiving modules of pc/MRP. This report further allows the end user to grade vendors and define a course of action based on the vendor's performance.

The criteria for lateness can be set with Configuration, Settings and Utilities, Option 85. Leaving the Vendor ID blank and checking the Partial Match Radio Button will print out a report that includes all vendors.

Note: If any receiver (there could be multiple receivers for one PO line item) for that PO line item falls outside Option 85's acceptable date range the PO line item will be permanently marked as not on time.

On Time is determined when the part is received. pc/MRP uses the Original Date Required or the Current Date Required as per Option 85 in both determining whether delivery is On Time, and for the Vendor Performance Report.

7.5.3 MRP Report (All Parts Required)

The MRP Report in Purchasing can use one of two methods, Consolidated (Single Bucket MRP) or Min/Max to determine the purchasing requirements. Both methods utilize the screen below.

Note: For an advanced MRP method, see the optional Infinite Bucket MRP module in Chapter 16.3 in this Manual.
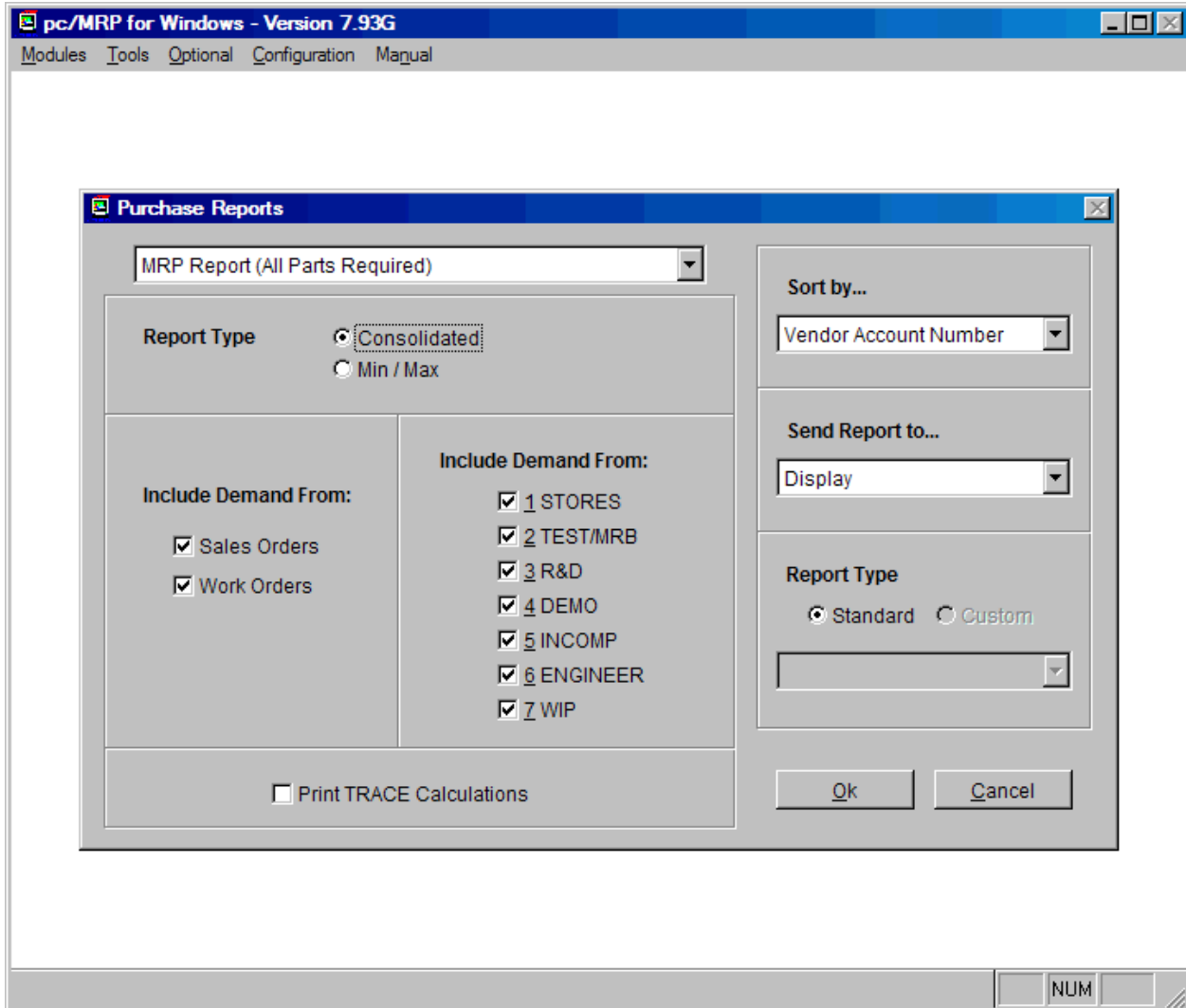
7.5.4 Min/Max Report (lgminreq.frx)

One method is the MIN/MAX selection. This reports all parts under the minimum quantity allowable. The minimum quantity for each part is entered into the Inventory Database File and should equal the quantity used per week x lead-time in weeks x your safety factor. The maximum quantity for each part is entered into the Inventory Database File and should be set at some level higher than the minimum quantity. This report takes into account the order qty and the on-demand qty for each part and assembly. This report provides the quantity required to reach the minimum quantity and the quantity required to meet the maximum quantity. The report is easier to understand if you have maximum quantities for all your parts.

MINQTY+ONDEMAND-ONORDER-(THE SUM OF THE STORAGE AREAS CHOSEN)

7.5.5 Consolidated Single Bucket MRP Report (lgparreq.frx)

The other method, Consolidated, provides the exact amount of parts required to be ordered to meet the demand driven by sales orders and/or work orders. The consolidation report first zeros out all on order and on demand quantities in inventory and updates these fields representative of open purchase orders and sales/work orders. It then compares what is on demand from open sales/work orders with what is on order, in WIP, on hand (finished assemblies, sub assemblies, and minimum stocking levels). Consequently, the quantity required is calculated as described below.

If there are not enough finished assemblies and sub assemblies to fill the open sales and work orders pc/MRP will use the BOMs to determine which parts need to be ordered. The report lists parts to be ordered for assemblies. It does not list sub-assemblies, as they cannot be ordered. The Consolidated Purchasing Report will tell you what to order but not when to order. Software Arts offers an optional Infinite Bucket module that allows MRP reporting in much more detail. This is covered in Chapter 16.3.1 in the Manual.

The Consolidated Purchasing Report can be ran several different ways. Users can include or exclude sales orders and or work orders as well as all inventory locations. (Users must keep WIP checked to run this MRP.) Users can also select to Print Trace Calculations. This is a detailed report that explains exactly where and how demand for each part is driven. There is no need to print out and trace the calculations unless you disagree with the MRP results. The Consolidated Purchasing Report can also be sorted several ways and the output can be set to display, print, or several different file types.

Example, Narrow Carriage Purchase Order Report Format

MRP CONSOLIDATED SHORTAGE REPORT

10/19/2001

PART NUMBER	DESCRIPTION	MODEL NUMBER	VENDOR	PHONE #	COST UNIT	QTY REQ	EXTN COST
000000003	FRAME, BICYCLE FRAME	X234-987	CANONWALE INC.	111-111-1111	0.0000	5.000	0.00
000000005	GEAR CHANGER ASSEMBLY	ABTTR-445778 -TY	CANONWALE INC.	111-111-1111	0.0000	5.000	0.00
000000004	DIRT TEASER TIRE		SMITH BIKE ASSESORIES	111-111-3211	0.0000	10.000	0.00
000000006	BANANA BICYCLE SEAT		SMITH BIKE ASSESORIES	111-111-3211	0.0000	5.000	0.00
000000007	PEDALS		SMITH BIKE ASSESORIE	111-111-3211	0.0000	10.000	0.00
000000008	NGF INTERTUBE (NEVER GOES FLAT)		SMITH BIKE ASSESORIE	111-111-3211	0.0000	10.000	0.00
000000009	SPOKES (WHEEL SPOKES)		SMITH BIKE ASSESORIE	111-111-3211	0.0000	400.000	0.00
000000010	STEM FOR TUBE		SMITH BIKE ASSESORIE	111-111-3211	0.0000	10.000	0.00
000000011	BREAK ASSEMBLY		SMITH BIKE ASSESORIE	111-111-3211	0.0000	5.000	0.00
000000013	BOLTS		SMITH BIKE ASSESORIES	111-111-3211	0.0000	90.000	0.00
					TOTAL:		0.00

After the consolidated report has been generated, pc/MRP offers an Excess Inventory report.

It will also provide the Average or Standard cost of the excess inventory. The user will be given the option to automatically generate Purchase Orders based on the consolidated shortage report. If this option is selected, a Purchase Order will be created to the primary vendor for all requirements. All the Purchase Orders that were generated may then be printed. If the program is unable to create a Purchase Order item for a requirement, an error report describing the error(s) will be available.

7.6   Return Items to a Vendor (Debit Memo)

This process is the same as documented in creating a debit memo in the general ledger, and is found in Chapter 14.11.3, Debit Memo Module.

7.7   Audit Onorder Quantities

Zeros out the onorder quantity in inventory and then replaces the on order quantities with the on order quantities from all open POs. If several purchase order quantities are edited this option will automatically correct inventory quantities. This option will also display non-existent PO dates and part numbers that do not exist in inventory. If 'Audit Onorder Quantities' reports any errors, you must fix the errors and re-run the function again.

7.8   PO Log Book

This feature can be used to record conversations or commitments pertaining to each PO. The Windows version of pc/MRP uses generic ASCII text files.

7.9   Queried Search Overview (see 15.14.1)

7.10   Indexed Searches (see 15.14.2)

7.11   Index (see 15.14.3)

7.12   Remove Marked Records (see 15.14.4)

7.13   Remove Over X Years (see 15.14.5)

8 Receiving Module

8.1　　Enter a New Receiver

To enter a new receiver, select Receive and New. pc/MRP will display the next available **Receiver Number** and ask if you wish to scroll the PO file. If users answer **Yes,** they will be allowed to scroll the PO file by either PO Number, Account Number, or Part Number. If users answer **No,** pc/MRP will display the most recent **PO Number** and **Item Number**. You can write over these numbers and write in the desired Receiver and PO Numbers.

An online slideshow is located here: **http://www.pcmrp.com/mrp101/receivenew.htm**

Configuration, Settings and Utilities, Option 44 can be set to Prompt for the receiving area, Use the area specified in inventory, or Always use the area specified in Option 44.

8.1.1 Receiver Data Entry Screen Vendor Tab
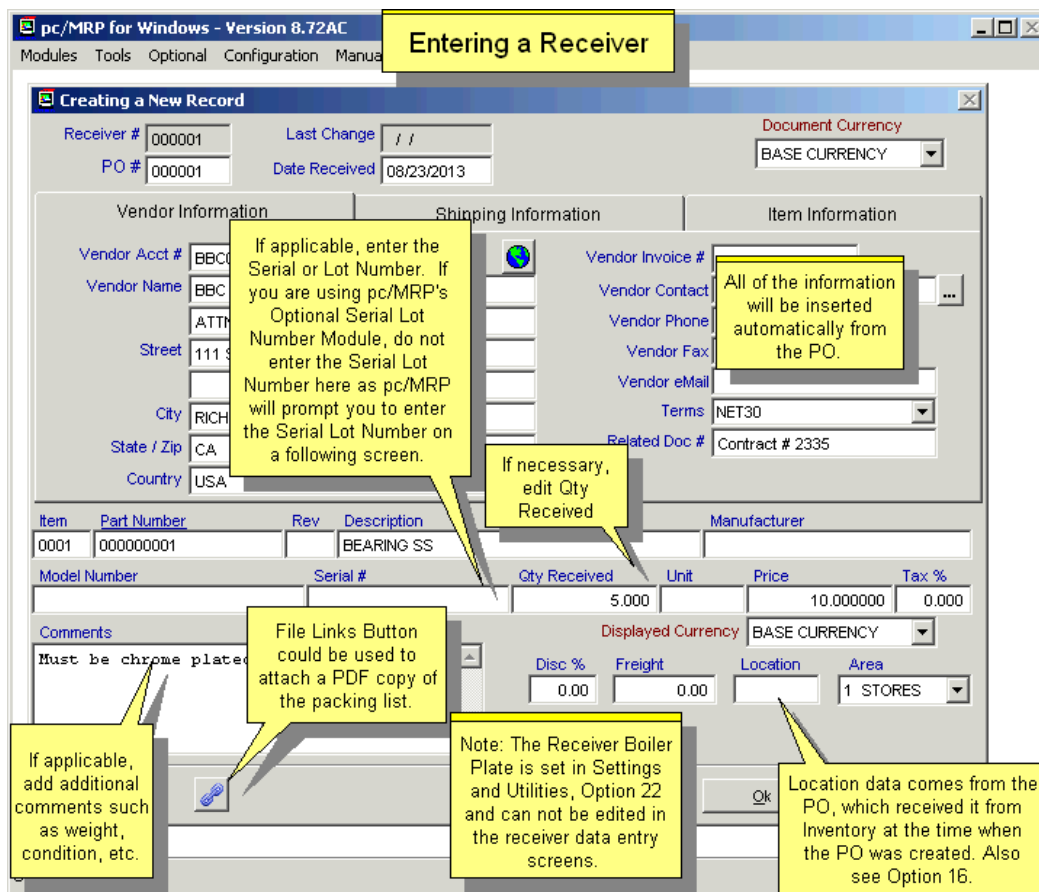
Part Number, Description, Manufacturer, Model Number, Vendor, Address, Order Quantity, Unit, Cost, Terms, Account Number, Trade Discount, Tax Rate, Div, and Freight are entered automatically from the PO and can be written over if no longer correct.

If configuration settings and utilities Option 16 is set to enable dynamic stock locations, pc/MRP will allow you to assign a new stock **Location** for a part number if there are none in stock.

Part number data from inventory can be viewed in the receiver by pressing **F1**.

Quantity Received should be edited by the computer operator if necessary.

The **Comments** field can be used to store additional information such as weight, number of packages, etc.

The **Related Document** field is a 23 character scrollable field. It can be used to enter a related contract number, serial number, sales order number, etc.

Vendor Invoice Number, and **Freight** are usually entered by accounting when the vendor sends the invoice (accounting will inspect and edit the receiver).

Note: The **Receiver Boiler Plate** is created in the Configuration, Settings & Utilities, Option 22 and cannot be edited in the receiver data entry screen. Also, the **Purchase Order Boiler Plate** does **NOT** transfer into the **Receiver Boiler Plate** print area (receiver 'Notes:' area).

8.1.2 Receiver Data Entry Screen Shipping Tab
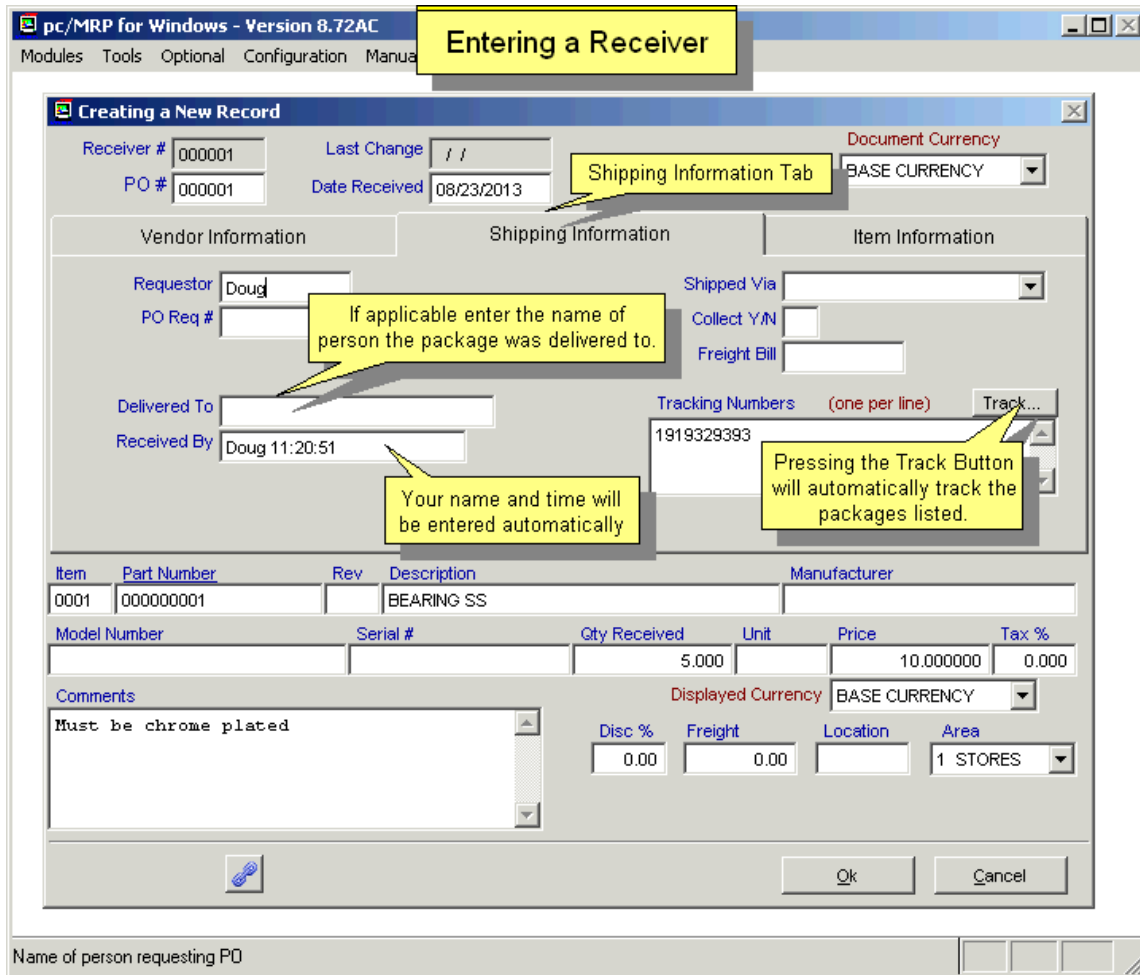
The **RECEIVED BY** field is automatically populated by the user name and time.

If the freight charge is invoiced separately, enter the freight invoice number in the **Freight Bill Number** field.

Freight Bill Number, Collect, and **Delivered To,** will give your Receiving Logs valuable information.

The entire amount for the **Freight**, if known, can be entered once in one line item in the freight field or entered individually for all line items. The freight totals for all line items will be totaled and printed out on the forms and reports.

When you click the Track Button, pc/MRP will track the package. pc/MRP will first look to the Ship Via Edit Box to see which shipping vendor (UPS, FedEx, DHL, Postal Service, TNT) to track. If the Ship Via Edit Box is blank or you used multiple vendors pc/MRP will see if the tracking number is proceeded by UPS:, FEDEX:, DHL:, or TNT: to see which shipping vendor to track. If all of the above is blank, pc/MRP will prompt you to select a shipping vendor.

8.1.3 Receiver Data Entry Screen Information Tab

If the freight or discount is taxable, check the **Freight is Taxable** and/or **Discount is Taxable** Checkboxes.

If a file named RECSCOST.FLG exists, pc/MRP will insert the **Standard Cost** from the partmaster into the receiver's Standard Cost field when you enter a receiver. If the flag does not exist, pc/MRP will insert $0.00 into the receiver Standard Cost field.

pc/MRP will debit **Debit/Charge Number** when accounting performs an I type accounting transaction (register an accounts payable invoice) for this receiver.

The **Pay Date** is calculated from the number following the word "NET" in the Terms Field.

The date is automatically inserted into the **Date Received** Field. If the Date Received is equal to or prior to the **Date Required**, pc/MRP will automatically insert a **Y** into the **On Time** Field. The Date Received Field is used by pc/MRP's Accounting Module in aging the Accounts Receivables Records. It is also the date used to determine which of the receiving records to delete with the "Delete all receiving records over x years old."

Once the new receiving record has been entered, pc/MRP will update the quantity received, date received, on time delivery, and complete field in the purchasing record. It will automatically increase the quantity on hand and decrease the quantity on order in inventory, provided pc/MRP has been configured to do so (Configuration, Settings and Utilities Option 4 set to A). If a receiver is over received pc/MRP will decrement the quantity on order in inventory but it will not take the onorder quantity negative.

The **Aux** field is a 20-character field for your use and can be reported on as "All for an Aux value".

When a new receiver is entered, pc/MRP will automatically calculate and update the **Average Cost:**

> If the new cost >= 0 and quantity received > 0 and the old cost >= 0 and the quantity on hand >= 0, the average cost of the part will be recalculated based on the formula below:

$$\frac{(\text{original avecost x quantity onhand}) + (\text{new cost x quantity received})}{\text{quantity on hand} + \text{quantity received}}$$

Note:
If the old cost = 0 then the average cost will be equal to the new cost per stocking unit including any discount.
If the new cost = 0 then the average cost will be calculated just as the example describes.

Option 50 in pc/MRP's configuration menu allows you to include alternate area quantities and WIP quantities in the above formula.

If you have activated the **serial/lot number module**, pc/MRP will ask if you wish to "Enter serial/lot numbers ". If you answer Y, you will be prompted to enter the quantity and serial/lot number of the part number you are receiving. This will append a new serial/lot number record to snlotdet.dbf detail file. It will also update the quantity or append a new record in the snlot.dbf master file. If you are receiving multiple serial numbers for the same part number, answer Y when prompted to "Enter another serial/lot number for this part number"

Option 44 in Configuration Settings and Utilities allows you to either set pc/MRP to prompt **which area** is to receive the parts or set a specific area as the default area.

If the item you are receiving is an assembly and you are not using Inventory Adjustment Method **S**, pc/MRP will ask if you wish to **Increase** the onhand quantity of the assemblies or **Convert** parts to assemblies (increase assemblies & decrease onhand quantity of the parts). You will also have the options to run a cost roll-up and or sales price markup.

If the items you are receiving are assemblies and the configuration Option 47 allows you to do cost roll-ups, pc/MRP will ask if you wish to do a cost roll-up and or a sales price mark-up. **Be aware that if you turn off Option 47 in the Configuration/Settings and Utilities this will also turn off the Inventory cost-roll-up option.**

If the PO line item has already been received, pc/MRP will generate a warning allowing the user to continue or cancel.

Once the initial line item has been received, pc/MRP will prompt you to "Receive an additional line item", "Receive the all of the remaining line items on the original PO", or Press the "Finished" Button if you are finished.
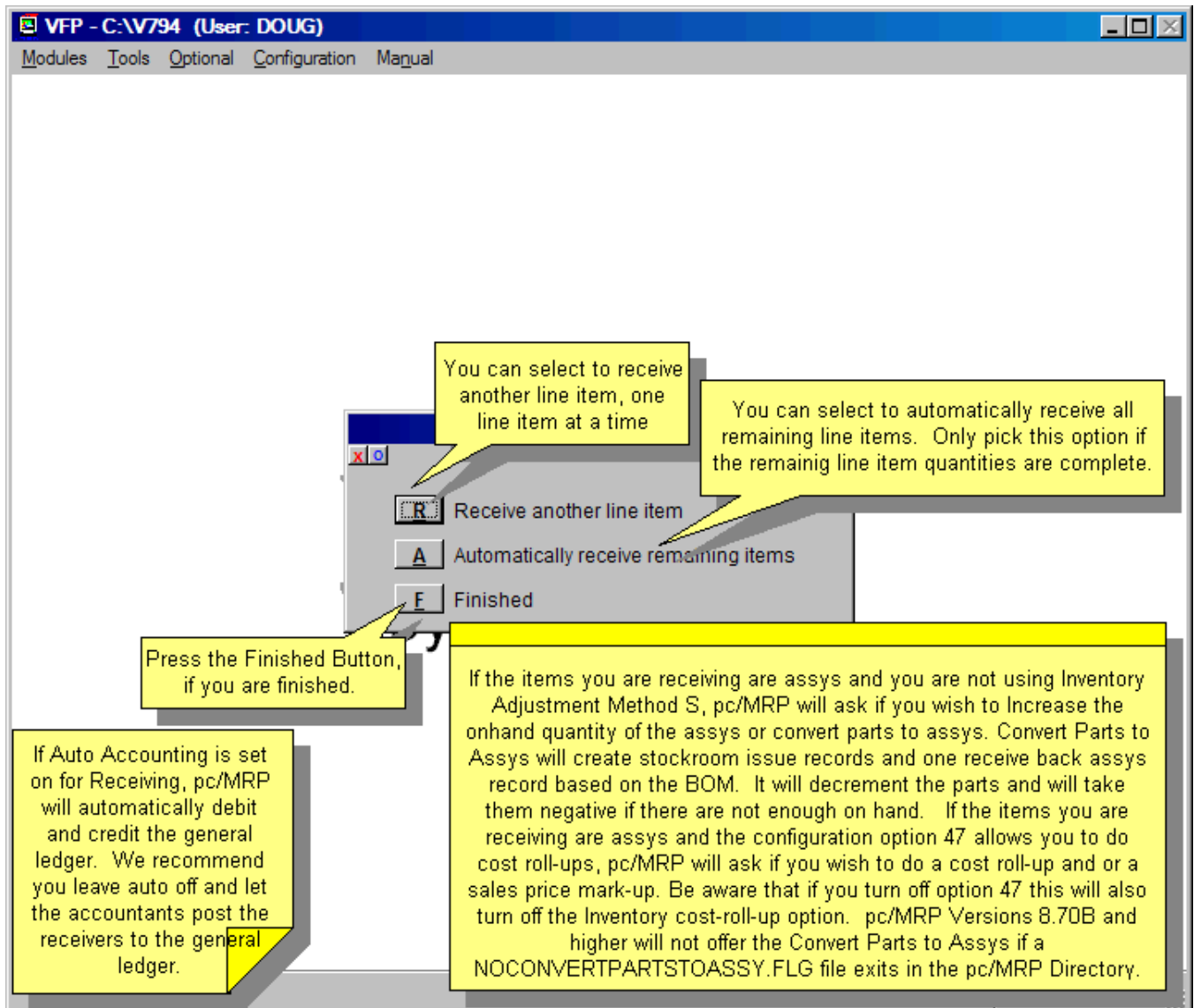
After all the line items have been entered for a receiver pc/MRP will automatically debit and credit the general ledger if it is configured to do so (auto accounting on).

8.2 Edit/Delete Receiver

This option allows users to scroll, edit, delete, undelete, or run queries against Receiver records. Select Receive, Edit/View.
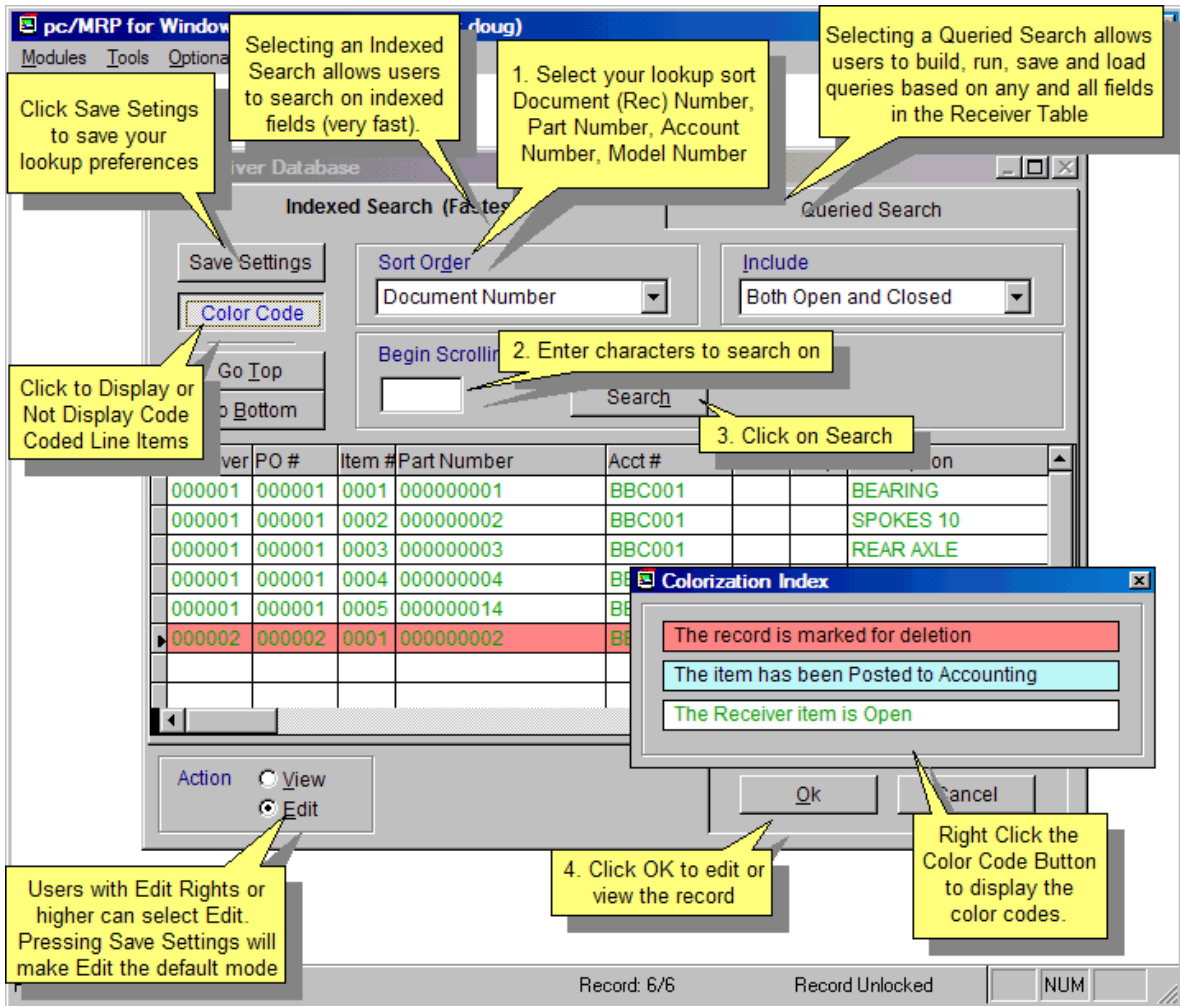
Selecting an **Indexed Search** allows users to search on indexed fields. This allows pc/MRP to find the information much faster. To perform an **Indexed Search** select the:

- **Indexed Search** tab
- Desired **Sort Order**
- Desired **Include** information: **Open, Closed, Both Open and Closed**
- Enter the applicable data in the **Begin Scrolling At**: field
- Press **Search**
- Select the desired Action: **View** or **Edit**

pc/MRP will automatically scroll to the desired record or the nearest match. Select the correct record by scrolling and press **Ok** to proceed to the edit screen for that record.

Selecting to run a **Queried Search** allows users to build, run, save, and load queries for the Receiver table. For further details, see Chapter 15.14.1.

Every field in the receiver table is editable. There are several key concepts users must understand before editing.

If a user edits or deletes a receiver, pc/MRP will allow the option to automatically adjust (**8.25H and above**):

- If the user edits the receiver quantity, pc/MRP will offer to Update the Purchase Order's quantity received and the Inventory On Order and Area Quantity provided:
    - The Receiver's Date is greater than the last Physical Inventory Date for that part number.
- If the user edits a receiver's cost, quantity, or discount, pc/MRP will offer to re-calculate the weighted average cost for that part number provided:
    - The receiver's qty cost or discount or deleted or undeleted was adjusted and
    - The receiver's original ave cost = > 0 and
    - The receiver's original inventory qty = > 0 and
    - The receiver is the last receiver for that part number and
    - The receiver's date is a later date than the last physical inventory date and
    - The receiver's qty + the original inventory qty > 0 and
    - The receiver's new cost = > 0 and
    - The receiver's new qty = > 0

If these conditions are not met, pc/MRP will NOT re-calculate the weighted average.

If pc/MRP detects a QB batch number or an accounting transaction, it will display the transaction numbers that need to be edited.

To add an additional item to an existing receiver, do not use the edit module. Instead, use the "Enter new receiver" option. After entering the new receiver and saving the receiver, edit the receiver number to match the previously entered receiver and edit the line item number to match the next line item in sequence.

The **Complete, Amount Paid, and Check Number Fields** are displayed only in the edit mode and are filled in automatically when Accounting records a payment towards this debt. The Amount Paid Field contains the accumulative amount paid. pc/MRP uses the Complete Field to determine if a record is open or closed. A "**Y**" in the Complete Field marks the record as closed. An "**N**" in the Complete Field marks the record as open. These fields should not be manually edited unless the user specifically wants to change the receiver status, amount paid, or check number. Edits made here do not automatically edit the General Ledger. If users are using pc/MRP Accounting, they must also manually edit the General Ledger.

The **Posted** field is displayed only in the edit mode and is filled in automatically with a **Y** when accounting enters the initial general ledger I (accounts payable) transaction.

Use the delete button to mark a record for deletion. Once the record has been marked for deletion, return to the menu and select **Remove marked records then Reindex.**

Users must have Accounting Edit rights or higher to edit a receiver that has been posted or paid (requires the Advanced Password Module).

8.3 Print/Email Receiver
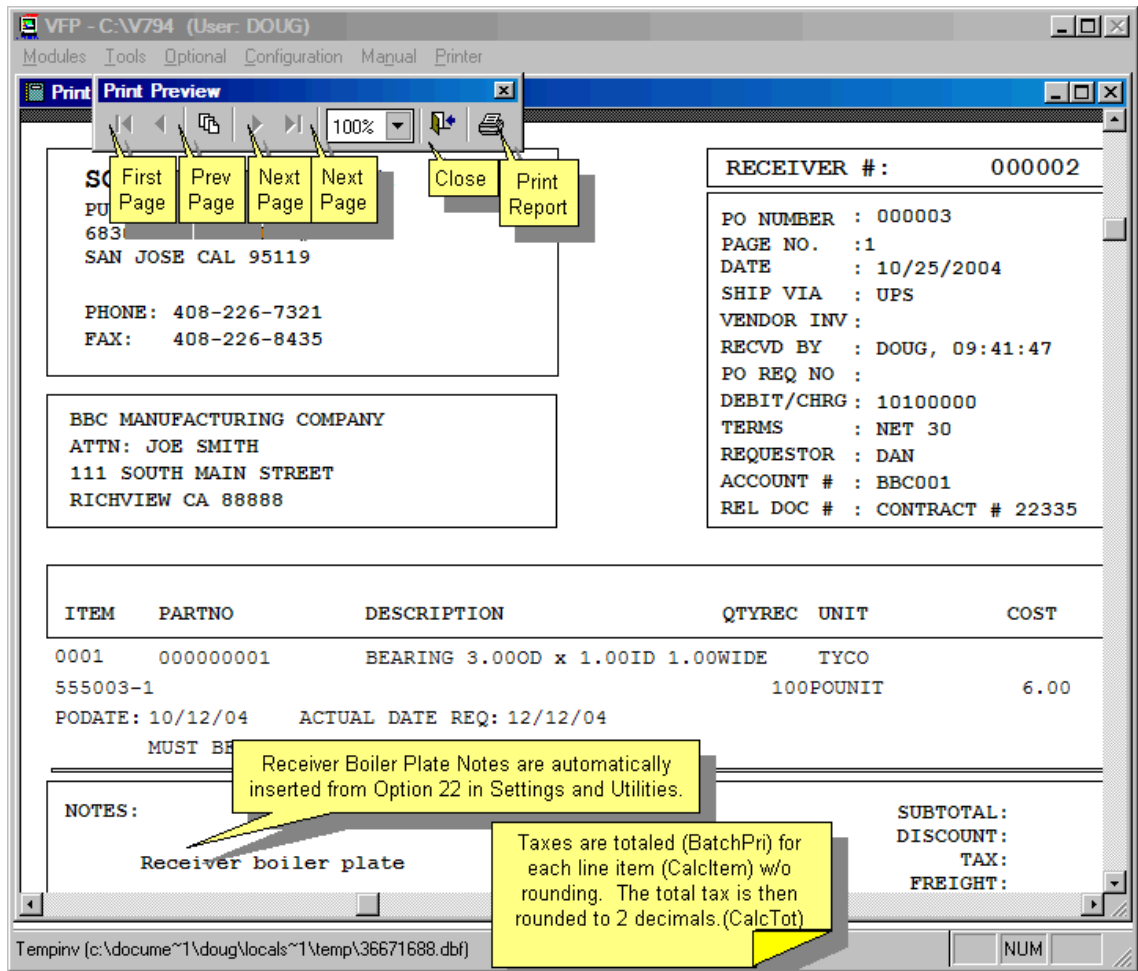
This option will print, display, send to e-mail, or send the receiver to an HTML document to attach the receiver to an e-mail. Using programs like WINFAX users can also directly fax from pc/MRP. The Receiver is rec.frx. Furthermore, if the flag file **DMMAILLB.FLG** exists, an address label for the vendor on that receiver will automatically be created from the CUSTARD*.LBX or the CUSARD*.LBX.

If you send an e-mail directly from pc/MRP, we use MS Outlook. The e-mail address in MS Outlook will automatically be populated from the e-mail entry in the pc/MRP Address Book. If you create an HTML document, you can save this document and attach it to an e-mail created in your existing e-mail program.

We recommend using plain paper. However, you can order 3-part NCR carbonless paper by calling JC Paper in Mt. View, CA at (650)965-0983. Ask for the zero-form, straight sequence 3 part NCR pre-collated 8-1/2" X 11" paper. It comes in sets per package.

8.4 Reports

Selection 4 allows you to print out or display standard receiver reports (reclog.frx) and custom receiver reports (csustrec.frx).   See Section 15.4.1 for instructions on creating custom receiver reports.

The reports can be displayed, printed, faxed (with a program such as WinFax), or sent to a file (ASCII, XLS, DBF).   If the report is sent to a file the rows will be filtered but all of the fields will be included.
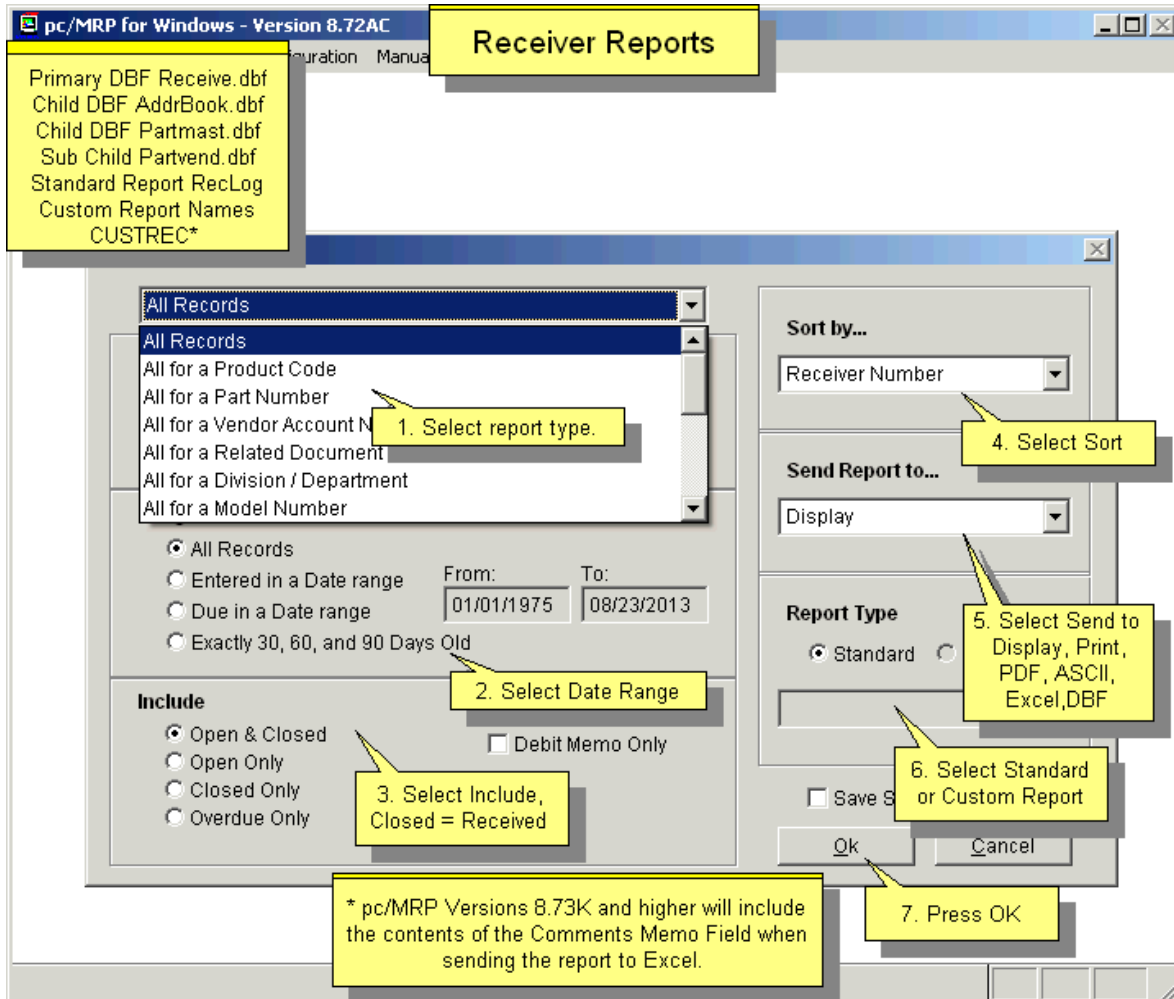
8.5   Print Labels

Select Modules, Receiving, Print Labels to print labels for receivers as shown below:
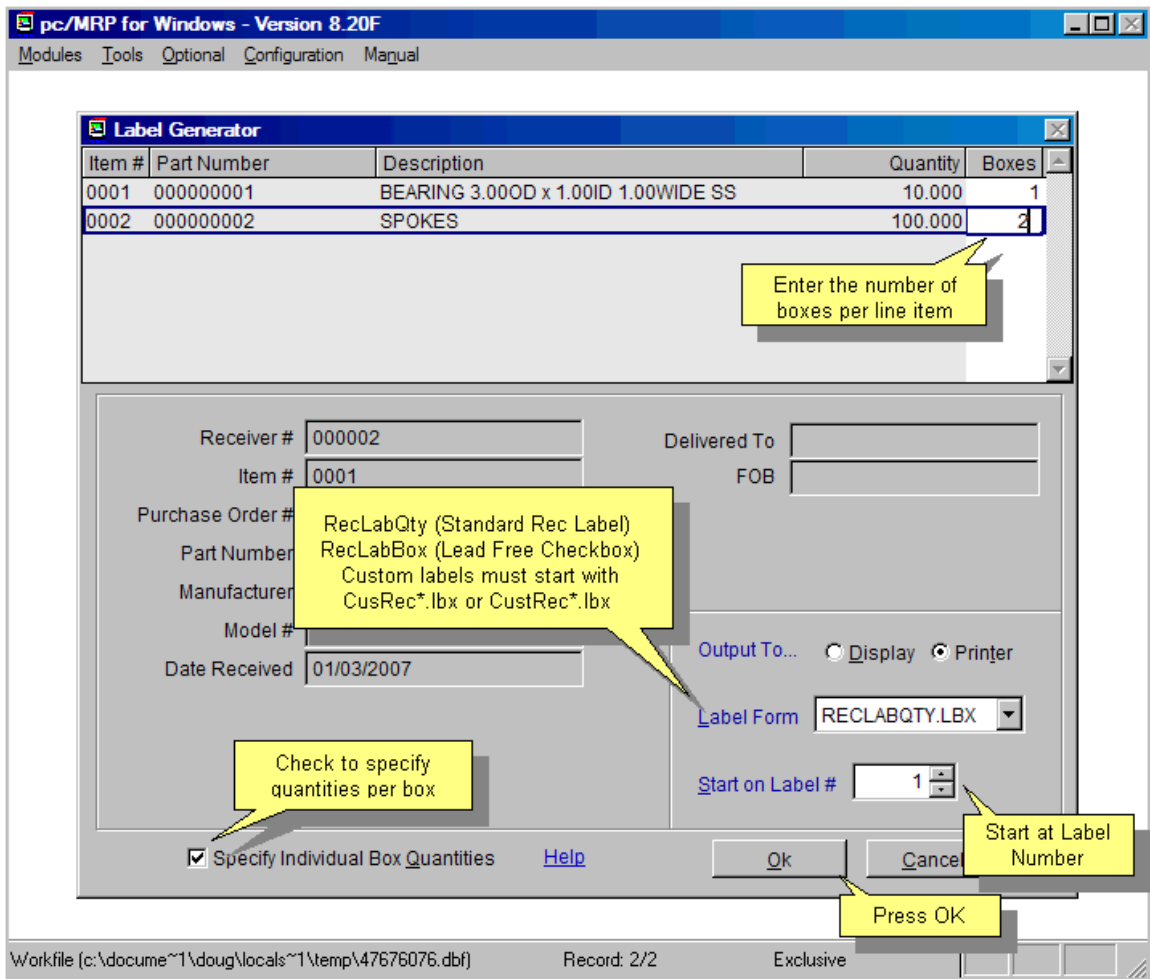
Configuration, Settings & Utilities, Option 24 can be used to create custom labels (CUSTREC*.LBX Section 15.4.20). With versions 8.21B and lower use Notepad to add the label filename to the list found in the file RECLAB.LST which resides in the pcmrpw directory.

8.6 Queried Search Overview (see 15.14.1)

8.7 Indexed Searches (see 15.14.2)

8.8 Index (see 15.14.3)

8.9 Remove Marked Records (see 15.14.4)

8.10 Remove Over X Years (see 15.14.5)

9 Sales Order (Order Entry)

9.1 Overview. Enter a New Sales Order
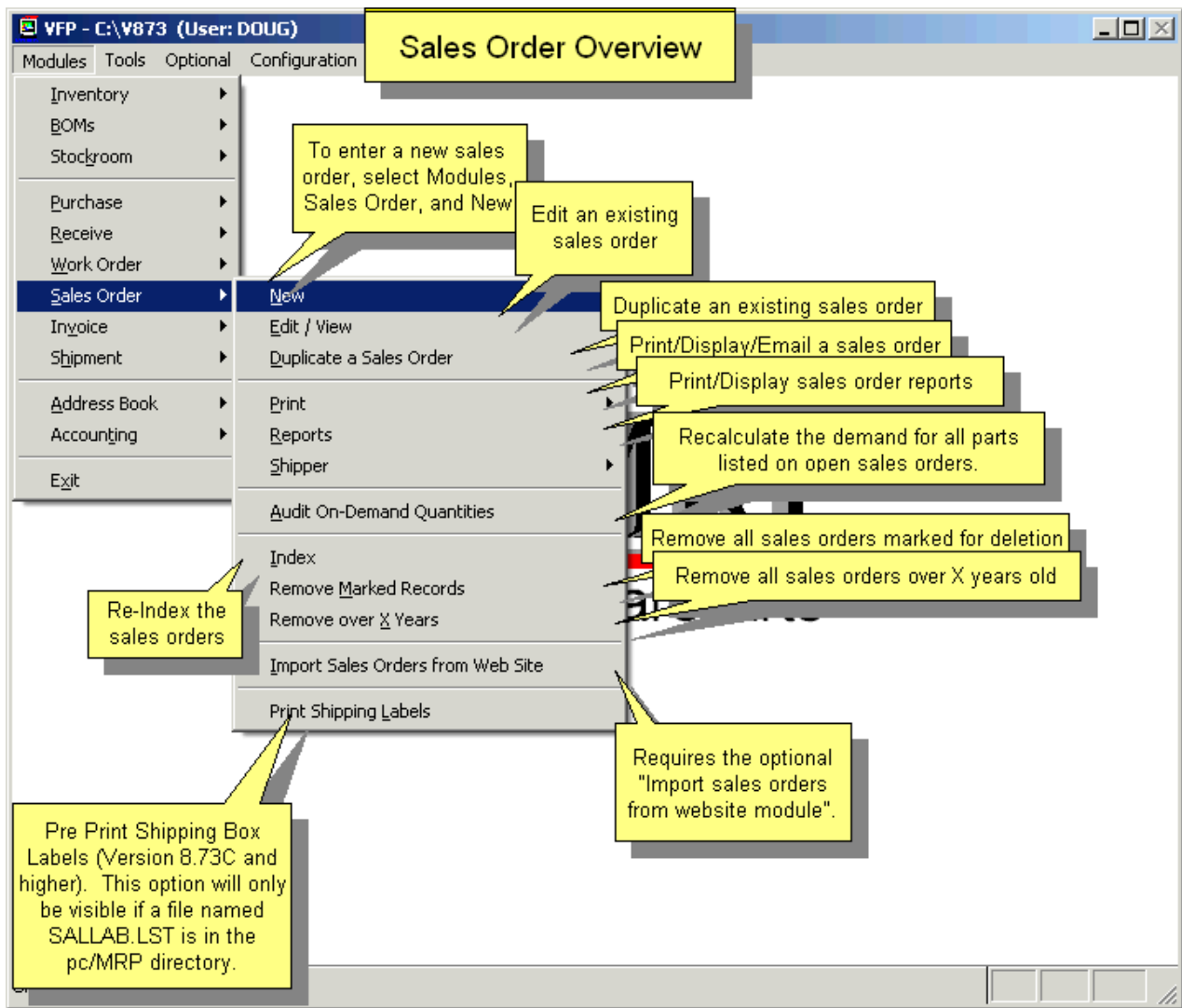
pc/MRP's Sales Module allows you to enter, edit, and print sales orders and print sales order reports. If a sales order is entered as a "cash and carry" or as an "account and carry" order, pc/MRP will create an invoice and decrement the on hand quantity in inventory (configurable by Option 4). If a sales order is created as "order entry" (to be delivered at a later date), pc/MRP will create a sales order and increase the on demand quantity. pc/MRP's Sales Module will provide numerous reports including All Overdue Sales Orders, All Sales Orders for a Month, Sales Tax, Sales Commission, and Cost of Sales. Each Sales Order can contain up to 9999 line items (Settable via Settings & Utilities, Option 63). Each line item has a due date and can be taxable or non-taxable. An online slideshow is located here: http://www.pcmrp.com/mrp101/saleselectnew.htm

9.1.1 Enter a new sales order step 1, Select Sales and New from pc/MRP's Main Menu

Select Modules, Sales and New as shown above and the following screen in step #2 will appear.

9.1.2 Enter a new sales order step 2, Select Type, Area, Terms, Ship Via, Tax and FOB

Select the Sale Type (A single character will be saved as the <u>first character of the</u> **Saletype** field):

- **Cash and Carry** (C) -- pc/MRP generates a Sales Order, creates/prints an Invoice and deducts stock.
- **On Account and Carry** (A) -- pc/MRP creates a Sales Order, creates/prints an Invoice and deducts stock.
- **Order Entry** (O) -- pc/MRP creates/prints Sales Order, increases on demand in inventory.
- **Sales Return** -- This creates a credit memo. See the credit memo chapter for more information. When creating a sales return, users can choose to re-stock the returned items.
- **Payment on Account** -- This is the same as the R type transaction in the Accounting GL. See the chapter on the Accounting GL for more details.

Select **Tax Type**. A single character (Taxable=T, Resale = R, Out of State = O, Exempt = E etc.) will be saved as the <u>second character of the</u> **Saletype** database field. Select the **Issue Area** (where the parts and assemblies will be issued from).

Select the **Terms, Ship Via** and **FOB** from their respective drop down list boxes. The drop down list boxes can be pre-populated by going to Configuration, Settings and Utilities, and selecting Option 52. **Note:** If the Address Book contains terms for the customer, pc/MRP will automatically insert the terms in the Address Book regardless of your selection here. **Note:** If the Address Book contains a different Ship Via, pc/MRP will prompt you to pick the one you selected, the one in the Address Book or pick again from the drop down list in the sales screen.

International Commerce Terms (IncoTerm, C36) and Export Reason (ExpReason, C20) were added to versions **8.73 and higher** and are displayed on commercial invoices.

Press the **Save Settings** Button to save the current settings of this screen for the current user. Press the **OK** Button to move to the next screen.

9.1.3 Enter a new sales order step 3, Select the Customer

Place the cursor in the **Customer** Field or the **Account #** Field. Type the first few characters of the customer name or the Account #. A list of customer addresses will appear. Scroll to the desired customer and hit [Enter] or double click. All the address information will be entered automatically. If alternate billing and/or shipping addresses exist in the address entry for this customer, pc/MRP will automatically populate the BILL TO and/or SHIP TO fields.

The "**Account #**" and "**Part #**" fields are always linked to ther Address Book and the Partmaster. This means that the entries to these two data fields must be valid numbers contained in the Address Book or the Partmaster.

Sales Order and Work Order numbers are automatically incremented. Though alpha characters are acceptable it is recommended to let pc/MRP automatically increment the Sales and Work Orders.

The Related Doc# is auto-inserted from the Address Book, or, if a Purchase Order was created from this Sales Order (by selecting "Create from Sales Order" when creating the PO), this field contains the PO# and line item#.

9.1.4 Enter a new sales order step 4, Select the Part
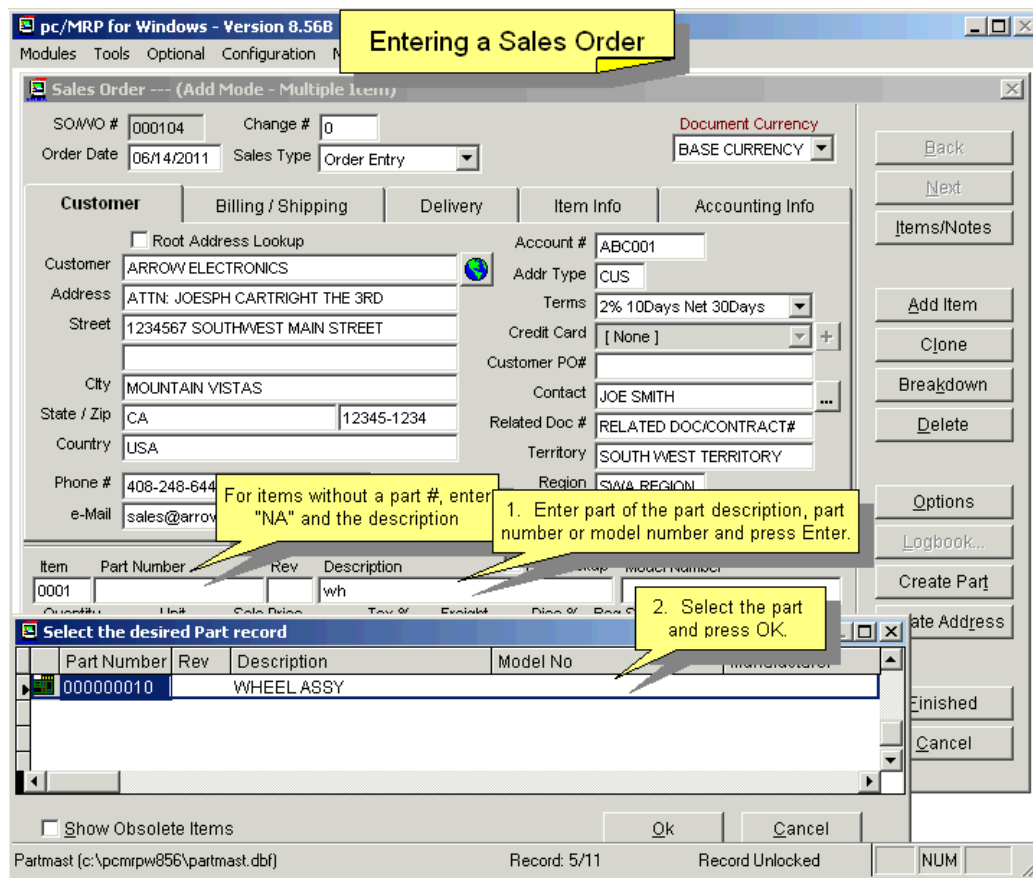
Place the cursor in the Part # Field, Description Field or Model Number field. Type in the first few characters of the part #, part description, or model number. A list of parts matching the characters will appear. Scroll to the desired part and hit [Enter] or double click. All the necessary data will be entered automatically.
The unit **Sale Price** (salepric) and **Purchase Cost** (po_cost) of the assembly or part will be automatically inserted into the sales order. Using settings and utilities Option 35, the unit cost can be set to average or standard and be comprised of component part costs only, component and labor costs, or component, labor and overhead costs.

For items without a part#, enter "NA". Then manually enter the description and model number.

Users can set the sales price lookup to either Level/Quantity (method set by default) or to a Category Matrix using Option 67 in the settings and utilities. For a complete description of both methods, see the Inventory chapter.

9.1.5 Enter a new sales order step 5, Enter Quantity, Tax, Freight, Discount

Enter the **Quantity** (Orqtyreq). **Unit** and **Sale Price** (saleprice) will be updated automatically, if there is a price/quantity break, the price data will be different for different quantity levels.

Enter the **Req Ship Date** (Datereq).   This allows pc/MRP to track and print Overdue Sales Order Reports and ISO 9000 Customer Performance Reports. Set Option 91 to require or not require a Req Ship Date.

The **Customer PO Number** (Custpono) and **Customer Contact** (Custcont) and any known **Freight** or handling charges should be entered. If the entire amount for the Freight is known, it can be entered once, in one line item in the freight field or entered individually for all line items. The freight subtotals for all line items will be totaled and printed out on the forms and reports.

The **Req Arrival Date** (reqaridate) is currently used for information only.

The **Related Document Field** (Contract) is a 21 character scrollable field. It can be used to enter a related contract number, serial number, or document number.   Each line item can include as many **Comments** as necessary.

Each line item can have one **Serial Number** (serial). If multiple serial numbers are needed per line item then you may need the optional Serial Lot Number module. (Chapter 16.10.1)

The **Division** Field (Division) is automatically populated from the Inventory or Address Book Module depending on the setting in Configuration, Settings and Utilities, Option 78.

Checking the **Hold** Checkbox (hold) will prevent an invoice from being created for this sales order.   When generating an MRP, on hold sales orders can be included or not included. This checkbox is available only for the Sales Type of "**Order Entry**".

The **REV** field (revlevel) is automatically populated from the inventory module. (**8.25A and higher**.)

9.1.6 Enter a new sales order step 6, Enter Credit Card information.

pc/MRP allows you to enter or select a credit card to use with the sales order (versions **8.56** and above).

9.1.7 Enter a new sales order step 7, Enter Billing and Shipping Addresses if necessary

If the Billing Address and/or Shipping Address are different from the Customer Address, you can manually enter the appropriate data fields.   Or, (if **Enable Lookup** is checked), you can type in a few characters of the customer name in the "**Bill To**" and/or "**Ship To**" fields. Press [Enter] and the Address Book window will appear allowing you to select the desired addresses.

9.1.8 Enter a new sales order step 8, Enter Delivery Information if necessary

UPS, FedEx, DHL and Postal Service **Tracking Numbers** can be entered into the sales order and tracked by clicking on the **Track** Button. Internet Explorer must be your default browser if you wish to track DHL and Postal Service Packages.

When you click the Track Button, pc/MRP will track the package. pc/MRP will first look to the **Ship Via** Box to see which shipping vendor (UPS, FedEx, DHL, Postal Service, TNT) to track. If the Ship Via Box is blank or you used multiple vendors pc/MRP will see if the tracking number is proceeded by UPS, FEDEX, DHL, or TNT to see which shipping vendor to track. If all of the above is blank, pc/MRP will prompt you to select a shipping vendor.

If an item is checked as **Shippable** (shippable), the item will be displayed on the shipment module line items. Labor type part numbers would not be checked as shippable (they would appear on the invoice but not on the shipment documents).

Gross Weight (grssweight) and **Net Weight** (netweight) will not automatically come from the inventory module. If they are entered here on the Sales Order, they will be carried over to the Invoice, and from there to the Shipment module. Otherwise the Shipment Module gets the weight directly from inventory.

Country of Origin, **IncoTerm**, **Tariff Code** and **Export Reason** are available Version **8.73C** and higher. The first two of these fields come from the Partmaster.

9.1.9 Enter a new sales order step 9, Enter Item Information if necessary

If the sales order requires dedicated work orders, check the **Require Dedicated Work Orders** Checkbox. See the Work Orders Chapter, Section 13.1.10 and .11 for details on this feature.

Each line item can have a separate sales discount (**Disc %**), **Salesman**, **Sale Commission %**, **Licensor** and **Royalty Rate**.   The **Licensor** and **Royalty Rate** fields are used if you have to pay royalty fees. The Disc % may come from the address book or be manually entered.

Note: Configuration, Settings and Utilities, Option 81 sets whether the **sales commission** should come from the Inventory or from the Address Book.

Note: If the customer's **Sales Level**, in the address book and a **Disc %** both have values, both are used in the calculation.

The **Original Req Ship Date** is automatically populated when the Req Ship Date is first entered. This field does not change, even if the Req Ship Date is edited several times.

The **Part Aux 1** and **Part Aux 2** fields are populated from the Partmaster (**8.73** and above).

9.1.10 Enter a new sales order step 10, Enter Accounting Information if necessary

The **Credit Account** (cacct1) field is automatically populated from the part or assembly entry in inventory. If there are several different accounts per sales order, pc/MRP will default to the standard business income account. If the Credit Account is the same throughout the sales order when the transaction is posted the account number in this field will be credited in the GL.

The **Purchase Cost** (po_cost) of the assembly or part will be automatically inserted into the sales order. Use Settings and Utilities Option 35 to import the average or standard cost and include or not include labor and overhead costs. For version **8.71 and higher**, Option 17 was moved into Option 35. The **Additional Cost** (Addcost) field is an optional field currently **not** used in any calculations.

Check the **Freight is Taxable** (taxfreight) and **Discount is Taxable** Checkboxes (taxdiscnt) if they are taxable.

Check the **Intra-Company** (intracomp, logical) checkbox if the sale is internal to another division within the company.

COGS breaks down into inside labor cost, overhead, outside labor cost, component cost (inlabcost, ovrhdprcnt, outlabcost, compcost).

Note: If Salesman is listed both in the Address Book and Inventory, pc/MRP will use the Address Book.

9.1.11 Enter a new sales order step 11, Add Another Line Item or click on Finished

Click the "**Add**" Button to enter another line item to the Sales Order.

Once you have added additional line items the following Navigational Buttons will be enabled:

- Click on the **Back** Button to see the prior line item.
- Click on the **Next** Button to see the next line item.
- Click on the **Jump To** Button to see a list of all of line items. Select the item you want to review.

9.1.12 Enter a new sales step 12, Enter the Boiler Plate and Review the line items

To enter/edit the sales order boiler plate and review/edit the sales order line items, click on the Items/Notes Button.

pc/MRP will automatically insert the **Sales Boiler Plate** text (if any) from Configuration, Settings & Utilities, Option 22 into the **Boiler Plate Notes** edit box. Users can modify this text for this current Sales Order. This will not change the boiler plate text for other (existing or future) sales orders.

9.1.13 Enter a new sales step 13, File Links
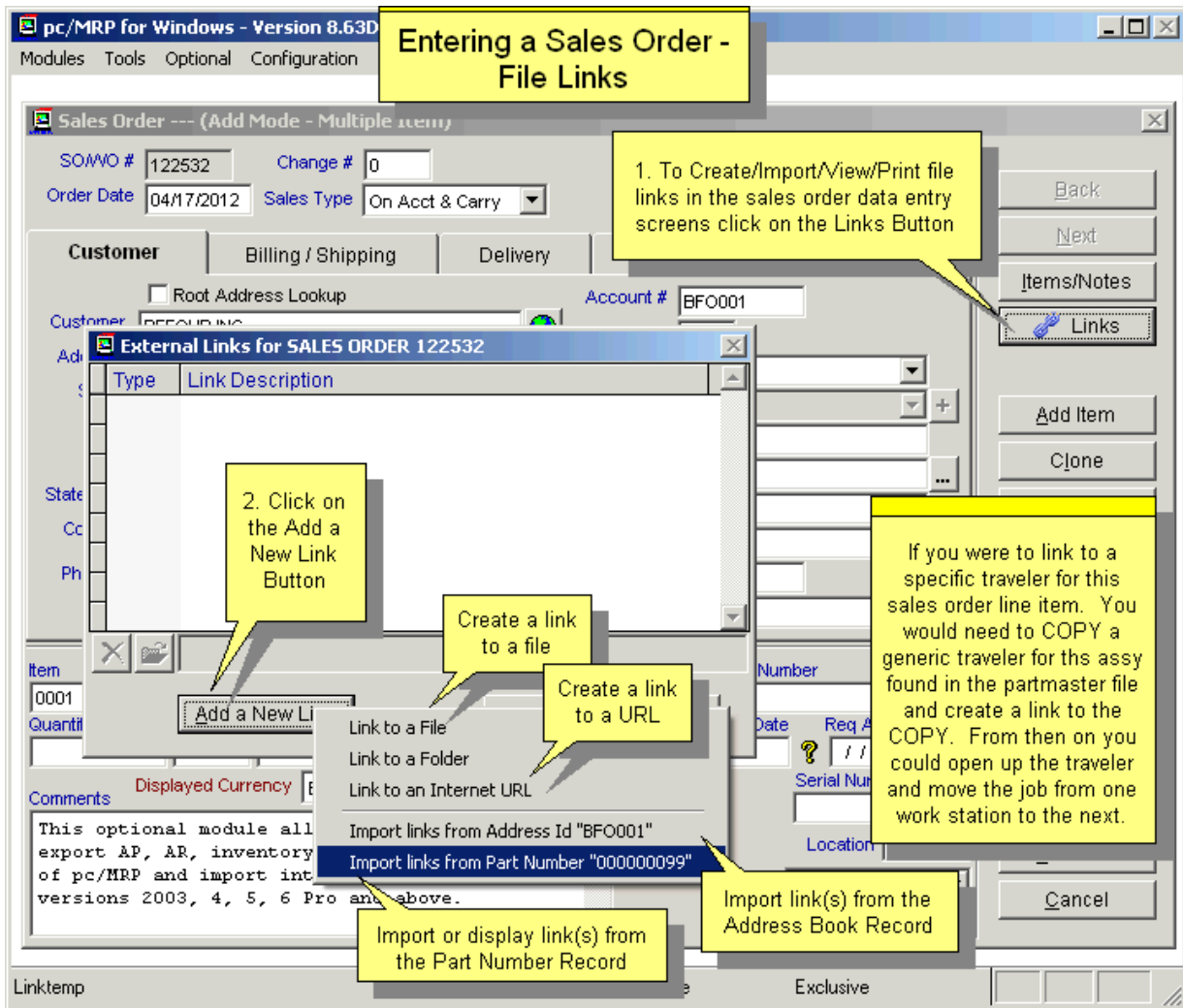
9.1.14 Enter a new sales step 14, Click on Finished to save the sales order

pc/MRP will increase the on demand qty of each of the items ordered. If this was entered as an on account and carry or cash and carry sales order, the on hand qty of each of the items would be decremented.

Click the "**Finished**" button to save the sales order.

Note: pc/MRP will check all the data validity. If the Customer Account # or Part Number is not valid (cannot be found in the Address Book or Part Master), the user will be prompted to take corrective actions. If the Sales Order is for a non-standard part, enter "NA" in the Part # field and pc/MRP will not check the Part Master. If the Sales Order exceeds the customers credit limit pc/MRP can be made to prompt a warning. If desired the ability to override the credit limit can be password protected. (See Option 53 in the Settings and Utilities for further detail on the credit limit warning.)

9.1.15 Other Buttons and Keys, Clone Button
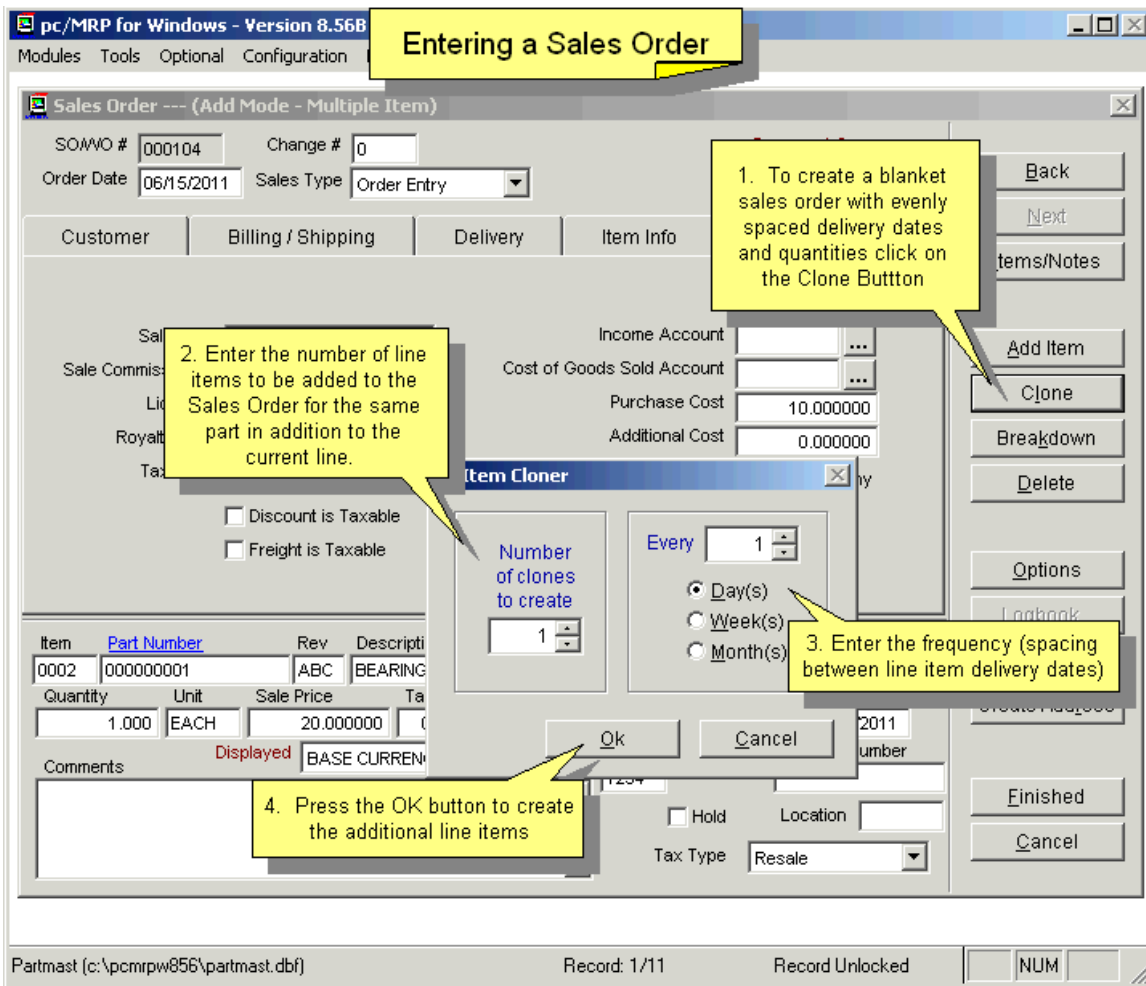
Click on the **Clone** button to create a blanket sales order with evenly spaced delivery dates and quantities. The Req Ship Date has to have a valid date. The "**Number of clones to create**" means the number of line items to be added to the Sales Order for the same part in addition to the current line.

Enter the desired parameters and click "OK". Clicking "Cancel" will return to the Sales Order entry screen without adding any line items.

9.1.16 Other Buttons and Keys, Breakdown Button
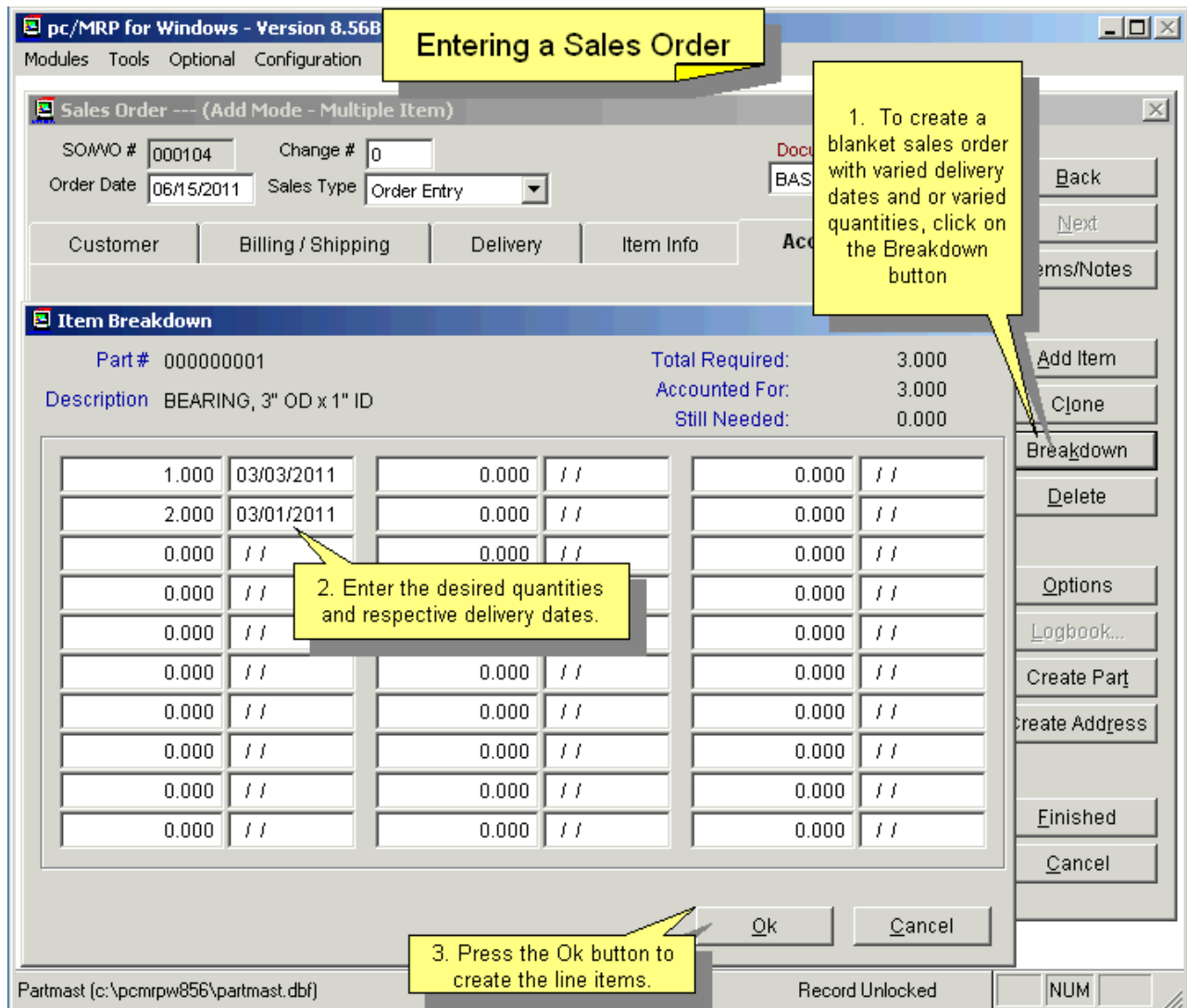
Click on the "**Breakdown**" to create a blanket sales order with varied delivery dates and or varied quantities.

On the top of the window is the part that you are ordering followed by the total number of parts you have entered in the Sales Order entry screen.

Enter the number of parts and the delivery dates in the highlighted columns.

As the numbers are entered, the "Accounted for" will increase to reflect the total that has been entered so far.

The "Still needed" indicating the number of parts left. It will become zero when all the required number of parts has been entered with delivery dates.

Click "OK" when all the entries are done. **Note:** if the total of all the deliveries does not match with the number entered in the Sales Order entry screen, a warning will appear. Select "OK", pc/MRP will accept all the deliveries entered and discard the original quantity entered in the Sales Order entry screen. Click "Correct" to go back to the Breakdown window to correct the entries. Click "Abandon" will discard all the entries and go back to the Sales Order entry screen.

9.1.17 Other Buttons and Keys, Options Button
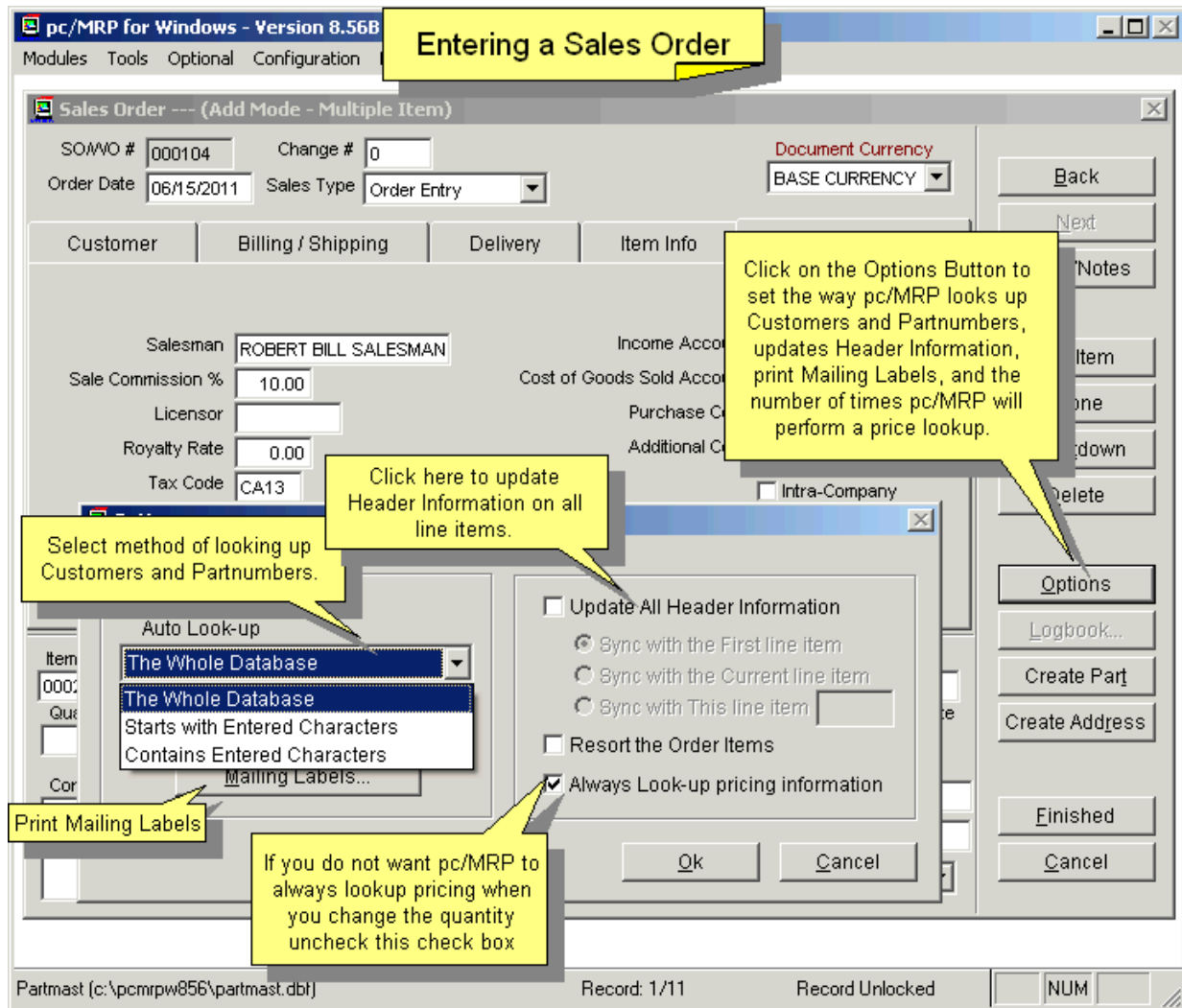
Click on the **Options Button** to perform the following tasks.

The **Auto Look-Up** will determine what appear in the customer list and the part number list during the selecting customer and selecting parts operations. **The Whole Database** window will contain the whole database starting at the first matching name. This is the fastest look-up method. **Starts with Entered Characters** will only show the entries starting with the characters entered in the data field. **Contains Entered Characters** will show all the entries as long as they contain the characters entered. This is the most versatile look-up method but is also the slowest of the three methods with large database

When the **Always Look-up pricing info** option is selected, the pricing will always be looked up even when the quantity is edited. This checkbox value is set, until changed, for the user login name.
    Note: When duplicating a sales order, pricing information is not changed unless the quantity or part number is changed and the option is checked.

The **Resort the Order Items** option will resort the Items Number in ascending order.

The **Update all Header Information** option will sync the header information as per one of the three parameters listed.

The **Mailing Labels** button will allow you to create shipping labels for this sales order.

9.1.18 Sales Credit Limit Override Screen
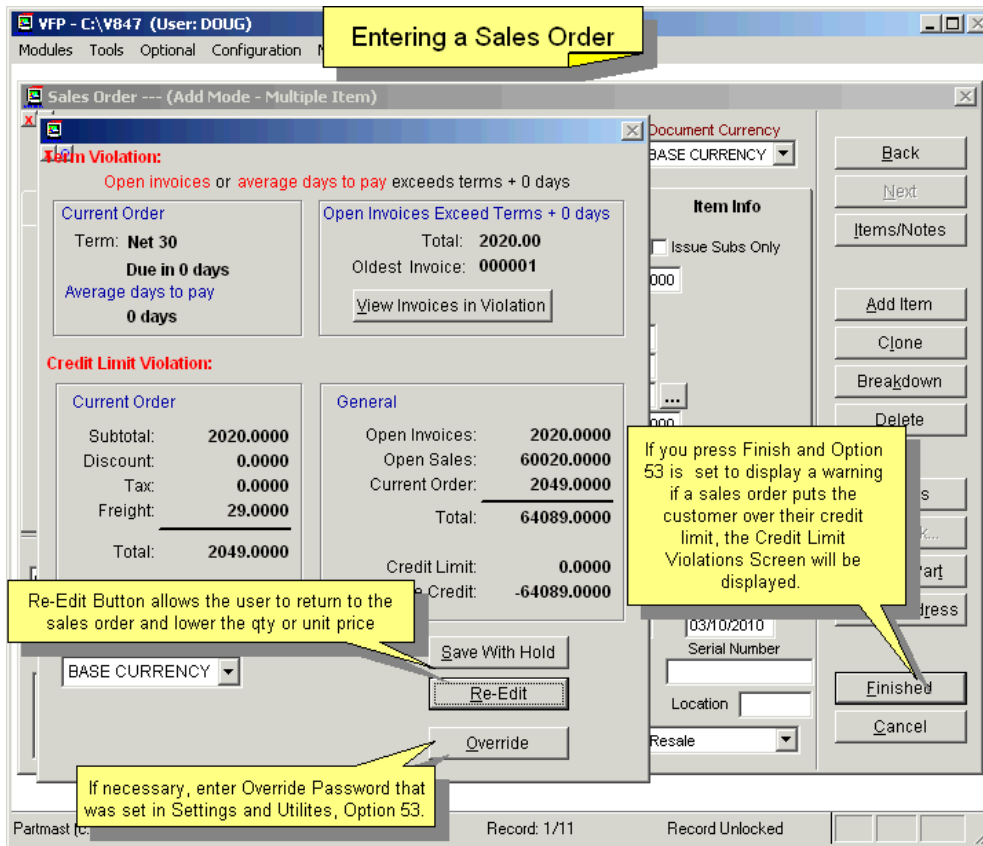
Option 53 in the Configuration/Settings and Utilities can be set to provide or not provide credit limit warnings.

9.1.19 Other Buttons and Keys, F1 Button, Display Part Number Information
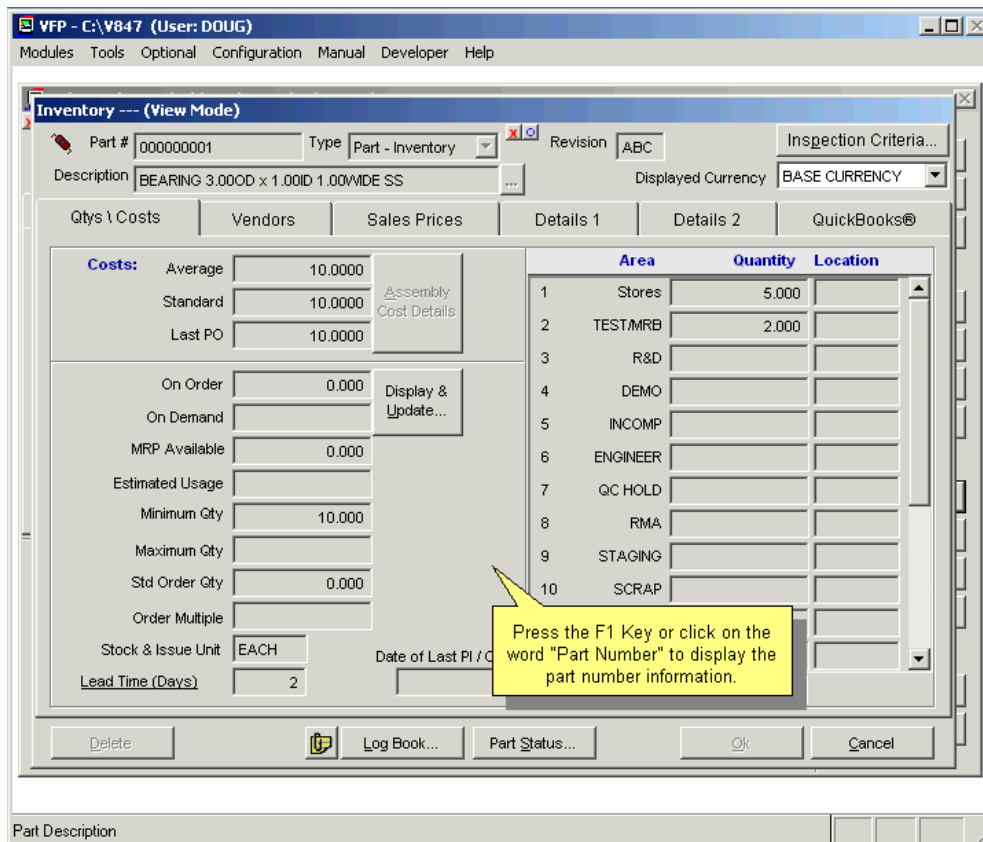
9.1.20 Notes on sales orders

The sales order Boiler Plate field will print the same statement on every sales order and can contain statements such as late payment penalties, etc. The sales order boilerplate can be created and edited from the Configuration Menu, Option 22, under "Boiler Plate Notes for Forms". This boiler plate text will be transferred to the invoice if you select it to transfer on the Invoice boiler plate selection and if there is no boiler plate text for the invoice boiler plate.

If auto accounting is set On in the configuration menu, after all the line items have been entered for a cash and carry or on account and carry sales order, pc/MRP will automatically debit and credit the general ledger. However, it is recommended that auto accounting is set off. This will allow the invoice to be reviewed prior to entering the general ledger transaction.

When a sales order is entered, pc/MRP will increment the On Demand quantity for the completed assembly and not the parts in that assembly. The allocation of sub-assemblies and parts in the parent assembly(s) is performed when the user runs "Generate MRP Action Items" in the optional Infinite Bucket module.

For one of our customers, RCH, pc/MRP will automatically create a BOM with a BOM number of the sales order number plus "00." Each line item on the sales order becomes a part of the BOM, is assigned an 8-character part number consisting of the sales order number plus the last two characters of the line item number. If you delete a sales order line item, the part is removed from the inventory/partmast database file. If you remove the last line item, the BOM is removed from the BOM database file. (This is only applicable to one company.)

9.2   Edit/ Delete a Sales Order

To view or edit a sales order, select Modules, Sales and Edit. pc/MRP will display the screen shown below.

This option allows users to scroll, edit, delete, undelete Sales Order line items, or run queries against Sales Order records.

Selecting to run a **Queried Search** allows users to build, run, save, and load queries for the Sales Order table. For further details, see Chapter 15.14.1.

Selecting an **Indexed Search** allows users to search on indexed fields. This allows pc/MRP to find the information much faster. To perform an **Indexed Search** select the:

1. Desired **Sort Order,** Document #, Account #, Part #, Model #, Customer PO #, Ship to Address
2. Desired **Include** information, Open, Closed, Open and Closed (Closed = Invoiced)
3. Enter the applicable data in the **Begin Scrolling At:** field
4. Select the desired **Action**, **View** or **Edit**
5. Click Search
6. Select the correct record
7. Click **Ok** to proceed to the edit screen for that record.

Sales Order fully received back but not invoiced – color code available **version 8.73F and above**.

The Change # Field is used to note any changes in the order.

Qty Assembled is automatically filled in by the stockroom, Qty and Date Shipped by the invoice.

The Orig Req Ship Date is automatically updated whenever the Date Required is edited. This field stores the previous Date Required.

Use the Delete Button to mark a record for deletion. Once the record is marked for deletion, it can be removed by running "Remove Marked Records"

If you edit header information, the changes can be propagated to all items by selecting Options and checking "Update All Header Information".

pc/MRP will automatically correct the on demand qty in the partmaster whenever the qty is changed, provided that the SO is open.

If you enter an invoice, pc/MRP will automatically update the Complete (Y if Qty Ordered = Qty Shipped), Date Shipped and the Qty Shipped Fields.

If the sales order was entered as Cash or On Account and you add an additional line item, pc/MRP will prompt "Do you wish to create a new invoice or add to the existing invoice".

Every field within the Sales Order table is editable. There are however, several key concepts a user must understand before editing.

If the Sales Order edited was originally entered as "**Cash and Carry**" or "**On Account and Carry**", and you add an additional line item you will be asked whether you wish to create a new invoice or add to an existing invoice. If you choose to add to an invoice and more than one invoice for this particular Sales Order exists, a scroll window with the last line item of each invoice will be displayed. Select the item with the invoice number you wish to append.

If you were to edit the **Quantity** on an open sales order, pc/MRP will automatically correct the part number's quantity on demand in inventory. If an invoice has been entered for this sales order and you edit the invoice, pc/MRP will offer to update the sales order "quantity shipped" and the inventory on hand quantities. To edit the **address**, simply edit the address in the first line item.

The **Issued to MFG** and **Qty Assembled** fields appear on the edit screen for **order entry** sales orders as these types of orders automatically become work orders. pc/MRP will automatically enter a "Y" into the Issued to MFG field when the assemblies are issued from stock to manufacturing. The Qty Assembled field is automatically updated when the assemblies are received by the stock room from manufacturing for that sales order number.

The **Complete** and **Quantity Shipped** fields are displayed only in the edit mode and are filled in automatically when the items are invoiced. The Quantity Shipped field contains the accumulative amount shipped. pc/MRP uses the Complete field to determine if a record is overdue, open, or closed. A "Y" in the Complete field marks the record as closed. An "N" or <blank> in the COMPLETE field marks the record as open.

The **Date Shipped** field is updated automatically when invoicing.

The **Change #** stands for Change Order Number; this is used to note any changes in the order.
Use the **Delete** Button to mark a record for deletion. Once the record has been marked for deletion you must return to the menu and select Remove Marked Records**.**

If a SO has been issued to MFG but not fully received back, users should avoid editing the Quantity on the SO or to delete the SO. If they do so, pc/MRP displays a warning and offers to cancel the change (**8.73F and above**).

9.3   Duplicate a Sales Order

When you duplicate a sales order, the complete sales order is duplicated with a new Sales Order number, the current date and a blank Required Ship Date.
> **Note:** When duplicating a sales order, pricing information is not changed unless the quantity or part number is changed and the **Always Look-up pricing information** button is checked on the **Option** button. (ref: 9.3.3)

9.4   Print, Email a Sales Order

To print, display, email, fax a sales order, select Modules, Sales, and Print.   You can also create an HTML or PDF sales order document.   Programs like WINFAX will allow users to fax sales orders directly from pc/MRP.

To e-mail a sales order directly from pc/MRP, you must use Outlook, not Outlook Express. The e-mail address in MS Outlook will automatically be populated from the e-mail entry in the pc/MRP Address Book.

If you choose to create an HTML or PDF document, you can save this document and attach it to an e-mail created in your existing e-mail program.

If the flag file **SSMAILLB.FLG** exists, an address label for the customer on that sales order will automatically be created from the CUSTARD*.LBX or the CUSARD*.LBX.

The sales order form uses sale.frx and saleb.frx. See Section 15.4.1 to create custom sales orders.

Sales Orders, Invoices, and Shippers can be configured to print out the Serial Number or Model Number using the Configuration Menu's, Settings and Utilities, Option 22.

If you select to print "Single Sales Order", and you have a custom form named SOFORM1.FRX or SOFORM2.FRX, pc/MRP will ask users if they want to print them after printing the sales order. These two additional forms can be used to make travelers.

Printing sales orders on carbonless paper on laser printers

You can order the 3-part NCR carbonless paper by calling JC Paper in Fremont, CA at (800)527-2737. Ask for the zero-form, straight sequence 3 part NCR pre-collated 8-1/2" X 11" paper. It comes in sets per package.

Printing sales orders on carbonless paper on dot matrix printers

You can order pc/MRP's two part, three part or four part carbonless forms and matching double window envelopes from Rapid Forms, telephone number 1-800-257-8354. Be sure to give the Rapid Forms Operator pc/MRP's Keycode Number C20100.

9.5 Reports

9.5.1 Print/Display Sales Order Reports
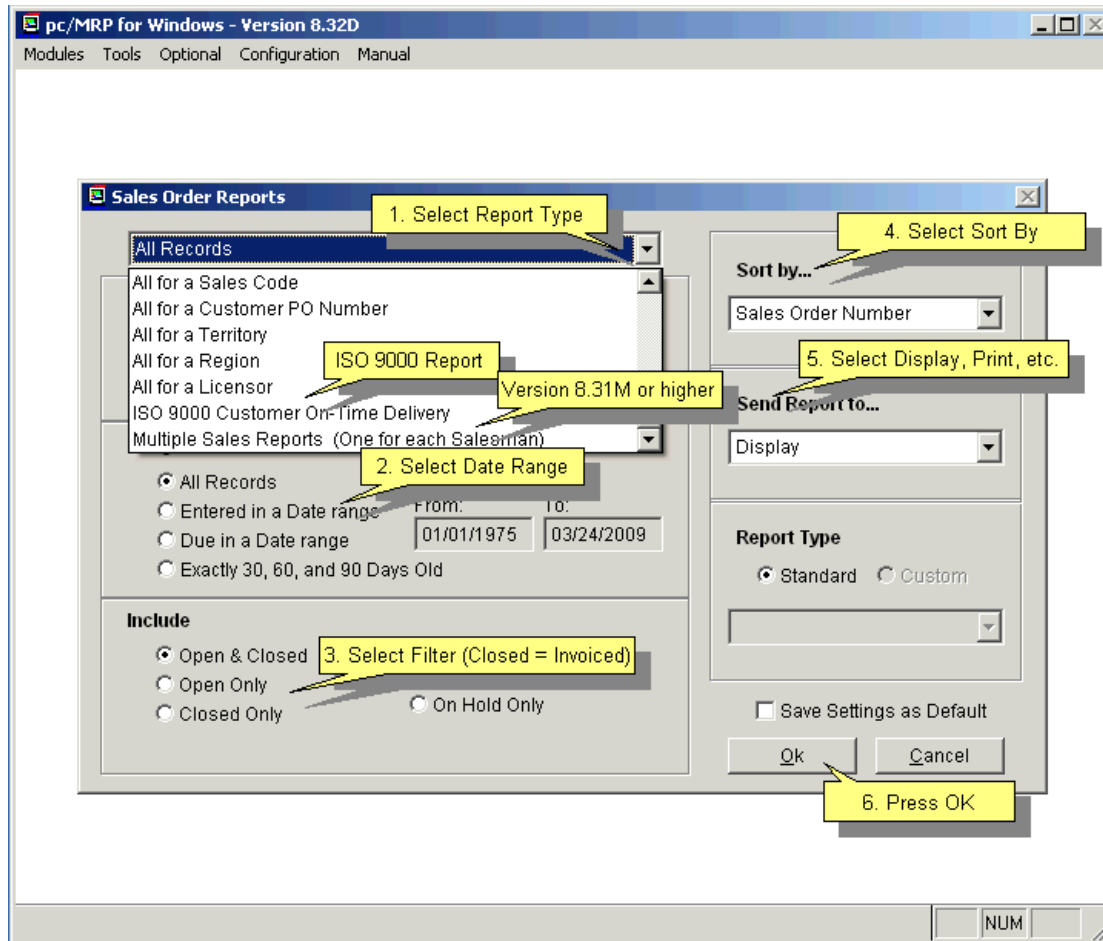
Select Modules, Sales Orders and Reports to display or print out a sales order report . Allows users to print out or display various sales order reports (salelog.frx). See Section 15.4.1 to create custom sales order reports (cusso*.frx or custso*.frx).

9.5.2 ISO 9000 On Time Delivery Report for Customers

The ISO 9000 On Time Delivery Report (soper.frx) for Customers is sorted by customer Account Number and consists of the following columns:

Sales Order Number
Item Number
Original Date Required
Revised Date Required
Date Shipped
On Time to Original Date Required
      Will contain a Y if Date Ship is between Original Date – 10 and Original Date. The subtotal will be
      100 * (number of on time orders/total number of orders)

On Time to Current Date Required
      Will contain a Y if Date Ship is between Revised Date – 10 and Revised Date. The subtotal will be
      100 * (number of on time orders/total number of orders)

9.6   Shipper (Print/Display a Shipper)

Allows you to print out or display a shipper for a specified sales order. Each shipper order can contain up to 9999 line items. Please note that a sales order line item that is on hold will not allow a shipper to be printed/displayed for that line item. Those line items **not** on hold will be printed/displayed.

9.7   Audit On-Demand Quantities

Zeros out the ondemand quantity in inventory and then replaces the on demand quantities with the ondemand quantities from all open sales orders. If several sale order quantities are edited, this option will automatically correct inventory quantities. If 'Audit On-Demand Quantities' reports any errors, you must fix the errors and re-run the function again.

9.8   Print Shipping Labels

Available version **8.73C and higher**. Select the Sales Order number. On the next screen you can enter the number of boxes. The Date Code and Lot Code will be printed on the labels, but will not be saved back to any database file. If Specify Individual Box Quantities is checked, you will be able to edit the Date Code, Lot Code and Quantity for each box.

Select the type of label you wish to print. Customers who own pc/MRP's Optional Bar Code Module, can print out bar coded labels.

Users can create additional custom ***.LBX** labels or ***.FRX** forms. Any custom Label or Form you wish to utilize must be listed in a file called **SALLAB.LST**. This file can be created and or edited through Notepad and has to be located in the pcmrpw folder.

This option allows users to print out a shipping label for each shipping box required for an invoice. To activate this option in the Invoice menu, the **INVLAB.LST & INVSHIP.FLG** files must exist in the pcmrpw folder.

The text in an example SALLAB.LST file is shown below:

    BcBoxLabel1x1.lbx = 3" x 4" continuous feed.
    BcBoxLabel2x2.lbx = Avery 6878 labels - Four per sheet.
    Shipper.lbx = Avery std 5264 labels - shipping labels. Six per sheet. 4-1/8" x 3-1/3"

Pre-Print Shipping Box Labels

VFP - C:\V873 (User: DOUG)
Modules Tools Optional Configur

Label Generator (Sales Order)

Item #	Part Number	Description	Quantity	Boxes	D-Code	Lot Code
0001	000000010	WHEEL ASSY	3.000	3	1234	5667
0002	000000011	REAR WHEEL AXLE ASSY	1.000	1	1235	78932

Enter the number of boxes, Date Code and Lot Code for each line item. Date and Lot Codes will not be saved back to any database file.

If you create a custom label you must add the label name (any name) to the SALLAB.LST File

From: RAD TECH
COHESIVE TECHNOLOGIES
123 MAIN STREET

RICHLA

Shipper # 000108
Customer PO # 235455
Shipped Via UPS::Ground
FOB Destination

Select the type of label you wish to print out. To must have pc/MRP's Bar Code Module to print out bar coded labels.

Use Zebra Labels (4" wide 3" high with .125" spacing)

To: BBC MAN... ...CTURING COMPANY
ATTN: JOE SMITH
111 SOUTH MAIN STREET

RICHVIEW
USA

Output To... ● Display ○ P

Label Form BcBoxLabel1x1.lbx
BcBoxLabel1x1.lbx
BcBoxLabel2x2.lbx
Shipper.lbx

Start on Labe

Check here if you wish to enter the qty per box.

Use Avery 6878 labels (4 per sheet)

☑ Specify Individual Box Quantities   Help

Use Avery 5264 labels (6 per sheet)

Ca

Workfile (c:\docume~1\doug\locals~1\temp\36210460.dbf)   Record: 2/2   Exclusive

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Pre-Print Shipping Box Labels

VFP - C:\V873 (User: DOUG)
Modules Tools Optional Configur

Label Generator (Sales Order)

Item #	Part Number	Description	Quantity	Boxes	D-Code	Lot Code
0001	000000010	WHEEL ASSY	3.000	3	1234	5667
0002	000000011	REAR WHEEL AXLE ASSY	1.000	1	1235	78932

Labels to be Printed

Print	Item #	Part Number	Description	Quantity	Box #	of Boxes	Date Code	Lot Code
☑	0001	000000010	WHEEL ASSY	1.000	1	3	1234	5667
☑	0001	000000010	WHEEL ASSY	1.000	2	3	1234	5667
☑	0001	000000010	WHEEL ASSY	1.000	3	3	1234	5667
☑	0002	000000011	REAR WHEEL AXLE ASSY	1.000	1	1	1235	78932

If Specifiy Individual Box Quantities is checked, you will be able to edit the Date Codes, Lot Codes and Quantitys for each box.

Ok   Cance

☑ Specify Individual Box Quantities   Help   Ok   Cancel

Lablist (c:\docume~1\doug\locals~1\temp\44372983.dbf)   Record: 1/4   Exclusive

9.9 Queried Search Overview (see 15.14.1)

9.10 Indexed Searches (see 15.14.2)

9.11 Index (see 15.14.3)

9.12 Remove Marked Records (see 15.14.4)

9.13 Remove Over X Years (see 15.14.5)

> **Note:** Sales orders and Work orders share the same database table. When users instruct pc/MRP to remove all Sales orders older than X years, pc/MRP will also remove all Work orders that are olden than X years. If you want to keep all Work orders and only want to delete old Sales orders, call Software Arts for assistance.

10 Invoice Module

10.1.1 Overview. Enter a New Invoice

pc/MRP's Invoice Module allows you to enter, edit, and print invoices and invoice reports.

An online slideshow is located here: http://www.pcmrp.com/mrp101/invoiceselectnew.htm

10.1.1.1 Enter a New Invoice Step 1, Select the Sales Order to be Invoiced

Select Modules, Invoice and New. Select **Account** or **Cash**. Select the **inventory area** the parts and or assemblies will be shipped from. Answer OK to proceed to the sales order screen selection. Answer YES to scroll the sales order database. Answering NO will abort the operation. Select the Sales Order to be invoiced.

10.1.1.2 Enter a New Invoice Step 2, Accept the Next Available Invoice Number

pc/MRP will insert the next available invoice number.   You can enter your own invoice number at this point, but it is not advisable to do so as pc/MRP can track the next available invoice number better than humans.   The invoice number should consist of 6 numeric characters with leading zeros.   pc/MRP is able to increment alpha characters in some cases.   For example if the highest invoice number was B99999, pc/MRP would provide C00001 as the next available invoice number. However, pc/MRP will run faster if you accept the default invoice numbers. Configuration, Settings and Utilities, Option 74 can be set to allow or not allow editing of the invoice number. We suggest companies block document numbers from being edited.
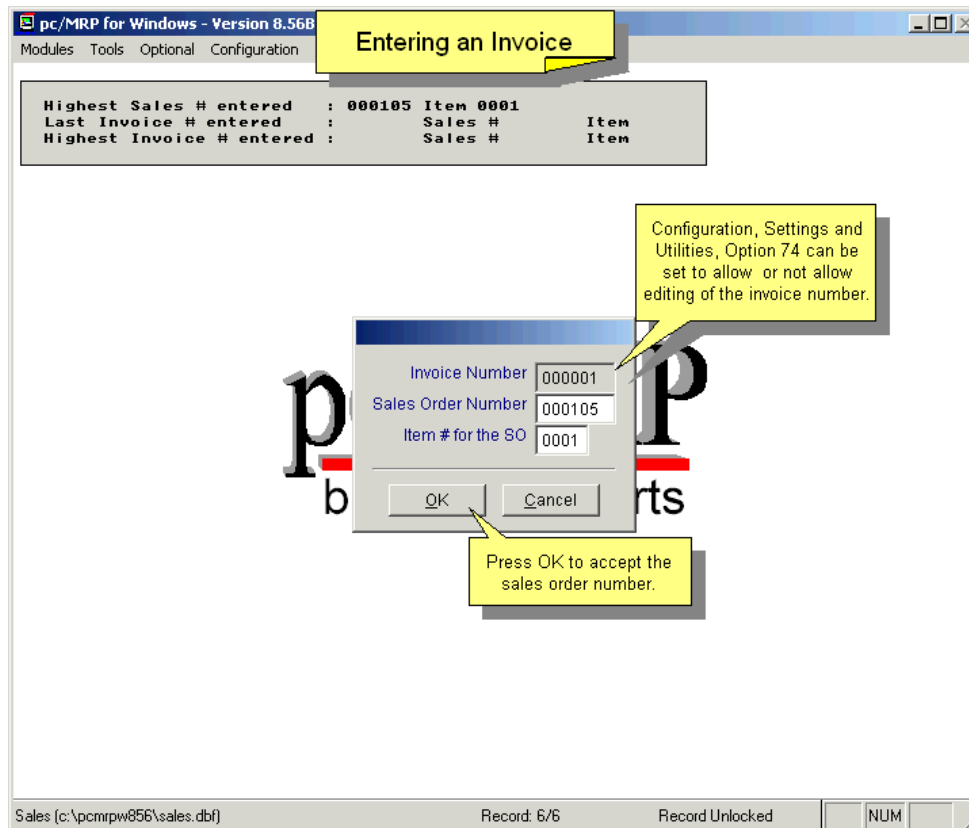
If you want to add an additional item to an existing invoice, you may do so by typing in the invoice number and the next highest item number available on the sales order you are invoicing against.

For an On Account & Carry or Cash & Carry sales order that already has an invoice associated with it, you may be presented with the following message: "At least one invoice already exists for this sales order. Do you want to create a new invoice or add to an old invoice?" Just select the option you require.

10.1.1.3 Enter a New Invoice Step 3, Customer Tab

Part Number, Rev, Description, **Customer Address**, **Ship to Address**, **Bill to Address**, **Original Quantity Required**, **Quantity Previously Shipped**, **Unit**, **Sale Price**, **Terms**, **Trade Discount**, **Freight**, **Tax Rate**, **Salesman**, **Ship Via**, **Credit Account**, **Licensor**, **Licensor Rate**, **Related Document**, and **FOB** are all automatically entered from the Sales Order. See **Option 22** to determine what goes into the **Comments** field.

The **Quantity** field (QtyShip) can be overwritten if you are invoicing less than the full quantity.

Invoice Date is automatically entered from the System Date and is used by the Accounting Module in aging the Accounts Receivables Records. It is also the date used by pc/MRP to determine which records are over x years old and ready for deletion. The **Related Document** field is a 21 character scrollable field. It can be used to enter a related contract or document number.

The entire amount for the **Freight** can be entered once in one line item in the freight field or entered individually for all line items. The freight totals for all line items will be totaled and printed out on the forms and reports. The **Document Currency** & the **Displayed currency** fields require the optional Alternate Currency Module, and if installed, will print using both currencies.

Invoices and Shippers can be configured to print out the **Serial Number** or **Model Number** using the **Boiler Plate** Option. (**Option #22**). If the optional **Serial Lot Number Module** has been purchased, do not enter serial numbers into the above serial number field. This field is only in use if the optional module has *not* been activated. Instead, wait for pc/MRP to prompt you to pick or enter the serial numbers for this invoice line item. You can set pc/MRP to print out serial numbers on the invoice using **Configuration, Settings and Utilities, Option 55.**

10.1.1.4 Enter a New Invoice Step 4, Billing/Shipping Tab
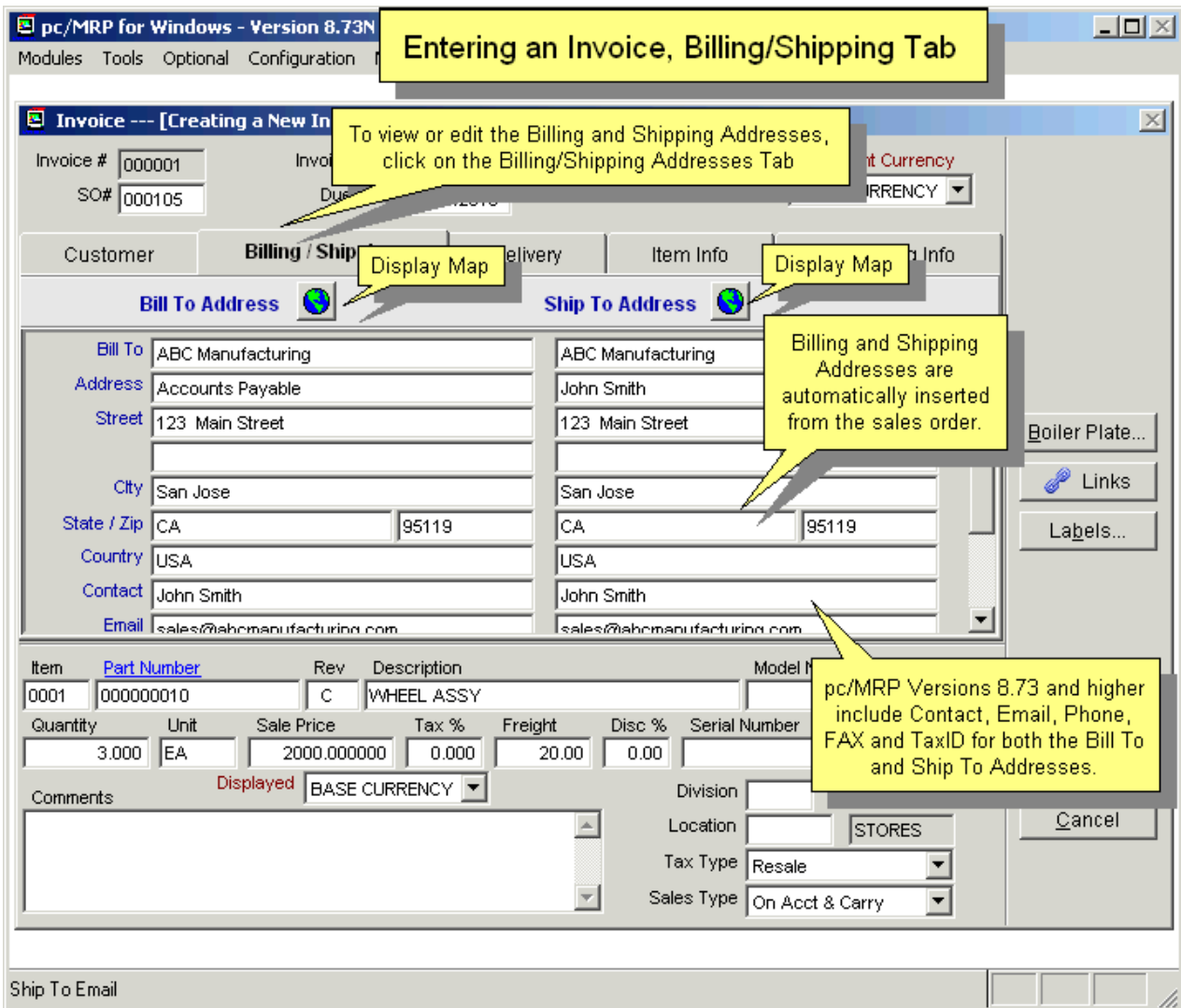
Click on the Billing/Shipping Tab to check the Billing and Shipping Addresses which were imported directly from the sales order. Change these addresses if necessary.

Contact, Email, Phone, Fax and TaxID for both the Bill To and Ship To addresses are available in versions **8.73** and higher. You can scroll to see all fields.

The **Payment Due Date** is the date the payment is due on. pc/MRP will automatically calculate by adding the term you entered plus the date of the invoice. You must simply begin with the word "Net." By example, a term of Net-60 or Net 60 will automatically calculate the payment due date 60 days beyond the invoice entry date.

An unlimited amount of **Comments** can be entered for each invoice line item.

Up to nine lines of notes can be added to all Invoices by modifying the Configuration Menu's **Boiler Plate**. (Option #22) The boiler plate will appear once, on the last page of the invoice.

10.1.1.5 Enter a New Invoice Step 5, Delivery Tab

The **FOB** and **ShipVia** fields are imported from the sales order.

If you wish to track the packages through pc/MRP, enter the **Tracking Number(s)**. When you click the Track Button, pc/MRP will track the package. pc/MRP will first look to the Ship Via Edit Box to see which shipping vendor (UPS, FedEx, DHL, Postal Service, TNT) to track. If the Ship Via Edit Box is blank or you used multiple vendors pc/MRP will see if the tracking number is proceeded by UPS:, FEDEX:, DHL:, or TNT: to see which shipping vendor to track. If all of the above is blank, pc/MRP will prompt you to select a shipping vendor.

Country of Origin, **IncoTerm**, **Tariff Code** and **Export Reason** are available Version **8.73C** and higher. The first two of these fields come from the Partmaster.

Gross Weight (grssweight) and **Net Weight** (netweight) will not automatically come from the Sales Order and will be carried over to the Shipment module. If the weights on the Sales Order are blank, and they are not entered here on the Invoice, the Shipment Module will get the weight directly from inventory.

10.1.1.6 Enter a New Invoice Step 6 Item Info Tab

The **Reference** fields can be used for custom reports.

Part Aux 1 and **Part Aux 2** are coming from the Partmaster. (**8.73 and higher**.)

10.1.1.7 Enter a New Invoice Step 7, Accounting Tab

The **Salesman**, **Sale Commission %**, **Licensor, Royalty Rate**, and **Income Credit Account**, **Freight is Taxable** and **Discount is Taxable** are automatically inserted from the sales order.

The **Purchase Cost** and **Additional Cost** Fields are automatically imported from the sales order or the partmaster depending on Settings and Utilities Option 35.   If the purchase cost is $0.00, Cost Roll Ups have not been performed on this item, if necessary enter the purchase cost manually.

The **Income Acct & Cost of Goods Sold Acct** fields are brought over from the sales order. Users can select another Income or COGS account to credit and debit by clicking on the corresponding ellipse button.

10.1.1.8 Enter a New Invoice Step 8, Enter/Edit Default Boiler Plate Notes
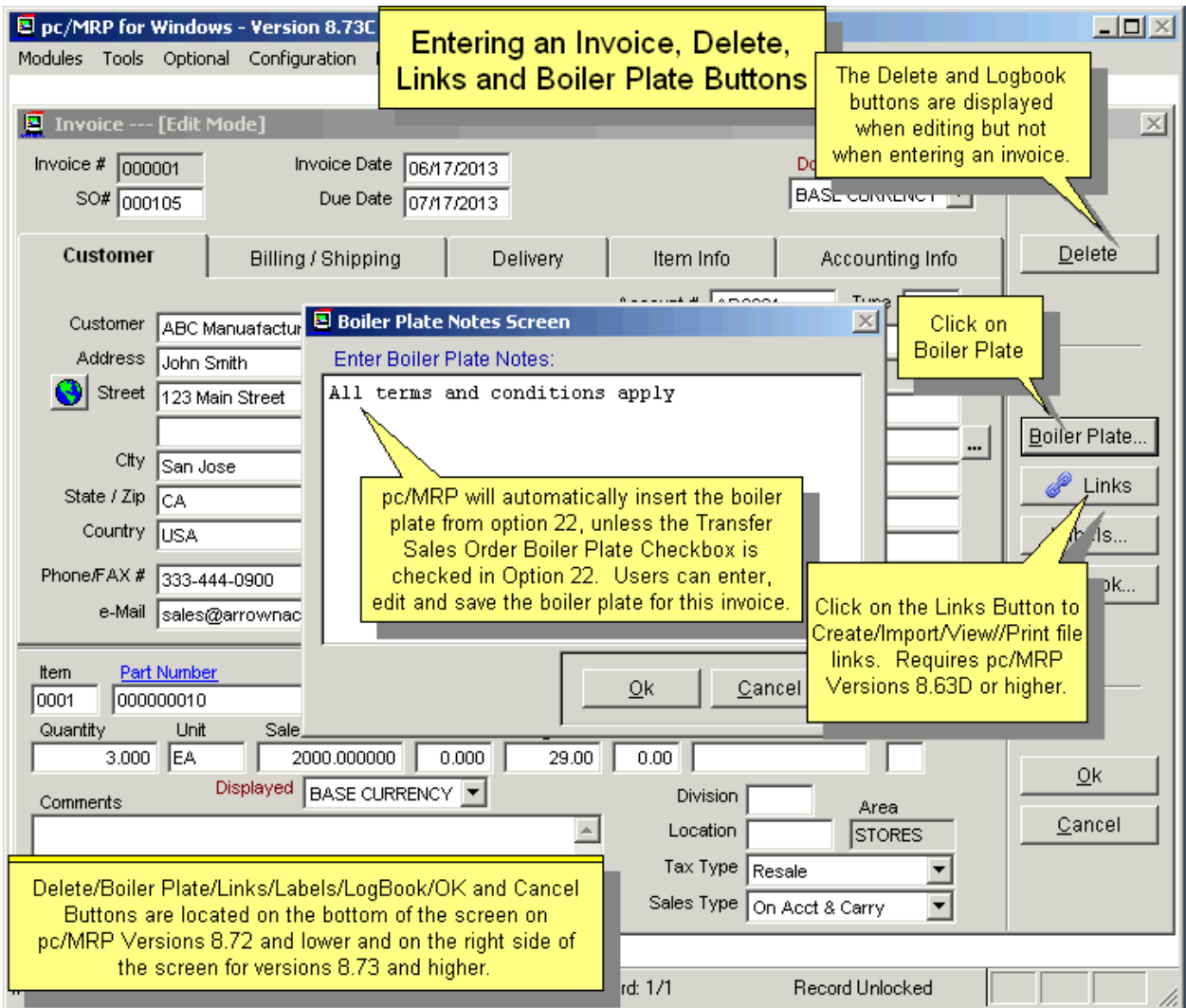
Pressing the **Boiler Plate** Button will allow you to edit the default boiler plate notes for this invoice.

Configuration, Settings & Utilities, Option 22 allows users to set the boiler plate to be inserted from the sales order or from Option 22's Invoice Boiler Plate itself. If both the sales order and the invoice have boiler plate text, only the invoice boiler plate will be used.

10.1.1.9 Enter a New Invoice Step 9 Finish or Add another Line Item

Press the OK Button to add another line item or finish the invoice.

If the invoice quantity exceeds the sales order quantity, the user will be warned to proceed or cancel. Furthermore, pc/MRP will detect if there is sufficient inventory onhand to fulfill the invoice. If the quantity of the line item exceeds what is available in inventory the user will be prompted to:

- Invoice the requested quantity (driving onhand quantities negative),
- Invoice what is available,
- Re-enter the invoice, or
- Cancel.

Once the invoice item is accepted, the part number's On-Demand and On-Hand quantities are decremented. The Sales Order's Quantity Shipped is increased. If the quantity shipped is >= the quantity ordered, the Sales Order's (NOT the Invoice's) Complete field will be updated to "Y".

10.1.1.10 Enter a New Invoice Step 10, Add Additional Line Items or Finish Invoice

Once the initial line item has been invoiced, pc/MRP will prompt:
    I - Invoice another line item (select this if you are invoicing partial quantities)
    A - Automatically invoice the remaining line items (select this to invoice entire sales order)
    F - Finished

If Configuration, Settings and Utilities, Option 8, **Auto Accounting** is On for invoices, after all the line items have been entered for invoice, pc/MRP *will automatically* debit and credit the general ledger. .   A "Y" will be inserted into the invoices Posted Field.

If **Auto Accounting** is Off for invoices, the accountant should go into Accounting and enter a new O type transaction to debit and credit the general ledger.   A "Y" will be inserted into the invoice's Posted Field.

When Accounting enters an R type transaction (Receives Payment) a "Y" will be inserted into the invoice's Complete Field and the Amount Paid Field will be increased by the amount paid.

10.1.1.11 Enter a New Invoice Step 11, Print Labels for a Customer
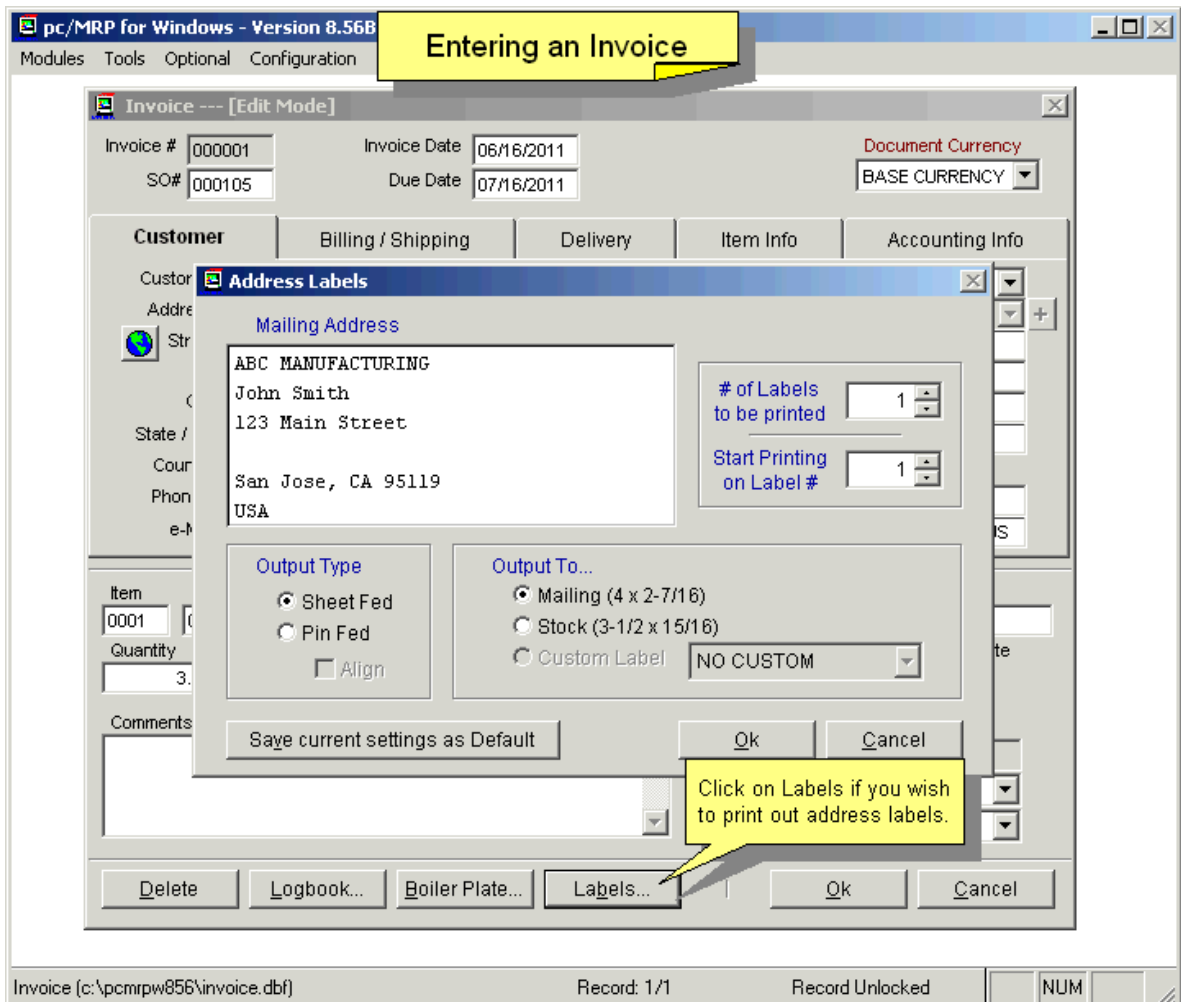
Pressing the **Labels** button will allow you to print out address labels for this customer. To create custom labels, please see Chapter 15.4.22 for labels and custom label naming conventions.

10.1.2 Edit/Delete an Invoice

To view or edit an invoice, select Modules, Invoice and Edit.   pc/MRP will display the screen shown below.
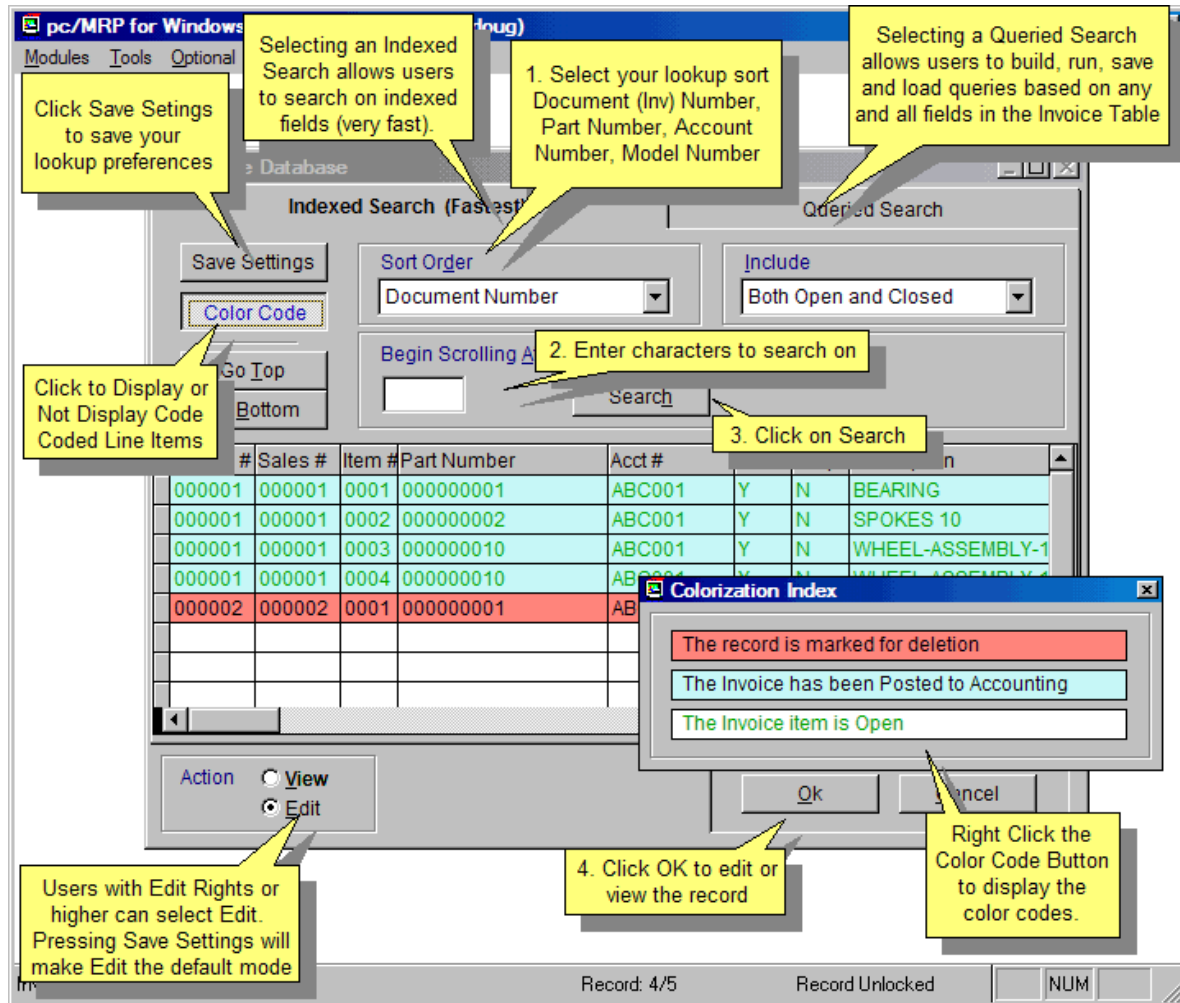
This option allows users to scroll, edit, delete, undelete, or run queries against Invoice records.

Selecting an **Indexed Search** allows users to search on indexed fields. This allows pc/MRP to find the information much faster. To perform an Indexed Search:

Select the desired **Sort Order,** Document # (Invoice #), Account #, Part #, Model #, Customer PO#
Select the desired **Include** information, Open, Closed, Open and Closed (Closed = Paid in full)
Enter the applicable data in the **Begin Scrolling At:** field
Select the desired **Action**: View or Edit
Press **Search**
Select the desired record
Press **Ok** to proceed to the edit screen for that record.

Note: Selecting to run a **Queried Search** allows users to build, run, save, and load queries for the Invoice table. For further details, see Chapter 15.14.1.

Any field in the invoice can be edited. However, there are a few things users need to be aware of.

The **Posted** field is displayed only in the edit mode and is filled in automatically with a "Y" when accounting enters the initial general ledger O (accounts receivable) transaction. Do not manually edit this field.

The **Complete, Amt Paid**, **Date Paid**, and **Check** # fields are displayed only in the edit mode and are filled in automatically when accounting enters a payment towards this debt. The Amt Paid field contains the accumulative amount paid. The Complete field determines if a record is open or closed. A "Y" marks the record as closed (paid). An "N" marks the record as open (unpaid). Users should not manually populate these fields unless they know for sure they want to re-open or close an invoice.

If partial payments were made, the **Date Paid** field will contain the last payment's date. (In versions **8.70AA, 8.72X, 8.73D and lower**, this field contained the first payment's date.)

Use the delete button to mark a record for deletion. Use the Undelete button if you wish to unmark the record for deletion.

Users must have Accounting Edit rights or higher to edit an invoice or receiver that has been posted or paid (requires the optional Advanced Password Module).

If a person edits or deletes an invoice, pc/MRP will offer to automatically adjust:
- The original sales order quantity shipped.
- The part number's 'On Demand' quantity.
- The part number's 'On Hand' quantity if the invoice's date is greater than the last physical or cycle count date for that partnumber and the Inventory Adjustment method is set to 'A', 'P', or 'W'.
- All existing subsequent invoice's 'Balance Due' quantities (sales order line item has multiple invoices and you are editing one of the earlier invoices).

(Version **8.24 and higher**)
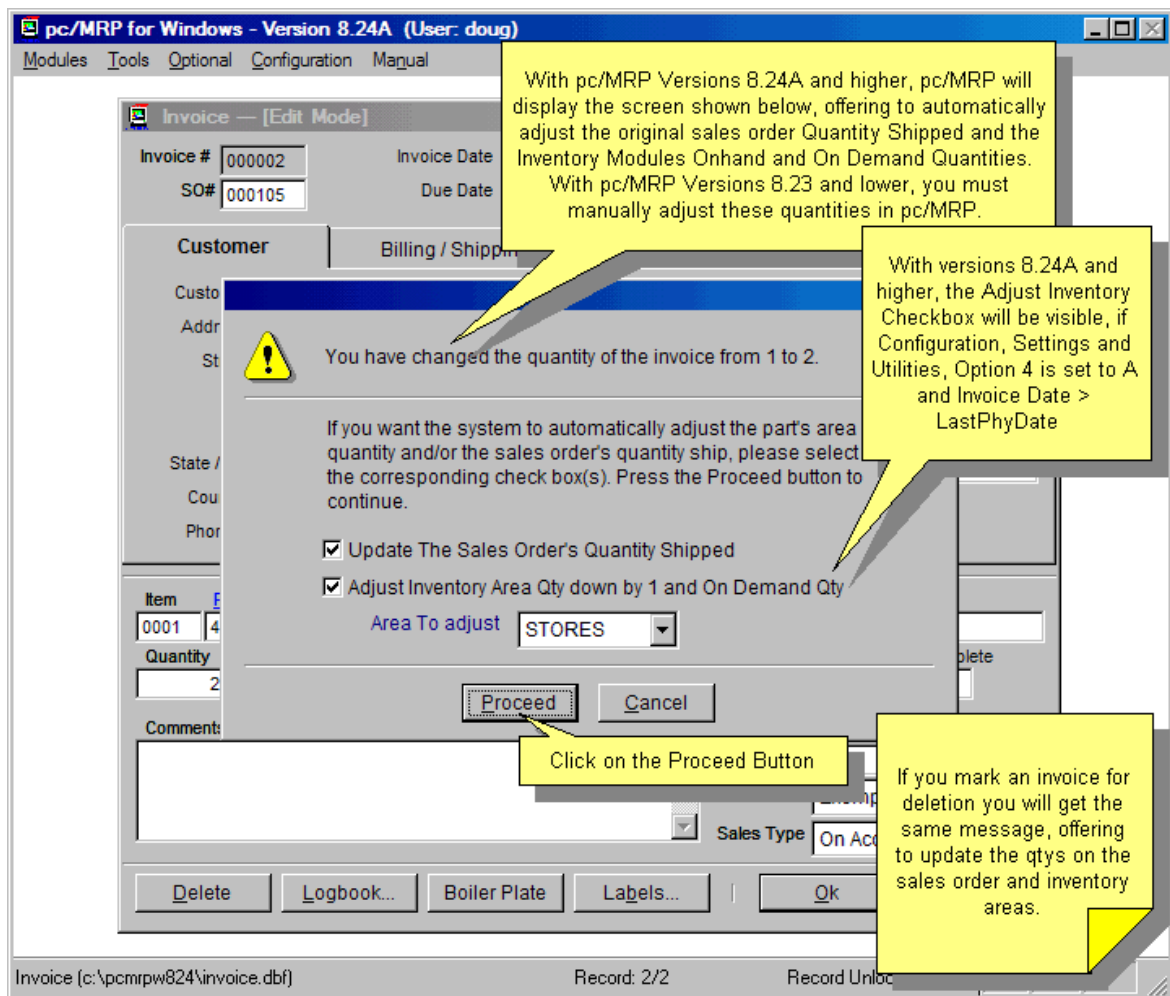
If pc/MRP detects a QB batch number or an accounting transaction, it will display the transaction numbers that need to be edited.

10.1.3   Print/Display an Invoice

10.1.3.1 Print (Display/FAX/EMAIL) an Invoice

To print, display, email, fax an invoice, select Modules, Invoice, and Print.   You can also create an HTML or PDF invoice document.   Programs like WINFAX will allow users to fax invoice directly from pc/MRP.

To e-mail an invoice directly from pc/MRP, you must use MS Outlook, not Outlook Express. The e-mail address in Outlook will automatically be populated from the e-mail entry in the pc/MRP Address Book.

If you choose to create an HTML or PDF document, you can save this document and attach it to an e-mail created in your existing e-mail program.

Users can create custom invoices, that display their logo and/or additional fields from the invoice module that they wish to see on the invoice. See Chapter 15.4 in this Manual.The invoice form uses invoice.frx and invoiceb.frx. See Section 15.4.1 to create a custom invoice (cinvoice.frx).
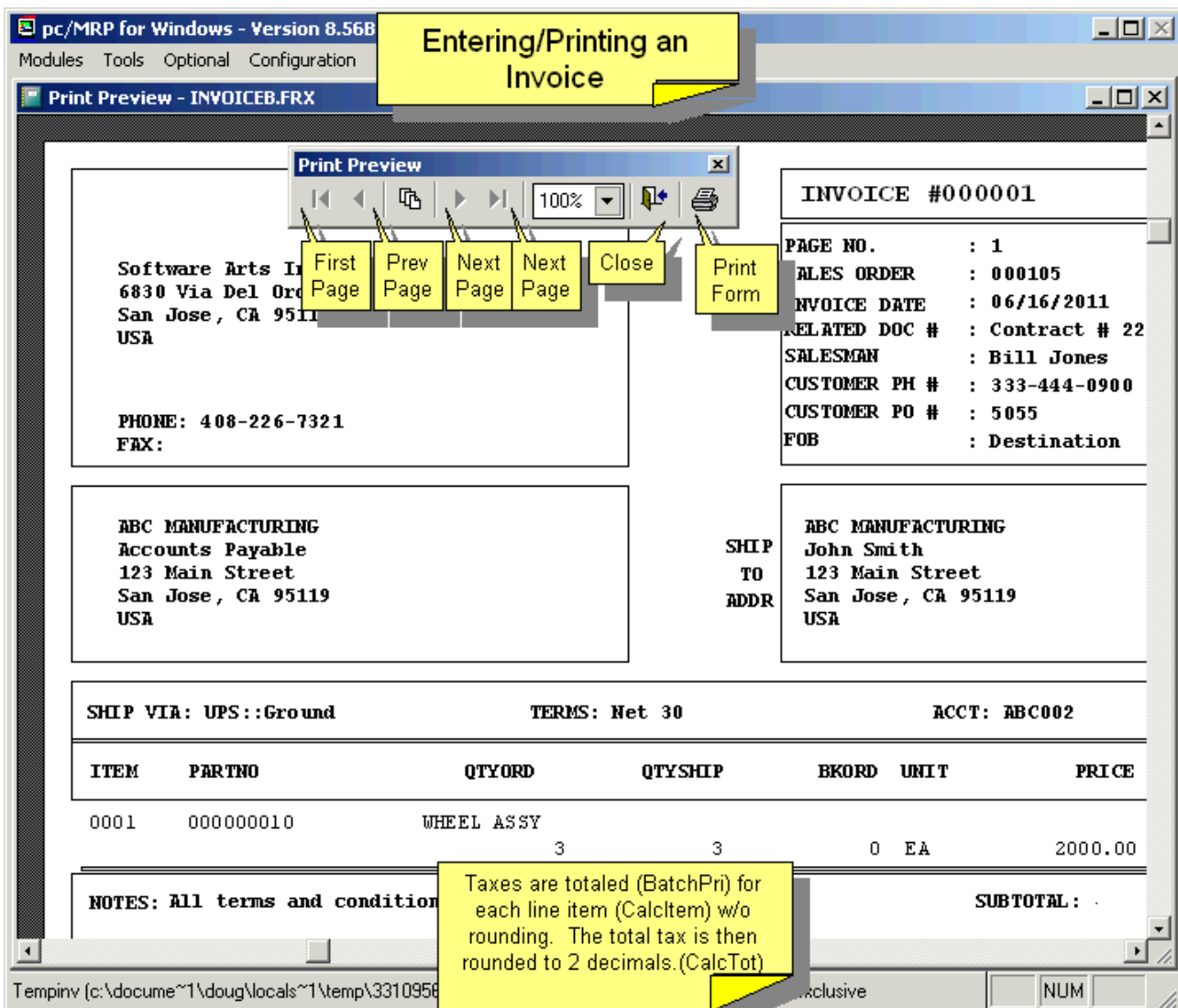
Sales Orders, Invoices, and Shippers can be configured to print out the Serial Number(s) or Model Number using the Configuration Menu's, Settings and Utilities, Option 22.

10.1.3.2 Printing a Commercial Invoice (8.73 and higher)

Select Commercial Invoice as the Document Type. Clicking on the **Fetch Info** button will fetch the tracking number from the shiplog database file and insert the tracking number into the invoice and shipment database files. The contents of the **Incoterm** list can be set in Option 52 of the Configuration, Settings and Utilities.
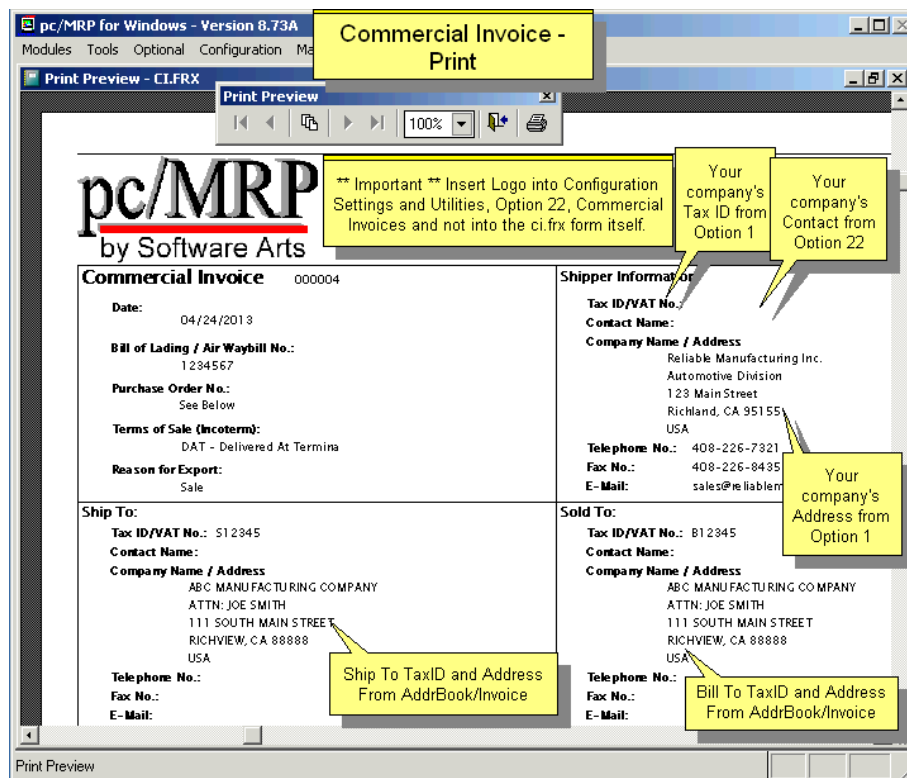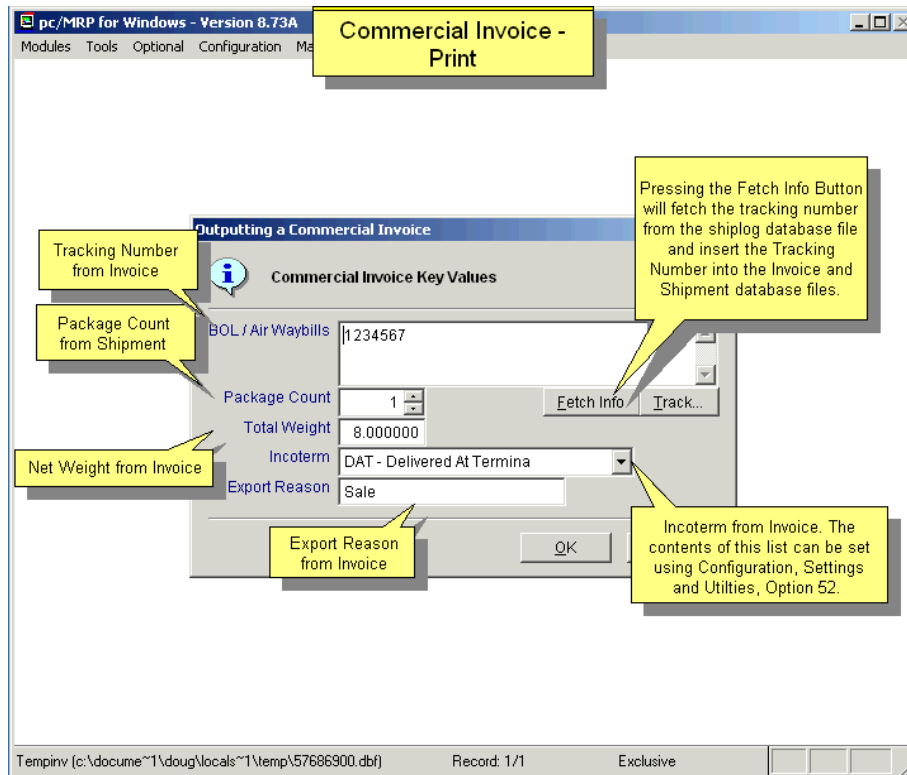
Note: While Option 24 will be used for most forms and reports <u>to insert your company's LOGO</u>, <u>use Option 22</u> for the Commercial Invoice. You can still create custom commercial invoices from the standard CI.FRX, named as CCI*.FRX.

10.1.3.3 Printing invoices on carbonless paper

You can order pc/MRP's two part (5K-2990-2), three part (5K-2990-3) or four part (5K-2990-4) carbonless forms and matching double window envelopes (5K-DW3787) from Rapid Forms, telephone number 1-800-257-8354. Be sure to give the Rapid Forms Operator pc/MRP's Keycode Number C20100.

You can order the 3-part NCR carbonless paper by calling JC Paper in Mt. View, CA at (650)965-0983. Ask for the zero-form, straight sequence 3 part NCR pre-collated 8-1/2" X 11" paper. It comes in sets per package.

10.1.3.4 Printing Shippers

Once pc/MRP has displayed or printed the invoice, it will ask if you wish to print out a shipper for the invoice. The shipper can be folded in thirds and placed in a clear shipping envelope attached to the shipping box with the shipping address displayed. Configuration, Option 22 will allow you to enter Shipper boiler plate comments if you wish. The invoice's boiler plate will NOT be transferred to the shipper.

10.1.3.5 Printing Additional Mailing Labels

If you use Notepad to create a flag file called **IVMAILLB.FLG**, pc/MRP will add the option to print out mailing labels after the invoice is printed. Users can create custom address labels using pc/MRP's Custom Report Generator (Option 24 in the Configuration, Settings and Utilities Menu). The custom labels be named CUSTADR*.LBX or CUSADR*.LBX. Create the custom address labels by opening a standard address label, addrlbm.lbx, modifying it and saving it as cusadr*.lbx. '*' is any alpha/numeric characters.

10.1.4 Reports
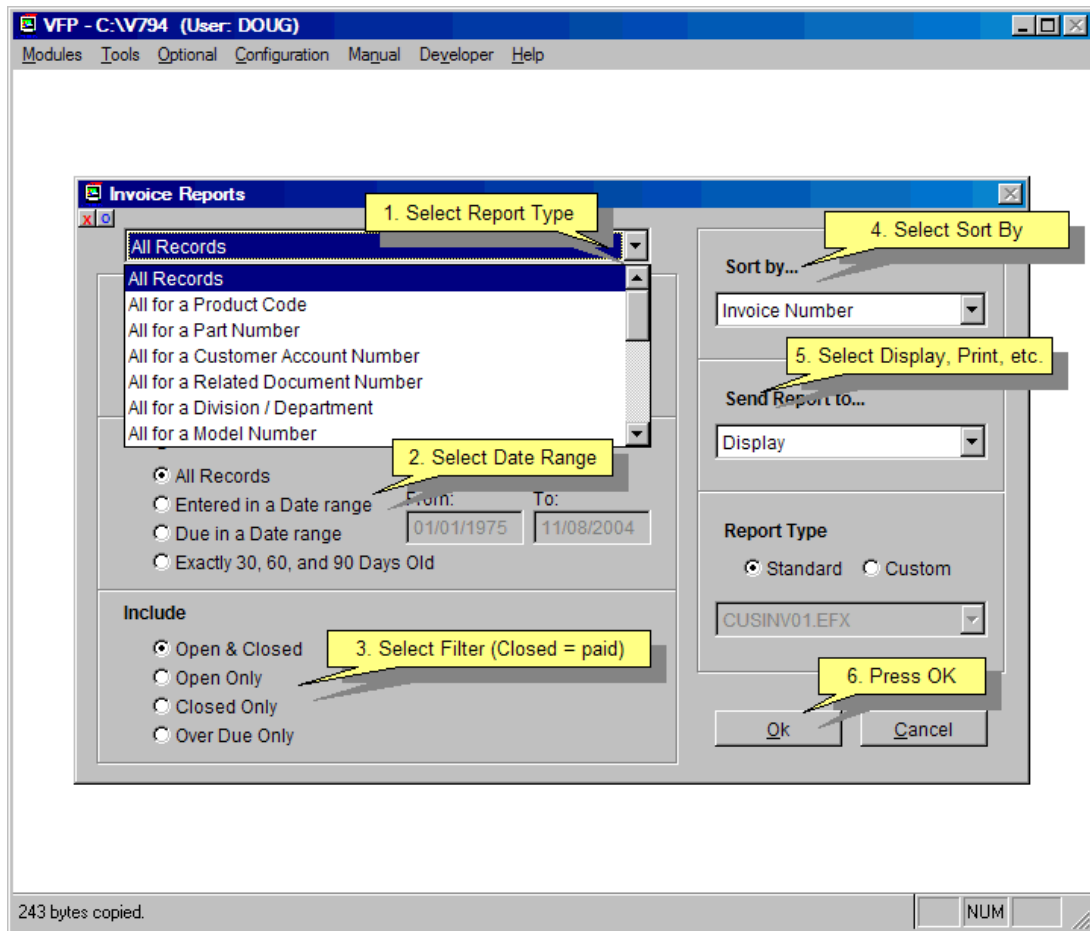
Select Modules, Invoices and Reports to display or print out an invoice report. Allows users to print out or display various invoice reports (invlog.frx). See Section 15.4.1 to create custom sales order reports (cusinv*.frx).

An example of a standard invoice report is shown below.

10.1.5 Printing Additional Shipper Labels
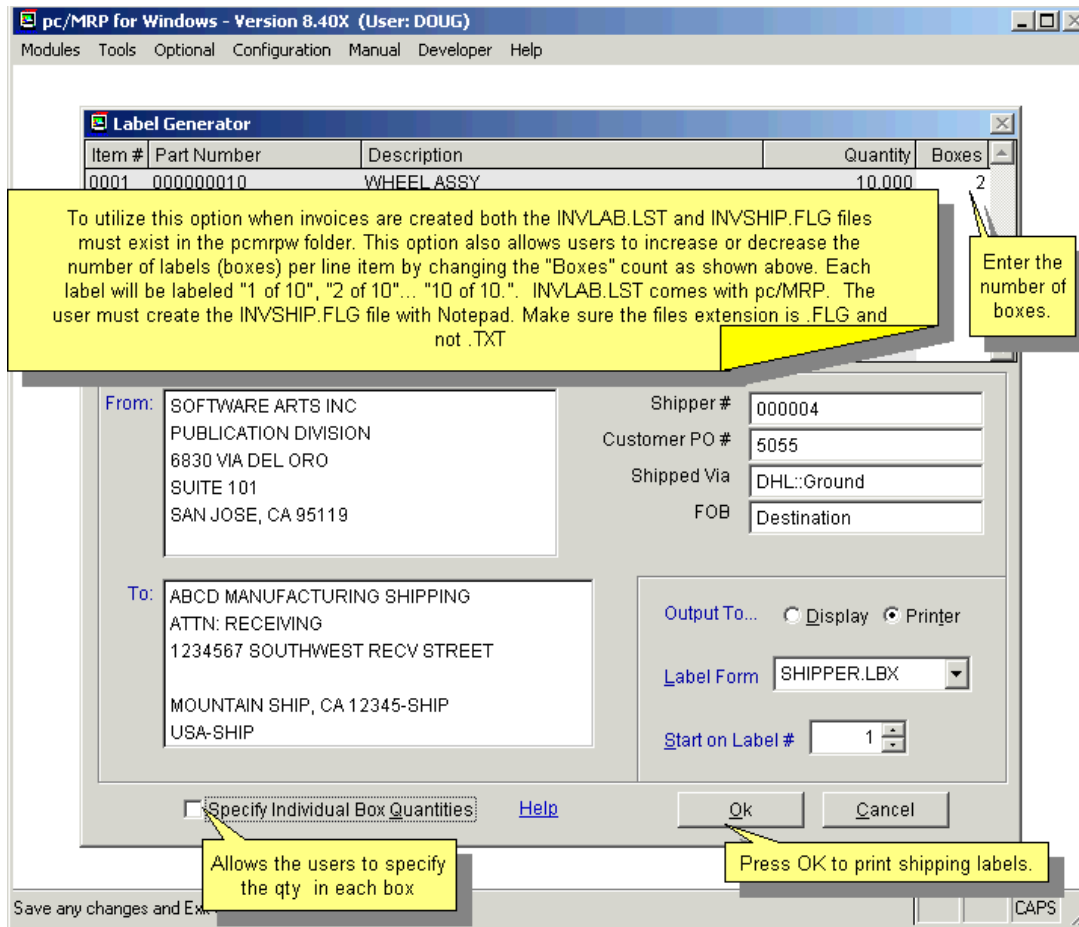
This option allows users to print out a shipping label for each shipping box required for an invoice. To activate this option in the Invoice menu, the **INVLAB.LST & INVSHIP.FLG** files must exist in the pcmrpw folder.

You can select a different printer by selecting **Print Setup**. Users can select what label to start on by using the **Start On #** spinner. This program allows the user to select pc/MRP's standard shipping label, **SHIPPER.LBX**). Users can create additional custom ***.LBX** labels or ***.FRX** forms. Any custom Label or Form you wish to utilize must be listed in a file called **INVLAB.LST**. This file can be created and or edited through Notepad.

The text in an example INLAB.LST file is shown below:

> SHIPPER.LBX = Standard pc/MRP shipping label. Six per sheet. 4" x 3-1/2"
> ACCURA.LBX = Standard Accura Precision shipping label
> LOCKHEED.FRX = Bar-coded label for Lockheed Martin
> TESTLAB.LBX = Label for testing purposes!!!

When editing the **INVLAB.LST** file each line represents a different report. The first line of this file will read, **SHIPPER.LBX = Standard pc/MRP shipping label**. Note that at the bottom of the picture above you see the text **Standard pc/MRP shipping label,** this text comes from the **INVLAB.LST** file. When editing the **INVLAB.LST** add an additional line by pressing enter at the end of the previous line. Then follow the same structure as the first line. When you select the custom report, the custom comment will show up at the bottom of the screen to help select the correct custom label.

If a file named INVLAB1.upf and INVLAB2.upf exist, pc/MRP will follow the commands in these 'in' and 'out' program files to display a custom screen which can also set up custom variables and arrays read by the custom label '.FRX' file.

Here is a sample label generation:
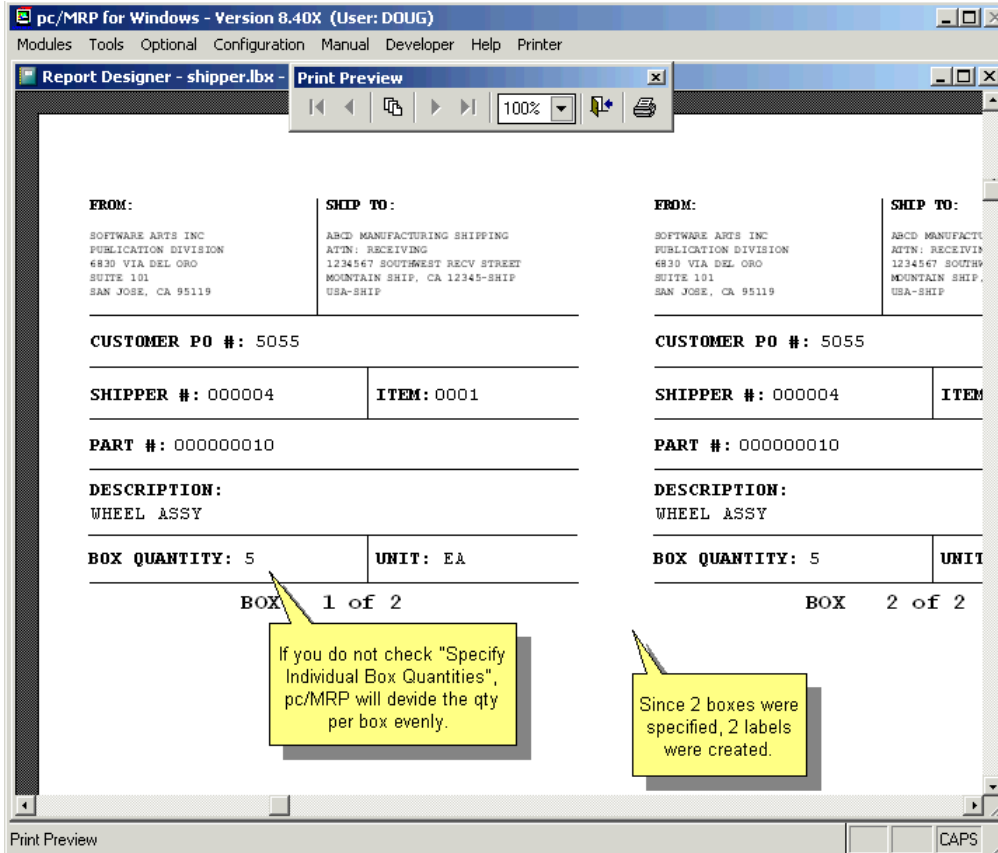
10.1.6 Queried Search Overview (see 15.14.1)

10.1.7 Indexed Searches (see 15.14.2)

10.1.8 Index (see 15.14.3)

10.1.9 Remove Marked Records (see 15.14.4)

10.1.10 Remove Over X Years (see 15.14.5)

10.2 Shipment Module

10.2 Overview. Create a shipment record
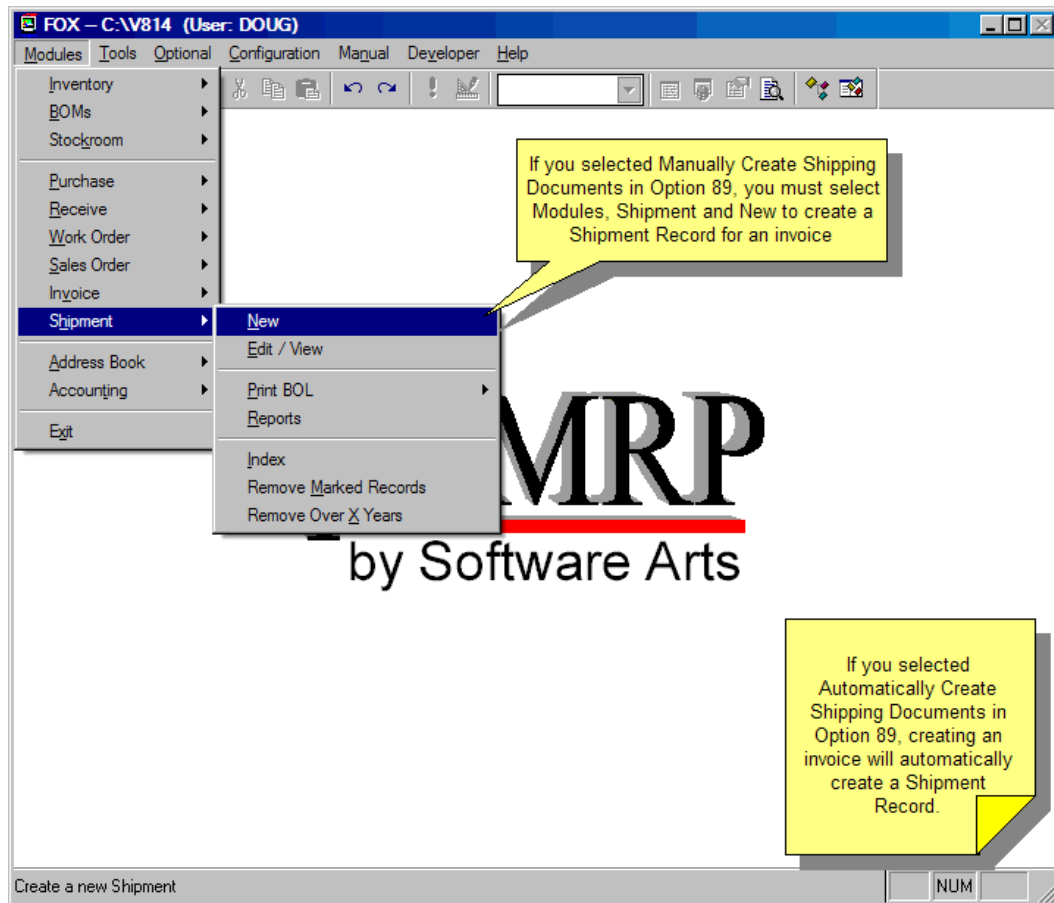
pc/MRP's new shipping module integrates pc/MRP with UPS's UPS's WorldShip or FedEx's Ship Manager. Users will no longer have to re-enter the customer addresses into UPS.

Users can also select 'BOL' from the Carrier Type dropdown list and create a Bill of Lading shipping document.

Note: If set to automatically generate a Shipment record for an invoice, there must be a 'shippable' partnumber on one of the invoice's line items.   Otherwise NO shipment record will be created.   Parts are checked as shippable on the Inventory part's Miscellaneous tab; which then carries to the Sales Order line item and then to the Invoice on the Delivery tabs.

10.2.1 Step 1 Select an invoice to create a shipment record.

If a shipment record already exists for the selected invoice, a message will display informing you of that fact.

The easiest way to create a new Shipment record is to press the ellipsis button and then select an invoice from the scroll window that appears.

10.2.2 Step 2 Verify the data.

All invoice shipping information is automatically filled in for you.

If you are interfacing with UPS WorldShip OnLine version 8.0, you must select 'UPS' for the Carrier Type.

Only parts checked as 'Shippable' on the Invoice's Delivery tab will be listed in the scroll window. If no items on the invoice are shippable, an informational message will appear stating that there are no shippable items for the invoice and a shipping document cannot be created.

Note: Parts are checked as shippable on the Inventory part's 'Miscellaneous' tab.
Note: Unit weight comes from the partmaster (see 5.3.10 for the definition).

If Freight 'Collect' or 'Bill to 3rd Party' is selected as a billing option, you will have to enter the customer's UPS number after interfacing with the UPS online software.

All items must be checked (default) for the correct weight to be calculated for the shipment. This is NOT used to include or not include a line item for a shipment. It is assumed that the all invoice line items are shipped on this document. You will not be able to partially ship an invoice and expect to ship the rest later. Create multiple invoices if you plan on splitting shipments.

Finish the data entry by pressing the 'OK' button to save the record.

10.2.3 Step 3 Go to the UPS WorldShip Online interface.
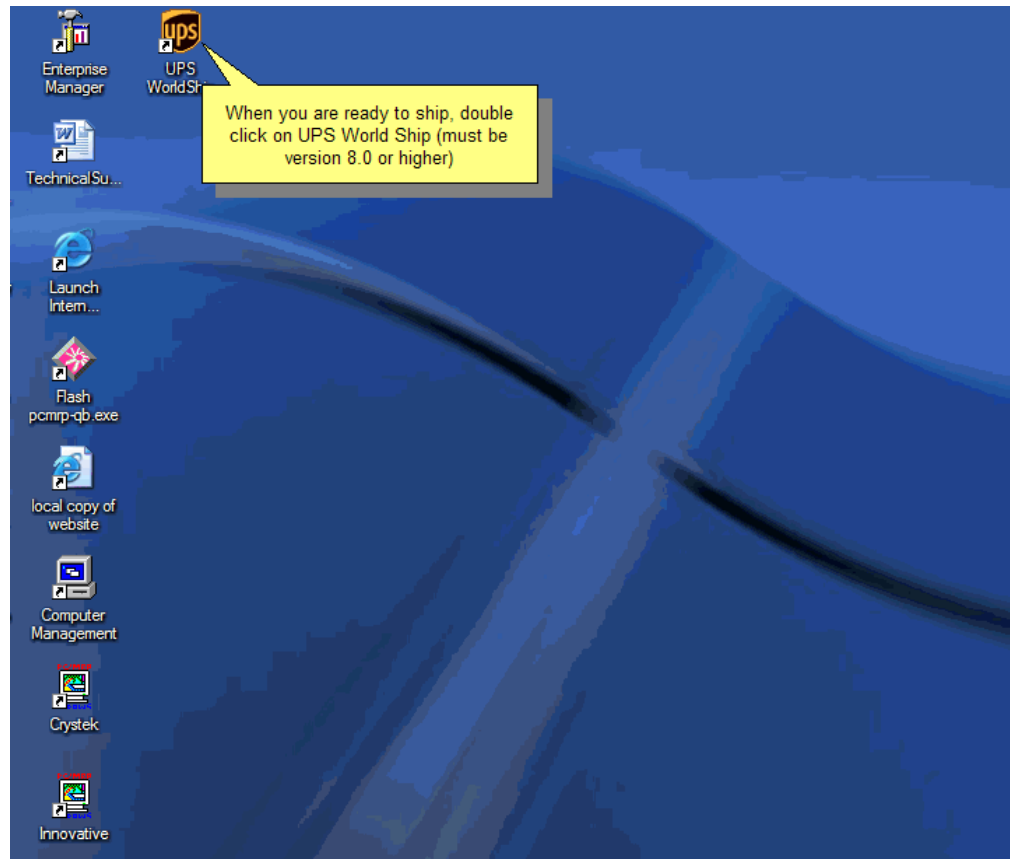
UPS WorldShip OnLine version 8.0 should already be installed on your computer or a shortcut to the program should be available as shown above. If installed and no icon is on your desktop, check within the Start, All Programs, United Parcel Service (UPS), and select UPS WorldShip.

Section 15.17 and 15.18 of the pc/MRP Manual will help you set up your UPS WorldShip interface.

10.2.4 Step 4 Select the pc/MRP import mapper
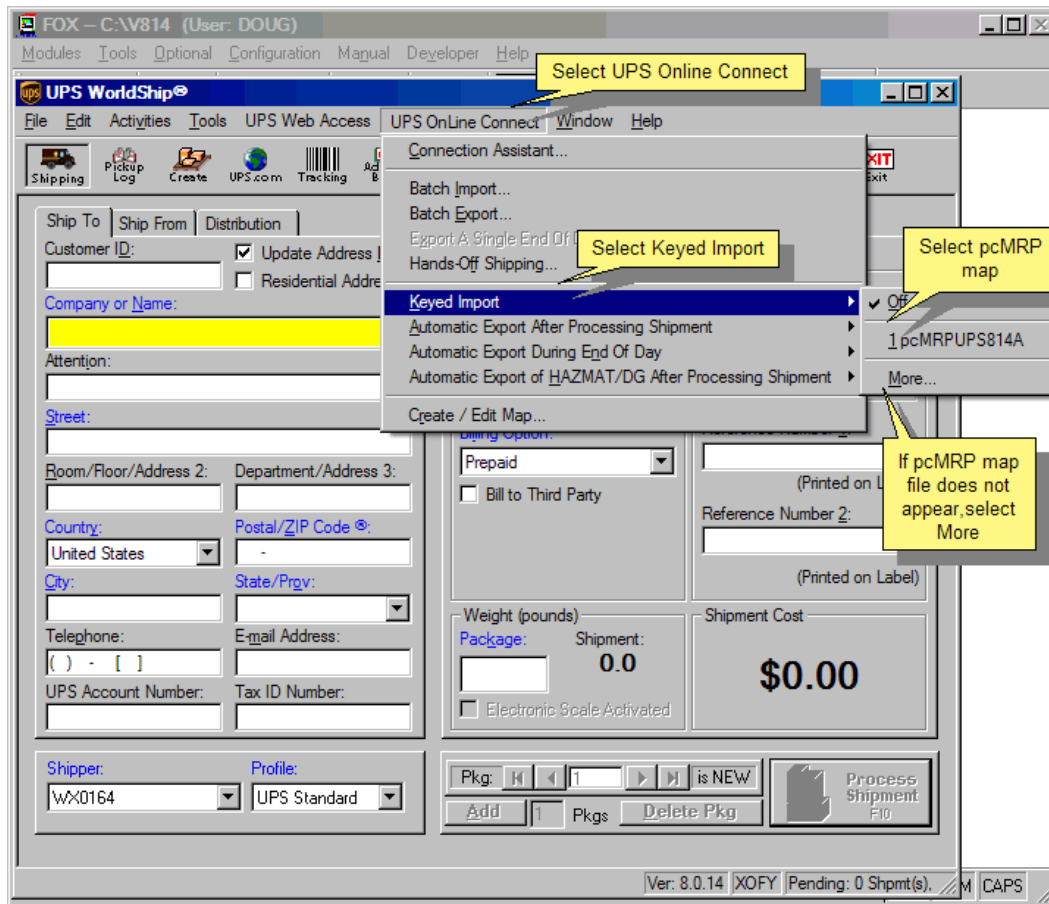
When the UPS WorldShip starts, select the menu item "**UPS OnLine Connect**", then "**Keyed Import**", and lastly, "**pcMRPUPS814A**". The suffix of 814A means that pc/MRP's UPS interface works with pc/MRP versions 8.14A and higher.

10.2.5 Step 5 Enter the invoice number to ship.
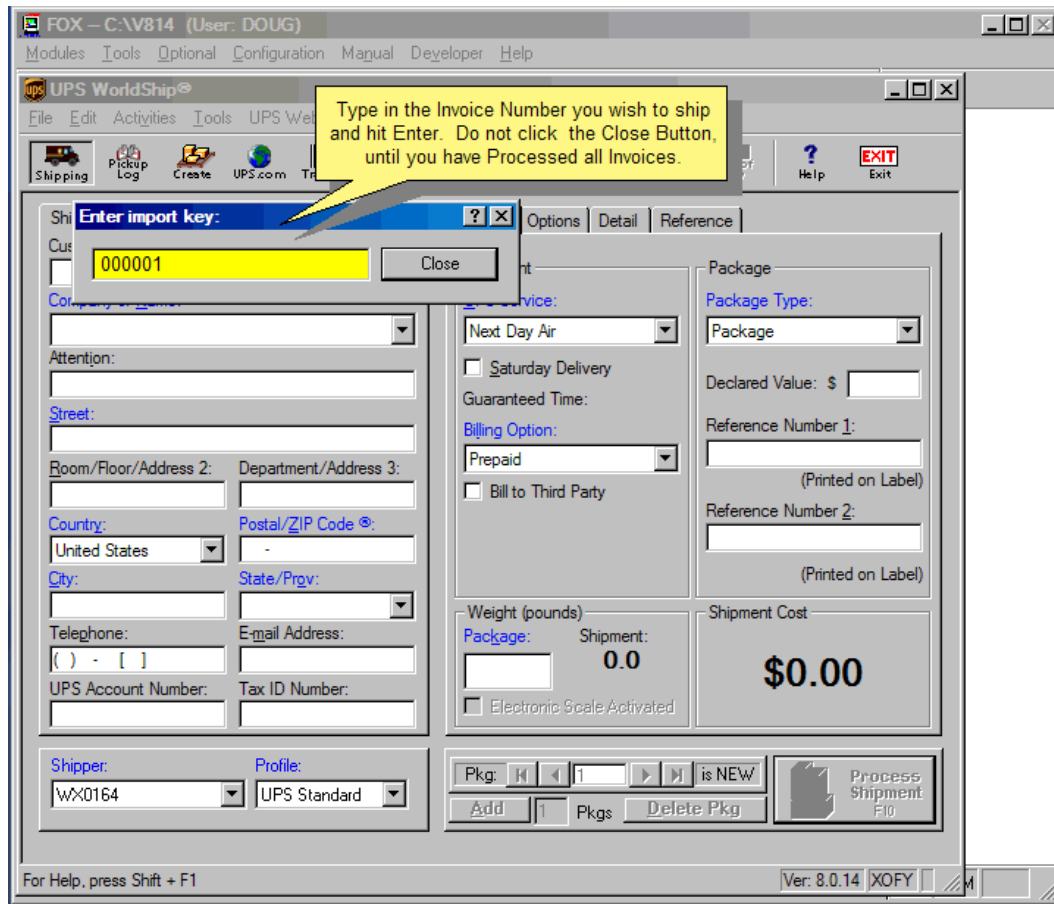
After the UPS WorldShip software connects to the UPS website, the Enter import key input box will appear.

Note: Please be patient as it takes time for the UPS software to connect to pc/MRP's Shipment Module.

Enter the Invoice number of the Shipment record you previously created and press the 'ENTER' key. Do NOT press the Close button at this time. When you are finished creating all the UPS documents to ship, then you can simply exit UPS WorldShip or press the Close button and then exit UPS WorldShip.

10.2.6 Step 6 Verify the shipment data.
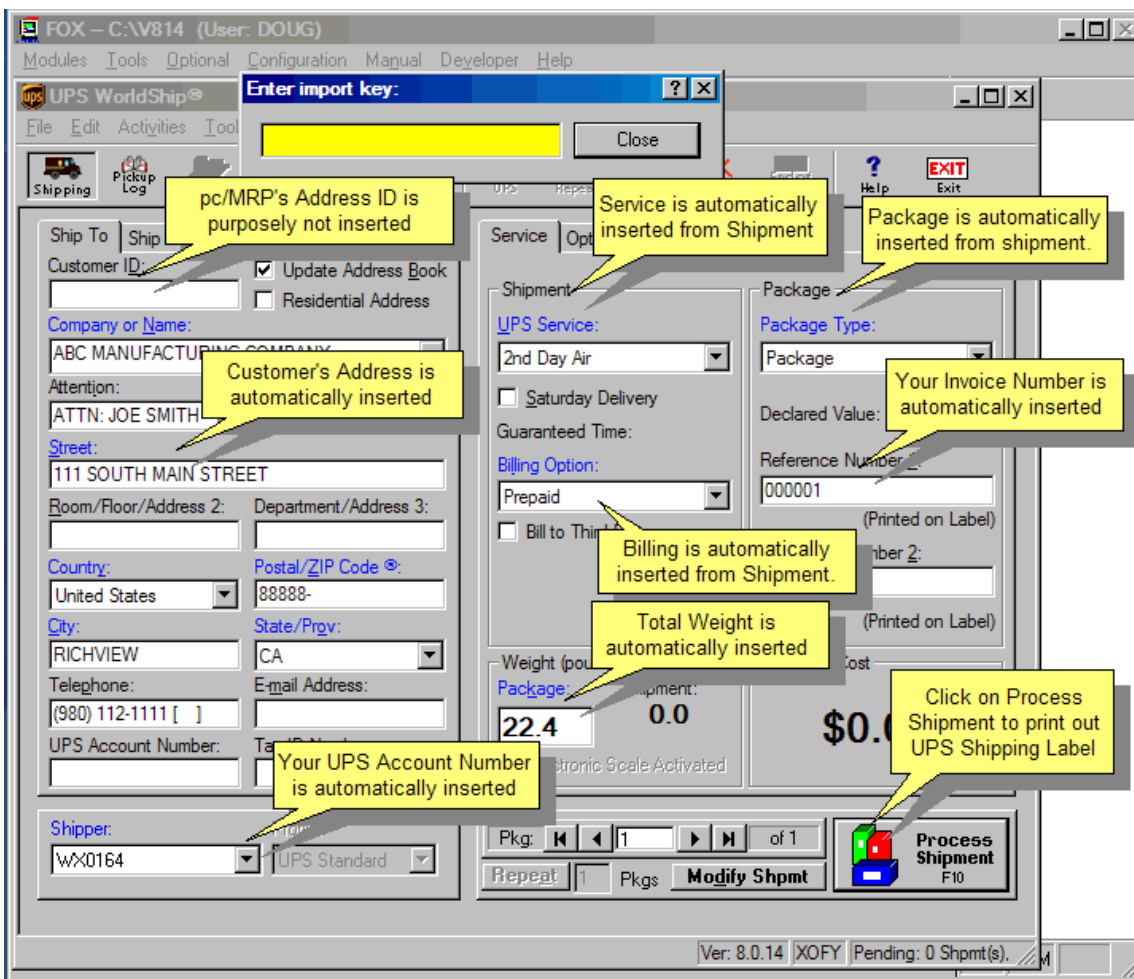
Verify the data automatically filled in by UPS WorldShip.

Please note several items are not required. The Customer ID and UPS Account Number are examples. Required data label fields are usually in a blue color and normal fields are in black.

If you have chosen 'Freight Collect' as a billing option, the UPS Account Number would be a blue color and you would have to enter the customer's UPS number in this field. Your UPS number will stay in the 'Shipper' field.

Press 'Process Shipment' to complete the process and print the shipment document.

10.2.7 Queried Search Overview (see 15.14.1)

10.2.8 Indexed Searches (see 15.14.2)

10.2.9 Index (see 15.14.3)

10.2.10 Remove Marked Records (see 15.14.4)

10.2.11 Remove Over X Years (see 15.14.5)

11 Stockroom Module

11.1 Overview of the Stock Transaction Module

The Stockroom Module allows users to: issue parts and sub-assemblies to manufacturing, receive parts back from manufacturing as completed assemblies, backflush piece parts, issue parts and assemblies to shipping, transfer parts from one inventory area to another, and adjust the onhand quantities.

Every series of stockroom transactions to build your parts and raw material into assemblies) starts with an I-type stockroom issue. It might be followed by other types of issues, and always will be finished with an R-type transaction. Users can simply issue the sales order; there is no need to create work orders, unless you build for stock. pc/MRP will carry any shortages. We suggest that you only issue the quantity that is available, and don't allow MFG return when stock is short. This way your inventory won't go negative. See details in Section 11.2.5 below.

An online slideshow is located here: http://www.pcmrp.com/mrp101/stkroomnew.htm

Stockroom Transaction Type Codes

ISSTA: Stock Adjustment (Decreasing)	RECFA: Stock Adjustment (Increasing)
ISSTB: Stock Transfer (Stores to other area)	RECFB: Stock Transfer (other area to Stores)
ISSTM: Stock Issue to MFG	RECFM: Receive back from MFG
ISSTS: Stock Issue to Shipping	RECFR: Receive from Receiving

11.2 I-type issue: Issue Parts or Sub-assemblies to a Sales or Work Order

11.2.1 Issue parts/sub-assemblies to a sales or work order Step 1 – Press New

By Selecting **M**odules, **S**tockroom, and **N**ew pc/MRP will display a list of all of the stockroom transactions available for users to enter. Simply click on the radio button you want. The user name, date, and time will be stored in the **Entered By** field for every transaction made. Comments for each transaction are also available. Following is a description of each type of transaction.

11.2.2 Issue parts/sub-assemblies to a sales or work order Step 2 – Select Issue

Select the **"I"** transaction to issue a top-level assembly(s) infinite levels deep for a sales/work order.   You must use this function once and only once to issue parts for every sales/work order that is issued to manufacturing.

All manufacturing jobs start with an **I** type transaction and end with an **R** type transaction (where I stands for Issue and R for Receive). Users can only use the **L**, **M**, **F**, **B**, **U,** and **T** type transactions <u>after</u> performing the **I** transaction and <u>before</u> performing the **R** transaction.

Select the stock room area you wish to issue the parts from. pc/MRP cannot issue from multiple areas during the **I** type transaction. If a user wishes to issue part of the build from one inventory area and other parts from a different inventory area, they will have to issue the **I** transaction short, and perform make up transactions, **M**, **F**, and **B**, transactions to issue from the alternate area.

Enter the account number to credit for these parts if required to do so by accounting, otherwise leave this space blank (pc/MRP's accounting package does not use this field).

pc/MRP will display the next available stock transaction number. Press OK to accept the number.

Answer Yes, if there is a sales/work order number for this transaction. pc/MRP will then allow you to scroll by sales/work order number, part number, or account number for the correct sales/work order number. You must enter an existing Sales or Work Order Number; otherwise pc/MRP will not be able to decrement the WIP quantities correctly when the Sales/Work Order is received as assemblies from manufacturing.

11.2.3 Issue parts/sub-assemblies to a sales or work order Step 3 – Select Issue Methods

Select the **area** the parts/assys are issued from and returned to.

By default, pc/MRP will automatically issue items. If you prefer to verify each item or record serial/lot numbers using pc/MRP's standard serial/lot number features, uncheck the **"Issue parts automatically"** check box. If "Issue Parts Automatically' is checked and Option 45 in Settings & Utilities is set to Issue Quantity Required instead of Issue Quantity Available, pc/MRP could drive On-hand quantities negative as if there is a shortage.

pc/MRP must be told how you want to issue the items. You can issue component parts only, sub-assemblies only or both part and sub-assemblies.

- Select **Assembly (IF available) then parts** if you want pc/MRP to issue sub-assemblies, if available, then parts when there are no more sub-assemblies available.
- Select **Parts Only** if you wish to issue parts only and no completed sub-assemblies, even if they are available.
- If you Select **Sub-Assemblies Only** the following options are available:
  - **Never Ask**, will issue sub-assemblies only.
  - **Ask When Short**, will ask to issue parts or subassemblies if subassemblies are short. If you select Parts, it will issue remaining sub-assemblies and then parts.
  - **Always Ask**, will ask to issue parts or sub-assemblies when it comes to a sub-assembly. If you select parts, it will issue parts.

11.2.4 Issue parts/sub-assemblies to a sales or work order Step 4 – Select Line Items

Select the line items on this sales order you wish to issue.   Line items that can not be issued and the reason they can not be issued, will be displayed in the scrollable list box below the line item list.
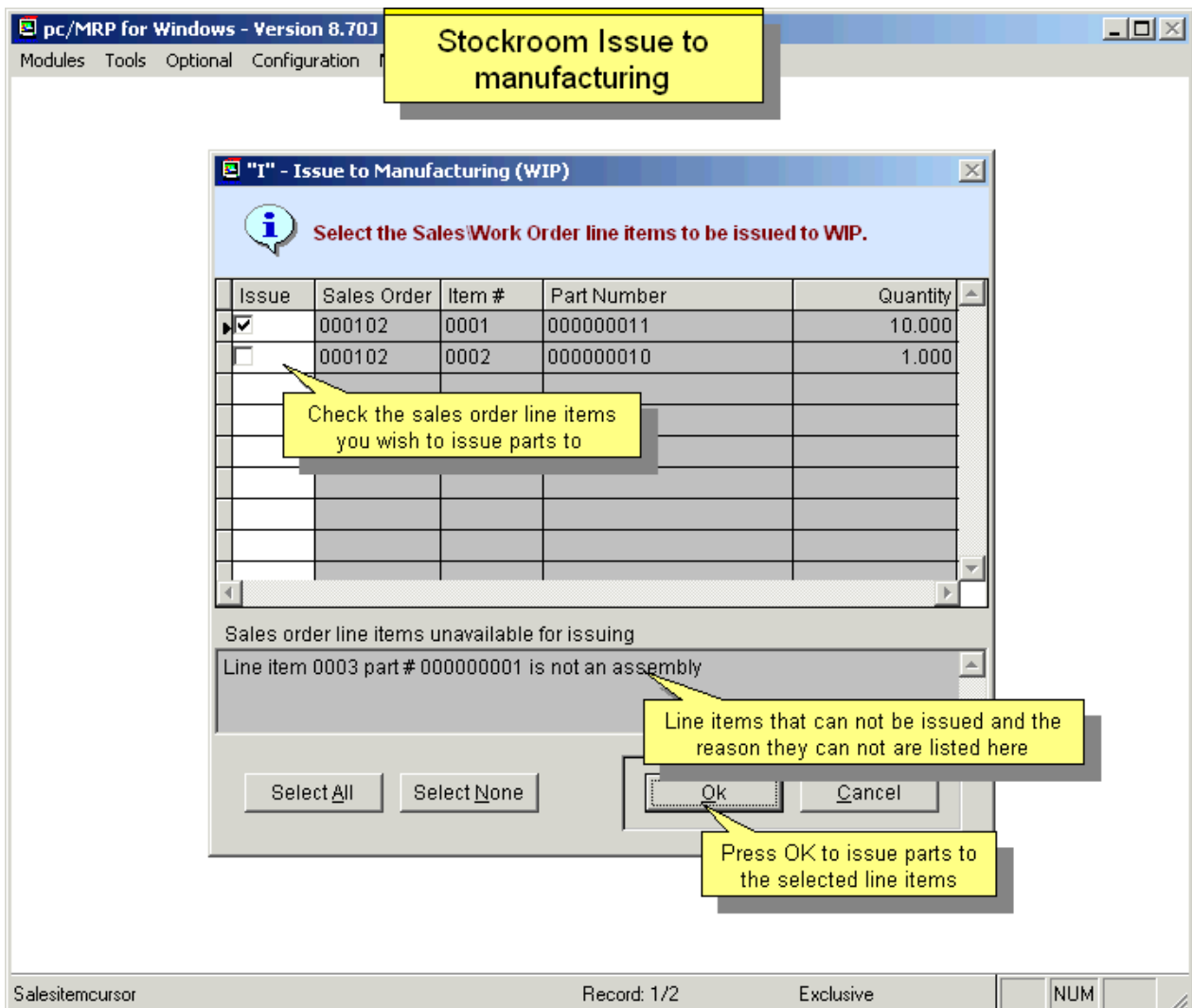
11.2.5 Issue parts/sub-assemblies to a sales or work order Step 5 – Handle any Shortages

If you issue the parts one at a time instead of automatically or pc/MRP detects a shortage the screen shown above will be displayed. Option 45 can be set to default the Qty Issued Field to the quantity available or the quantity required. We recommend you set Option 45 to the Quantity Available and always insert the actual quantity issued, as this will keep your WIP straight. (The qty issued and the qty left in stock fields are pre-populated according to the setting in Option 45.) If you set Option 45 to Required, you do not answer 'Yes' to track serial numbers, and you have checked Automatic issue, the screen above will not appear and part quantities can be driven negative.

Always enter the correct quantity issued to the manufacturing floor. pc/MRP will create an issue to manufacturing stock room record decreasing the stock room quantity and increasing the WIP quantity. If you count the quantity left in the bin, it is different from the displayed quantity left, update that field and pc/MRP will make an additional adjusting stock room record.

Whenever users enter an "I" type transaction, pc/MRP creates a stock transaction record for each part or sub-assembly issued. Each stock transaction record created contains the following fields:

- The stock transaction number (stktrano)
- The sales/work order number (sono)
- The part or assembly number being issued (partno)
- The quantity required (qtyreq)
- The quantity issued (qtyissued)
- The quantity returned (returnqty) is left at 0, as this field is filled in when the sales order is received back as completed assemblies.

11.2.6 Issue parts/sub-assemblies to a sales or work order Step 6 – Record Serial Numbers

If you have activated pc/MRP's Advanced Serial/Lot Number module, pc/MRP will ask if you wish to enter serial numbers. If the serial numbers entered are past their expiration date the user will be warned and offered to cancel or continue.

Furthermore, if you have changed the QTY Left in the Bin field on the *Issue Stock to Manufacturing* screen, the serial lot number module has been activated, and the part is serialized, the *Adjust Serial/Lot* button will appear.

If you want to adjust serial/lot number, click the Adjust Serial/Lot button. You will get a list of the existing serial lot numbers from the master serial lot number table for that part as shown on the *Serial/Lot Number List* Screen. If you would like to enter a new serial lot number, click on the **New** button, you will get a screen similar to the Serial Lot Number Adjustment Screen. Enter the necessary fields for the serial/lot number and click Ok to save.

If you would like to adjust the serial lot quantity for an existing serial lot number, select the serial lot number, and click the **Edit** button, you will get the *Serial Lot Number Adjustment* Screen. Entering a negative number into the Adjust QTY field will bring the serial/lot quantity down and entering a positive number into the Adjust QTY field will bring the serial/lot quantity up. Click the **Ok** button to save the adjusted serial lot number. When you are done with entering and adjusting the serial lot numbers, click Ok on the Serial/Lot Number List screen. All of the newly entered serial numbers will be saved into the master serial lot number table, and the adjusted serial lot numbers' SNLOTQTY field in the master serial lot number table will be replaced by the value in the NEWSNLOTQTY field of the cursor. An adjustment entry will be created in the detail serial/lot number table for each adjusted serial lot number.

11.2.7 Issue parts/sub-assemblies to a sales or work order Step 7 – Print PIC List/Labels

Users can create a flag file (an empty text file) allowing labels to be created for the items being issued to manufacturing. The flag file has to be named **isstklab.flg** and can be created with Notepad. If this file is present in the pcmrpw directory the screen shown below will appear.
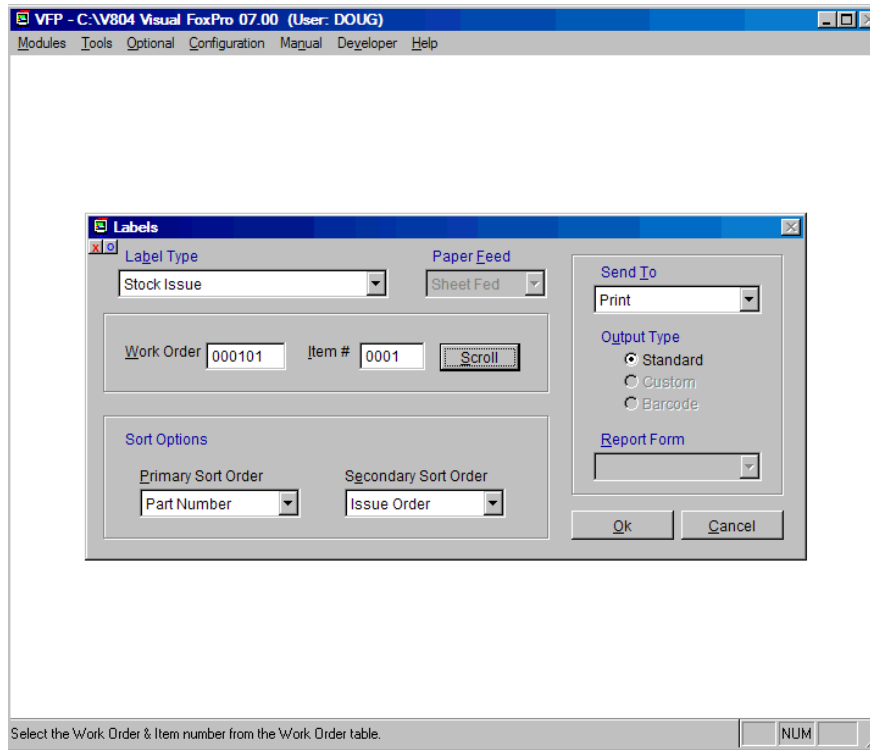
pc/MRP will produce an "Issued PICK List" report containing the details of all items issued. The report can be displayed, printed, or saved as a file.

This option allows users to select various criteria, a specified work order, and multiple output types for the labels to be created.

11.3   Other Types of Stockroom Issues

11.3.1 L - Issue Part(s) and/or Assemblies one Level Deep to Manufacturing

Only use this function to issue extra parts or parts that were not on the bill of materials.   Select an "L" transaction to issue a part, or combination of parts and completed sub-assemblies for a sales or work order to manufacturing. You will be asked whether the information is to be manually entered or imported from an ASCII file. Manual entry is the most often used method and will be explained first.   pc/MRP will reduce the onhand quantities and increase the WIP quantities of the parts and sub-assemblies issued.

- Select the stock room area you wish to issue the parts from.
- Enter the account number to credit for these parts if required to do so by accounting, otherwise, leave this space blank.
- pc/MRP will display the next available stock transaction number. Press OK to accept the number.
- Answer Yes, if there is a sales/work order number for this transaction. You must enter an existing Sales/Work Order number; otherwise, pc/MRP will not be able to decrement the WIP quantities correctly when the Sales/Work Order is received as assemblies from manufacturing.
- Enter the Part or BOM number and the quantity you wish to issue.
- Enter Yes, if you wish to track lot numbers.
- If the number entered was a BOM number, pc/MRP will ask if you wish to issue the BOM to the floor as a completed assembly or as component parts.
- If you choose to issue as a completed assembly, pc/MRP will issue the assembly(s) as completed assembly(s).
- If you choose to issue the assembly as component parts, pc/MRP will issue the component parts. Once again enter the date and quantity of the assembly you wish to issue (pc/MRP will not change the onhand quantity of the assembly at this time).
- Answer Yes, if you wish parts to be issued automatically.
- When it comes to a sub-assembly for that kit, pc/MRP will ask "Issue parts or Sub-Assemblies?" Select Sub-Assemblies if you wish to issue the sub-assembly as completed sub-assemblies. Select Issue Parts if you wish to issue the sub-assembly as parts on another lower level "L" type transaction that you will enter after you have finished issuing parts at this level.
- Creating an empty text file, LISSUPWO.FLG, with Notepad in the pcmrpw directory will force pc/MRP to insert a 'Y' into the Sales/Work Order 'Issued to MFG' (ISSTMFG) field. This is not recommended, as pc/MRP will not allow an 'I' type issue transaction to that Sales/Work Order afterwards.

11.3.2 Importing Part Number and Quantity information

Importing creates a series of "**L**" type Stockroom transactions from a comma separated ASCII file. This file may be generated by a barcode reader or produced by another program. The ASCII file must contain the Part number and Quantity information and may contain other optional information.
The data structure of the ASCII file is shown below:

DATA	TYPE
Part Number	6-15 Character
Quantity Issued	Numeric
SO/WO Number (leading zeros)	6 Character (optional)
SO/WO Item Number (leading zeros)	4 Character (optional)
Issue Area (same as area name)	8 Character (optional)
Lot Number	6 Character (optional)
Quantity Required	Numeric (optional)

The following screen allows configuration of the import process.

- Enter the **Location and Name of the ASCII file to Import** or use the **Find** button to pick it from the directory tree.
- Configure the **Sales/Work Order Information** to meet your situation.
- The **Automatic** setting will draw the sales/work order number from the import file. If the sale/work order number does not exist in the import file or it is invalid, the program will halt at each item and prompt the user to enter the correct sales/work order for that part.
- If all the items to be issued are against the same sales/work order, selecting **Manual** allows a one-time entry of the sales/work order number, which is then applied to all items issued.
- **Lot tracking** has three possible settings:
  o **Automatic** pulls the information from the source file.
  o **Manual** stops at each issue item and prompts the user to enter the Lot Number.
  o **Off** turns off lot number tracking
- Any of the twenty storage areas can be manually selected as the issuing area or it can be set to automatically draw the issuing area from the import file.
- Pressing **OK** will begin the import process.
- If any errors are detected during the importation process, an error report will be available after completion.

11.3.3 M - Issue Makeup or Shortage Parts to Mfg

We strongly recommend using the stockroom's P option instead of the M or F options to issue makeup shortages to sales and work orders.

Enter the stock transaction number of the part that is short. The stock transaction number can be located on the stock transaction report for that sales/work order number.

pc/MRP will allow you to enter the lot number and the quantity required to fill the shortage. pc/MRP will then reduce the onhand quantities and increase the WIP quantities of the parts issued.

pc/MRP will create a new issue transaction for makeup transactions and the quantity required will be reduced to equal the original quantity issued in the original stockroom record.

If the sales order is closed, pc/MRP will not allow you to issue a makeup issue against the order.

11.3.4 F - Issue Multiple Makeup Shortages to Manufacturing Automatically

We strongly recommend using the stockroom's P option instead of the M or F options to issue makeup shortages to sales and work orders.

Use this function to automatically issue make up shortages for items that were short when the original **"I"** type transaction was issued for a sales/work order number. It will fill as much of the shortage as the inventory level allows while giving priority to the sales/work orders by with the earliest date required. This function looks at shortages for open sales and work orders (complete does not equal Y) that have been issued (issuedtmf = Y) that now have stock available to be issued (onhand greater than 0).

The user may select the inventory area(s) to consider when issuing items. The user also has the ability to issue only to sales order transactions or work order transactions.

Two reports are available after completion. The Action report details all of the stockroom shortages that were filled. The Make-up shortage Pick list produces an inventory list of material from each inventory area to be transferred from inventory to WIP.

The user may elect to actually issue shortage make-ups or to simulate the shortage make-ups. Actually issuing will produce the reports described above while reducing the quantity of the parts from the issuing area and increasing the quantity in WIP. Simulating the shortage make-ups will produce the same reports as the actual issue without transferring inventory. This allows the user to check the shortage make-ups before they are transacted.

11.3.5 P - Issue Multiple Makeup Shortages from a Single Inventory Area
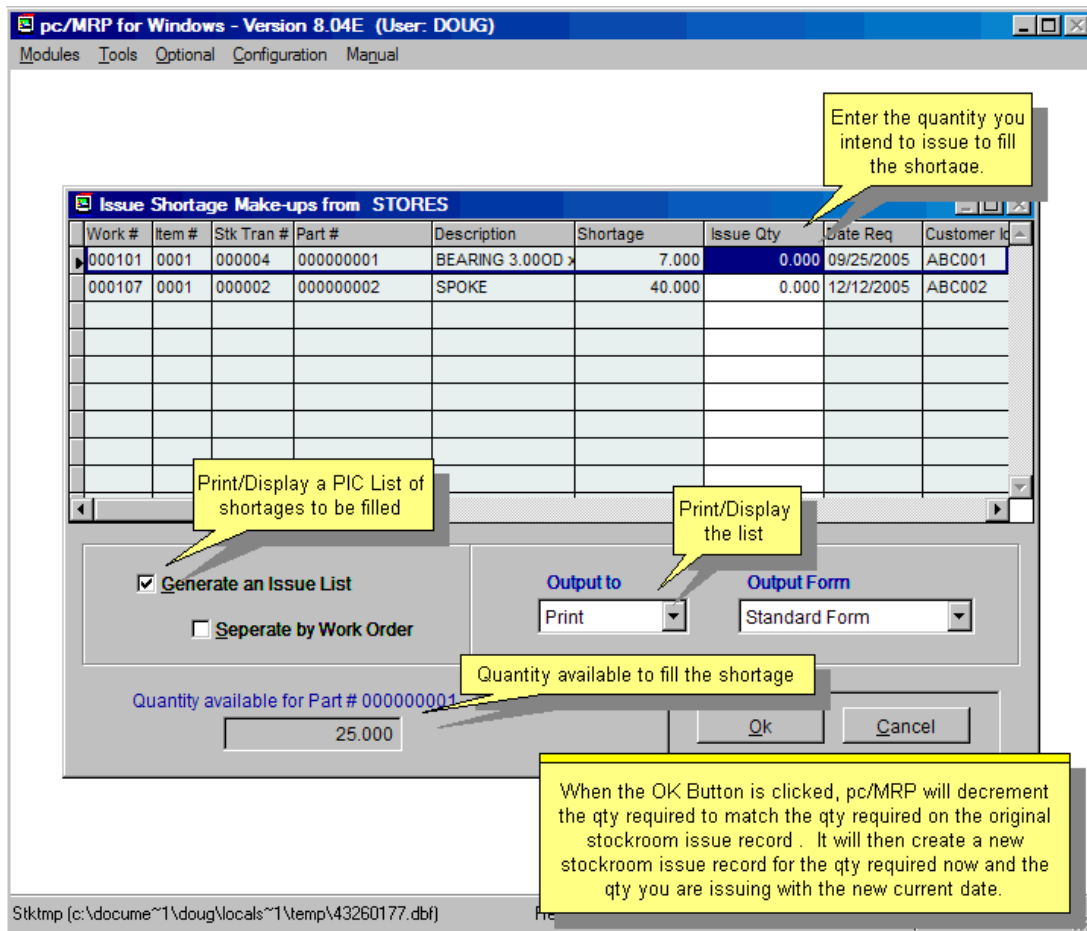
The **P** option allows users to fill stock room shortages from a list of possible stockroom transactions that were issued short. When users select this option, pc/MRP will create the screen above. This screen allows users to select the criteria to generate the list of shortages to be filled.

The 'P' option will modify the original stockroom issue record, reducing the quantity required so it matches the quantity issued. It will create a new stockroom issue record using the current cost found in the partmaster and the current date.

1. First, select the area where the parts will be issued from.
2. Second, select the desired sort order.
3. The Issue Shortage Make-ups screen allows users to choose from a list of shortages that can be filled and fulfill them by entering the desired quantity to be issued.
4. Highlight the shortage that you wish to issue and enter the quantity in the **Issue Qty** field.
5. Continue this process until you have selected all of the shortages you wish to fulfill.

Users can also select to have the Issue Shortage option generate a report. This report can be sent to several output types.

If the serial lot number module is being utilized, once the item(s) has been selected and the user presses **OK**, the user will be prompted to track serial numbers as needed.

Note: The 'P' type transaction must have a positive quantity on hand in the chosen inventory area in order for the shortage to be displayed.

11.3.6 S - Issue Parts or Assemblies to Shipping

Enter an **"S"** to issue parts or assemblies to shipping.

This option was created for companies that **do not** use pc/MRP's Invoice module. If you use this option, set the inventory Adjustment method, Option 4, to 'S'. Do not use this option if you are using pc/MRP's Invoice module, as you will get a double decrement on your invoice movement report. pc/MRP will not allow the 'S' or 'V' transactions if Option 4 is set to 'A'.

pc/MRP will issue each line item as you have configured it on this screen. The onhand quantity of each part shipped will be reduced if pc/MRP is configured to do so in the configuration menu.
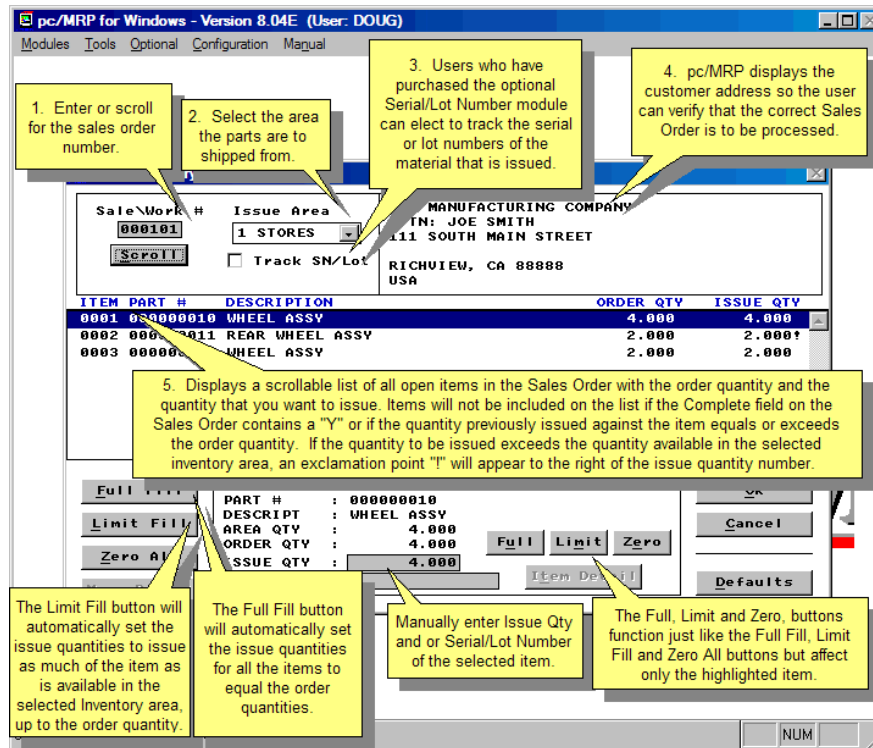
In the upper left corner of the window:

- The Sales Order number against which the material is to be issued can be manually entered or you may elect to pull the number in by scrolling the Sales database.
- This is where the Inventory area from which the material is to be issued is selected.
- Users who have purchased the optional Serial/Lot Number module can elect to track the serial or lot numbers of the material that is issued.

In the upper right corner of the window:

Displays the customer address so the user can verify that the correct Sales Order is to be processed.

In the center of the window:

- Displays a scrollable list of all open items in the Sales Order with the order quantity and the quantity that you want to issue. Items will not be included on the list if the **Complete** field on the Sales Order contains a **"Y"** or if the quantity previously issued against the item equals or exceeds the order quantity.
- If the quantity to be issued exceeds the quantity available in the selected inventory area, an exclamation point **"!"** will appear to the right of the issue quantity number. See Item 0002 on the example picture on the previous page.

In the lower left of the window:

- The **Full Fill** button will automatically set the issue quantities for all the items to equal the order quantities.
- The **Limit Fill** button will automatically set the issue quantities to issue as much of the item as is available in the selected Inventory area, up to the order quantity.
- The **Zero All** button will reset all issue quantities to zero.
- The **More Detail** button is not used when issuing to shipping.
- In the lower center of the window:
- This section displays information about the item currently highlighted in the center section. It also displays the quantity of this item currently available in the selected Inventory area.
- At the bottom of this area, you can manually set the issue quantity and enter a serial or lot number to be associated with this item. The serial/lot number will be retained as part of the Stock transaction record.
- The **Full**, **Limit,** and **Zero**, buttons function just like the **Full Fill**, **Limit Fill,** and **Zero All** buttons but affect only the highlighted item.
- The **Item Detail** button, like the More Detail button, is not used when issuing to shipping.
- In the lower right corner of the window:
- The **OK** button begins the issue process for the items you have specified while the Cancel button exits the screen without making any changes.
- The **Default** button opens a second window where some of the behavioral characteristics can be set.

11.3.7 The Default Settings window: (The initial default settings are shown.)
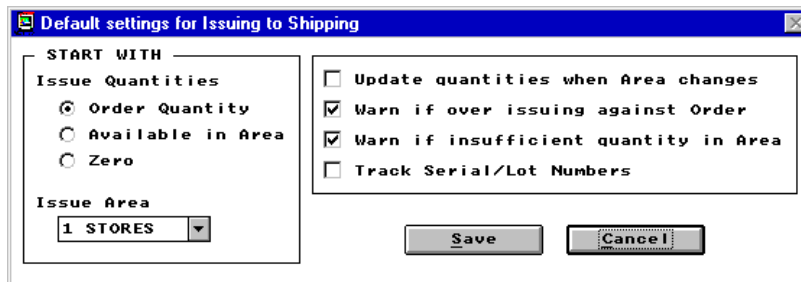
When a Sales Order is loaded into the first window for processing, the issue quantities for all items will be automatically entered based on the default **Issue Quantities** setting displayed in this window. The default Inventory issuing area can also be specified.

If the **Update quantities when Area changes** box is checked, changing the Inventory area on the first screen will automatically update the issue quantities based on the Issue Quantities setting.

If the **Warn if over issuing against Order** box is checked, a warning message will appear before transaction processing begins if the issue quantity of any of the items exceeds the order quantity. You then have the option to continue with the over-issue condition or return to the window for further editing.

If the **Warn if insufficient quantity in Area** box is checked, a warning message will appear before transaction processing begins if the issue quantity of any of the items exceeds the quantity available in the selected Inventory area. You then have the option to continue with the over-issue condition (which will drive the Inventory quantity negative) or return to the window for further editing.

The **Track Serial/Lot Numbers** box will be available for those users who have activated the optional Serial/Lot Number module. When this box is selected, the Track SN/Lot check box on the first window will start in the checked condition.

11.3.8 B - Issue Transfer Parts Between Inventory Areas

If you select to transfer parts between areas, you can enter the information manually or you can import it. If entering manually, the screen shown below will be displayed.
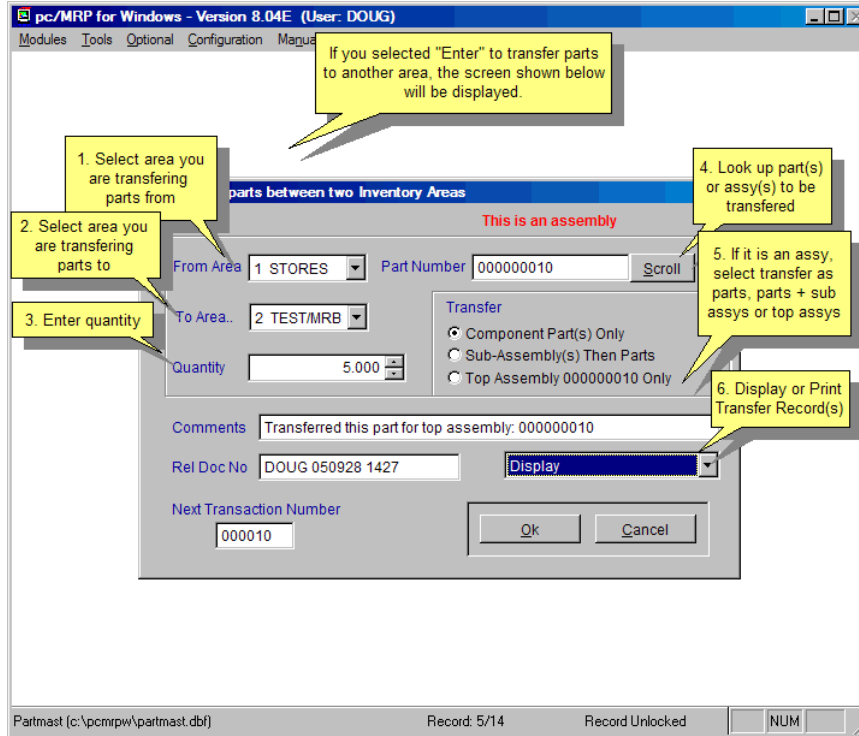
If the user selects to transfer parts between inventory areas using an ASCII comma separated list of part numbers and quantities, the screen shown below is displayed.
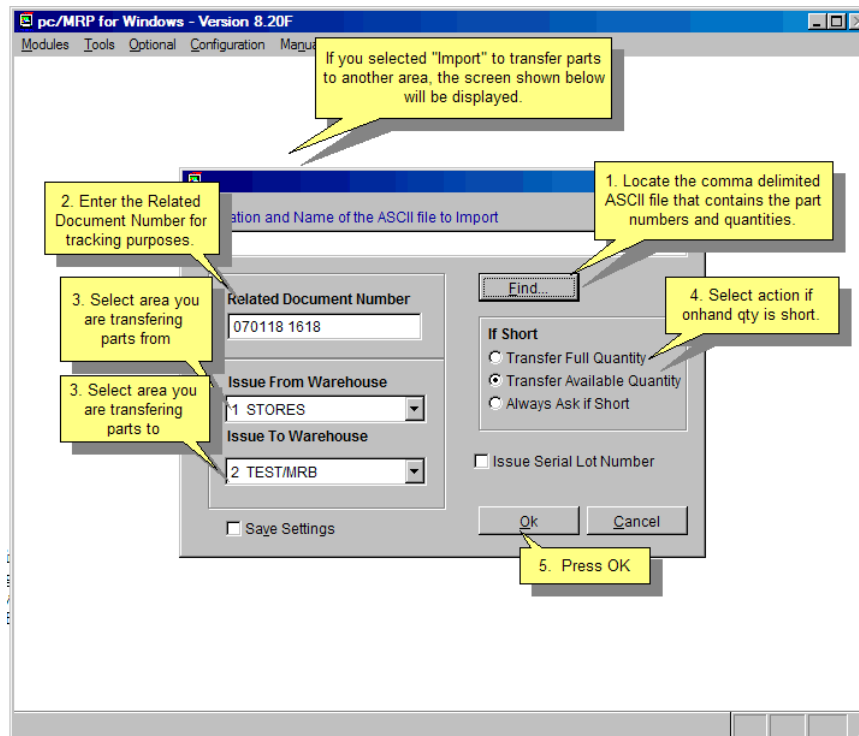
Transferring inventory from area 1 (Stores) into an alternate area creates an ISSTB record. Transferring inventory from an alternate area into area 1 (Stores) creates a RECFB record. Transferring inventory from an alternate storage area into another alternate storage area creates both an ISSTB and RECFB record.

11.4 R - Receive Back Completed Assemblies from Manufacturing

This module allows completed assemblies to be received from manufacturing back into the stock room. pc/MRP uses the following pseudo code when completed assemblies are returned from manufacturing to the stock room:

- Find the stock transaction records for that sales/work order number.
- Reduce the quantity in WIP by the quantity issued to the sales/work order based on the BOM and the parts and sub-assemblies issued. The return quantity field contains the quantity WIP was reduced by.
- When the final assembly is returned pc/MRP reduces WIP by the difference of the quantity issued and the returned quantity. It also increases the quantity returned to match the quantity issued. pc/MRP decreases the quantity required to match the quantity issued. As such, it will not leave shortages in the stock room records for sales/work order that were completed and returned to the stock room.

The above method allows overages and waste to be deducted from WIP. It also does not require all parts to be issued before part of the sales/work order is returned as finished assemblies.

pc/MRP will ask for the sales/work order number that you wish to turn in as completed assemblies. It will then locate the original sales/work order record to determine how many assemblies were originally ordered and issued. pc/MRP will ask for the quantity being received and then increment the onhand quantity of the assembly listed on the sales/work order. Next, it will search the stock transaction data base file and decrement the WIP quantities of all parts issued to manufacturing for that sales/work order. If you are turning in a partial order, it will make a partial deduction of the parts issued to manufacturing for that sales/work. For example, if you are turning in 6 completed assemblies for a sales/work order for 10 assemblies, pc/MRP would decrement the exact quantity of bolts, nuts, wheels, etc. for six assemblies.

Users can enter the number of hours used to complete this assy(s). pc/MRP will multiply the number of hours x the average hourly labor rate found in Configuration, Settings and Utilities, Option 6. Alternately, if you have pc/MRP's Employee Time Sheet Module you can set Option 79 to get the labor cost from this module. If people have not filled out their time sheets before the sales or work order is received back the labor costs will be short. However the Employee Time Sheet Module will contain the true labor cost (for everybody's labor rate) once everybody has turned in their time cards.

Creating a text file, LISSUPWO.FLG, with Notepad in the pcmrpw directory will force pc/MRP to insert a 'Y' into the Sales/Work Order ISSTMFG field. This is not recommended, as pc/MRP will not allow an 'I' type issue transaction to that Sales/Work Order afterwards.

Creating a file named "AllowPartIssRec.flg" with Notepad, will allow pc/MRP to receive back a Sales/Work Order line item that contains an inventory part instead of an assembly. Software Arts does not recommend using this option. It will remove from WIP all the parts issued to that Sales/Work Order line item and increase the quantity of the part listed on the Sales/Work order line item.

Please note:
- Not all parts for all 10 of the original assemblies have to be issued to the manufacturing, before any completed assemblies can be turned in.
- If you plan to turn in completed sub-assemblies for a sales order, issue the sub-assemblies under their own work order numbers.
- If you are utilizing the Serial Lot Number Module, you can also issue serial numbers to returned assemblies with this transaction.

11.4.1 Receive Back Completed Assemblies Shortage Warning

Note: For **Version 8.64F** and lower see the 8.60 Manual.

11.5   Other Types of Stockroom Transactions

11.5.1 U - Receive Unused Returned Parts from Manufacturing

Check out the on line slideshow for this transaction selection here:
http://www.pcmrp.com/mrp101/stockroomunissueselectu.htm
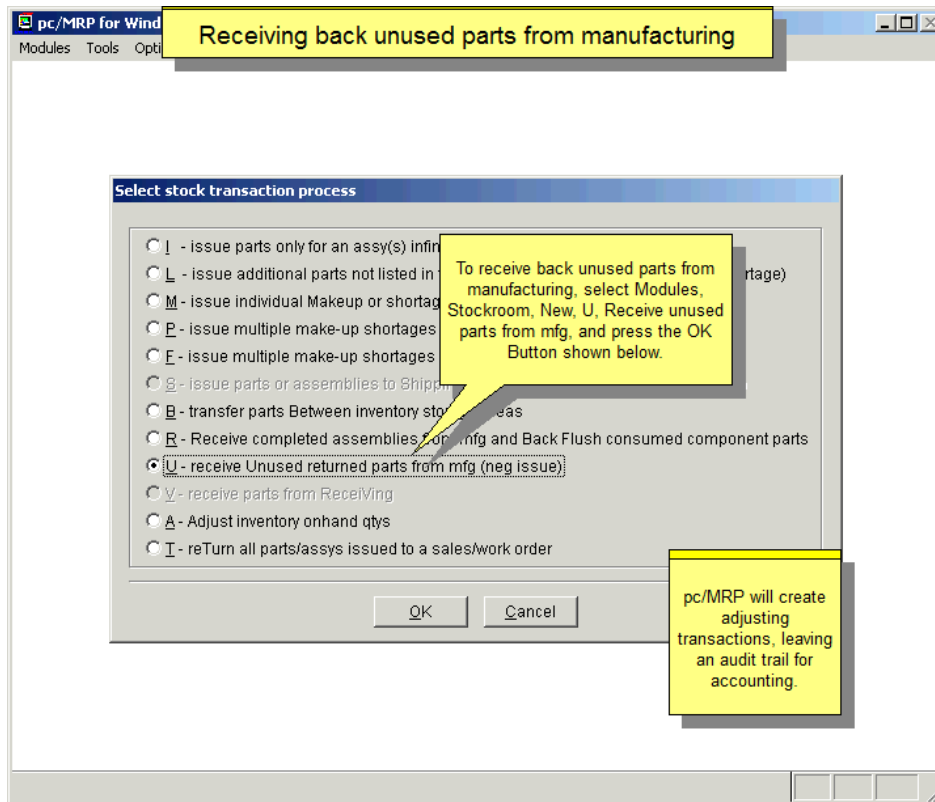
This option allows users to return unused parts back into inventory. When users select this option, the screen shown below will appear.
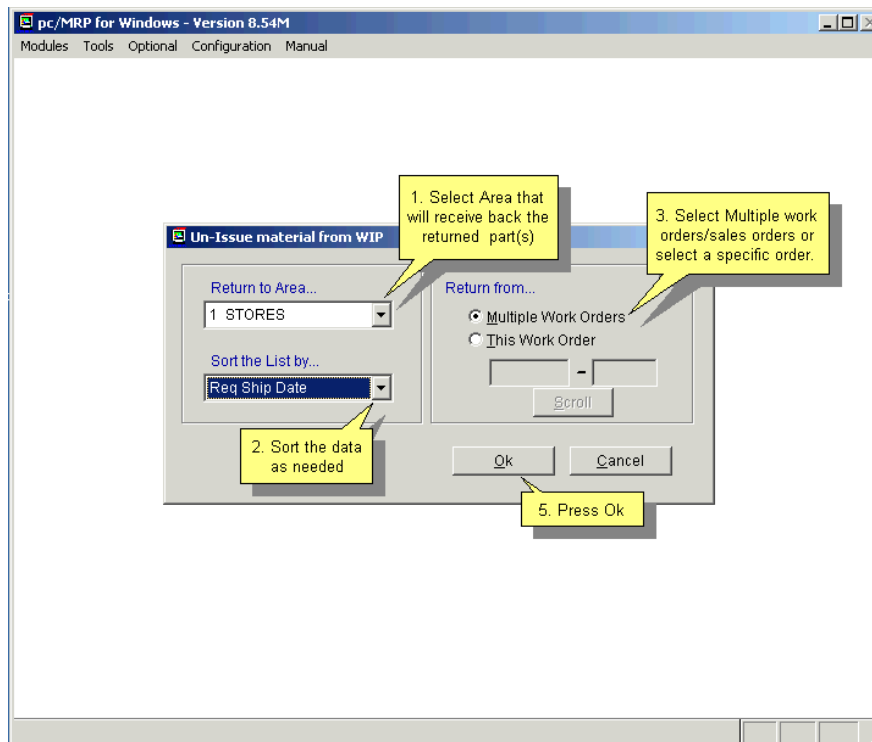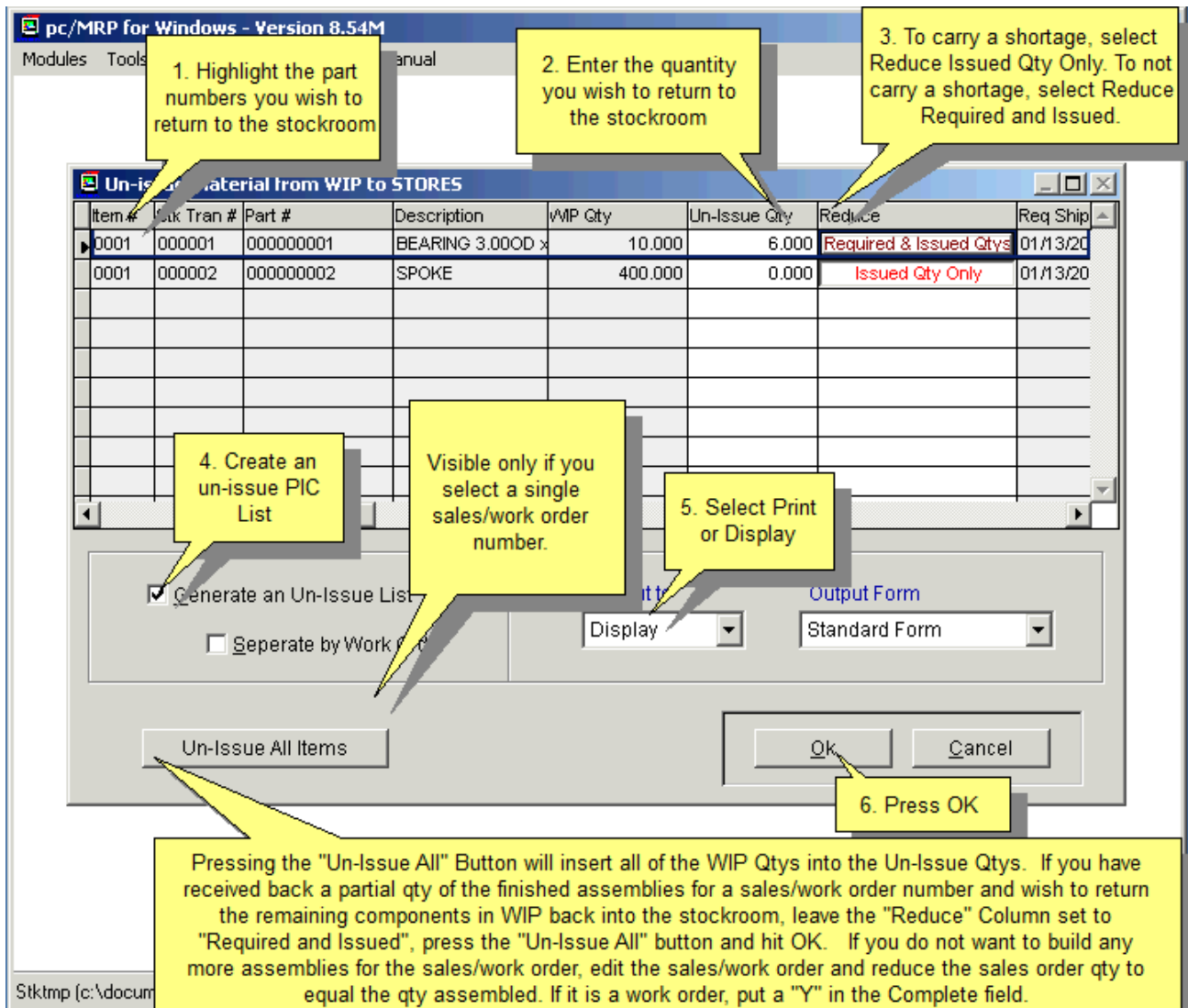
- Highlight the part number that you wish to return and enter the quantity in the **Un-issue Qty field.**
- Continue this process until all of the items to be returned have been selected.
- Users can select to **Reduce Requirement and Issued Quantities** or simply **Reduce the Quantity Issued only.** Use Required & Issued Qtys if you do not need to carry a shortage (BOM was wrong). Use "Issued Qty Only" if you want to carry a shortage e.g. removing from one job to supply another or if you over-issued such as issuing a full reel.
- Users can also select to have the Un-issue option generate a report. This report can be sent to several output types.
- If the serial lot number module is being utilized, once the item(s) has been selected and the user clicks **OK,** the user will be prompted to track serial numbers as needed.
- This type of transaction must be done before the final return of completed assemblies is transacted.

11.5.2 V - Receive Parts from Receiving

Do not use this transaction if you are set to Inventory Adjustment method A, see Settings and Utilities, Option 4.

Enter a "**V**" to receive parts from receiving. pc/MRP will display the next available stock transaction number. Press **OK** to accept the number. If there is a receiver for this transaction, enter **Yes**, and enter the receiver number. pc/MRP will ask if you wish to track **Lot Numbers**. pc/MRP will display and receive each line item from the receiver. The onhand quantity of each part received will be increased provided pc/MRP is configured to do so in the configuration menu.

11.5.3 A - Adjust Onhand Quantities
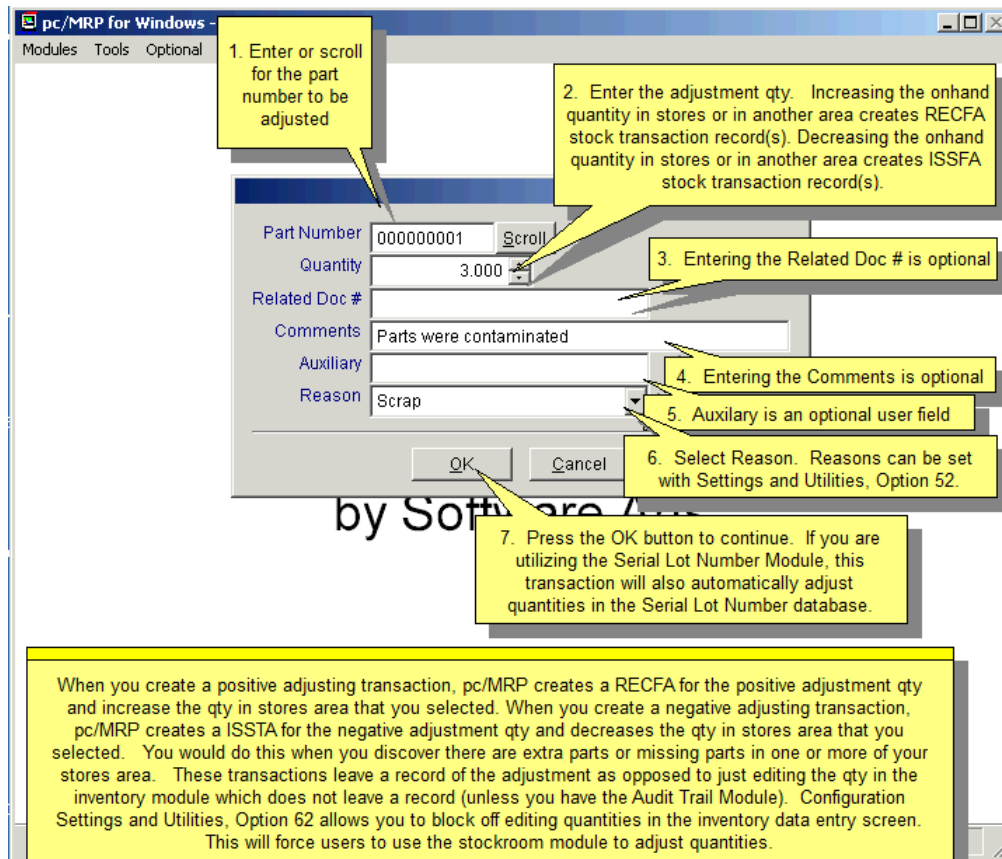
This option allows the onhand quantity of parts to be adjusted (increased or decreased). It leaves a record of the adjustment; while simply editing the part number qty on the inventory screen, would not leave a record of the adjustment. Increasing the onhand quantity in stores or in another area creates RECFA stock transaction record(s). Decreasing the onhand quantity in stores or in another area creates ISSTA stock transaction record(s). If you are utilizing the Serial Lot Number Module, this transaction will also automatically adjust quantities in the Serial Lot Number database.

The **Auxiliary** field is a 20-character field for your use and can be reported on as "All for an AUX value".

11.5.4 T - Return all Parts/Assemblies Issued to a Sales/Work Order

VFP - C:\V843 (User: DOUG)

Modules   Tools   Opt

Select stock trans-

- I - issue pa
- L - issue ad
- M - issue in
- P - issue m
- F - issue mu
- S - issue pa
- B - transfer parts b...   ...storage areas
- R - Receive co...   ...blies from mfg and Back Flush consumed component parts
- U - receive ...   ...rned parts from mfg (neg issue)
- V - rece...   ...from Receiving
- A - Adju...inventory onhand qtys
- T - reTurn all parts/assys issued to a sales/work order

OK   Cancel

pc/MRP Versions 8.46 and higher will allow you to use the T Option even if you have received some or all of the finished assemblies back from mfg, provided the sales order is open and none of the finished assemblies for that sales order have been shipped. With pc/MRP Versions 8.46 and higher, selecting the T Option will return all component parts (parts and sub-assemblies) that were issued to a sales/work order back to the original area. The original area qty will be increased by the Qty Issued. The Qty in WIP will be reduced by the Qty Issued - Qty Returned. The original sales/work order "Issued to Manufacturing" Field will be reset to "N" and the Qty Assembled Field will be reset to 0. The stockroom records will show Qty Issued = 0, Qty Required = 0 and Qty Returned = 0. If there were any finished assemblies, the original area qty of the finished assemblies will be decreased and the RECFM record will be zeroed out. pc/MRP versions 8.45 and lower would not allow users to use the T Option if any assys had been received back.

The T Option will NOT return back sales orders if qtyship > 0 or Complete = "Y".The T Option will return back Work Orders regardless of Complete or QtyShip.

With pc/MRP Versions 8.43 and lower, selecting the T Option will return all component parts (parts and sub-assemblies) that were issued to a sales/work order from WIP to the area selected by the user. The original sales/work order "Issued to Manufacturing" Field will be reset to "N". The stockroom records will show Qty Issued = 0 and Qty Required = 0. With pc/MRP Versions 8.43 and lower do not use this option if the line item in the sales/work has been received back from manufacturing.

Please note regardless of version, the T Option will return back the entire sales/work order and not a partial qty of the sales/work order.

This option allows users to un-issue sales or work orders from manufacturing. This option subtracts the quantity issued into WIP for each part and or subassembly to a specific sales or work order and increments inventory in the issuing area. The QTYISSUED, QTYREQ and Qty Assembled are also set to 0.

11.6   Edit/View/Delete/Undelete

This option allows users to scroll, edit, delete, undelete, or run queries on Stockroom records.
Selecting an **Indexed Search** allows users to search on indexed fields. This allows pc/MRP to find the information much faster. To perform an **Indexed Search** select the:
1. Indexed Search tab
2. Desired Sort Order, Document Number, Sales and Work order Number, Part Number, or Model Number
3. Enter the applicable data in the Begin Scrolling At: field
4. Select the desired Action, View or Edit
5. Press Search

pc/MRP will automatically scroll to the desired record or the nearest match. Select the correct record by scrolling and press **Ok** to proceed to the edit screen for that record.

Selecting to run a **Queried Search** allows users to build, run, save, and load queries for the Stockroom table. For further details, see Chapter 15.14.

Every field in the Stockroom table is editable. Users however need to understand several key concepts before editing stockroom records.
- There are three key fields in most stockroom transaction, **REQUIRED QTY, ISSUED QTY**, and **RETURNED QTY**. The **REQUIRED QTY** is the quantity required for this transaction. **ISSUED QTY** is the quantity actually issued for this transaction. If applicable to the transaction there may also be the **RETURNED QTY**, this is the quantity returned or back flushed for this transaction.
- When the **REQUIRED QTY** does not equal the **ISSUED QTY**, pc/MRP will flag this as a shortage in the stockroom shortage report. To correct a shortage where none exists, the job is already complete and returned from manufacturing; users must research to see what has happened. When performing the **R** type transaction pc/MRP will not warn users if a shortage still exists. Thus, in some instances, can make inventory be incorrect by not fulfilling makeup shortage transactions before the R type transaction. Users must research to see if the shortage needed to be fulfilled or if the job was completed with the shortage.
- If the shortage needs to be fulfilled, edit the **ISSUED QTY** to equal the **REQUIRED QTY** and manually deduct the difference from inventory.
- If the shortage does not need to be fulfilled, edit the **REQUIRED QTY** to equal the **ISSUED QTY**.
- There is a key of **TRANSACTION TYPES** in the edit screen of each stockroom transaction.
- Use the delete and undelete buttons to mark and unmark records for deletion. Once the record has been marked for deletion, return to the menu and select **REMOVE ALL DELETED RECORDS FROM DISK AND REINDEX.** Removing stockroom transactions will not automatically change inventory. It is not recommended to delete stockroom transactions. If users choose to delete stockroom transactions and they wish to adjust inventory, they must manually accomplish each task.

Scroll Partmaster

Allows you to scroll or search for a part number. Select scroll if you know the first part of the part number, model number, or description. Select search if you wish to find the part by entering a partial description. For example, entering **"elb"** would start listing at the first part, such as elbow, that have the letters **"elb"** at the beginning of their description. A more complete detailed search feature is available in the **Queried Search** feature in Chapter 15.14.1.

11.7 Reports

Selecting Modules, Stockroom, Reports will display the screen shown below.
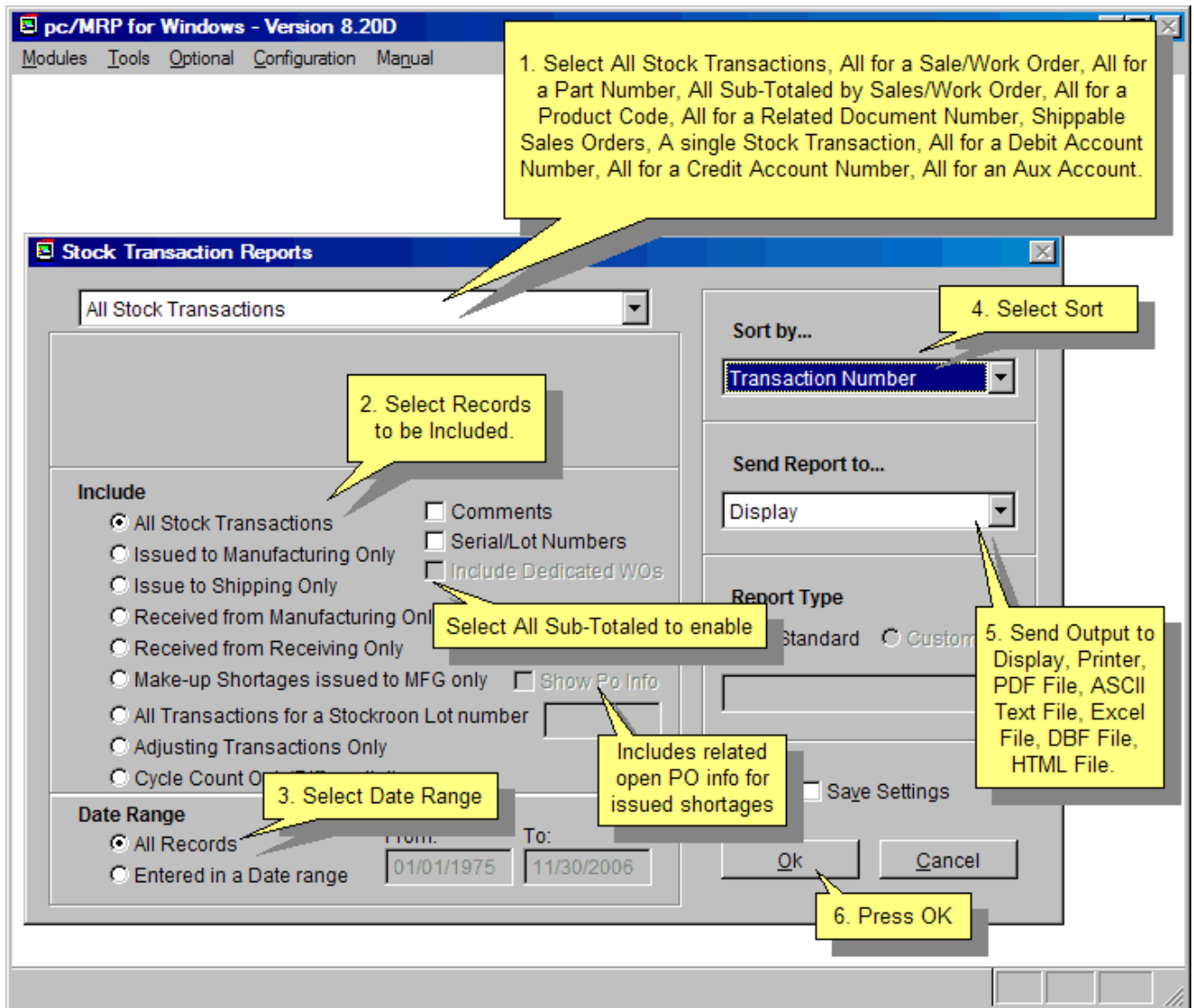
Selecting Make-up Shortages issued to MFG and check the Show PO Info box, pc/MRP will provide shortage amounts along with related open PO Information.

If you select All (stockroom transactions) Sub-Totaled by Sales/Work Order, Issued to Manufacturing Only and Include Dedicated Work Orders, pc/MRP will create a special stock issue report (swoincldewolog.frx) containing all the stockroom issues during the specified time period subtotaled by sales and work orders .

If the work order was dedicated to a sales order, it will appear under the parent sales order, provided they both were issued during the specified time period.

If a sub assembly was issued to the parent sales order and the sub assembly came from a dedicated work order that was issued during the specified time period, the sub-assembly cost under the sales order will be faded out and not included on the grand total for the sales and work orders.

If the dedicated work order was not issued during the specified time period the sub-assembly cost will not be faded out and will be included on the grand total for each sales order and its work orders. Version 8.20D faded out the sub- assembly cost and did not include it in the grand total regardless of the issue date of the dedicated work order.

11.8 Check Availability (of parts for a specified assembly)

Will print out the status (quantity on hand, quantity on order, and quantity required) for each part number in a specified assembly. pc/MRP will ask for the BOM number and the quantity required. You also have a choice of a single stores area, All Areas, Qty Available, and Avail-OnOrder. Next, select 'Parts Only' to check for parts infinite levels deep or 'Sub-Assemblies Only' for parts to one level deep. If any part is short, the report will list it as, "SHORT". This report is not as thorough as the Consolidation Report in Purchasing (7.6.3.2 Consolidated Single Bucket MRP Report) as it only looks at what is currently on hand in the selected stores area. A narrow carriage print out will include a purchasing history of parts that are short. A wide carriage printout will include reference designators.

If you select Print and Parts Only, the Check Availability will include PO Status for each part number that is short.

If you check Factor in 'On Demand' for the Check Availability report, it may not agree with the 'On-Demand' qty found in the inventory screen because the report's on-demand qty subtracts the qty issued while the screen's' On Demand' does not.

To see how long it would take to build an assembly, run a Cumulative Lead Time report. This report will use your current onhand quantities to calculate what is available and what needs to be ordered, and consider how long each step of the assembly takes. The longest lead time will show the cumulative lead time of the top assembly.

11.9   Maximum Potential BOM Build

The Stockroom module allows one to see how many of:
All Assemblies
Listed Assemblies
Top Assemblies only
Sub-Assemblies only
Can be built from the onhand qty in certain inventory areas.
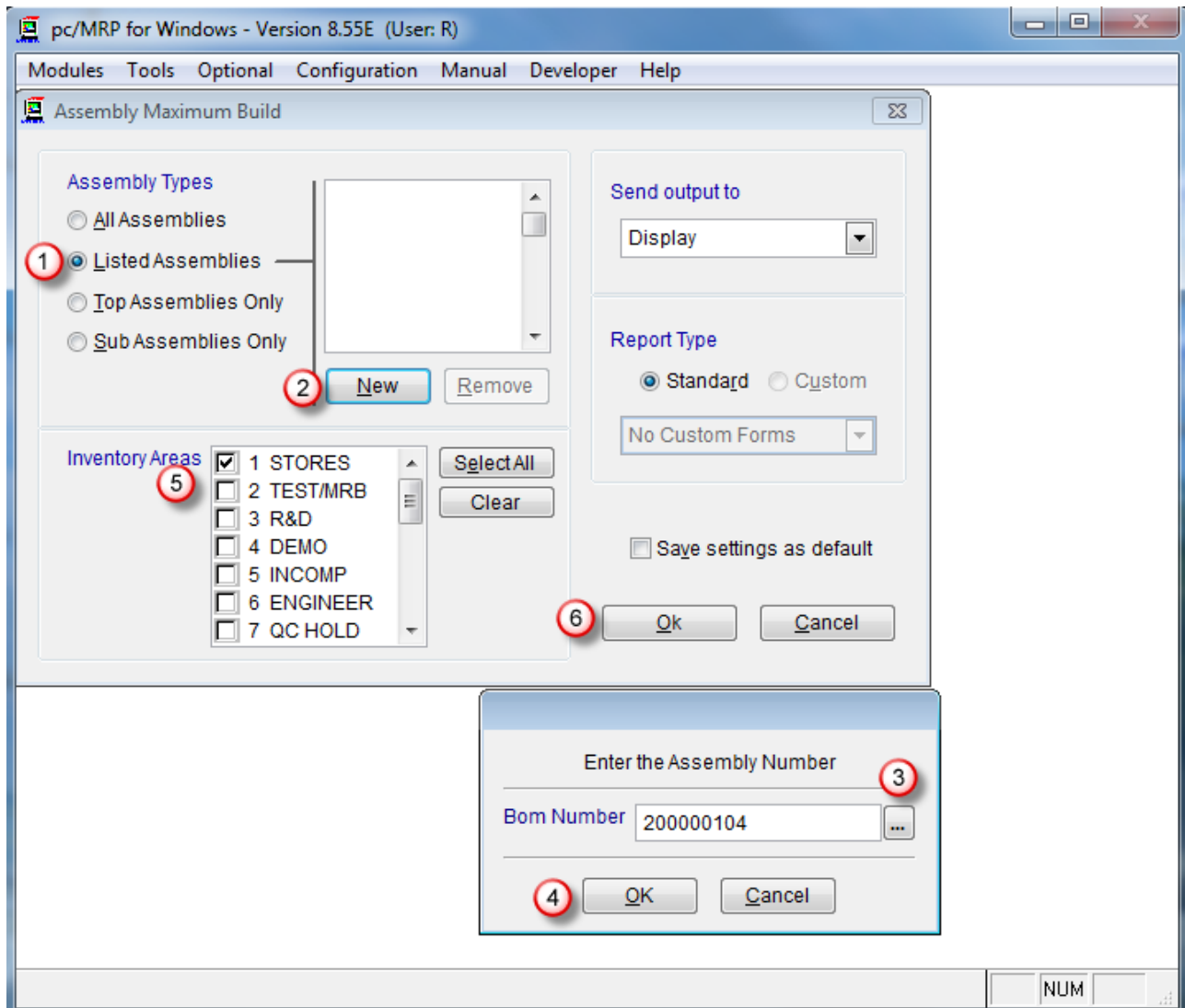
After selecting 'Maximum Potential Build',
1.   Select Assembly Types
2.   Press New
3.   Select the Assembly Number
4.   press OK
5.   Select Inventory Areas to include for getting the parts to build the assemblies
6.   Press OK to see the report as shown below

pc/MRP for Windows - Version 8.55E (User: R)

Modules   Tools   Optional   Configuration   Manual   Developer   Help   Printer

Print Preview - BOMBUILD.FRX

Trexx Bicycles

DATE : 03/10/2011

PAGE NO:1

BOMBUILD.FRX

Maximum potential number of Boms that can be built for Listed Assemblies
Areas Included: Onhand

BOM NUMBER	DESCRIPTION	DIVISION	QUANTITY IN INVENTORY	MAXIMUM BUILD QTY
200000104	Brake Assembly Rear Kit		0.0000	0.0000

Bomlist   Record: EOF/1   Exclusive   NUM

11.10 Convert Parts to Assemblies

Provides a shortcut method that automatically converts parts into assemblies. This routine bypasses putting parts into WIP and using a work order number to record the transactions. If you select the print out option, you will receive a printed record of the transaction that can double as a PICK list.

We recommend using the Stockroom's "**I**" and "**R**" – type transactions instead of "**Converting parts to assemblies**" because in the latter case:

There is no traceability to the actual sales order and invoice especially for serial lot numbers.

There is no ability to trace and fill shortages on the manufacturing floor.

The MRP and Inventory Movement Reports may reflect onhand qtys of finished goods that are not completed.

pc/MRP will create stockroom issue to manufacturing records for each part number and a receive from manufacturing record for the finished assembly(s). These stockroom transactions will allow the Inventory Movement report to be more accurate. pc/MRP will disable this option if a file named '**NOCONVERTPARTSTOASSY.FLG**' exists in the pcmrpw directory.

If any of the component parts are short and you check Issue Parts Automatically, pc/MRP will drive the quantity of part numbers with shortages negative.

If any of the component parts are short and you un-check **Issue Parts Automatically**, pc/MRP will allow you to select the quantity you wish to issue.   This is not a good option because there is no mechanism to automatically fill shortages when the parts do come in.

Convert Parts To Assemblies with a Negative Quantity

Not recommended for the same reasons outlined above. However, if you must, please see the note on the slide above. (Remember, you **MUST** select '**Parts Only**'.)

11.11 Special Cases

11.11.1 Special Cases - Issuing Reels

Reels containing thousands of electronic components that must be issued to an assembly vendor or the manufacturing floor present a special issuing and tracking problem, as you must issue more than the quantity required to the machine picking off the required number of components. This can be resolved in one of the following ways:

- Let pc/MRP issue the required amount but physically issue the reel. Consider the reel as part of the stock room stock even though the reel(s) are on the manufacturing floor. If extra parts were issued from the reel, enter an **"L"** type stockroom transaction to cover the extra quantity issued.
- Let pc/MRP issue the required amount (automatically or manually). Once you are finished with your **"I"** type issue for that sales/work order number, enter an **"L"** type stockroom transaction and issue the remaining quantity on the reel. Before the sales/work order is returned from manufacturing as finished assemblies to the stock room along with the reels, enter the quantity remaining on the reels using the stockroom's **"U"** type transaction ("Returned unused parts from manufacturing to stock"). Select "Reduce Required and Issued Qtys". Once you have returned all the reel quantities with **"U"** type transactions, you can return the sales/work order as completed assemblies using the stockroom's **"R"** type transaction.
- Let pc/MRP issue the full reel by un-checking the "Issue Parts Automatically" checkbox and entering the full quantity on the reel. When you do the **"U"** type stockroom transaction to return the unused quantity, select "Reduce the Issued Quantity Only". This method has the disadvantage of not allowing the reel to be available to other sales/work orders until the reel is returned with the transaction. See Section 10.10.1 "Receive Unused Parts from Manufacturing".

11.11.2 Special Cases - Handling Scrap Parts

You have used the Stockroom's 'I' Transaction Type to issue all the parts for 200 bicycles for a sale or work order.   Part of the issue included 200 inner tubes.   Two of the inner tubes are defective.

Use the Stockroom's 'L' Transaction Type to issue two more inner tubes to the sales or work order.
OR
Use the Stockroom's 'U' Transaction Type to return the two defective inner tubes to an area designated as scrap. Select 'Reduce the Quantity Issued' but not the 'Quantity Required'. Use the Stockroom's 'P' Transaction Type to issue two more inner tubes when they become available.

Once the bicycles are built, use the Stockroom's 'R' Transaction Type to receive back the 200 completed bicycles.

Please note that pc/MRP's Serial/Lot Number module will record the serial numbers for 'I', 'R', 'A', 'U', and 'L' stockroom transactions.
.

11.11.3 Special Cases - Reporting Inventory Scrap transactions

OPTION 1:
Stockroom 'B' transactions allow transfer of parts from one stores area to another stores area.
Transferring from Stores area 1 to another area only creates an 'ISSTB' stockroom transaction, whereas transferring from say R&D stores area to 'Scrap' stores area will create both an 'ISSTB' and a 'RECFB' record.

Now, if you wish to track all transactions affecting the 'Scrap' stores area, you could enter the word 'Scrap' in the 'Rel Doc No' data field in the Stockroom 'B' type transaction and then run the Stockroom, 'All for a Related Document Number', and enter 'Scrap' in the 'Related Document #' data field. Select 'Partial' for the 'Match Type' (this means Starts With...), and then select for Include, 'All Stock Transactions'. For just a partnumber of group of product codes, append the partnumber product code to the word 'Scrap' when entering into the 'Rel Doc No' data field of the stockroom transaction and the report's 'All for a Related Document Number' data field.

Other Stockroom transaction types will require you to edit the transaction after entry so you can enter the 'Rel Doc No' data.

OPTION 2:

If you know there is always a certain percentage of un-usable parts in a batch of parts used to build an assembly, include the percentage in the BOM required quantity for the part (if the part is not in a liquid form, round up to the next whole number).

As an example:

The capacitors used in the assembly have a known failure rate of 10%. Therefore, adjust the quantity required in the assembly to 110% (if the part is not in a liquid form, round up to the next whole number). This will allow the purchasing department to automatically order the optimum part quantity and the stockroom issue transaction have the optimum quantity available of the part to complete the assembly(s).

If you need to use more capacitors because in a particular case the un-usable parts exceeded the 10%, use the stockroom "L" type transaction to issue more capacitors to the build.

If you did not use all the "extra 10%" of the capacitors in the build, use the stockroom "U" transaction to "Return unused parts from manufacturing to stock".

You can also use the "U" transaction to return the scrapped parts to the Scrap stores area as in Option 1 above.

11.11.4 Special Cases - Handling Finished Assembly Yields

You have used the Stockroom's 'I' Transaction Type to issue all the parts for 200 circuit boards for a sale or work order. Use the Stockroom's 'R' Transaction Type to receive back the 200 completed circuit boards into a stores area. Inspection rejects five of the finished circuit boards 'A' (This must occur after the Stockroom's 'R' Transaction Type).

Use the Stockroom's 'B' Transaction Type to move the 5 finished/rejected Circuit Boards from a stores area to a scrap area. At the end of the financial period, print out an inventory value report for the scrap area (cuspar01-11). Make an accounting adjusting entry for the value of the scrap; credit Inventory asset and debit a COG type account. Use the Stockroom' 'A' Transaction Type to decrement the quantity in the stores area by 5.

Please note that pc/MRP's Inspection Module provides a record of the inspection, and the quantity rejected but does not adjust any on hand quantities.

Accounting should be notified of any 'A' type adjustments to inventory so they can adjust their inventory asset and COG account values.

11.12 Queried Search Overview (see 15.14.1)

11.13 Indexed Searches (see 15.14.2)

11.14 Index (see 15.14.3)

11.15 Remove Marked Records (see 15.14.4)

11.16 Remove Over X Years (see 15.14.5)

12 Bill of Materials Module

12.1   Bill of Materials Overview

A Bill of Materials, BOM, can be described as a list of items required to produce a finished assembly or sub-assembly. For example, a bill of materials for a circuit board might consist of resistors, diodes, and the raw circuit board itself. The finished board could in turn be a sub-assembly for a finished product such as the radio BOM shown below. An on-line slideshow is located here:
http://www.pcmrp.com/mrp101/bommodulesnew.htm
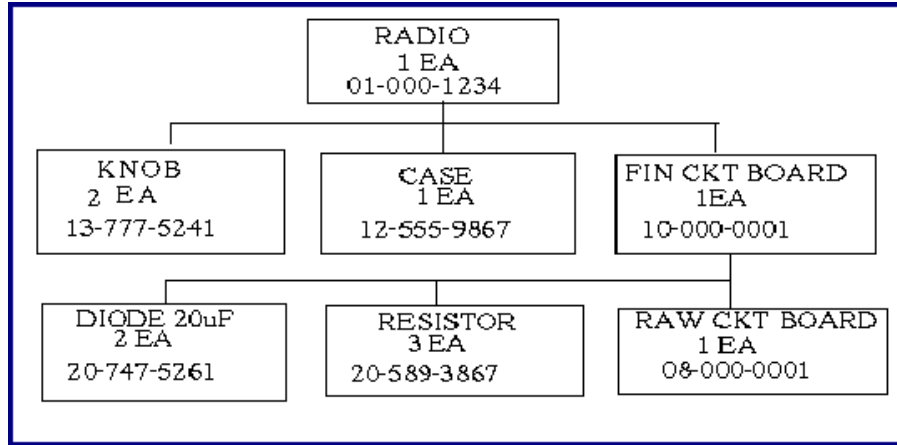
A Bill of Materials could be called a recipe, formula, cut list, etc. pc/MRP can accept BOMs infinite levels deep. When entering a BOM you must enter the lowest levels first as pc/MRP is always checking if the part or sub-assembly exists. In the above example, you would first enter the diode, resistor, and raw board into the part master as parts. Then you would enter the finished circuit board bill of materials listing all of the parts that go into a finished circuit board. Next the knob and the case. Finally you could enter the radio bill of materials.

pc/MRP uses the BOM files to provide PICK Lists, Where-used Reports, Purchasing Consolidation Reports, Assembly Costs, and to correctly issue and track inventory.

BOMs are not limited to manufacturers, for example, restaurants can correctly track inventory by entering their recipes into pc/MRP's BOM file.

A single level printout of an example BOM is shown below:

An exploded printout includes sub BOM parts and their respective quantities. pc/MRP uses a technique called indenting to help illustrate how the sub assemblies fit together with other sub assemblies to create the final assembly. The same example BOM in an exploded printout is illustrated below:

```
KINAMED
BOM NUMBER     : 000000012                              REV    :
BOM DESCRIPTION: REAR END ASSEMBLY                      MODELNO:
DATE           : 12/29/97
QTY            : 1.0000

UNCOSTED EXPLODED LEVEL BOM REPORT

P/B ITEM BOM/PART NUMBER              DESCRIPTION                   LOCRTE
PART 002 000000004                    REAR TRANSAXLE                TSTPP
BOM  001 000000010                    WHEEL ASSEMBLY12345678901234567890
  PART 003 000000001                  BearING 3" ID 5" OD STAINLESS STEE   123456
  PART 004 000000002                  SPOKES 10" x .125 DIA SS ALLOY       TSTPP
  LABR 006 000000020                  LABOR, JOURNEY MAN                   TSTPP

        BOM COMMENTS:
```

12.2   Enter a New BOM

Note: See Section 15.11 Importing Data Files in this Manual about importing BOMs from other applications.

Select **Modules**, **BOM**, and **New,** to enter a new Bill of Materials into the BOM Database File.

Enter the new **Bill of Materials Number** (bomno) and **BOM Description** (bomdescri). The wording of the description should be such that it prints out logically on an alphanumeric part list. If pc/MRP finds that the BOM Number already exists in the Inventory or BOM data base files, it will display an "Already Exists" error message.
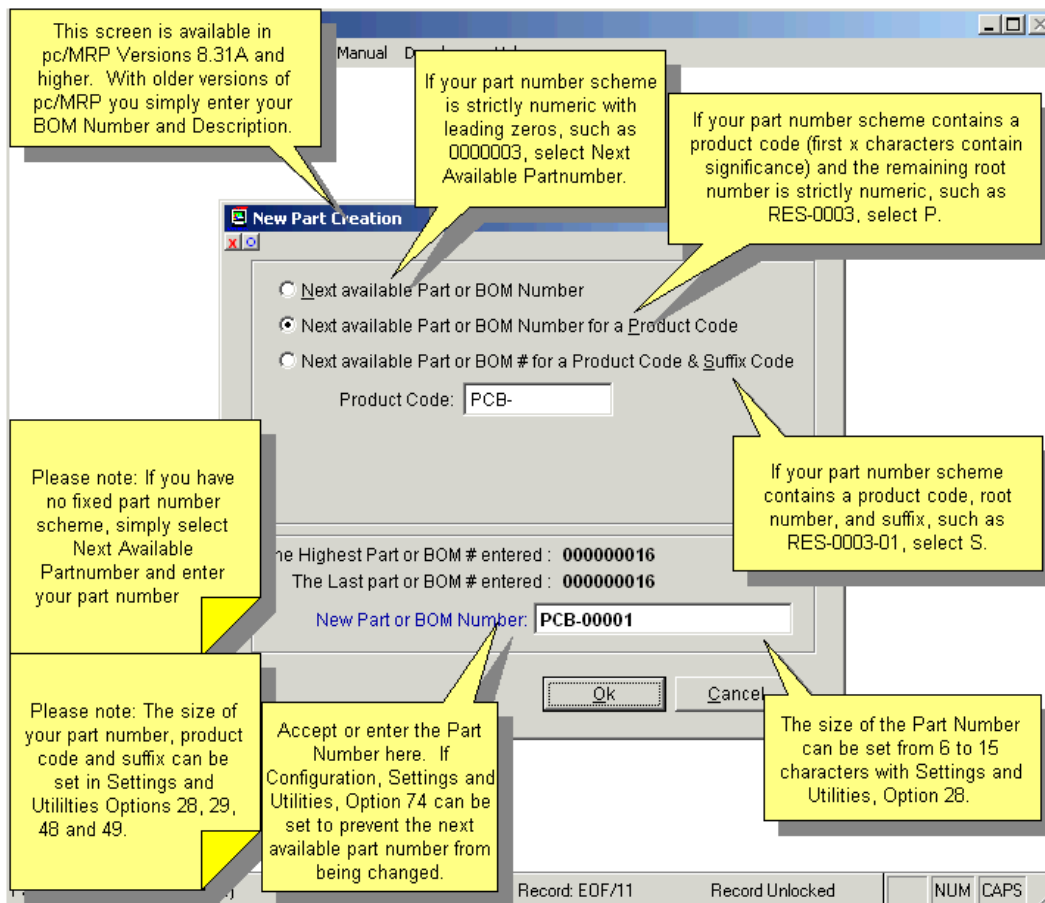
12.2.1 Enter a Part or Sub-assembly Number
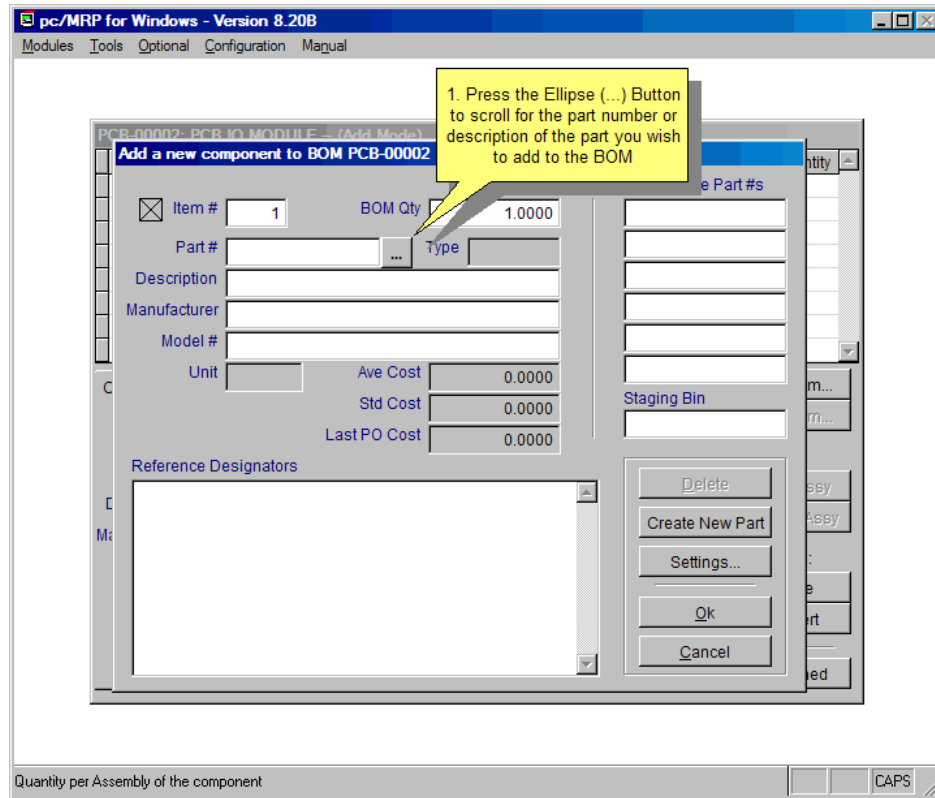
Press the ellipse (…) button to scroll and lookup the part or assembly number to be inserted into the BOM. You can look up part or assembly numbers by part number, description or model number. If you tried to enter a part/assembly that does not exist, you will have to exit this BOM, enter the part (or build the lower level assembly) first, than add it to this BOM. BOMs must be built from their lowest level up. (Or, see Create New Part below.)
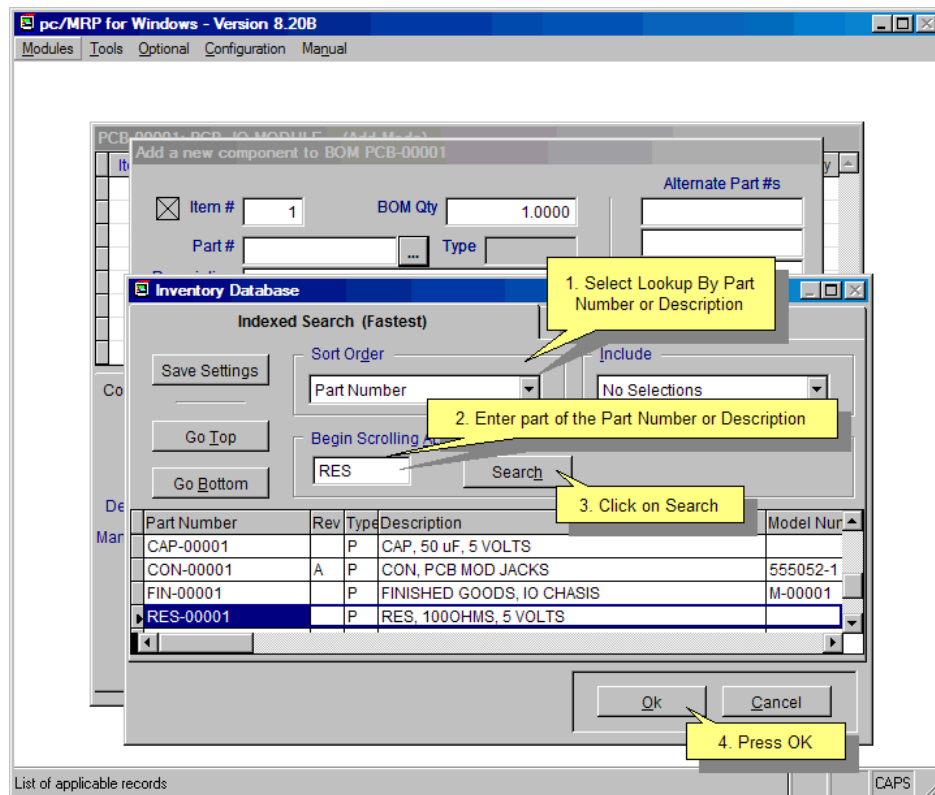
12.2.2 Enter Quantity, Reference Designators and Staging Bin Number

The **Item Number** (Itemno) will automatically increment as additional parts or assemblies are added.

The **Part Type, Description, Manufacturer, Model Number, Unit,** and **Costs** are brought over automatically from inventory. The BOM screens will accept but **not record** changes to the Part Data (Part Description, Manufacturer and Model Number).

Enter the desired **Quantity** (Qty) of this part or assembly to be added to the BOM.

The **Alternate Part Numbers** (altpart1-altpart6) can be entered manually or automatically brought over from inventory depending on how you have set the alternate part numbers to be entered with the **Settings** button (see 12.1.11).

An infinite number of **Reference Designators** (refdesmemo) can be entered for every part within the BOM. Enter the Reference Designators.

Enter the **Staging Bin Number** (stagebin) if you desire the parts to be sorted into different manufacturing assemblies.   The single/exploded Pick Lists (picbom.frx) can be sorted by staging bin.

The **Create New Part** button will allow you to enter a new part number into inventory on the fly without having to go to the Inventory Module to enter the new part number

Press the **OK** Button to save this entry.

12.2.3 Add Another Part to the BOM
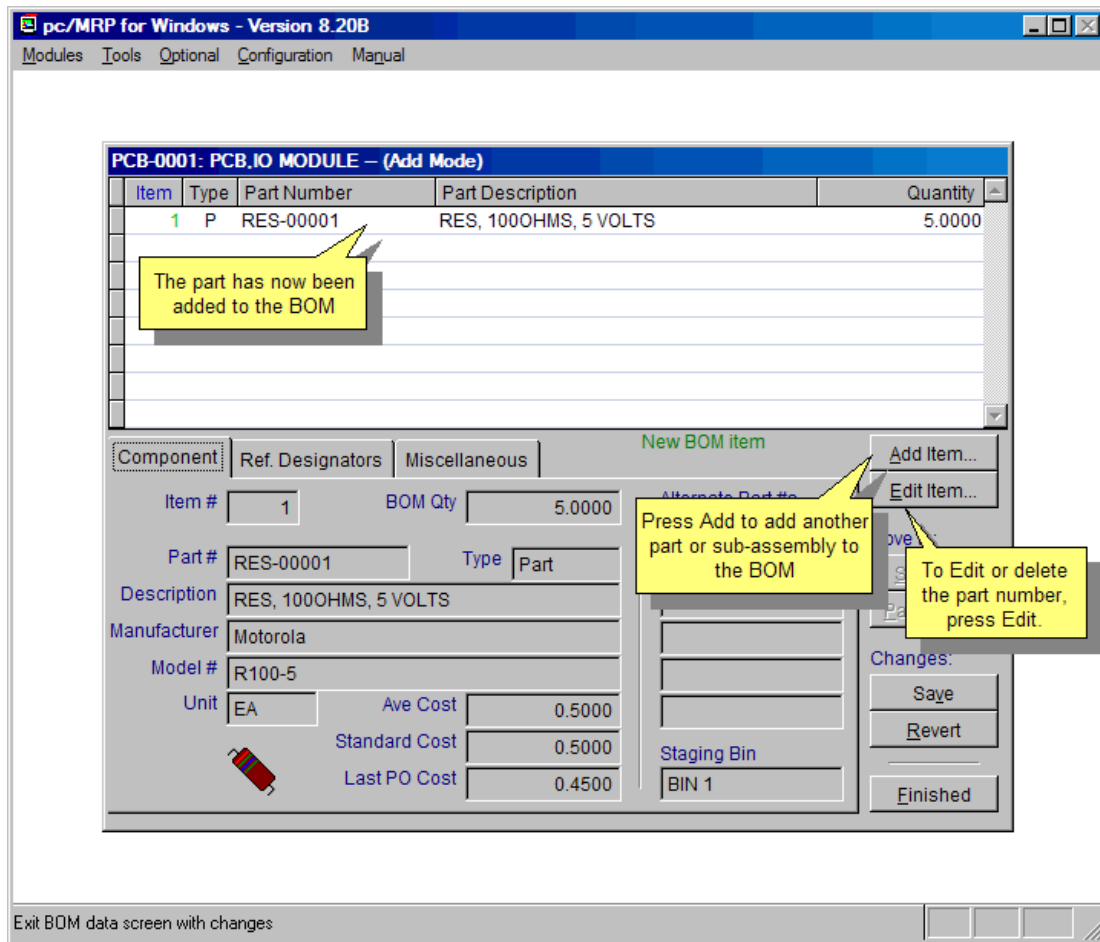
Once you have pressed the OK button, another part or sub-assembly can be added to the BOM by clicking on the **Add** Button.

In addition you can edit or delete a line item in a BOM by clicking on the **Edit Item** button. If you mark a line item for deletion, the line item will be displayed in red.

The parts and sub-assemblies that make up the BOM will be displayed in a grid as shown above. The grid will contain the following columns. The **Item Number** column contains the BOM item number for that part in the BOM being displayed. The **Type** column represents the type of component it is, P = component Part, A = Assembly, L = Labor. The **Part Number** column contains the part/sub-assembly number that goes into the BOM being displayed. The **Description** and **Quantity** columns are self-explanatory. You can sort the displayed list by clicking on the column heading (Item, Type, etc.) you wish to sort on.

12.2.4 Save BOM

To save your changes to the BOM, press the **Save** Button and continue working. To discard your changes, press the **Revert** button. To save your change and return to pc/MRP's main menu, press the **Finished** button.

Right-click on the **Item** column label to re-sort the item numbers (see below):
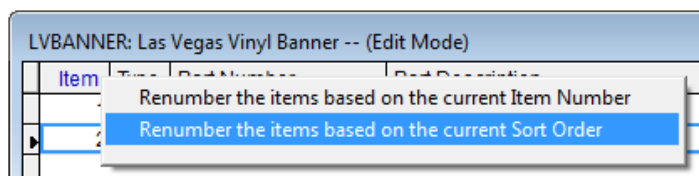
12.2.5 Reference Designators Tab
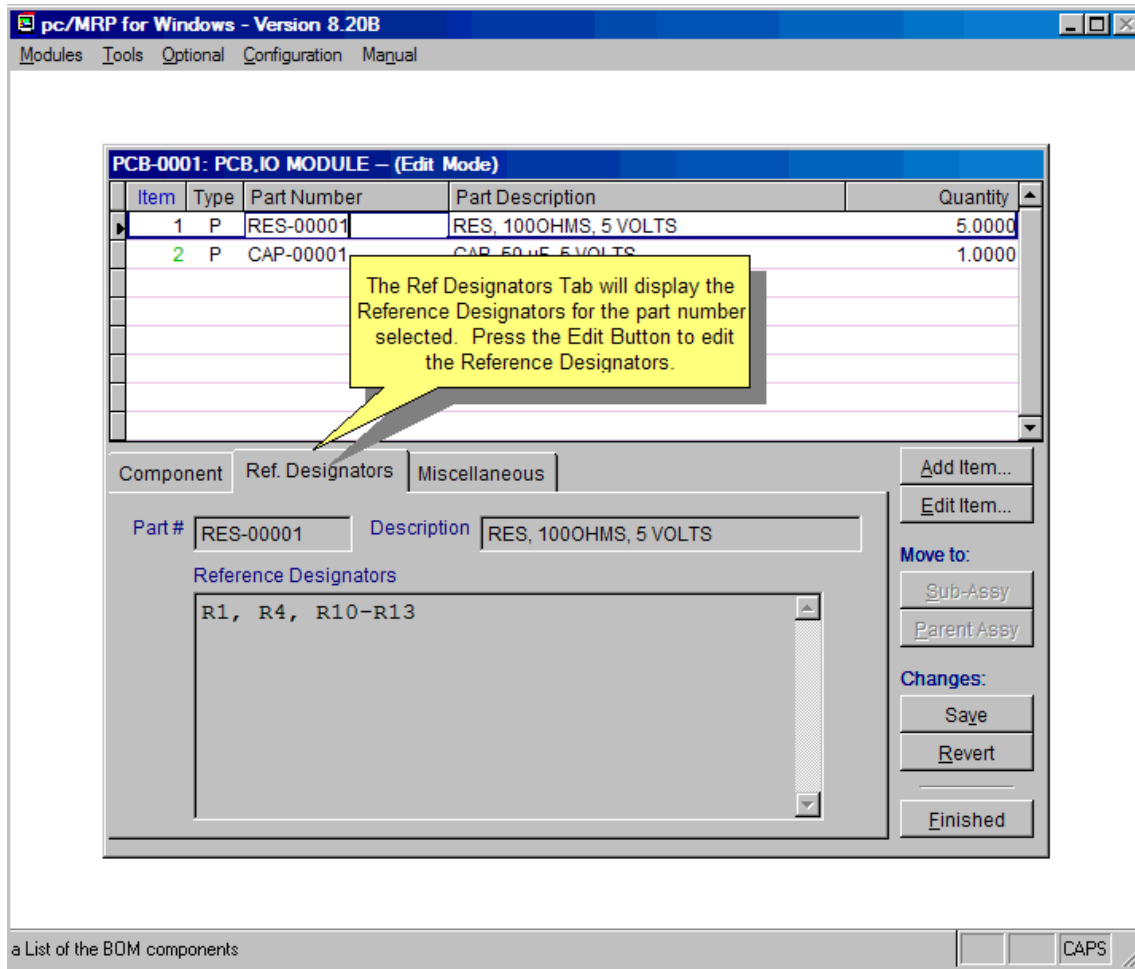
Clicking on the Reference Designator Tab will display the reference designator page shown above.

The Reference Designator field can have an infinite length and can be printed out on an Uncosted Single Level Bills of Materials Report. It is used by circuit board manufacturers to help assemblers know where to place components on the circuit boards is C1, C2, C3, etc. It can be used by regular manufacturers to list special instructions for assembly, such as, cut 13" long.

Note: When importing BOMs (see Ch 15.11) pc/MRP can import the entire content of the Refdesmemo field. **Version 8.72D** and lower had a 255 character maximum.

12.2.6 Miscellaneous Tab
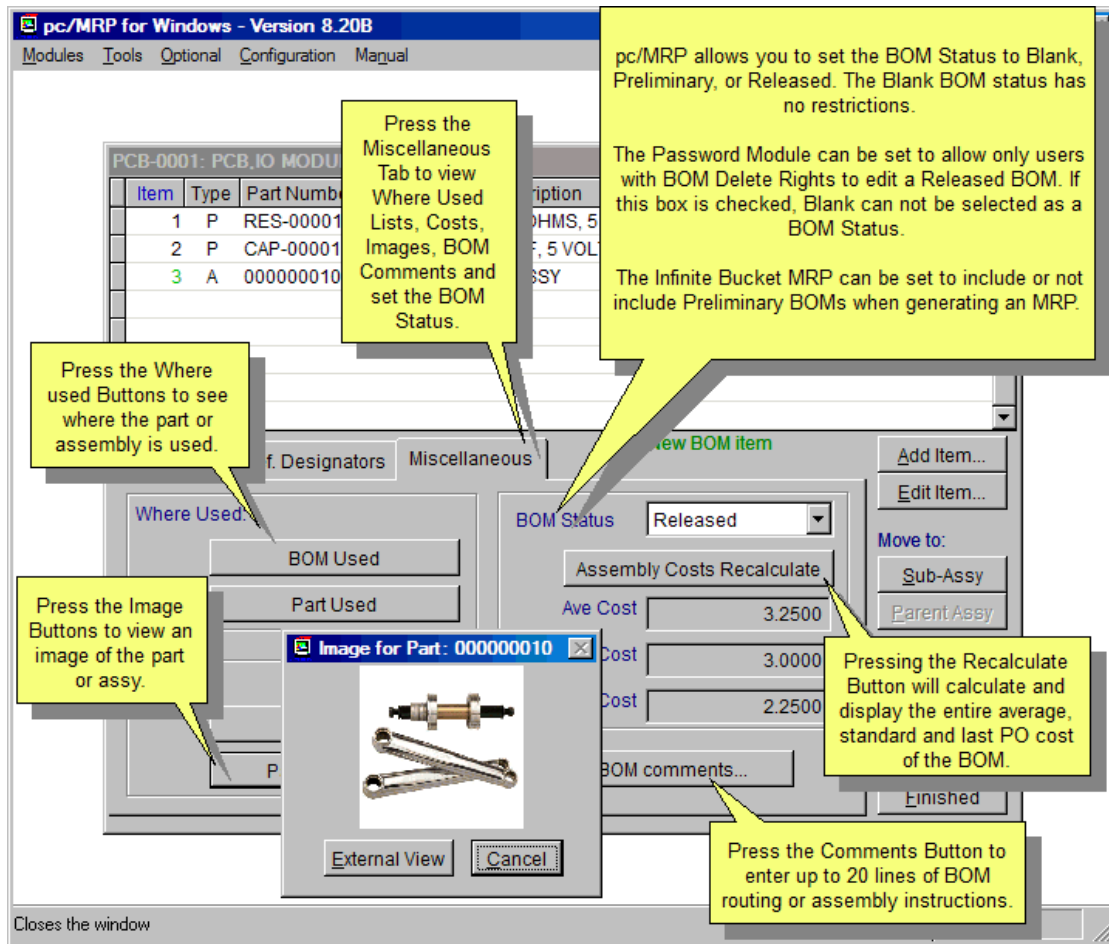
Clicking on the Miscellaneous Tab will display the page shown above.

The **BOM Used** and **Part Used** buttons will display where they are used in other BOMs. The **BOM Image** and **Part Image** buttons will display a picture or document of either, if the picture or document exists in the part's inventory record. This page will display the **Average, Standard,** and **Last PO Costs** of the BOM you are modifying.

The behavior of the **BOM Status** (partmast.bomstatus) field depends on whether or not the '**Editing released BOMs requires Delete rights in the BOM module**' box in the **Password** module is checked.

- If the user does not have the PW module or the box is not checked, the BOM status can be set to **Blank, Preliminary, or Released**. For a newly created BOM, Blank is the default status. Note: The Infinite Bucket MRP can be set to include or not include Preliminary BOMs when generating an MRP. (Blank status BOMs will always be included.)

- If the above box is checked, the BOM status can be set only to **Preliminary or Released.** For newly created BOMs Preliminary will be default. Already existing BOMs with a Blank status will remain Blank. Once changed to either Preliminary or Released, the status can not be changed back to Blank. Only users with BOM Delete rights are able to edit Released BOMs.

The Assembly Costs **Recalculate** button recalculates and displays the costs. This calculation goes one level deep.

Clicking on the **BOM Comments** button will allow you to enter comments applicable to the entire BOM. The comments field can contain up to 20 lines of routing or assembly instructions for that BOM.   The BOM Comments are stored in the rtmplate.dbf database file.

12.2.7 Move to Sub-Assembly Button

To drop down into a sub-assembly, select the sub-assembly in the grid and then click on the Sub-Assy Button as shown above.

12.2.8 Move to Parent Assembly Button

To move back up to the parent assembly, click on the **Parent Assy** Button as shown above.

12.2.9 BOM Settings Button

Clicking on the Settings button when adding or editing a BOM part number will display the screen shown above.

The **Component Lookup** drop down list box allows the user to set the method the BOM module looks up part numbers. The options are:

- **Whole Data Base** - This method uses an index that is sorted by the field you are looking up the part on. It will stop and display the remainder of the database at the first record that matches the characters you typed in. This is the fastest lookup method possible. Its only drawback is that if you are looking for a listing of all your bearings, it will only find the records whose description start with the letters "bearing" and would not find the records such as "SS Bearing".

- **Starts With Entered Characters** - This method is also fast and similar to the first method. The only difference is that this method will only display the matches and not any of the records that follow the matches.

- **Contains Entered Characters** - This method starts fast when the database is small. However, as the database grows in size, this method will become slower as it must search the lookup field in each record looking for the word such as "bearing". This method would find and list a record starting with "SS bearing". With 20,000 records in the BOM file, this lookup could take up to 20 seconds depending on your PC and network.

Checking the **Transfer Alternate Part Numbers** check box will set pc/MRP to automatically transfer alternate part numbers from the part number in inventory into the BOM record. If the alternate part numbers are BOM specific, do not check this check box.

12.3   Edit/Delete a BOM Component

(To delete an entire BOM, see the next section.)
This option allows users to scroll, edit, delete, undelete, or run queries against BOM records. If you set the sort order to BOM Number (Unique) and click Save Settings, each BOM will only be displayed once in the scroll window. Select the desired BOM. The Edit screen is similar to the Entry screen, described in Section 12.2.3.

Select the desired item in the BOM and click on the Edit Item button. Now you can make your changes or mark the item for deletion. Now the deleted items are displayed in red. Deletion is a two step process; later you will need to select BOMs, Remove Marked BOM Records do permanently remove them from the database. For this step you will need to be the only user accessing pc/MRP.

Note: Versions 8.81B and higher allow users to mark multiple items for deletion, on one screen as shown below.
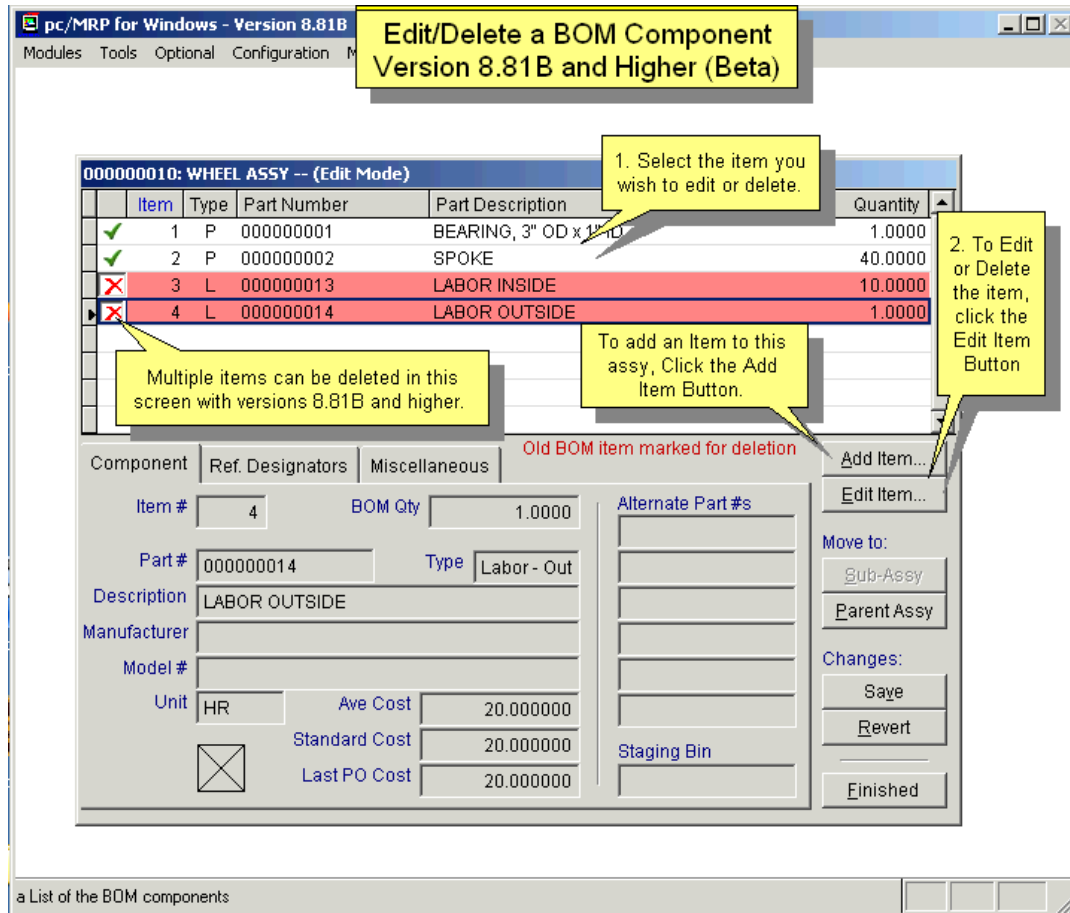
12.4   Delete an Entire BOM

Allows you to mark an entire BOM for deletion or un-deletion as shown on the screen below:
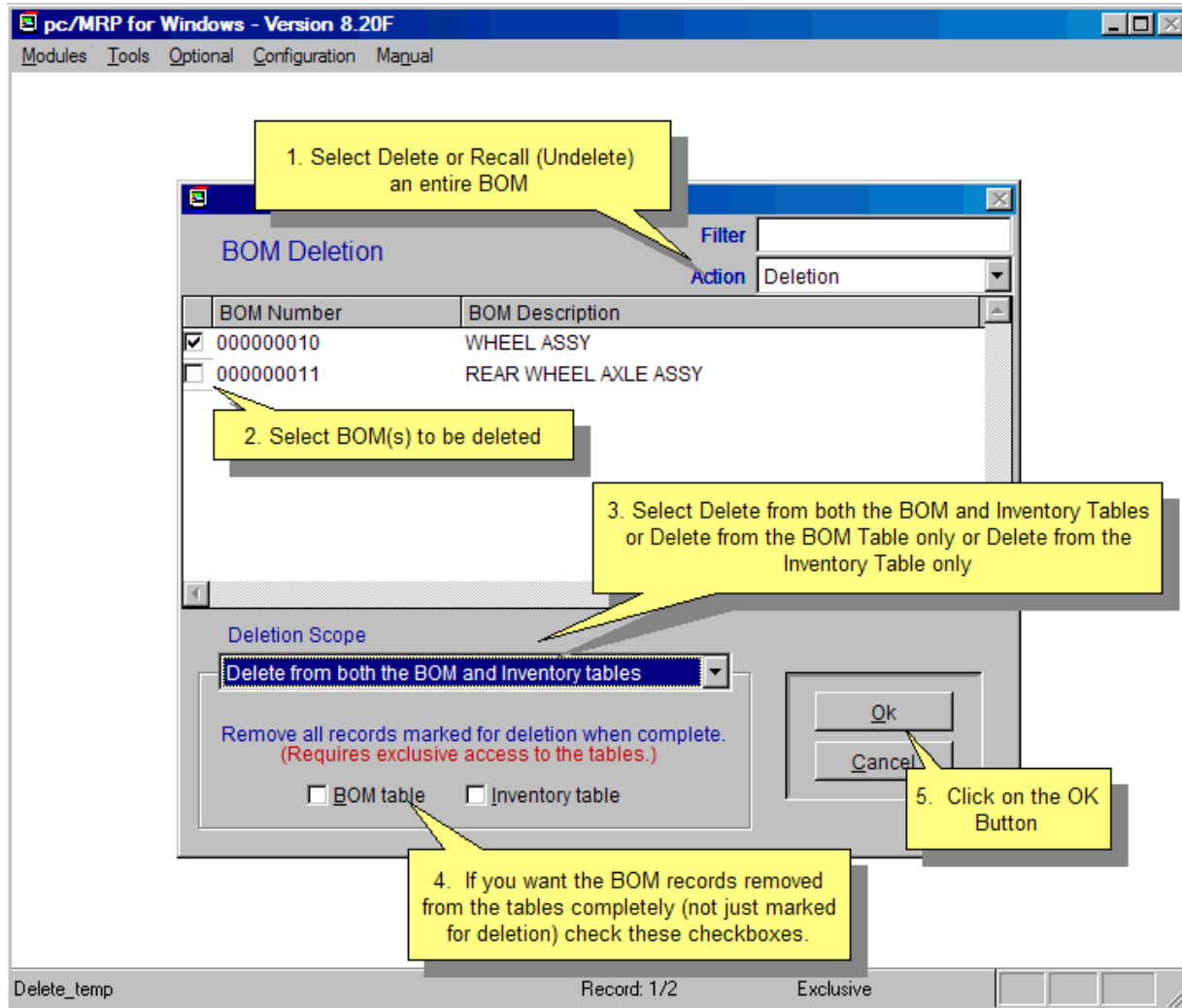
12.5   Duplicate a BOM

This feature is useful when the newly created BOM only slightly differs from an existing BOM. pc/MRP will ask for the new BOM's name and description, and create this new BOM with the exact same parts and sub-assemblies as the original BOM. You will need to modify the new BOM, as you would normally edit a BOM.

12.6   Change a BOM Number

Allows you to change a bill of materials number without having to edit every record that contains that bill of material number. pc/MRP also changes the part number in inventory.
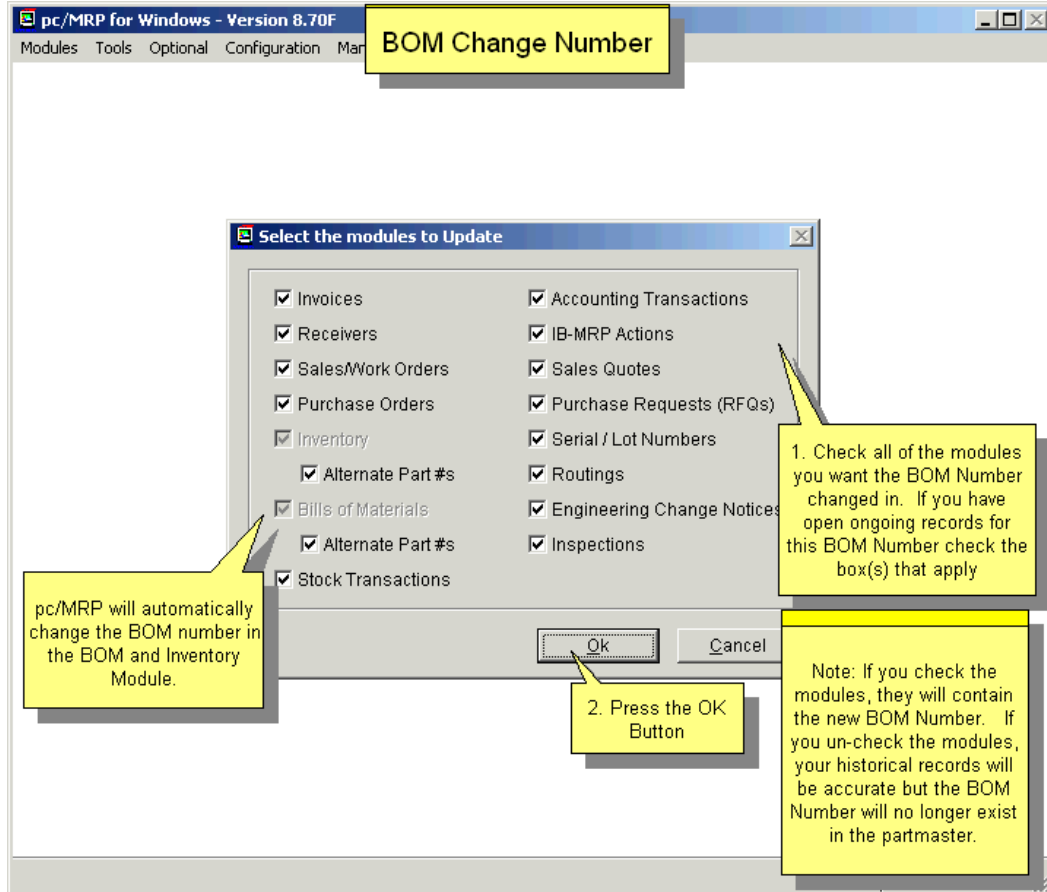
Warning: In case you would be changing a **blank** BOM number to a valid BOM number, make sure that you uncheck both "**Alternate Part #s**" fields. Keeping these fields checked will tell pc/MRP to fill up all blank altpart#s with the new BOM number in your entire Inventory in BOM table -- and pc/MRP will do just that.

12.7   Change a BOM Description

Allows you to change a Bill of Material's description without having to edit every record that contains that bill of material description. pc/MRP also changes the description in inventory.

Part Number Replacement

Allows you to replace one part number with another part number in any BOM containing the original part number.   You select the BOMs that you want the part number replaced in.

12.8   Reports/Lists

Allows you to print or display BOMs, PICK Lists, and Where Used Reports.

See Section 15.4.1 to create custom reports. pc/MRP versions **8.73K and higher** will include the contents of the RefDesMemo field when sending the report to Excel.
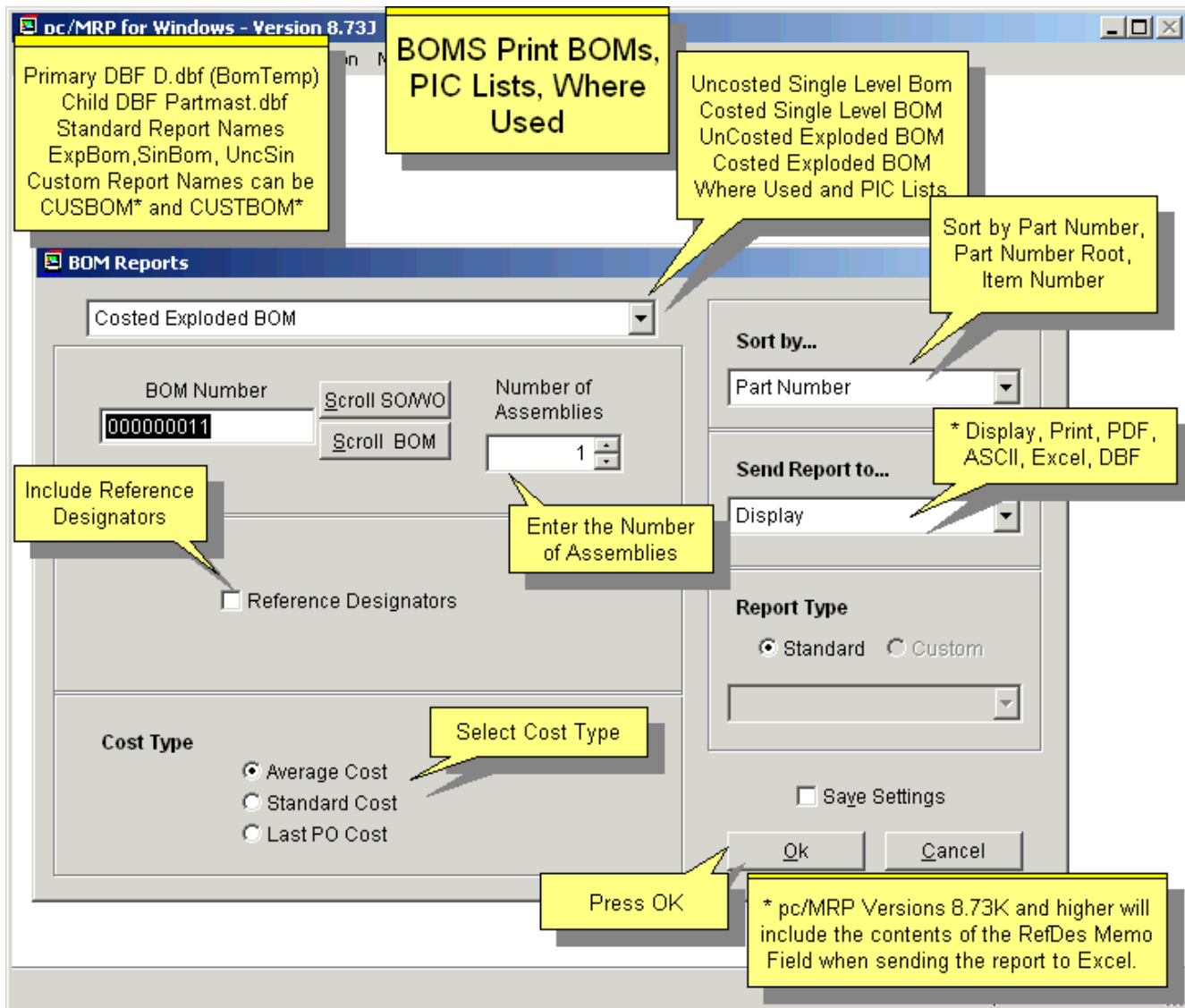
A Costed Exploded BOM would print/display as shown on the screen below:
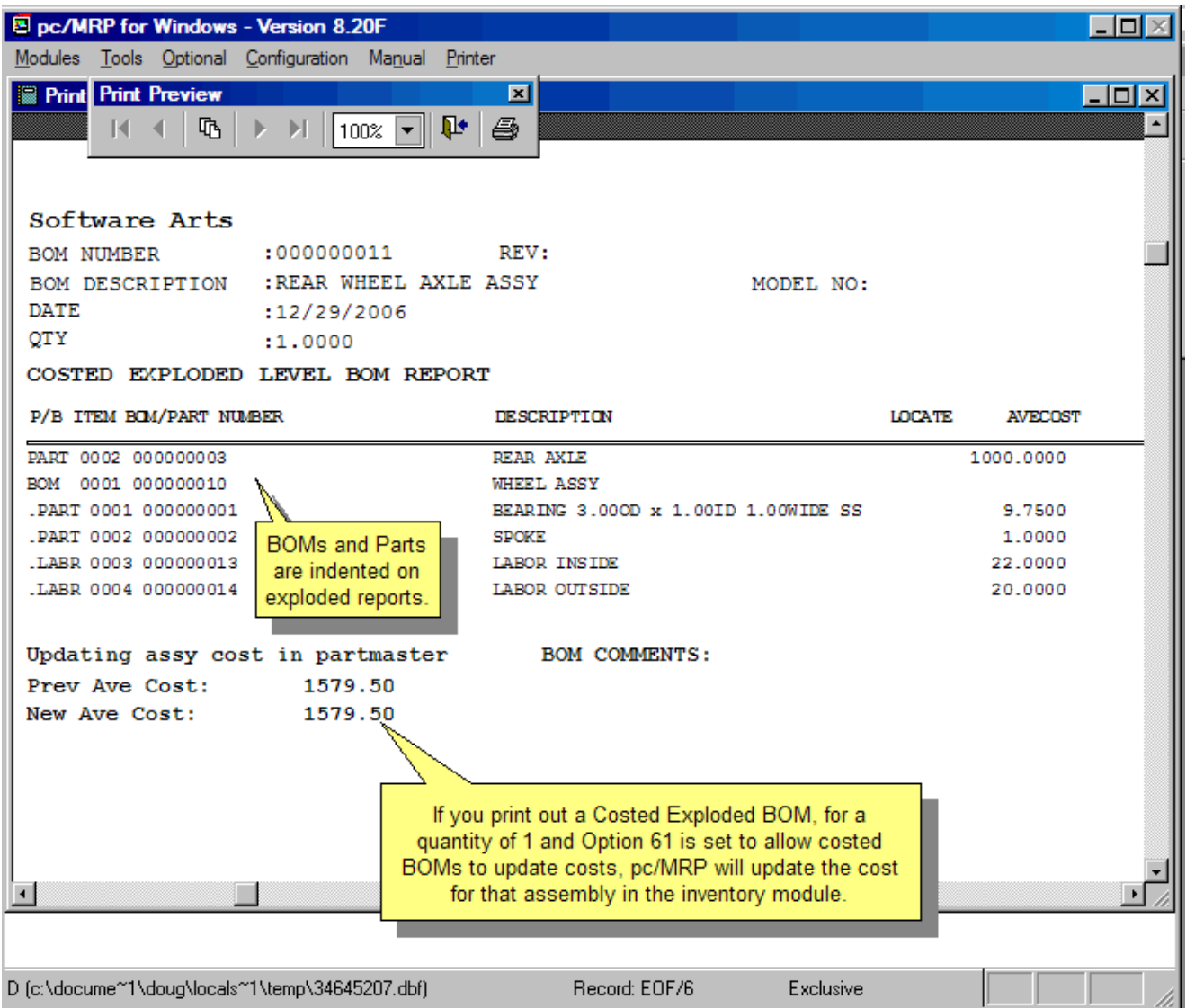
Note: To ensure that all BOM and sub-BOM costs are correct, perform cost roll-ups for **All** BOMs.

The **Where Used Report** will provide a printout for all parts or for a specified part number. The printout will provide a list of every assembly that uses that part number. It will also note parts that are not used in any assembly. The latter feature is designed to help reduce inventories and inventory write-offs. If the **Single Part** option is selected, users can include all levels of the assemblies where the part is used.

PICK Lists are used by stock room personnel to print out the parts required for an assembly or sub-assembly.

An exploded PICK list includes all of the parts including parts from sub-assemblies in one consolidated list.

The Reference Designator Field prints out on the wide carriage PICK List, wide carriage Uncosted BOM, and narrow carriage uncosted single level BOM reports.

12.9   Audit BOMs

This option will check your BOM data base file. As a safety precaution, make a back up copy of the partmast.dbf and bom.dbf files before running this option. Select, "Compile a list of errors", when prompted. Once you have looked at the error list you can run the report again and select, "Step-through each BOM record with the option to remove it." This program will scan the bom.dbf file and look for the following errors:

A BOM number in the bom.dbf that does not exist in the partmast.dbf
A part number in the bom.dbf that does not exist in the partmast.dbf
A BOM number in the bom.dbf that contains a part number that is the same as the BOM number
A part number that does not contain a P,A or L in the part_assy field in the partmast.dbf
A BOM number in the partmast.dbf file that does not exist in the bom.dbf file
It automatically replaces the BOM part/assy/labor field with the contents of the partmast.dbf part_assy field.
A subassembly number found in a BOM that does not exist as a BOM in the bom.dbf file.

Once it has finished the above error checking, the program will ask, "Do you wish to check for recursive BOM structures". Answer "Yes", to check for BOMs that call themselves.

If you have selected the "Step through and delete" option, and have deleted records, answer "Yes" when asked if you wish to remove the records marked for deletion from disk.

If any recursive errors were found you must delete the BOM record calling the parent BOM. (See 17.3.17)

12.10   Phantom BOMs / Blow Through BOMs

If you plan to purchase a sub-assembly from a vendor and not build the subassembly in house, it would be called a phantom BOM. This can be accomplished in pc/MRP by editing the BOM in the Inventory Module and changing the **PART/ASSY/LABR** field from **A** to a **P**. The MRP module would then create action items to buy the sub-assembly from a vendor rather than buying the components and issuing a make for the sub-assembly. However, you would still be able to print this phantom BOM in the BOM module.

Option 68 in the Configuration, Settings and Utilities module allows users to step down through phantom BOMs (sub-assemblies marked as P in the inventory module) while editing or printing out a costed or uncosted exploded BOM. In addition, Option 68 allows users to set the default print settings to: never print out phantom BOM subassemblies, always print, or ask.

If an assembly reports to a parent assembly and it is checked as a **Blow Through Assembly** on the inventory screen, pc/MRP will issue component parts and ignore any on hand quantities for that sub-assembly.   This is true for Issuing to Manufacturing, Convert Parts to Assemblies, Generating an MRP (Infinite and Single Bucket), Check Availability, Maximum Potential Build, Single Level Pick List, Costed and Uncosted Exploded BOMs (the BOM will contain an "*" next to it, indicating it is a Blow Through BOM.   Basically it is a BOM that is never pre-assembled, you always issue parts to it as though the component parts reported directly to the parent assembly.

12.11 Index (see 15.14.3)

12.12 Remove Marked Records (see 15.14.4)

13 Work Order Module

13.1 Overview
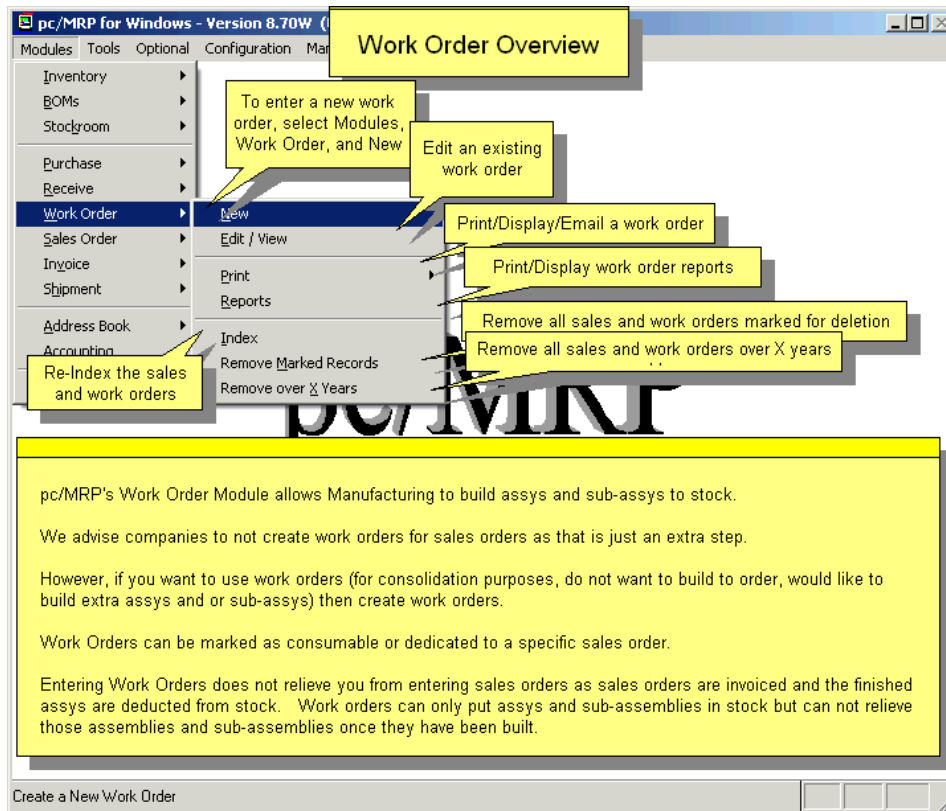
pc/MRP's Work Order Module allows Manufacturing to enter, edit, and print in house work orders to build to stock. The work order contains valuable information such as: has it been issued to manufacturing and how many assemblies have been completed and returned to the stock room. Sales Orders and Work Orders share the same database file. The Sales Order Form and the Work Order Form are the same form except that a Work Order will take only one line item, 00WO and is labeled Work Order instead of Sales Order. Work Orders are closed by: issuing the work order (through the Stockroom Module) to manufacturing and receiving the finished assemblies back from manufacturing. Sales Orders are closed by issuing invoices.

If the flag file **SHORTRTN.FLG** exists work orders returned from manufacturing short will prompt users to decide if the order should be closed automatically or remain open.

13.2 Enter a New Work Order

Select "**Work Orders**", "**New**". The Work Order Data Entry Screen will appear. Entering a Work Order is very similar to entering a Sales Order, except:

- Entering a customer is optional. Leave it blank or enter your own company's name. Since a Work Order is an in-house build to stock, the Customer PO Number, Customer Contact, and Freight fields can be left blank. The part number must be a valid assembly number in inventory, not a component part or "NA".

- Work Orders can be designated as being **consumable**. (This is only applicable if the Infinite Bucket Module has been activated.) Consumable work orders will be used to fulfill open Sales Orders and work orders whose date due exceed that of the consumable work order. See the chapter on the Infinite Bucket for more details.

- **Resort the Order Items** and **Update all Header Information** (in Options) are deactivated, since there is only one line item on a work order.

Note: When a work order is entered pc/MRP increments the ondemand quantity for the completed assembly and not the parts in that assembly. The explosion is done later in a temporary scratch pad field whenever purchasing runs an MRP Report. The MRP Report takes each assembly's on demand quantity and allocates finished on hand assemblies, subassemblies, and finally parts, to fill the demand. When it runs out of parts or goes below the minimum quantity level, it prints out that part number and the quantity to purchase.

The above method provides pc/MRP with the following advantages:

- The on-demand status of any assembly is available
- Line items can be quickly entered w/o waiting for an explosion
- You can build to stock, stocking finished-assemblies and sub-assemblies

13.3   Edit/View/Scroll/Delete/Undelete

All of the fields in a work order are editable. Users however must understand several key concepts before editing work orders.
- If you were to edit the quantity on a work order, you must also edit the quantity on demand in inventory or run one of the Audit OnDemand features.
- The **Issued to MFG** and the **Qty Assembled** fields appear on the edit screen for work orders (under the Item Info tab). pc/MRP will automatically enter a "Y" when the assemblies are issued from stock to manufacturing. The Qty Assembled field is automatically updated when the assemblies are received by the stockroom from MFG.
- The **Complete** field is displayed only in the edit mode and is filled in automatically when *all* the items are received back from manufacturing. pc/MRP uses the complete field to determine if a record is overdue, open, or closed. A "Y" in the complete field marks the record as closed. An "N" in the Complete field marks the record as open.
- The **Change #** is used to note any changes in the order.
- Use the delete button to mark a record for deletion. As a second step users will need to Remove Marked Records.
- If a WO has been issued to MFG but not fully received back, users should avoid editing the Quantity on the WO or to delete the WO. If they do so, pc/MRP displays a warning and offers to cancel the change (**8.73F and above**).

13.4   Consumable Work Orders

If you are going to use work orders, we recommend marking work orders as consumable and not dedicated. If a customer changes his sales order(s), all of the dedicated work orders must be changed to match.   If the work order is consumable, pc/MRP will simply use the consumable work order to fill other sales orders.

If you are going to enter consumable work orders, make sure the date required on the consumable work order is due *before* the date required on the first sales order this work order is to fill. Otherwise, pc/MRP will have you build both the sales order and work order.

If you use consumable or dedicated work orders, when generating an MRP include both sales and work orders to drive demand. pc/MRP's Infinite Bucket Module will use it to fill sales orders.   The sales orders will only generate sale action items. There will be no overbuilding. If the work orders do not cover the sales orders, you will see buy and issue action items for components driven by the sales order that is not filled by existing work orders letting you know that existing work orders do not cover all of your requirements.
If a customer orders **spare parts**, put those parts on a sales order, not a work order. Work Orders were designed to build sub-assy and assys not sell spare parts to a customer.

13.5   Dedicated Work Orders

To create a parent sales or work order, check its Require Dedicated Work Orders check box, as shown below:

To create dedicated work orders, you must enter the sales/work order number it is dedicated to, as shown below:

13.5.1 Dedicated Work Orders Rules

A top dedicated sales or work order cannot have a duplicate twin work order for the same assembly(s) reporting to it. The Infinite Bucket Module will not use the twin work order and insert an error message into the MRP Error Log asking you to delete the twin work order and re-generate the MRP. All work orders dedicated to a top parent work order must be sub-work orders, as shown in the figure above.

All sub-work orders regardless of level must be dedicated to the top parent sales or work order.

If you do not have a dedicated WO to the WO/SO requiring dedicated WOs, an error message is generated telling you that it created a MAKE action item referencing the WO/SO and you will have to create the dedicated WO yourself and re-run the MRP. "Error, no WO exists for SO xxxxxx, created an undedicated WO referencing the WO/SO."

Once a sales or work order has been issued to manufacturing, you cannot change its dedication fields.

Dedicated sub-work orders for the lowest level assemblies must be issued first and received back from manufacturing before the next level up sub work orders can be issued to manufacturing. Failure to do so could cause pc/MRP's Infinite Bucket Program to generate error messages notifying you it created un-attached make action items. You would have to un-issue the work order and re-generate the MRP to correct the situation(s).

The dedicated sub work orders must have a date-required field that is prior to the date-required field on its parent sub-work order. If not, pc/MRP will insert an error message into the 'MRP Error Message Log' and the 'Make Push Pull Report', warning you that the date-required should be changed. pc/MRP will generate the MRP based on its recommended date, hoping that you will change the work order's date required and issue it on the date listed on the action item report.

You cannot have a dedicated Work Order for the same assembly as the Sales or Work Order to which it is dedicated.

All dedicated sub-work orders are consumable but will only be used by the top parent work order or another work order dedicated to the same top parent work order.

13.5.2 How pc/MRP's Infinite Bucket Module processes dedicated work orders

When generating an MRP, pc/MRP will first check that the date required on all dedicated sub-work orders are correct. If the date(s) required are not correct, it will add an error message to the MRP Error log and the Make Push Pull Report warning you to change the date(s) required. It will then use the correct date(s) required and generate an MRP.

When allocating sub-assemblies to a dedicated sales or work order, pc/MRP will first allocate from the on hand quantity of the sub-assembly. If more are required, it will allocate from sub-work orders dedicated to the same top work order or from non-dedicated consumable work order (based on which work order has the earliest date due). Finally, if it cannot allocate a sufficient quantity, it will insert an error message into the MRP Error Log warning you it created an unattached make for that assembly.

13.5.3 How pc/MRP's Infinite Bucket Module processes un-dedicated work orders

pc/MRP's Infinite Bucket Module was originally designed such that users could simply enter sales orders, generate an MRP, and when ready, issue the top-level sales order and all of its assemblies to a staging box or area. If there were shortages, pc/MRP's Stockroom module and MRP program would prompt you to order the missing parts and issue them when they arrived. Work orders did not need to be created for sub-assemblies. Work Orders for Sub-assemblies did not need to be issued on set dates and received back on set dates so the next level up work orders could be issued. When running the Infinite Bucket Module, pc/MRP simply looked at the current situation and modified its Make Action Items to get the job done. If parts or sub-assemblies were used for another job it simply created new make or buy action items to fill the sales orders. Work orders were used primarily to build runs of common sub-assemblies and could be used for any sales order.

13.5.4 Additional error trapping code added to pc/MRP's Issue to Mfg function

pc/MRP's Stockroom Module's I and L 'Issue To Manufacturing' functions will throw an error message and not allow the issue for the following conditions if you are issuing a dedicated sub-work order:

- If the top parent order does not exist
- If the top parent work order does not require dedicated work orders
- If the top parent work order is for the same part/assembly number

In addition, when issuing a dedicated sub-work order, pc/MRP's Issue to Manufacturing function will only allow the user to select the Issue Sub-assemblies Only option.

13.6 Queried Search Overview (see 15.14.1)

13.7 Indexed Searches (see 15.14.2)

13.8 Index (see 15.14.3)

13.9 Remove Marked Records (see 15.14.4)

13.10 Remove Over X Years (see 15.14.5)

Note: Sales orders and Work orders share the same database table. When users instruct pc/MRP to remove all Work orders older than X years, pc/MRP will also remove all Sales orders that are olden than X years. If you want to keep all Sales orders and only want to delete old Work orders, call Software Arts for assistance.

14.1 Accounting Overview

14.1.1 Accounting Overview
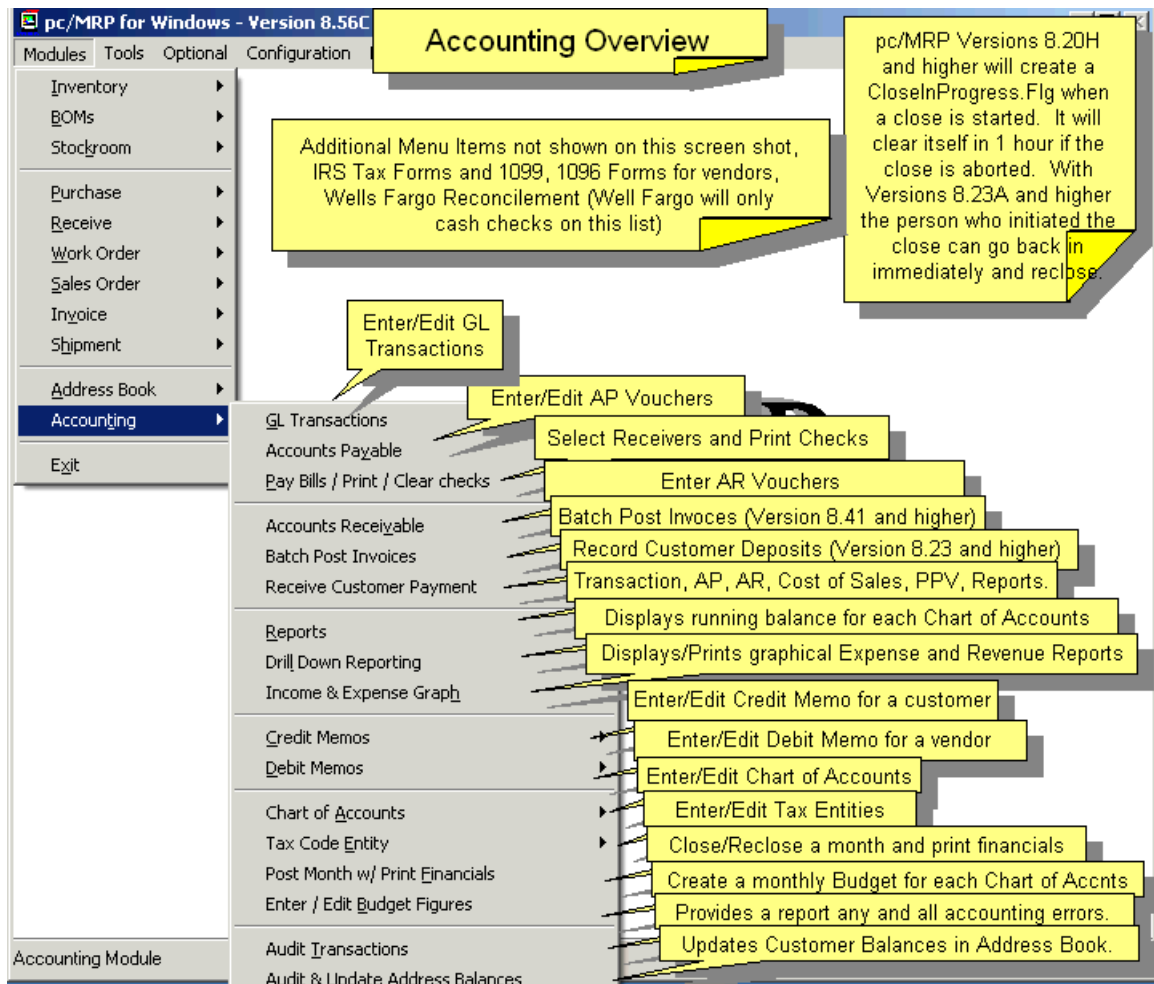
pc/MRP's Accounting package is an easy to use **double entry system**. pc/MRP's Accounting Package includes a General Ledger, Accounts Payable, Accounts Receivable, and an integrated Check Writing Module. pc/MRP's Reporting Module will provide State Sales Tax Reports, Sales Commission Reports, and Cost of Sales Reports. The Audit option checks every accounting transaction for errors, such as, invalid dates, duplicate transaction numbers, etc.

The ChartAcc dbf file contains a record for each chart of account. Each record (chart of acct) contains the beginning and ending balance for that chart of account for each month of the current year.

The Transact dbf file contains a record of each accounting transaction entered into pc/MRP. Each record (transaction) contains a transaction date and the chart of accounts that were debited and credited along with their respective amounts.

When you close (post) a month, pc/MRP prompts for which month, gets all of the transactions for that month, uses them to debit and credit against those accounts, and places the result in the ending balance for each chart of account for that month. It then prints out the financial statements for that month based on those ending balances. This simple method allows you to close and re-close months up to twelve months back.

pc/MRP generates a closeinprogress.flg when a close is started. This flag will clear itself when the close process has completed or after 1 hour if a computer failure has occurred. The person who initiated the close can log back in immediately and not wait the hour.

14.1.2   General Ledger Transactions

The General Ledger Module allows you to enter accounting transactions in the general ledger. Once the transactions have been entered, you can edit, scroll or print the transactions. You can also print out checks for those transactions either singularly or by batch. For additional details, see 14.4.1.
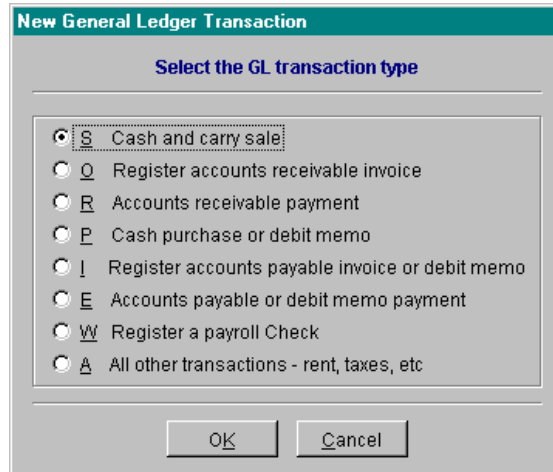
14.1.3   Accounts Payable

The Accounts Payable Module allows you to enter, edit and print out accounts payable vouchers and reports. Since pc/MRP uses receivers as account payable vouchers it is not necessary to use this module for items that are received by receiving. Items that are not received, such as rent, can be entered as an accounts payable voucher. The accounts payable voucher will be assigned the next available receiver number and actually become a receiver record with a "00AP" line item number. If auto accounting is on (in the configuration menu), entering a receiver or accounts payable voucher will automatically make an entry into the general ledger, debiting purchases and crediting accounts payable.

For items received with the receiving module, (Software Arts recommends leaving auto accounting off, make separate), the accountant would not enter the accounts payable module but would enter a general ledger transaction into the general ledger (option 1 on the accounting menu). The accountant would select an "I" type transaction. Entering an "I" type transaction for that receiver will debit the purchasing account and credit the accounts payable account.

The accountant would enter an "E" type transaction into the general ledger when the items on the receiver are paid for. Entering an "E" type transaction for that receiver will debit the accounts payable account and credit the checking account. The receiving record stores the amount due for each line item and the amount paid for each line item. If the amount paid equals or exceeds the amount due, pc/MRP marks the record as complete by placing a "Y" in the receiver record's 'Complete' field. For further details, see the Accounts Payable Chapter, 14.8.1.

14.1.4 Accounts Receivable/Billing

The Accounts Receivable Module allows you to enter, edit and print out accounts receivable vouchers and reports. Since pc/MRP uses invoices as account receivable vouchers it is not necessary to use this module for items that are invoiced. Items that are not invoiced can be entered as an accounts receivable voucher. The accounts receivable voucher will be assigned the next available invoice number and actually become an invoice record with a "00AR" line item number.

If auto accounting is on (in the configuration menu), entering an invoice or accounts receivable voucher will automatically make an entry into the general ledger, debiting purchases and crediting accounts receivable.

For items that were invoiced with the invoice module, Software Arts recommends leaving auto accounting off (make separate), the accountant would not enter the accounts receivable module but would enter a general ledger transaction into the general ledger (option 1 on the accounting menu). The accountant would select an "O" type transaction. Entering an "O" type transaction for that invoice will debit the accounts receivable account and credit the business income account. (See Section: 14.4.1.2.)

The accountant would enter an "R" type transaction into the general ledger when the items on the invoice are paid for. Entering an "R" type transaction for that invoice will debit the checking account, and credit the accounts receivable account. The invoice record stores the amount due for each line item and the amount paid for each line item. If the amount paid equals or exceeds the amount due, pc/MRP marks the record as complete by placing a "Y" in the invoice record's 'Complete' field.

This module will also print out Billing Statements for every customer that has an open invoice in the invoice file. For further details, see the Accounts Receivable Module, Chapter 14.9.1.

14.1.5 Reports

The Accounting Report Module provides a multitude of accounting reports. See Section 14.7.1 in this Manual for a full list of reports and options.

Please select an option to perform.

Select:
- ⊙ General Ledger Transactions
- ○ Balance for Date/Time period based on Transactions
- ○ Balance for Date/Time period based on Chart of Accounts
- ○ Accounts Payable reports
- ○ Accounts Receivable reports
- ○ FIFO Inventory Value report
- ○ Sales Tax report
- ○ Sales Commission report
- ○ Cost of Sales report
- ○ Purchasing Price variation report (PPV)
- ○ Cash Out Projection report (PO's)
- ○ Check Reconciliation report
- ○ Debit Memo reports
- ○ Licensor Royalty reports
- ○ Manufacturing Cost Variance report

OK   Cancel

14.1.6 Drill-Down Reporting

This module will allow you to select a chart of accounts number as shown below.

Clicking on a Chart of Accounts Number will display a scrollable window listing all transactions for that account number sorted by date entered as shown below.

Clicking on a transaction number will display the complete transaction. Clicking on the invoice or receiver number will display the complete invoice or receiver.

14.1.7 Income and Expense Graphs

This module will allow you to display/print Income and Expense Graphs as shown below:
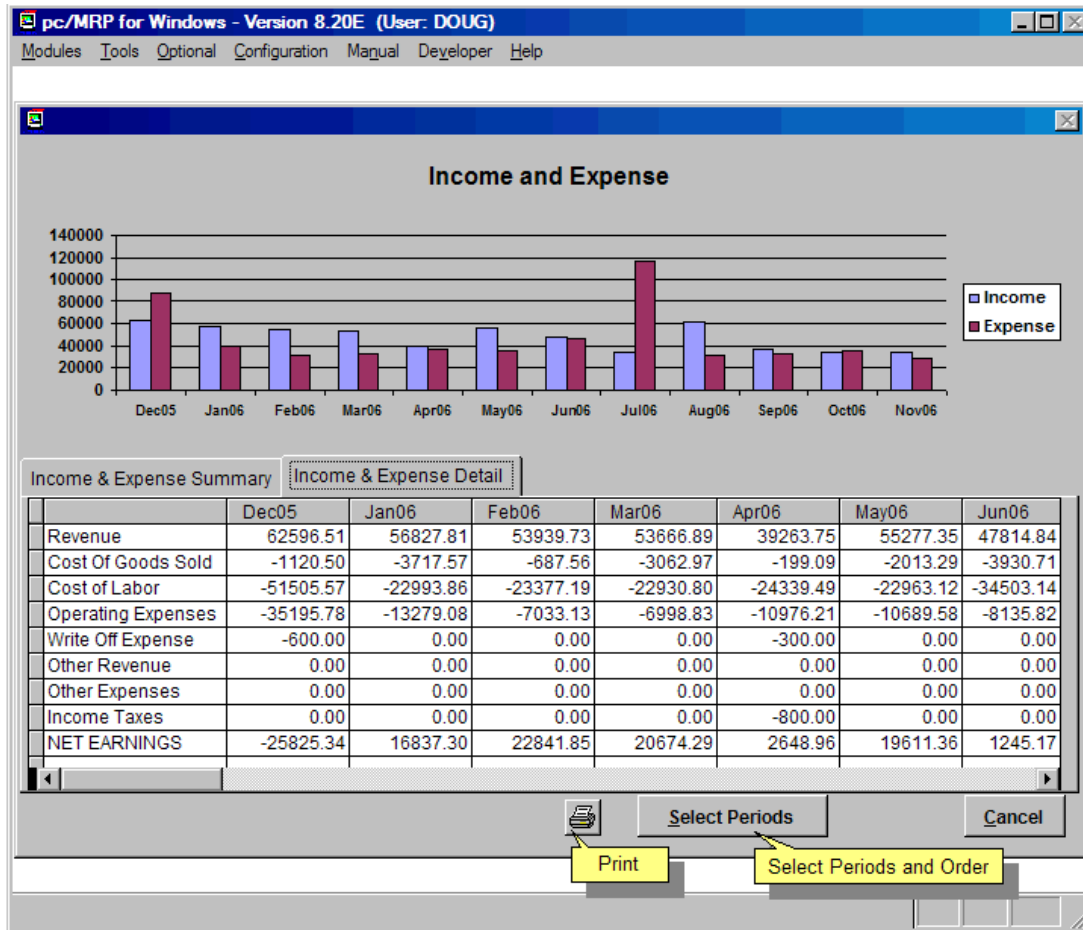
14.1.8 Print/Clear Checks

This module will allow you to print, reprint, clear and unclear checks and to print a remittance report. For further details, see Printing Check, Chapter 14.14.1.

14.1.9 Credit Memo Module

The Credit Module allows you to issue a credit to a customer to cover returned goods, pricing errors, freight, etc. (see 14.10)

14.1.10 Debit Memo Module

The Debit Module allows you to issue a debit to a vendor to cover returned goods, pricing errors, freight, etc. (see 14.11)

14.1.11 Chart of Accounts Module

The Chart of Accounts can support up to 10,000 accounts. The Chart of Accounts must be established prior to using pc/MRP's accounting modules. The chart of accounts provided by pc/MRP may be used as is, or modified to suite the needs of the business. If the chart of accounts is modified, those modifications must also be entered into pc/MRP's Utility Module. See Chapter 14.3.1 for further details.

14.1.12   Tax Code Entity

The Tax Code Entity option allows tax code entities to be entered, edited, deleted, updated in the address book, and indexed. Tax code entities such as CA22, TX05 etc. can be entered into the sales tax code entity data base file along with the sales tax rate for that specific state and county. Selecting the option to "Update the Address Book Tax Rates" will automatically update the tax rate of each address with the tax rate for that sales tax entity code tax rate from the sales tax code entity data base file. Each sales tax code entity should consist of the 2-character name of the state plus a 2-digit number such as OR01, OR02, NY23, etc. Whenever a sales order is entered, the sales tax rate and the sales tax entity code from the address book will be entered into the sales order and invoice.

The Sales Tax Report in the accounting report module will automatically subtotal on the type of sale (taxable, out of state, service, etc.) and the sales tax entity code. (to Index, see 15.14.3)

14.1.13   Post Month with Print Financials

Post Month with Print Financials automatically retrieves each account's starting balance for that month and all of the financial transactions recorded during that month. pc/MRP then calculates the new balances for each account and will prompt users to choose from a variety of financial reports to be created based on the newly calculated figures. For complete details, see Chapter 14.6.1.

14.1.14   Enter/Edit Budget Figures

Allows budget figures to be entered and or edited for each month of each chart of accounts. The budget figures, their monthly and yearly variance will be displayed on the **YTD Expense and Revenue** report when you select: **Accounting, Post month w/ Print Financials** (See 3.1.17.3 for a picture of the report).

14.1.15   Audit Transactions

Checks all accounting transactions for incorrect transaction dates, duplicate transaction numbers (which could cause a transaction report to go into an endless loop on that transaction number), blank transaction numbers, and duplicate blank transaction numbers (can cause transaction report to print out only lines and no transactions). The audit transaction report is completely benign; it only recommends changes and does not change or mark any transaction for deletion.

14.1.16   Audit and Update Address Balances

Initiating this feature will zero out the balance due amounts in the address book. The open invoices will then be used to re-calculate the balance due amounts and enter them into the address book. pc/MRP offers the option of using all open or all open posted invoices only. We recommend selecting all open invoices. If an invoice contains a blank account number or an account number that does not exist in the address book, an error message stating 'xxxx' not found will pop up for a set amount of time. pc/MRP will return to the main menu leaving the remaining address balances at 0. Since the error message remains on the screen for a set amount of time, it is recommended you watch your screen while it processes the invoices. If the error message appears, record the account number not found. Go to invoices, select edit, select scroll on address account number, enter the address account number that does not exist in the address book or change the invoice account number to an existing account number that does exist in the address book, and rerun this option again until it processes all invoices without an error message.

14.1.17   IRS Tax Forms

This selection allows users to set form criteria and print IRS forms 1099MISC and 1096. For further details, see Chapter 14.17.1

14.1.18   Wells Fargo Account Reconcilement

This option allows users to create a file containing records for all checks written during a date range. Wells Fargo will then analyze this file and only cash checks registered through this file. For further details, see Chapter 14.18

14.2 Implementing pc/MRP Accounting

14.2.1 Implementing pc/MRP Accounting
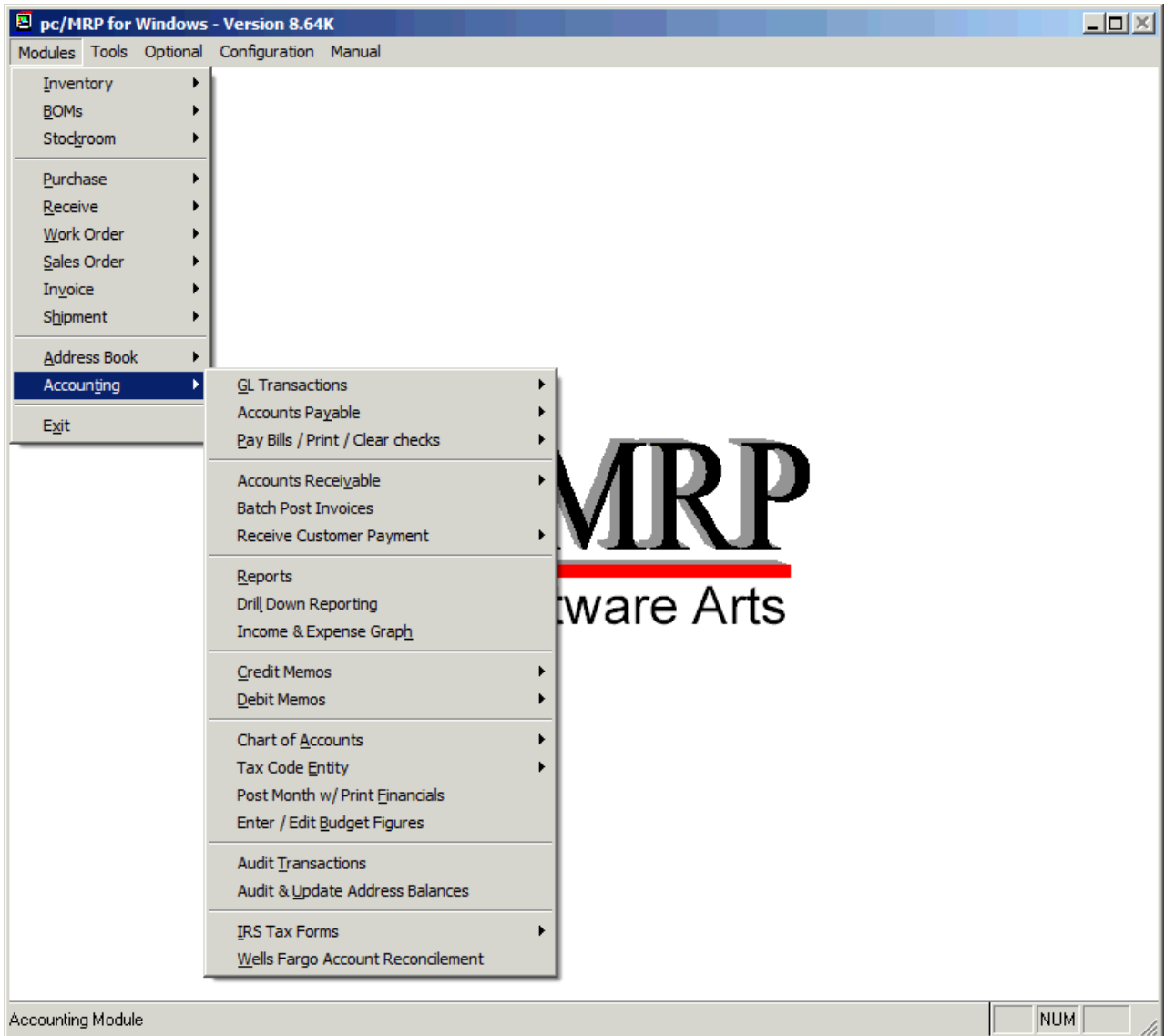
Implementing pc/MRP accounting requires users to perform several tasks. These tasks must be performed in sequence as described below. If you need any clarification, please contact Software Arts.

14.2.2 Configuring pc/MRP Accounting

Accounting must configure pc/MRP's accounting functions and chart of accounts following the steps outlined below:

1. Use pc/MRP's Configuration Menu to set the following options (recommended settings are bold):
   - Select Option 8, to turn auto accounting on or **off**, see Manual, Section 15.1.8
   - Select Option 10, to run periodic or **perpetua**l accounting inventory methods, see Manual, Section 15.1.10
   - Select Option 14, to **allow** or not allow editing of accounting transactions, see Manual, Section 15.1.14

2. Use pc/MRP's chart of accounts module as is or modify it to match your own so that you have a base chart of accounts that is satisfactory for your company, see Manual, Section 14.6.1

3. Use pc/MRP's configuration menu, Option 9 to edit the Chart of Accounts template to match your modified chart of accounts numbers, see Manual, Section 15.1.9. If you do not plan to establish chart of accounts for sub divisions and departments, skip item 4.

4. If you want to establish chart of accounts for sub divisions and departments, use pc/MRP's configuration menu to do the following:
   - Select Option 11, to turn multi division on, see Manual, Section 15.1.11
   - Select Option 12, to turn set multi-div to key on product code or division, see Manual, Section 15.1.12
   - Select Option 9, to "Add" a new template set for a division or department. This will also automatically enter the new division chart of account numbers into the chart of accounts data base file, see Manual, Section 15.1.9

5. Set Options 35, 45 and 59 in the Configuration Menu to use standard or average costs.

6. Set Option 42 in the Configuration Menu to use the vendor price list.

14.2.3 Entering Starting Balances into pc/MRP's Accounting Module

After the Chart of Accts has been established, the acct balances must be transferred in by entering accounting transactions and not by inserting the dollar amounts directly into the Chart of Accts. To enter the starting balances, select: Accounting, GL Transactions, New and then select an "A" type transaction. Debit the debit accounts and credit the credit accounts as per following guidelines.

If no previous accounting program has been used:

- Debit all assets such as cash, checking, accounts receivable, equipment, prepaid expenses, etc. by entering A type accounting transactions.
- Credit all liabilities such as taxes payable, accts payable, notes payable, etc. by entering A type accounting transactions.
- If Debits > Credits, credit the difference to Starting Capital
- If Credits > Debits, debit the difference to Starting Capital

If you are switching from another accounting system, you must transfer over the ending balances from the last good close by entering A type transactions with the same date as the last good close. The accounts you would transfer over would be as follows:
- If Mid Period:
  - o Transfer all accounts from the trial balance.
- If Start of Period::
  - o Transfer all liability, asset, equity accounts from the trial balance.
  - o If you want year-to-date expense and revenue figures on your financial statements, you must also transfer all expense and revenue accounts from the trial balance.
- If Start of Year:
  - o Transfer all liability, asset, and equity accounts from the trial balance. Remember to make an entry with the new years date transferring the year-to-date earnings into starting capital or undistributed retained earnings

At this point you can close the month to see if the debit and credit totals are equal and match the totals from the last good close of the prior accounting program.

Note: If these are the first accounting entries and the first period you are closing because you are just starting to use pc/MRP's accounting package, you must delete the file named "lastclos.mem" in the pcmrpw directory.

14.2.4 Entering AP (Open Receivers) and AR (Open Invoices) Detail Into pc/MRP

If you wish to enter detail aging information for accounts receivable (open unpaid invoices):

- Make sure auto-accounting has been turned off in the configuration menu, so that you do not double up on debiting accounts receivable.
- Temporarily set the inventory adjustment method (Option 4 in the settings and utilities) to "S." This will allow you to enter receivers without adjusting inventory. While you are making these entries do not allow other people to use the other modules in pc/MRP. When you are finished making the detail entries return to Option 4 and change the method back to the original setting, "A."
- Use the Sales Module to enter each open unpaid invoice as an "On Account and Carry Sales Order". Make sure the invoice date is the date you originally invoiced the customer, as this will keep your aging reports correct.
- Once you have entered all open invoices, run an invoice (not sales order) report for all open invoices (Select Invoices, Reports, All Invoices, All Open Invoices). The total should match the $ amount entered as the accounts receivable amount when you entered your original starting balances.
- Once the accounts receivable numbers agree, enter all open (not invoiced) sales orders using the "Order Entry" Option when entering sales orders.

If you wish to enter detail aging information for accounts payable (open unpaid receivers):

Method 1, enter POs and Receivers
- Make sure auto-accounting has been turned off in the configuration menu, so that you do not double up on crediting accounts payable.
- Use the Purchase Module to enter each closed (received) but unpaid PO. Edit the PO date to reflect the date you originally placed the order.
- Use the Receiver Module to enter each open (unpaid) Receiver. Edit the receiver date to reflect the date you received the order, as this will keep your aging reports correct.
- Once you have entered all open receivers, run a receiver report for all open receivers (Select Receivers, Reports, All Receivers, and All Open Receivers). The total should match the $ amount entered as the accounts payable amount when you entered your original starting balances.
- Once the accounts payable numbers agree, enter all open (not received) purchase orders using pc/MRP's purchase order module

Method 2, Enter accounts payable vouchers without part number detail
- Use pc/MRP's Accounts Payable Module to enter accounts payable vouchers. For each invoice, enter an accounts payable voucher. Enter or scroll for the vendors address id code number. If you do not want to record part numbers, select None for part number, 1 for quantity received and the total amount of the invoice. Make sure the date received is the date you received the item(s).
- Since this method would automatically make entries into the general ledger, debiting purchases and crediting accts payable, you may have to edit the original trial balance entry to $0.00 for accounts payable. Re-close the current month and make sure your accounts payables account dollar amount is correct.
- When you pay off any of these vouchers, you would enter a general ledger transaction as an E type transaction, answer Y, there is an existing receiver/accounts payable voucher number. Enter the voucher number and allow the program to debit accounts payable and credit checking. pc/MRP will then ask if you wish to print a check, answer Y if you wish pc/MRP to do so.

14.2.5 Automatically Closing all Receivers that have been paid

If you have been entering receivers into pc/MRP but not using accounting transactions to close the receivers, your accounts payable detail reports would show a large amount of dollars owed. You can close a large quantity in a batch mode by doing the following:

If you have entered receivers into pc/MRP and have been closing them when they are paid, run this step as a double check on your AP. It will also open up any receiver with a partial payment so the entire receiver can be paid off at a later date.

Selecting Configuration, Settings and Utilities, Option 87 will display the Receiver Closer Screen shown below.

This screen allows you to close any receivers that have been paid by simply checking the Complete Checkbox for each receiver that has been paid off.   Only receivers that are not marked complete and have a vendor invoice number will be included in the AP w Debit Memos Total.   This screen will display the first vendor invoice number it finds in a receiver. If you enter a vendor invoice number into a receiver or it already has a vendor invoice number, every line item on that receiver will be populated with that vendor invoice number when you press the OK button.

The AP total is equal to the amount due - amount paid for the following receiver line items and debit memos:
- All open receivers and debit memos with vendor invoice numbers.
- If one or more line items in a receiver /debit memos are marked as open, all the line items and associated debit memos are temporarily marked as open and are included in the AP total.

Scroll the receivers and check the **Complete** check box for all paid receivers and debit memos and add the vendor invoice number to all receivers that you wish to export (if your company uses the QuickBooks Export Module), until the AP with Debit Memo Total is correct.

If you check a receiver as complete, the entire receiver will be marked as complete by inserting a capital Y into the complete field of every line item on that receiver.   This reduces the AP amount by the entire amount of the receiver (unless the amount due - amount paid equals 0).   Receivers marked as complete will never be included in your accounts payable reports.

Pressing the Cancel button will leave the receivers unchanged. The receiver complete and posted fields will remain as they were prior to entering this screen.

Pressing the OK button will change the receiver complete fields as per the changes you made with the closer.

14.2.6 Automatically Closing all Invoices that have been paid

If you have been entering invoices into pc/MRP but not using accounting transactions to close the invoices, your accounts receivable detail reports would show a large amount of dollars owed. You can close a large quantity in a batch mode by doing the following:

If you have entered invoices into pc/MRP and have been closing them when they are paid, run this step as a double check on your AR. It will also open up any invoice with a partial payment so the entire invoice can be paid off at a later date.

Selecting Configuration, Settings and Utilities, Option 87 will display the Invoice Closer Screen shown below.

The AR total is equal to the amount due - amount paid $(((SalePrice*QtyShip*(1-(Discount/100))*(1+(TaxR/100.0000))+Freight)-AmtPaid)$ for the following invoice line items and credit memos:

- All open invoices and credit memos.
- If one or more line items in an invoice/credit memo are marked as open, all the line items and associated credit memos are temporarily marked as open and are included in the AR total.

Scroll the invoices and check the **Complete** check box for all paid invoices and credit memos until the AR with Credit Memo Total is correct. If you check an invoice as complete, the entire invoice will be marked as complete by inserting a capital Y into the complete field of every line item for that invoice.   This reduces the AR amount by the entire amount of the invoice (unless the amount due - amount paid equals 0).   Invoices marked as complete will never be included in an AR Report.

Pressing the **Cancel** button will leave the invoices unchanged. The invoice complete and posted fields will remain as they were prior to entering this screen.

Pressing the **OK** button will change the invoice complete fields as per the changes you made with the closer.

14.2.7 Post the Month with Financials

Before going live, make sure you have a good close. To learn how to close the month and Post the month with financials, refer to Section 14.6.1.

14.3 Chart of Accounts

14.3.1 Overview / Enter

(see slideshow here: http://www.pcmrp.com/mrp101/chartofaccountsnewbase.htm)
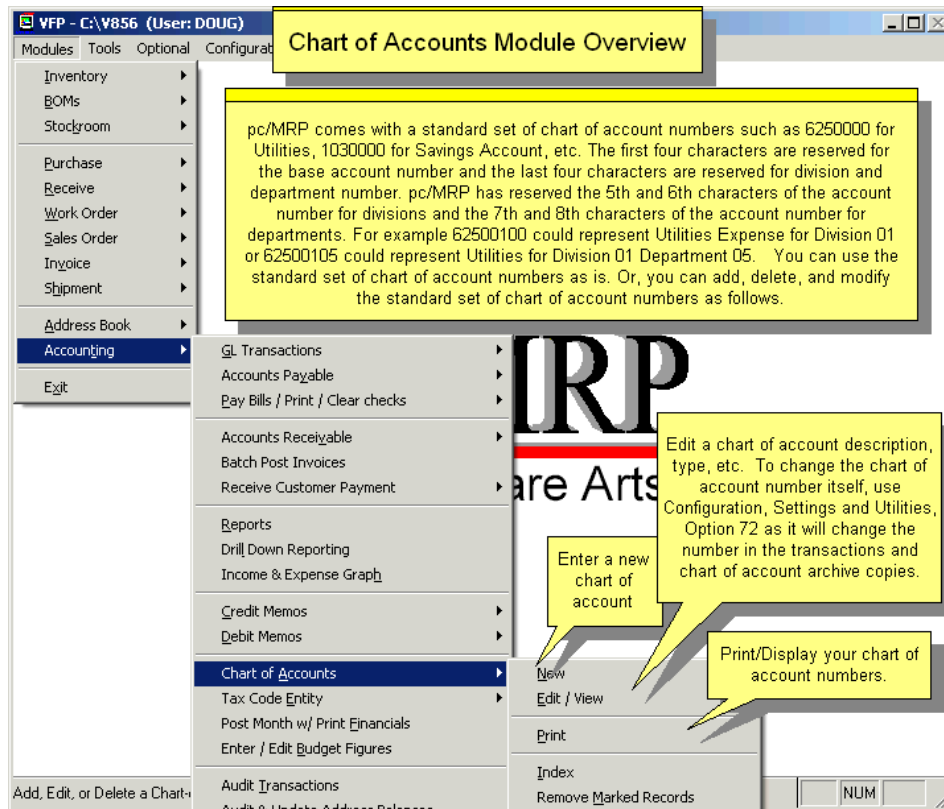
pc/MRP comes with a standard set of chart of account numbers such as 62500000 for Utilities, 10300000 for Savings Account, etc.   The first four characters are reserved for the base account number and the last four characters are reserved for division and department number.   pc/MRP has reserved the 5th and 6th characters of the account number for divisions and the 7th and 8th characters of the account number for departments.   For example 62500100 could represent Utilities Expense for Division 01 or 62500105 could represent Utilities for Division 01 Department 05.

You can use the standard set of chart of account numbers as is.   Or, you can add, delete, and modify the standard set of chart of account numbers as described below.

pc/MRP Versions 8.03 and lower allowed divisional accounts but not category sub accounts.

pc/MRP Versions 8.04a – 8.04d allowed divisional and category sub accounts.

pc/MRP Versions 8.04e and higher allows:
- A user to add a base divisional chart of accounts by clicking on Chart of Accounts New *
- A divisional sub account to report to a base corporate chart of account (ends in 0000)
- A user to select a divisional sub account as a parent account.

pc/MRP Versions 8.43f and higher allows:
- The Div/Dept YTD Expense and Revenue reports to work with div sub accounts that have 0000 parent accounts.
- A user to select a divisional sub account as a default account in the Account Template Module.*

* Unless a file named "RestrictChart.Flg exists in the pcmrpw folder (version 8.50 & higher).

14.3.1.1 Establish a base chart of accounts structure on paper

First establish a base chart of accounts structure on paper.   Base accounts must end in "0000" and do not report to a parent account.   An example of a base chart of account structure is listed below:

Assets
    1020-0000 Checking
    1070-0000 Accounts Receivable
Liabilities
    2010-0000 Loan
    2070-0000 Accounts Payable
Equities
    3040-0000 Retained Earnings
Revenue
    4040-0000 Sales Income
Expenses
    5000-0000 Utilities

14.3.1.2 Establish a set of sub-chart of account numbers on paper

pc/MRP allows you create sub-chart of account numbers that report to and roll up into a parent chart of account numbers. There are two types of sub accounts, category and divisional.

Category Sub Accounts should always end in 0000.   An example chart of accounts using category sub-accounts is listed below:

Assets
    1020-0000 Checking
            1021-0000 Wells Fargo Checking
            1022-0000 Bank of America Checking
    1070-0000 Accounts Receivable
Liabilities
    2010-0000 Loan
    2070-0000 Accounts Payable
Equities
    3040-0000 Retained Earnings
Revenue
    4040-0000 Sales Income
Expenses
    5000-0000 Utilities
            5040-0000 Water
            5050-0000 Electricity

Division Sub Account should always end in a 4 digit number other than "0000".   This allows pc/MRP to filter these accounts into Divisional YTD Expense and Revenue Reports. An example chart of accounts using category sub-accounts is listed below:

Assets
    1020-0000 Checking
            1020-0100 Checking Division 1
            1020-0200 Checking Division 2
    1070-0000 Accounts Receivable
Liabilities
    2010-0000 Loan
    2070-0000 Accounts Payable
Equities
    3040-0000 Retained Earnings
Revenue
    4040-0000 Sales Income
            4040-0100 Sales Income Division 1
            4040-0200 Sales Income Division 2
Expenses
    5000-0000 Utilities
            5000-0100 Utilities Division 1
            5000-0200 Utilities Division 2

Gets filtered into a YTD Expense and Revenue Financial Statement for Division 1

Including both Divisional and Category Sub Accounts in your chart of accounts can be done two ways.   The first way would be to create sub accounts by division and then category.   This structure will show the rolled up Utilities Cost for the Divisional YTD Expense and Revenue Report:

Expenses
    5000-0000 Utilities
            5000-0100 Utilities Division 1 (Will be displayed on the Div1 YTD Exp and Rev Report)
                5040-0100 Water Div 1
                5050-0100 Electricity Div 1
            5000-0200 Utilities Division 2
                5040-0200 Water Div 2
                5050-0200 Electricity Div 2

Gets filtered into a YTD Expense and Revenue Financial Statement for Division 1

The second way would be to create sub accounts by category and then division.   This structure will not display the rolled up Utility Cost for the Division on the Divisional YTD Expense and Revenue Report.

Expenses
    5000-0000 Utilities
            5040-0000 Water
                5040-0100 Water Div 1
                5040-0200 Water Div 2
            5050-0000 Electricity
                5050-0100 Electricity Div 1
                5050-0200 Electricity Div 2

Gets filtered into a YTD Expense and Revenue Financial Statement for Division 1

Both of the above patterns will work in pc/MRP.

14.3.1.3 Entering a base chart of account numbers

You must first enter a set of base chart of account numbers such as checking, utilities, etc.   Base chart of account numbers have no parent accounts and always end in 0000.   To enter a base chart of account number, click on Modules, Accounting, Chart of Accounts, and New.

Enter the base chart of accounts number (it must end in "0000").   Enter the chart of accounts description, Account Type, select Yes or No for Tax Deductible, and select Debit or Credit. Do not select a parent account, as this is a base chart of account.

Note: If upgrading from **version 8.47 or lower**, please re-visit the checking accounts and make sure the Checking Account checkbox is checked for all your checking accounts.

Select the **Account Type** from the drop down list box which includes:

AC	Asset, Current
AD	Asset, Depreciation
AF	Asset, Fixed
AL	Asset, Long Term
EG	Expense Cost of Goods Sold
EL	Expense Labor
EN	Expense, Normal Operating
EO	Expense, Other
ET	Expense, Taxes
EW	Expense, Write Off
LC	Liabilities, Current
LL	Liabilities, Long Term
QN	Equity
QR	Equity, YTD Retained Earnings **(only one allowed!)**
RN	Revenue, Normal
RO	Revenue, Other

Note: Once you have selected an **Account Type**, and have entered accounting transactions for the account, you cannot change the **Account Type**. Call Software Arts, Inc. if this is a necessity.

14.3.1.4 Entering a sub chart of account number

To create a sub-chart of account number you would select Modules, Accounting, Chart of Accounts, New or Edit. Select the parent account by pressing the Sub Account of Ellipsis Button as shown on the screen below. The new sub-account will automatically be the same Account Type and Debit/Credit Type as its parent account.

Note: Version 8.73D or higher allows users to pay bills with a company credit card.

14.3.1.5 Register your default account numbers.

Once your base chart of account numbers are established, you must register your default account numbers with pc/MRP.   This will allow pc/MRP to automatically pull up the correct accounts to debit and credit when you are making an entry into the general ledger.   For example, pc/MRP needs to automatically pull up and debit and credit your AP and Checking Account Numbers when ever you are paying bills.   To register your key chart of accounts select Configuration, Settings and Utilities, Option 9, and Edit Template Account Numbers. Enter your key chart of account numbers as shown on the following screen.

14.3.1.6 Adding multiple division and department account numbers:

With pc/MRP, you can enter divisional chart of accounts one account at a time by selecting Modules, Accounting, Chart of Accounts, New.   If applicable, you can add new divisions or departments to pc/MRP's chart of accounts. pc/MRP has reserved the 5th and 6th characters of the account number for divisions and the 7th and 8th characters of the account number for departments.

For example if you wanted to add expense and revenue accounts for a division 10, department 01, you would select configuration, Settings and Utilities, Option 9, Add a New Division/Department. pc/MRP will ask you to enter the starting chart of account number (must end on 0000) and the ending chart of account number (must end in 0000).   pc/MRP will create new chart of accounts ending in 1001 for every account that ends in 0000 between the starting number and the ending number as per the screen shown in the screen below.
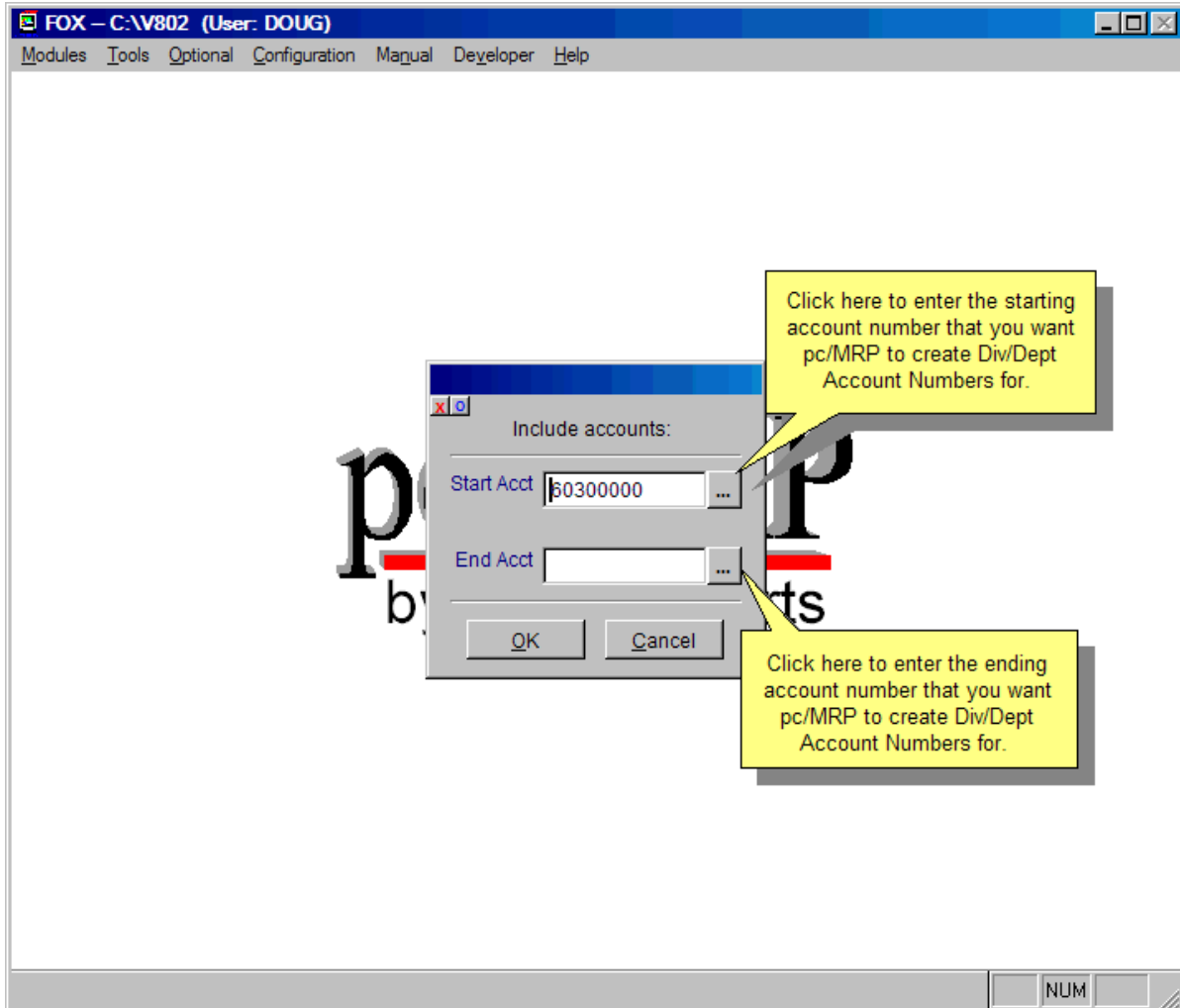
14.3.2 Edit/View a Chart of Accounts

Editing or adding chart of account numbers is not recommended unless you fully understand accounting, and how pc/MRP operates with the chart of account numbers. pc/MRP will not accept any changes made to accounts that have dollar amounts posted to them.

If you edit one of the base chart of account numbers, such as AR, AP, Checking, etc., you must also go to pc/MRP's configuration menu and make the same change in the chart of accounts template file.

To edit a chart of account number users must use Option 72 in the Settings and Utilities Menu as this will change the account number everywhere including the prior backup copies made by pc/MRP after you close (post) a month.

14.3.3 COA Categories and Rules

The chart of account numbers have been divided into five different categories listed below.

```
CATEGORY        EXAMPLES                            NUMBERS  TYPE  DED  D/C
-----------------------------------------------------------------------------
ASSET      +(cash, recvbls,inventory,advances,equip)  1000    Ax    N    D
           -(depreciation, allowance for bad accounts)                   C
LIABILITY  +(accounts pay, loans pay, taxes payable)   2000    Lx    N    C
           -(repayment of loan)                                          D
EQUITY     +(stock issued, capital in, ret. earnings)  2500    Qx    N    C
           -(capital withdrawal by owner)                                D
REVENUE    +(interest income, sales)                   3000    Rx    N    C
           -(sales discounts allowed, returned merch.)                   D
EXPENSES   +(rent, wages, supplies, taxes)             4000    Ex    Y    D
           -(purchase discounts taken, taxes refund)                     C



Expense accounts are categorized as follows:
     EG Accounts will be totaled under Cost of Goods Sold
     EL Accounts will be totaled under Cost of Labor
     EN Accounts will be totaled under Normal Operating Expenses
     EW Accounts will be totaled under Write off Expenses
     EO Accounts will be totaled under Other Expenses
     ET Accounts will be totaled under Income Taxes

Revenue Accounts are categorized as follows:
     RN Accounts will be totaled under Revenue
     RO Accounts will be totaled under Other Revenue

Equity Accounts are categorized as follows:
     QN Accounts will be totaled under Equity
     QR Account is reserved for YTD Retained Earnings
          (only one QR account is allowed)

Liability Accounts are categorized as follows:
     LC Accounts will be totaled under Current Liabilities
     LL Accounts will be totaled under Long Term Liabilities

Asset Accounts are categorized as follows:
     AF Accounts will be totaled under Fixed Assets
     AC Accounts will be totaled under Current Assets
     AL Accounts will be totaled under Long Term Assets
     AD Accounts will be totaled Accum Write Offs
```

pc/MRP's Chart of accounts are further defined as follows:

22100000	PAYROLL TAX F.W.T.	= liability, federal withholding tax
22110000	PAYROLL TAX F.I.C.A	= liability, federal social security
22120000	PAYROLL TAX F.U.T.A	= liability, federal unemployment tax
22130000	PAYROLL TAX S.D.I.	= liability, state disability
22140000	PAYROLL TAX S.W.T.	= liability, state withholding
22150000	PAYROLL TAX S.U.I.	= liability, state unemployment
22160000	PAYROLL TAX E.T.T.	= liability, state employment training
29100000	COMPANY TAXES	= taxes paid by individual owner
90100000	COMPANY TAX-FEDERAL	= taxes paid by corporation

pc/MRP Chart of Account Structures Rules

Top Level Base Top Chart of Account Number
    Has no parent account
    The full account number must be unique
    Div/Dept suffix of any 4 numbers. If RestrictChart.Flg file exists in pcmrpw directory, suffix must = 0000

2nd through 5th Level Sub Chart of Account Numbers
    Has a top level parent account
    The full account number must be unique
    Div/Dept Sub Acct must have a suffix that matches the parent suffix unless the top parent suffix = 0000
    Must be same account type a parent
    Parent & child debit/credit accounts do not have to match

Example:
    Utilities (1st)   6250 0000
        Utilities Div 1 (2nd)   6250 0100
            Water Div 1 (3rd)   6251 0100
            Electricity Div 1 (3rd)   6252 0100
        Utilities Div 2 (2nd)   6250 0200
            Water Div 2 (3rd)   6251 0200
            Electricity Div 2 (3rd)   6252 0200

Edit a Chart of Account
    Edit the Chart of Account Number Field
        Must be done with Option 72
    Edit the Chart of Account Description Field
        OK
    Edit the Account Type Field
        Must have no existing transactions
        Must have no existing sub accounts
        Must have no twin div/dept accounts
    Edit the Debit/Credit Field
        Must have no existing transactions
        Must have no existing sub accounts
        Must have no twin div/dept accounts
    Edit the Full ID Field
        Must have no existing transactions
        Must have no existing sub accounts
        Must have no twin div/dept accounts

Delete a Top Base Chart of Account
    Must have no transaction history
    Must have no sub accounts (sub accounts must be deleted first)
    Must have no Div/Dept Accounts (Div/Dept accounts must be deleted first)

Delete a Base Sub Chart of Account
    Must have no transaction history
    Must have no sub accounts (sub accounts must be deleted first)
    Must have no Div/Dept Accounts (Div/Dept accounts must be deleted first)

Delete a Top Div/Dept Chart of Account
    Must have no transaction history
    Must have no sub accounts (sub accounts must be deleted first)

Delete a Div/Dept Chart of Accounts
Must have no transaction history
Must have no sub accounts (sub accounts must be deleted first)

14.3.10 Index (see 15.14.3)

14.3.11 Remove Marked Records (see 15.14.4)

14.4 General Ledger

14.4.1 Overview

Select Accounting, GL Transactions, New Transaction.
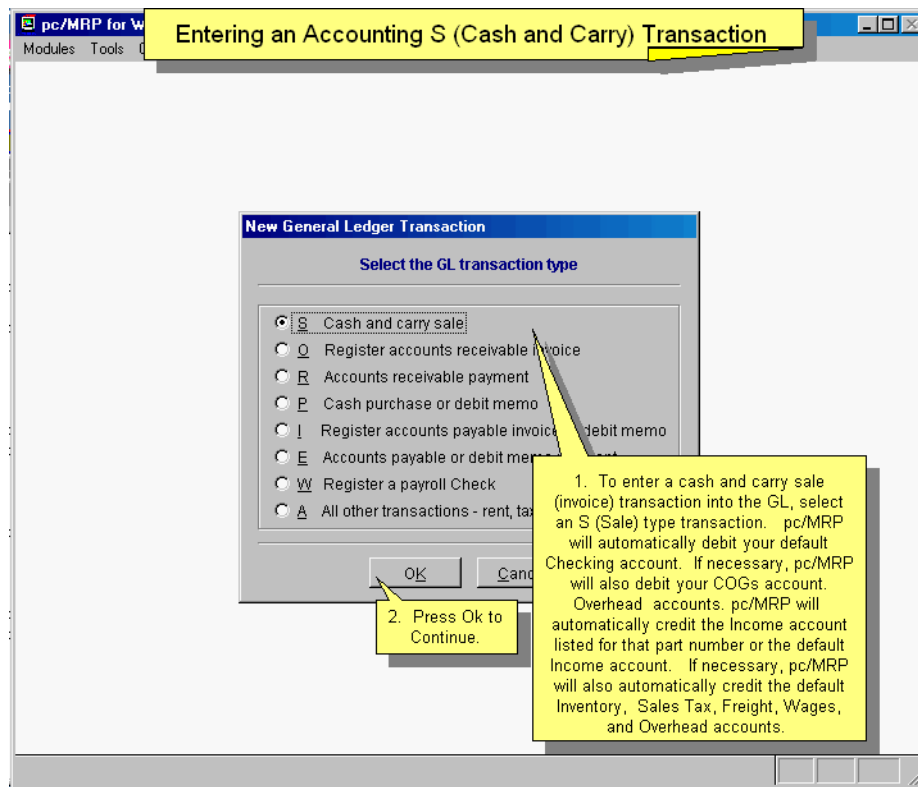
The first selection allows you to enter an accounting transaction. You will be given the next available Transaction Number. The Transaction Number should consist of only numeric characters with leading zeros. pc/MRP is unable to increment alpha characters. The Entry Method Screen will appear giving you the following entry options:

If you select an S, O, or R type transaction, pc/MRP will prompt you to scroll the invoice file to locate the invoice or AR Voucher. You can scroll on document number (invoice number), customer account number, part number, model number and or sales order number.

If you select a P, I, or E type transaction, pc/MRP will prompt you to scroll the receiver file to locate the receiver or AP Voucher. You can scroll on document number (receiver number), vendor account number, part number, model number and or customer PO number.

Enter the first several characters you wish to begin scrolling at. When the desired record is located, press enter to preview the record. If it is the wrong record, press the escape key to continue scrolling. When you find the correct record press the enter key or click on the upper left button of the scroll window and select close to create a GL transaction for that record.

It should be noted that the following examples use pc/MRP's default chart of account numbers. You can use your own chart of account numbers if you edit or add your new chart of account numbers to the chart of accounts and accounting template file (Option 9 in the configuration menu).

In addition it should be noted that the following examples were created with pc/MRP's inventory accounting method set to perpetual and not periodic (Option 10 in the configuration menu's settings and utilities section). Different chart of accounts would be debited and credited if pc/MRP's inventory accounting method were set to periodic.

14.4.2 A/R Transactions

14.4.2.1 Cash and carry sale (S):

Cash and carry / On Account & Carry Sale, S type, example transaction
(NOT RECOMMENDED FOR ORDER ENTRY SALES!)

This type of entry is used to record a cash and carry sale. pc/MRP will bring in the above information from the invoice, and debit and credit the above chart of account numbers automatically. If the amounts are not correct, click on the cancel button, edit the invoice, and re-enter this transaction. Once you are satisfied with the transaction, click on the save button. pc/MRP will store the transaction in the transaction data base file, replace the posted field in the invoice with "Y", and replace the complete field in the invoice with a "Y". pc/MRP will also replace the check number and amount paid fields in the invoice with the correct values.

If Multi Divisions is Off (Default Setting in Option 11)
    The Income Chart of Accounts
        Case the Invoice or Part contain an Income Credit Account (uses invoice if populated)
            pc/MRP credits the Income Account listed in the Invoice or Part
        Otherwise
            pc/MRP credits the Income Account listed in the Default Account Template
    Remaining Chart of Accounts (Bank, Frt, Tax plus Inventory and COGs if Option 10 = Perpetual)
        pc/MRP Debits and Credits Accounts listed in the Default Accounts Template

If Multi Divisions is On

    The Income Chart of Accounts

    Case the Part or Invoice contain an Income Account (uses invoice if populated)

        If the invoice has a division

            Credit a chart of accounts containing the first 4 chars of invoice acct + division

        If the invoice does not contain a division

            Credit that the Income Account listed in the Invoice or Part

    Otherwise if the Part and Invoice do not contain an Income Account

        If the invoice does not have a division

            Credit the Income Account listed in the Default Account Template

        Else the invoice has a division

            If the default income account + division exists

                Credit the default Income Account + Division

            Else the Default Income Account + Division do not exist

                Credit the Default Income Account + "0000"

    Remaining Chart of Accounts (Bank, Frt, Tax plus Inventory and COGs if Option 10 = Perpetual)

        If the invoice does not have a division

            Debit and Credit Accounts listed in the Default Accounts Template

        Else the invoice has a division

            If the default account + division exists

                Debit/Credit the default Accounts + Division

            Else the Default Account + Division do not exist

                Debit/Credit the Default Accounts + "0000"

14.4.2.2 Register accounts receivable invoice (O):

Register accounts receivable, material going Out, O type, example transaction

This type of entry is necessary whenever an item is invoiced on account. pc/MRP will bring in the above information from the invoice, and debit and credit the above chart of account numbers automatically. If the amounts are not correct, click on the Cancel Button, edit the invoice, and re-enter this transaction. Once you are satisfied with the transaction, click on the save button. pc/MRP will store the transaction in the transaction data base file, and replace the posted field in the invoice with a "Y".   The Division Field is transferred from the part master or address book (Configuration, Settings and Utilities, Option 78) to the sales order and from there to the invoice.

If Multi Divisions is Off (Default Setting Option 11)
    pc/MRP will debit the Default AR Account found in the Default Accounts (Option 9) for the amt of the sale
    pc/MRP will credit the Income Account found in the Invoice, Part or Default Accounts for the amt of the sale
    pc/MRP will credit the Default Sales Tax Liability and Default Freight Income Accounts (Option 9)
    If Option 10 set to perpetual accounting methods
        Debits CoGS $100.00
        Credits Inventory $60.00 (Inventory is not over driven and does not include labor)
        Credits Gross Wages $30.00 (Only if the BOM contains labor type part numbers)
        Credits Overhead $10.00 (Only if the BOM contains labor type part numbers and overhead % > 0)

If Multi Divisions is On (Option 11)

    The Income Chart of Accounts

        Case the Part or Invoice contain an Income Account (uses invoice if populated)

            If the invoice has a division

                Credit a chart of accounts containing the first 4 chars of invoice acct + division

            If the invoice does not contain a division

                Credit that the Income Account listed in the Invoice or Part

        Otherwise if the Part and Invoice do not contain an Income Account

            If the invoice does not have a division

                Credit the Income Account listed in the Default Account Template

            Else the invoice has a division

                If the default income account + division exists

                    Credit the default Income Account + Division

                Else the Default Income Account + Division do not exist

                    Credit the Default Income Account + "0000"

    Remaining Chart of Accounts (AR, Frt, Tax plus Inventory and CoGS if Option 10 = Perpetual)

        If the invoice does not have a division

            Debit and Credit Accounts listed in the Default Accounts Template

        Else the invoice has a division

            If the default account + division exists

                Debit/Credit the default Accounts + Division

            Else the Default Account + Division do not exist

                Debit/Credit the Default Accounts + "0000"

Note: pc/MRP only uses Option 35 to determine whether to use average or standard costs. pc/MRP will calculate Cost of Goods Sold directly from the partmaster and not from the cost in the invoice or sales order regardless of how Option 35 is set. If there is labor and or overhead in the BOM, pc/MRP will credit those accounts regardless of how Option 35 is set.   The reason for this is that pc/MRP's cost rollup function includes labor and overhead costs if they exist in the BOM.   As such, the above invoice would be debited and credited as follows.

The cash sale (S) type transaction is similar to the above (O) type transaction with the exception the S type transaction debits the checking account instead of accounts receivable.

Outside labor is rolled into inventory and inside labor is rolled into gross wages.

14.4.2.3 Accounts receivable payment (revenue) (R):

This type of entry is used to record a payment from a customer towards an existing accounts receivable invoice or voucher. pc/MRP will bring in the above information from the invoice, and debit and credit the above chart of account numbers automatically. If the amounts are not correct, click on the cancel button, edit the invoice, and re-enter this transaction. Once you are satisfied with the transaction, click on the save button. pc/MRP will store the transaction in the transaction data base file, replace the check number in the invoice, and add the amount received to the amount received field in the invoice. If the total amount received is equal to or greater than the amount due pc/MRP will put a "Y" in the invoices complete field.

If the customer pays within 10 days and takes advantage of the terms discount, enter a general ledger transaction (accounts receivable payment). Enter the full amount originally due as the amount received. Debit checking for the amount actually received, debit Cash Discount or Business Income for the terms amount, credit Accounts Receivable for the full amount originally due.

If Multi Divisions is Off (Default Setting Option 11)
    pc/MRP selects the AR and Checking Account listed in the Default Accounts Template

If Multi Divisions is On (Option 11)
        If the invoice does not have a division
            Selects the AR and Checking Accounts listed in the Default Accounts Template
        Else the invoice has a division
            If the default account + division exists
                Credit/Debit the default Accounts + Division
            Else the Default Account + Division do not exist
                Credit/Debit the Default Accounts + "0000"

14.4.3 A/P Transactions

14.4.3.1 Cash and carry purchase (P):

Cash Purchase, P type, example transaction

This type of entry is used to record a cash and carry purchase, for example Checks, Cash, Credit Card, & CODs. pc/MRP will bring in the above information from the receiver, and debit and credit the above chart of account numbers automatically. If the amounts are not correct, click on the cancel button, edit the receiver, and re-enter this transaction. Once you are satisfied with the transaction, click on the save button. pc/MRP will store the transaction in the transaction data base file, replace the posted field in the receiver with "Y", and replace the complete field in the receiver with a "Y". pc/MRP will also replace the check number and amount paid fields in receiver with the correct values. pc/MRP will then ask if you wish to print a check for transaction. If you have created a custom form (cuscheck.frx), then select Form Type, Custom. Check date will be the current system date.

If Multi Divisions is Off (Default Setting Option 11)
        The Inventory, Purchase Expense or Operating Expense Chart of Accounts
        Case the Receiver or Part contain a Debit Account (uses Receiver if populated)
                pc/MRP debits the Debit Account listed in the Receiver or Part
        Otherwise the receiver or part do not contain a Debit Account
                If receiving inventory items,
                        If Option 10 is set to Perpetual debit the Default Inventory Account
                        If Option 10 is set to Periodic debit the Default Purchase Expense Account
                If receiving non inventory items,
                        Debit the Default Operating Expense Account.
        Remaining Chart of Accounts (Bank, Freight Income)
                pc/MRP Debits and Credits Accounts listed in the Default Accounts Template

If Multi Divisions is On (Option 11)
        The Inventory, Purchase Expense or Operating Expense Chart of Accounts
        Case the Receiver or Part contain a Debit Account (uses Receiver if populated)
                        If the receiver has a division
                                Debits a chart of accounts containing the first 4 chars of receiver acct + division
        Otherwise the receiver does not contain a debit account
                If the receiver does not have a division
                        If receiving inventory items,
                           If Option 10 is set to Perpetual debit the Default Inventory Account
                           If Option 10 is set to Periodic debit the Default Purchase Expense Account
                        If receiving non inventory items,
                           Debit the Default Operating Expense Account.
                        Else the receiver has a division
                        If receiving inventory items,
                           If Option 10 is set to Perpetual debit the Default Inventory Account + division
                           If Option 10 is set to Periodic debit the Default Purchase Expense Account + div
                           If receiving non inventory items,
                                Debit the Default Operating Expense Account + div.

        Remaining Chart of Accounts (Bank, Freight Income)
                If the receiver does not have a division
                        Debits and Credits Accounts listed in the Default Accounts Template
                Else the receiver has a division
                        If the default account + division exists
                                Debit/Credit the default Accounts + Division
                        Else the Default Account + Division do not exist
                                Debit/Credit the Default Accounts + "0000"

14.4.3.2 Register an Accounts Payable Invoice (I):

Register accounts payable, material coming in, I type, example transaction

This type of entry is necessary whenever an item is received on account. pc/MRP will bring in the above information from the receiver, and debit and credit the above chart of account numbers automatically. If the amounts are not correct, click on the cancel button, edit the receiver, and re-enter this transaction. Once you are satisfied with the transaction, click on the save button. pc/MRP will store the transaction in the transaction data base file and replace the posted field in the receiver with a "Y"

Note: If **Option 10** is set to **Perpetual**, pc/MRP first looks at receiver, then inventory, and lastly, Option 9 for the default inventory account. It the screen presented above, the default inventory account is 12100000.

If Multi Divisions is Off (Default Setting Option 11, pc/MRP Versions 7.01 and higher)
　　The Inventory, Purchase Expense, or Operating Expense Chart of Accounts are considered as follows:
　　Case the Receiver or Part contain a Debit Account (uses Receiver if populated)
　　　　　pc/MRP debits the Debit Account listed in the Receiver or Part
　　Otherwise the receiver or part do not contain a Debit Account
　　　　　If receiving inventory items,
　　　　　　　　If Option 10 is set to **Perpetual** will debit the account in the receiver, partmast, or default
　　　　　　　　Inventory Account in that order.
　　　　　　　　If Option 10 is set to **Periodic** will debit the account in the receiver, partmast, or default
　　　　　　　　Purchase Expense Account in that order.
　　　　　If receiving non inventory items,
　　　　　　　　Debit the Default Operating Expense Account.
　　Remaining Chart of Accounts (AP, Freight Income)
　　　　　pc/MRP Debits and Credits Accounts listed in the Default Accounts Template

If Multi Divisions is On (Option 11)
　　The Inventory, Purchase Expense or Operating Expense Chart of Accounts are considered as follows:
　　Case the Receiver or Part contain a Debit Account (uses Receiver if populated)
　　　　　SetAcct()
　　　　　If the receiver has a division
　　　　　　　　Debits a chart of accounts containing the first 4 chars of receiver acct + division
　　　　　Else the receiver has no division
　　　　　　　　Debits the chart of accounts listed on the receiver or partmaster
　　Otherwise the receiver does not contain a debit account
　　　　　Settmplt()
　　　　　If the receiver does not have a division
　　　　　　　　If receiving inventory items,
　　　　　　　　　If Option 10 is set to **Perpetual** debit the Default Inventory Account
　　　　　　　　　If Option 10 is set to **Periodic** debit the Default Purchase Expense Account
　　　　　　　　If receiving non inventory items,
　　　　　　　　　Debit the Default Operating Expense Account.
　　　　　Else the receiver has a division
　　　　　　　　If receiving inventory items,
　　　　　　　　　If Option 10 is set to **Perpetual**
　　　　　　　　　　　If exists in chart of accounts debit the Default Inventory Account + division
　　　　　　　　　　　Else debit Default Inventory Account + "0000"
　　　　　　　　　If Option 10 is set to **Periodic**
　　　　　　　　　　　If exists in chart of accounts debit the Default Purchase Expense Account + div
　　　　　　　　　　　Else debit Default Purchase Expense Account + "0000"
　　　　　　　　If receiving non inventory items,
　　　　　　　　　Debit the Default Operating Expense Account + div.

　　Remaining Chart of Accounts (AP, Freight Income)
　　　　　If the receiver does not have a division
　　　　　　　　Debits and Credits Accounts listed in the Default Accounts Template
　　　　　Else the receiver has a division
　　　　　　　　If the default account + division exists
　　　　　　　　　Debit/Credit the default Accounts + Division
　　　　　　　　Else the Default Account + Division do not exist
　　　　　　　　　Debit/Credit the Default Accounts + "0000"

14.4.3.3 Accounts Payable Payment (expense) (E):

This type of entry is used to record a payment towards an existing accounts payable receiver or voucher. pc/MRP will bring in the above information from the receiver, and debit and credit the above chart of account numbers automatically. If the amounts are not correct, click on the cancel button, edit the receiver, and re-enter this transaction. Once you are satisfied with the transaction, click on the save button. pc/MRP will store the transaction in the transaction data base file, replace the check number in the receiver, and add the amount paid to the amount paid field in the receiver. If the total amount paid is equal to or greater than the amount due pc/MRP will put a "Y" in the receiver's complete field. pc/MRP will then ask if you wish to print a check for transaction. If you have created a custom form (cuscheck.frx), then select Form Type, Custom. Check date will be the current system date.

You can also use accounting's "Pay Bills/Print Checks" option to pay off a number of open unpaid receivers. The "Pay Bills" function creates a check run, entering E type transactions for each receiver selected and prints out one check per vendor.

If Multi Divisions is Off (Default Setting Option 11, pc/MRP Versions 7.01 and higher)
    pc/MRP selects the AP and Checking Account listed in the Default Accounts Template
If Multi Divisions is On (Option 11)
        If the receiver does not have a division
            Selects the AP and Checking Account listed in the Default Accounts Template
        Else the receiver has a division
            If the default account + division exists
                Credit/Debit the default Accounts + Division
            Else the Default Account + Division do not exist
                Credit/Debit the Default Accounts + "0000"

14.4.4. Other Transactions

14.4.4.1 Payroll (W):

Payroll, Wage, W type example transaction

Selecting W will provide a payroll template for payroll entries. pc/MRP does not have a payroll module, just the above payroll screen. The payroll screen will automatically bring up the correct accounts to debit and credit. The user must enter the correct dollar amounts from another payroll program or payroll service. One entry can be made per payroll period, or an entry can be made for every person for every payroll period. See the example payroll transaction section (14.5.7) of this Manual for examples of entering various types of payroll transactions.

Note: This is not a 'Payroll System' as it does not offer to print checks; nor is the 'W' transaction listed in the Accounting, Print Unprinted Checks selection. If you intend to print payroll checks, you must use the Accounting 'A' type transaction and reference the correct accounts as listed in the Manual Section 14.5.7.

14.4.4.2 Adjusting transaction types (A):

All other, A type, example transaction

This type of entry is used to record all other type of transactions. This quick entry form was designed to handle all transactions not involving an existing pc/MRP payable or receivable voucher. Rent, depreciation, and cash purchases are good examples. It is also the most efficient means for an outside accountant to make entries, as outside accountants are rarely required to make payables and receivable voucher entries.

This module is also used to startup or transfer in your existing account balances from your previous accounting system. Enter all your debits and credits from a previous trial balance by overriding pc/MRP's Out of Balance Message. When you have completed your entries post the month and print your financials. Check the Trial Balance Report to make sure you are in balance.

14.4.5   Edit/View a GL Transaction

Slideshow at: http://www.pcmrp.com/mrp101/editaccountingoption14.htm

The ability to edit General Ledger transactions can be enabled or disabled by using Option 14 in the Settings and Utilities. If the option is set to **Adjust,** editing will not be available. If the option is set to **allow Edits,** the user can scroll, edit, delete, undelete, or run queries against General Ledger records.

Selecting an **Indexed Search** allows users to search on indexed fields. This allows pc/MRP to find the information much faster. To perform an **Indexed Search** select the:
1. Indexed Search tab
2. Desired Sort Order: Document Number, Account Number or Part Number
3. Enter the applicable data in the Begin Scrolling At: field
4. Select the desired Action: View or Edit
5. Press Search

pc/MRP will scroll to the desired record or the nearest match. Select the correct record by scrolling and press **Ok** to proceed to the edit screen for that record.

Selecting to run a **Queried Search** allows users to build, run, save, and load queries for the General Ledger table. For further details, see Chapter 15.14.

If you edit an A, W, O, or I type transaction, the corresponding invoices or receivers <u>will not</u> automatically be edited. Users would have to edit both the General Ledger and the corresponding invoice or receiver.

If you edit an E (AP expense payment) or P (cash purchase) transaction, pc/MRP will prompt you to edit the transaction automatically or manually. An automatic edit will correct the original receiver's amount paid and complete fields automatically. A manual edit will not correct the receiver's amount paid and complete fields. After you manually edit an E or P transaction, you must edit the receiver's amount paid and complete fields on each line item. **If the original receiver has not been edited since entering the transaction, select "Auto". If the original receiver has been edited since entering the transaction, select "Manual".** After manually editing the transaction, you must edit the receiver's amount paid and complete fields. Please note, if you auto edit an accounting transaction who's receiver's amounts or quantities have been edited, the amount paid will be incorrect on both the receiver and the accounting transaction.

If you edit an O (post an AR invoice), R (AR revenue payment), or S (cash sale) transaction, pc/MRP will prompt you to edit the transaction automatically or manually. An automatic edit of an R transaction will correct the original invoice's amount paid and complete fields automatically. A manual edit will not correct the invoice's amount paid and complete fields. After you manually edit an R or S transaction, you must edit the invoice's amount paid and complete fields on each line item. An automatic edit of an O transaction will cause pc/MRP to update the CoGS and Inventory based on current costs. **If the original invoice has not been edited since entering the transaction, select "Auto". If the original invoice is recent and has been edited since entering the transaction, select "Manual"**. After manually editing the transaction, you must then edit the invoice's amount paid and complete fields. Please note, if you auto edit an accounting transaction who's invoice's amounts or quantities have been edited, the amount paid will be incorrect on both the invoice and the accounting transaction.

When you edit an E, P, R, or S type transaction, pc/MRP will display the Amount Paid/Received To date minus the Amount Paid/Received from the Transaction you are editing. You can enter a new Amount Paid/Received or re-enter the original Amount Paid/Received that is being displayed. If you selected "Auto", upon completing the Edit Screen pc/MRP will subtract the Previous Amount Paid/Received and add the New Amount Paid/Received to the Total Amount Paid/Received.

If the payment for an invoice/receiver was received/paid in installments (more than one R type transaction for one invoice/receiver) the "Auto" option will not be offered, only "Manual" edit is available.

The Transaction Edit Module will automatically look for an Accounts Payable (receiver) or Accounts Receivable (invoice) Voucher to correct the amount paid if either of the following conditions exist: "Auto" was selected and Transaction Type = "R" and Invoice # is not "NONE" or "Auto" was selected and Transaction Type = "E" and Receiver # is not "NONE"

pc/MRP will not correctly process an existing voucher unless the Transaction Record contains either an "R" or an "E" and the correct number is in the Invoice # or Receiver # Field.

An accounting transaction record cannot be deleted unless the Amount Paid/Received or the first account debited and the first account credited equals zero.

Once you have finished editing the record, pc/MRP will ask Do you wish to mark this record for deletion? If you answer Y, a message will warn you that pc/MRP requires one record in each data base file. AT NO TIME SHOULD YOU EVER DELETE EVERY RECORD IN A DATABASE FILE. Once the record has been marked for deletion you must return to the menu and select REMOVE ALL DELETED RECORDS FROM DISK AND REINDEX.

Entering Accounting Transactions Pseudo Code

The following code is intended to help technical support personnel by displaying a short summary of the code that determines which accounts to debit and credit when entering an accounting transaction

ENTERTRA.PRG

```
Do While maccess = "GRANTED"
      If Inlist(mtrantype,'R','O','S') (if R (receiving revenue from an invoice), O (posting an invoice), or S(cash sale)
                  if minv = Y                            (if there is an invoice)
                        If mmult = "Y" multidivision is ON      (if Option 12 set to Multi Division and Option 11 is set to "DIV" or "PRO")
                              picks up division from invoice
                              IF SUBSTR(configdm,31,3) = "PRO"  &&  Option 12 Set to use first 4 char of partnumber for div code
                                    mcondit = 'Upper(InvoiceNo) = Upper(mInvoiceNo) AND mDiv = Substr(Partno,1,4) AND !Eof()'
                              ELSE  && Option 12 Set to use invoice div for div code
                                    mcondit = 'UPPER(INVOICENO) = UPPER(MINVOICENO) AND MDIV = DIVISION AND !EOF()'
                              ENDIF
                        Endif
                        mcacc1 = space(8)
                        do while &mcondit (invoiceno and div stay the same)
                              if mtrantype = O or S
                                    mcacc1 = SetAcct(mtrantype)
                              endif
                        enddo
                  endif
                  If mmult = 'Y'
                              IF UPPER(invoiceno) = UPPER(minvoiceno)
                                    mitemno = itemno
                                    mdone = 'N'
                              ELSE
                                    mdone = 'Y'
                              ENDIF
                  Endif
      Endif
      If Inlist(mtrantype,'E','I','P')  (if creating a transaction record for E (paying a receiver), I (posting a receiver), P (cash purchase)
                  if mrec = Y                            (if there is a receiver)
                        if multidivision is ON      (if Option 11 set to Multi Division)
                              picks up division from invoice
                        endif
                        mdacc1 = space(8)
                        mdacc4 = space(8)
                        do while &mcondit (invoiceno and div stay the same)
                              if mtrantype = I or P
                                    if part is designated non inventory
                                          mdacc4 = SetAcct(mtrantype)
                                    if part is anything else
                                          mcacc1 = SetAcct(mtrantype)
                                    endif
                              endif
                        enddo
                  endif
      endif
      If substr(configdm,22,9) = 'Perpetual'
            Do Case
            Case Right(mitemno,2)='CM' and M_POSTED = 'Y' and mtrantype = "R"   && Credit memo posted
                        DO settmplt WITH 'AcctsRec',mdacc1
                        DO settmplt WITH 'PrimaryChkAct',mcacc1
            CASE RIGHT(MITEMNO,2)='CM' AND mtrantype = "R"        && Credit memo not posted
                        DO settmplt WITH 'BusIncome',mdacc1
                        DO settmplt WITH 'PrimaryChkAct',mcacc1
            CASE mtrantype = "R"        && accts receivable payment
                        If pcCallProgram = "RECORDCUSPAYMENT"
                              STORE mprimchk TO mdacc1
```

```
                                DO settmplt WITH 'AcctsRec',mcacc1, mcdescrip1
                Else
                                DO settmplt WITH 'PrimaryChkAct',mdacc1
                                DO settmplt WITH 'AcctsRec',mcacc1
                Endif
        ….
        CASE RIGHT(MITEMNO,2)='CM' AND mtrantype = "O"        && CREDIT MEMO VOUCHER
                DO settmplt WITH 'BusIncome',mdacc1
                DO settmplt WITH 'AcctsRec',mcacc1
        CASE mtrantype = "O"              && sale on account
                DO settmplt WITH 'AcctsRec',mdacc1
                IF EMPTY(MCACC1) OR MCACC1 = "MULTIPLE"
                        DO settmplt WITH 'BusIncome',mcacc1
                ENDIF
                DO settmplt WITH 'CostOfGoodsSold',mdacc2
                DO settmplt WITH 'Inventory',mcacc2
                ….
        ….
        Endcase
Else  && periodic
        Do Case
….                      Same code as 'Perpetual' for mtrantype = "R"
        EndCase
Endif
DO prtransc
DO proctra
Enddo


PROCEDURE SETACCT
        Parameters SA_Trantype
        CASE SA_Trantype = O or S  && post an invoice or cash sale
                SA_NewVal = ""
                IF Multi Div is on AND (the invoice or the part has an income credit account) AND the invoice has a division
                        SA_NewVal = left(invoice or partmast income acct,4) + Division
                Endif
                CASE mcacc1 is empty
                        SA_RTNVAL = SA_NewVal
                CASE EMPTY SA_NewVal or mcacc1 = SA_NewVal
                        SA_RTNVAL = mcacc1
                OTHERWISE
                        SA_RTNVAL = "MULTIPLE"
                ENDCASE
        CASE SA_Trantype = I or P && post a receiver or cash purchase
        ENDCASE
        Return SA_RTNVAL


PROCEDURE SETTMPLT
        Parameters mcadescr, mcano
        IF it can find the description in the actmplt.dbf
                IF invoice does not have a Div OR Multi-Div turned off
                        Return the default chart of accounts number found in the actmplt table
                ELSE   && Div in invoice and Multi-Div turned on
                        macctnum = LEFT(canumber,4) + mdiv
                        IF macctnum exists in the chart of accounts
                                mcano = expaccnt
                        ELSE
                                mcano = LEFT(macctnum, 4) + "0000"
                        ENDIF
                ENDIF
        ELSE
                Display error mcadescr Not found in accts templet dbf file
        ENDIF  .
```

14.4.6 Index (see 15.14.3)

14.4.7 Remove Marked Records (see 15.14.4)

14.4.8 Remove Over X Years (see 15.14.5)

14.5 Example Transactions

14.5.1 Initial Startup (No Previous Accounting Program Used)

DEBIT*: ALL ASSETS (CASH, CHECKING, EQUIPMENT, PREPAID EXP)
CREDIT*: ALL LIABILITIES (TAXES, ACCTS PAY, NOTES PAY)
: DEPRECIATION ACCRUED
IF DEBITS > CREDITS, CREDIT THE DIFF TO STARTING CAPITAL
IF CREDITS > DEBITS, DEBIT THE DIFF TO STARTING CAPITAL

Enter all your debits and credits at once by overriding pc/MRP's Out of Balance Message. When you have completed your entries post the month and run a Trial Balance Report to make sure you are still in balance.

14.5.2 Initial Startup (Switch from Previous Accounting Program)

IF MID PERIOD
TRANSFER ALL ACCOUNTS FROM TRIAL BALANCE*

IF START OF PERIOD
TRANSFER LIABILITY, ASSET, & EQUITY ACCTS FROM TRIAL BALANCE*

IF START OF YEAR (TRANSFER YTD EARNINGS TO STARTING CAPITAL)
TRANSFER LIABILITY, ASSET, & EQUITY ACCTS FROM TRIAL BALANCE*

Enter all your debits and credits at once by overriding pc/MRP's Out of Balance Message. When you have completed your entries, post the month and run a Trial Balance Report to make sure you are still in balance.

14.5.3 Owner Purchases Supplies with His Own Cash

ON THE TRANSACTION DATE
DEBIT : OFFICE SUPPLIES ETC. 61400000 (EN Debit account)
CREDIT : NOTES PAYABLE TO OWNER (LC Credit account - 20200000?)

WHEN HE IS REIMBURSED
DEBIT : NOTES PAYABLE TO OWNER (LC Credit account - 20200000?)
CREDIT : CHECKING 10200000, CASH 10100000, ETC.

14.5.4 Start of New Year

Sole Proprietor

DEBIT : YTD RETAINED EARNINGS 29900000 (TO BRING ACCT TO $0.00)
(this is a QR Credit Account - only one allowed)
CREDIT : STARTING CAPITAL 25100000
(this is a QN Credit - Equity Account)

Corporation

DEBIT : YTD RETAINED EARNINGS 29900000 (TO BRING ACCT TO $0.00)
(this is a QR Credit Account - only one allowed)
CREDIT: PRIOR YTD RETAINED EARNINGS (29950000 in pc/MRP versions 8.43 & higher)
(this is a QN Credit - Equity Account)

This transaction should be dated as the first day of the new year.

14.5.5 Periodic Inventory Methods

pc/MRP can be set in the configuration menu to use the periodic inventory method. <u>The Periodic Inventory Method requires the inventory to be adjusted at the end of each month instead of with each transaction</u>. The total dollar amount of the inventory at the end of one period is also the beginning balance for the next period. Since pc/MRP automatically increments and decrements the physical inventory, you can run pc/MRP's "Total Onhand Stock Value Report" to obtain the inventory value instead of taking a physical inventory. Example sales and purchasing transactions for companies using a periodic inventory are shown below:

Use the Inventory Value Report to find the inventory value at the Start and End of each month (SOM, EOM). Enter the following A type transactions into the general ledger.

START OF MONTH INVENTORY ADJUSTMENT
```
     DEBIT : STARTING INVENTORY EXP 40100000 incr exp by SOM $amt
     CREDIT: STOCK INVENTORY ASSET 12100000 zeros out asset acct
```

END OF MONTH INVENTORY ADJUSTMENT
```
     DEBIT : STOCK INVENTORY ASSET 12100000    asset = new EOM $amt
     CREDIT: ENDING INVENTORY EXP 42100000     decr exp by EOM $amt
      (YTD Exp Rep will add the SOM and subtract the EOM $amt)
```

PURCHASE, CASH   Transaction type 'P'
```
     DEBIT : PURCHASES 41100000, RENT 61500000, SHOP SUPPLIES 61400000, ETC.
     CREDIT: CHECKING 10200000, CASH 10100000, ETC.
```

PURCHASE, ON ACCOUNT
   WHEN YOU RECEIVE INVOICE   Transaction type 'I' (Material <u>i</u>n the door)
```
     DEBIT: PURCHASES 41100000, SHOP SUPPLIES 61400000, ETC.
     CREDIT: ACCOUNT PAY 20100000
```

WHEN YOU PAY ON ACCOUNT   Transaction type 'E' (<u>E</u>xpense)
```
     DEBIT:ACCOUNT PAY 20100000
     CREDIT: CHECKING 1020, CASH 10100000, ETC.
```

SALE, CASH   Transaction type 'S'
(Firms that do not sell on account, usually enter one cash receipt daily entitled Day's Receipts and the date.)

```
     DEBIT : CHECKING 10200000, CASH 10100000, ETC.
     CREDIT : BUSINESS INCOME 30100000 AND SALES TAX LIABILITY 21100000
```

SALE, ON ACCOUNT
   WHEN YOU INVOICE Transaction type 'O' (matl <u>O</u>ut the door)
```
     DEBIT: ACCOUNT RECVB 11100000
     CREDIT: BUSINESS INCOME 30100000 AND SALES TAX LIABILITY 21100000
```

   WHEN CUSTOMER PAYS ON ACCOUNT   Transaction type 'R' (<u>R</u>evenue)
```
     DEBIT: CHECKING 10200000, CASH 10100000, ETC.
     CREDIT: ACCOUNT RECVB 11100000
```

14.5.6 Perpetual Inventory Methods

pc/MRP can be set in the configuration menu to use the perpetual inventory method. <u>The Perpetual Inventory Method requires the inventory to be adjusted with each sale and purchasing transaction.</u> To employ this method the accountant must know the inventory cost for each sale. pc/MRP can provide those figures by first running the Automatic Cost Roll Up Option and then printing out an "All Parts Costed Report" in inventory. With this method, you must add a new account called "COST OF GOODS SOLD" to the chart of accounts as an "EG" Debit Account.

If you were to add labor to your BOMs you could manually credit inventory and overhead (credit acct) when debiting cost of goods sold.

PURCHASE, CASH   Transaction type 'P'
```
       DEBIT  : INVENTORY 12100000
       CREDIT : CHECKING 10200000
```

PURCHASE, ON ACCOUNT
    WHEN YOU RECEIVE INVOICE   Transaction type 'I' (Material <u>I</u>n the door)
```
       DEBIT  : INVENTORY 12100000
       CREDIT : ACCOUNT PAY 20100000
```

    WHEN YOU PAY ON ACCOUNT   Transaction type E (<u>E</u>xpense)
```
       DEBIT  : ACCOUNT PAY 20100000
       CREDIT : CHECKING 10200000, CASH 10100000, ETC.
```

SALE, CASH   Transaction type 'S'
    FOR THE SALE AMOUNT
```
       DEBIT : CHECKING 10200000, CASH 10100000, ETC.
       CREDIT: BUSINESS INCOME 30100000 AND SALES TAX LIABILITY 21100000
```

    FOR THE COST OF INVENTORY SHIPPED
```
       DEBIT : COST OF GOODS SOLD
       CREDIT: INVENTORY 12100000
```

SALE, ON ACCOUNT
    WHEN YOU INVOICE   Transaction type 'O' (Material <u>O</u>ut the door)

    FOR THE SALE AMOUNT
```
       DEBIT : ACCOUNT RECVB 11100000
       CREDIT: BUSINESS INCOME 30100000 AND SALES TAX LIABILITY 21100000
```

    FOR THE COST OF INVENTORY SHIPPED
```
       DEBIT : COST OF GOODS SOLD
       CREDIT: INVENTORY 12100000
```

    WHEN CUSTOMER PAYS   Transaction type 'R' (<u>R</u>evenue)
```
       DEBIT : CHECKING 10200000, CASH 10100000, ETC.
```
       CREDIT: ACCOUNT RECVB 11100000

14.5.7 Payroll Entries (Accounting 'W' transaction)

Please note the following caps, percentages, and deductions may vary from state to state and change without notice. The following are used for example only.

Note: The Accounting 'W' transaction is used for creating a summary entry of payroll information you receive from the company that does your payroll. This is not a 'Payroll System' as it does not offer to print checks; nor is the 'W' transaction listed in the Accounting, Print Unprinted Checks selection. If you intend to print payroll checks, you must use the Accounting 'A' type transaction and reference the correct accounts as listed below.

<u>PAYING WAGES</u> (ENTER AS A "W" TYPE ACCOUNTING TRANSACTION)

```
EXAMPLE EMPLOYEE PAYROLL CHECK:
     GROSS WAGES                         408.00
     FWT (Federal Withholding Tax)        31.51
     SSEC (Social Security Tax)           25.30
     MEDI (Social Security Medicare)       5.92
     SWT (State Withholding Tax)           1.94
     SDI (State Disability Tax)            5.10
                                        -------
     NET PAY                             338.23


 DEBIT :GROSS WAGE EXPENSES 50100000            408.00
 DEBIT : EXPENSES PAYROLL TAXES (SSEC+MEDI) 51100000 31.22
 CREDIT: FICA LIABILITY (SSEC+MEDI) 22110000         31.22
 CREDIT: FWT LIABILITY 22100000                      31.50
 FICA LIABILITY (SSEC + MEDI) 22110000               31.22
 SWT LIABILITY 22140000                               1.94
 SDI LIABILITY 22130000                               5.10
 CHECKING ACCT 10200000 (NET PAY)                   338.23
```

PAYING FEDERAL GOVERNMENT PAYROLL TAXES (941)
```
 DEBIT  : ACCUM LIAB FWT 22100000              31.50
 DEBIT  : FICA(SSEC+MEDI) 22110000             62.44
 CREDIT : BANK CHECKING ACCT 10200000                 93.94
```

PAYING FEDERAL UNEMPLOYMENT TAX
```
 DEBIT  : EXPENSES PAYROLL TAXES 51100000
 CREDIT : ACCUM LIAB FUTA 22120000
 DEBIT  : ACCUM LIAB FUTA 22120000
 CREDIT : BANK CHECKING ACCT 10200000
```

PAYING STATE PAYROLL TAXES
```
 DEBIT  : ACCUMULATED LIAB SDI 22130000,SWT 22140000
 CREDIT : BANK CHECKING 10200000
```

PAYING STATE PAYROLL TAXES
```
 DEBIT  : EXPENSES PAYROLL TAXES 51100000
 CREDIT : ACCUM LIAB SUI 22150000 ETT 22160000
 DEBIT  : ACCUM LIAB SUI 22150000, ETT 22160000
 CREDIT : BANK CHECKING ACCT 10200000
```

14.5.8 Owner Withdrawals And Contributions

```
SOLE PROPRIETOR
  OWNER WITHDRAWS MONEY
     DEBIT: OWNER WITHDRAW (QN, Debit Account)
     CREDIT: CHECKING 10200000

  OWNER PUTS HIS OWN MONEY IN (Not on a loan type basis)
     DEBIT: CHECKING 10200000
     CREDIT: OWNER CONTRIBUTION (QN, Credit Account)
CORPORATION
  OWNER WITHDRAWS MONEY
     DEBIT: CAPITAL DECREASE 27100000
     CREDIT: CHECKING 10200000
  OWNER PUTS HIS OWN MONEY IN (Not on a loan type basis)
     DEBIT: CHECKING 10200000
     CREDIT: OWNER CAPITOL INCREASE 26100000
```

14.5.9 Income Taxes

```
WHEN PREPAYING ESTIMATED TAXES
     DEBIT : ASSETS, PREPAID FED TAX 16100000, PREPAID STATE TAX 16200000
     CREDIT: CHECKING 10200000

WHEN PAYING INCOME TAXES INDIVIDUAL OWNER
     DEBIT : EQUITY COMPANY TAXES 29100000 (Similar to Owner Withheld)
     CREDIT: ASSETS, PREPAID TAXES 16100000 16200000 AND CHECKING 10200000

CORPORATION (Over simplified, see your accountant for details)
     DEBIT : EXPENSES, COMPANY TAXES 90100000, 90200000
     CREDIT: ASSETS, PREPAID TAXES 16100000, 16200000
```

14.5.10 Checking Account Adjustments

Make the following adjustments only if you cannot trace the reason for the imbalance. Please note that these adjustments can affect your tax liability.

```
SOLE PROPRIETOR
IF ACTUAL BANK BALANCE IS MORE THAN PC/MRP BALANCE
     DEBIT CHECKING 10200000 FOR THE DIFFERENCE
     EDIT OWNERS CONTRIBUTION (QN, Credit Account)

IF PC/MRP BALANCE IS MORE THAN ACTUAL BALANCE
     DEBIT OWNERS WITHDRAWAL (QN, Debit Account)
     CREDIT CHECKING 10200000

CORPORATION
IF ACTUAL BANK BALANCE IS MORE THAN PC/MRP BALANCE
     DEBIT CHECKING 10200000 FOR THE DIFFERENCE
     CREDIT INCOME ADJUSTMENT (RN, Credit Account)


IF PC/MRP BALANCE IS MORE THAN ACTUAL BALANCE
     DEBIT EXPENSE ADJUSTMENT (EN, Debit Account)
     CREDIT CHECKING 10200000
```

14.5.11 Breaking Out Freight Charges

When pc/MRP expenses a receiver or payable voucher it debits 41100000 (Purchases) for the full amount (including freight) and credits 20100000 (accounts payable) for the full amount (including freight). If you wish to have freight broken out in your financial statements, you would enter an 'I' type transaction into the general ledger as you normally would and:

```
DEBIT 41100000 PURCHASES FOR PURCHASE AMT ONLY (displayed at top of screen)
DEBIT 41400000 FOR THE FREIGHT AMT (displayed at top of screen)
CREDIT ACCTS PAYABLE FOR THE FULL AMT (displayed at top of screen)
```

14.5.12 Credit Card Entries

If you plan to pay the credit card bill at a later date:

```
     1.  SELECT ACCOUNTING
     2.  SELECT ACCOUNTS PAYABLE VOUCHER
     3.  SELECT NEW AP VOUCHER
     4.  ACCEPT DEFAULTS: STORES, RECEIVER NUMBER
     5.  SELECT NO PARTNUMBER
     6.  SCROLL TO PICK UP THE BANKS ADDRESS
     7.  ENTER THE CREDIT CARD AND PAYMENT PERIOD IN DESCRIPTION
     8.  ENTER A QUANTITY OF 1
     9.  ENTER THE TOTAL DOLLAR AMOUNT IN PRICE FIELD
     10. FILL IN COMMENTS
     11. PRESS THE ACCEPT BUTTON
IT WILL NOW ENTER AN I TYPE TRANSACTION
     11. ACCEPT THE NEXT TRANSACTION NUMBER
     12. DEBIT VARIOUS EXPENSE ACCOUNTS
     13. CREDIT AP OR AP-CREDIT CARD ACCOUNT FOR TOTAL AMOUNT OF EXPENSES.
```

Pay off the credit card bill at the later date using an E (expense) type transaction or a "Pay Bills Check Run."

CREDIT CHECKING (10200000)
DEBIT AP OR CREDIT AP-CREDIT CARD ACCOUNT

14.5.13 Adjusting Inventory Asset Chart of Account Values

Debiting an asset account, increases its value and crediting it, decreases its value.

```
IF YOU HAVE SET pc/MRP TO "PERPETUAL ACCOUNTING METHODS" (OPTION 10 IN SETTINGS AND
UTILITIES)
     IF YOU WISH TO INCREASE THE INVENTORY VALUE
         DEBIT THE INVENTORY ASSET CHART OF ACCOUNTS
         CREDIT THE COST OF SALES EXPENSE ACCOUNT NUMBER
     IF YOU WISH TO DECREASE THE INVENTORY VALUE
         DEBIT THE COST OF SALES EXPENSE ACCOUNT NUMBER
         CREDIT THE INVENTORY ASSET CHART OF ACCOUNTS
IF YOU HAVE SET pc/MRP TO "PERIODIC ACCOUNTING METHODS" (OPTION 10 IN SETTINGS AND
UTILITIES)
     IF YOU WISH TO INCREASE THE INVENTORY VALUE
         DEBIT THE INVENTORY ASSET CHART OF ACCOUNTS
         CREDIT THE PURCHASES EXPENSE ACCOUNT NUMBER
     IF YOU WISH TO DECREASE THE INVENTORY VALUE
         DEBIT THE PURCHASES EXPENSE ACCOUNT NUMBER
         CREDIT THE INVENTORY ASSET CHART OF ACCOUNTS
```

14.5.14 Purchasing a fixed asset (auto, capital equipment, etc.)

Debiting an asset account, increases its value and crediting it, decreases its value.

```
PUCHASING THE FIXED ASSET
     DEBIT : ASSET, FIXED ASSET ACCOUNT
     CREDIT: ASSET, BANK ACCOUNT  OR LIABILITY, LOAN/NOTES PAYABLE ACCOUNT

PAYING OFF THE LOAN
     DEBIT : LIANBILITY, LOAN/NOTES PAYABLE ACCOUNT
     CREDIT: ASSET, BANK ACCOUNT

DEPRECIATION OF FIXED ASSET
     DEBIT : EXPENSE, DEPRECIATION EXPENSE ACCOUNT
     CREDIT: ASSET, ACCUMULATED DEPRECIATION FIXED ASSET ACCOUNT
```

14.6 Post the Month, Print Financials

14.6.1 Post the Month and Print Financials Overview

(see slideshow here: http://www.pcmrp.com/mrp101/closemonthselectpostmonth.htm)
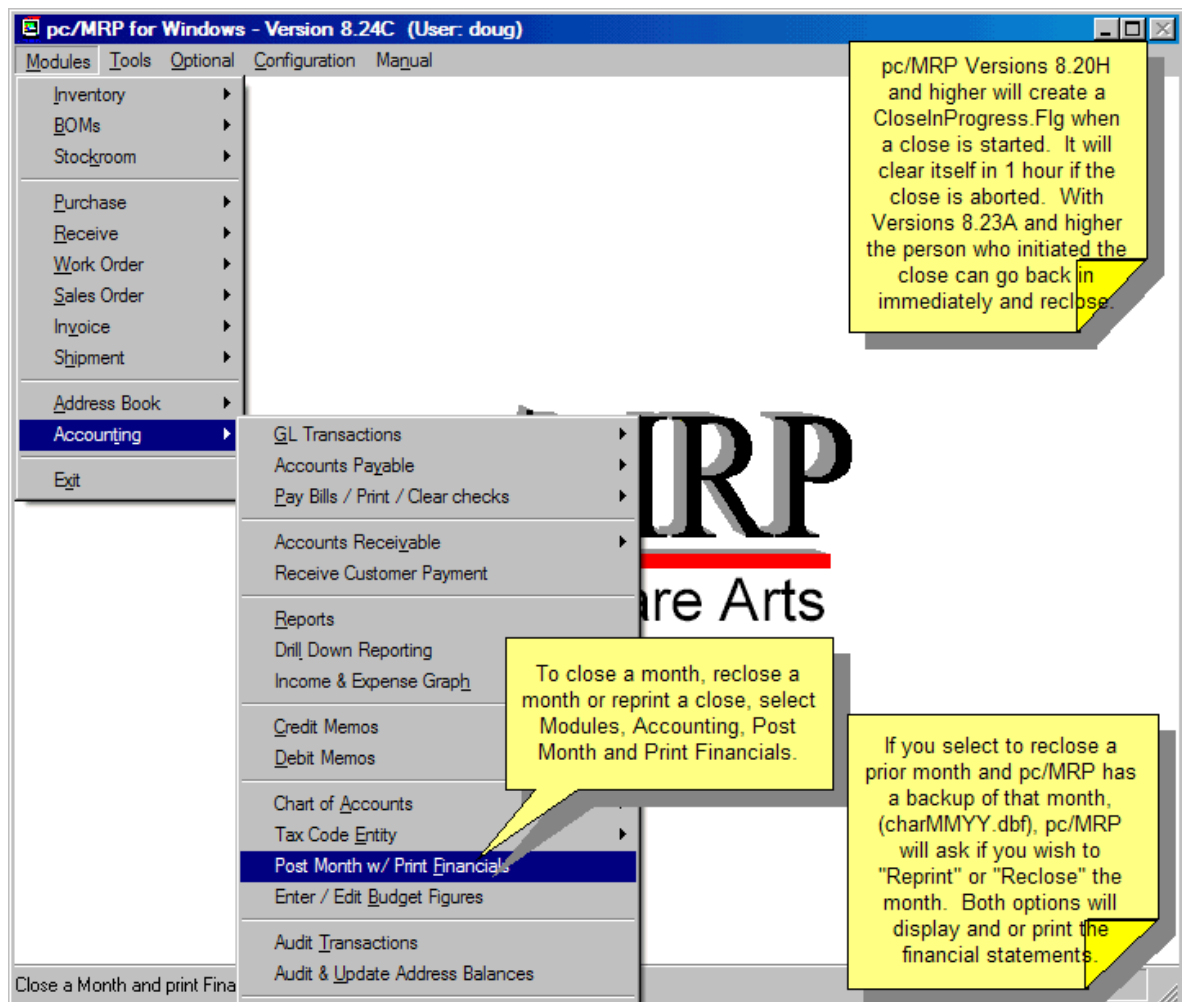
Post Month with Print Financials automatically retrieves each account's starting balance for that month and all of the financial transactions recorded during that month. pc/MRP then calculates the new balances for each account and will prompt users to choose from a variety of financial reports to be created based on the newly calculated figures. This process will safely guide and allow you to close and re-close the current month or any prior month in any prior year, provided pc/MRP has previously closed the prior period. The following is an explanation of how pc/MRP closes a month and is intended for those of you who would feel more comfortable knowing what happens when you are closing a month. It is also intended to serve as a first level technical support aid when trouble shooting a close.

To close or re-close a month, you would select "Modules", "Accounting", and "Post Month with Print Financials". pc/MRP will display the month and year of the current close (last month that was closed) and ask you to enter the month and year you wish to close.

14.6.2 Closing, Re-closing the Current month, or Closing the Next Month

Select the month you wish to Post and or Print Out

pc/MRP Versions 8.54E and higher have a single screen to post a month (replacing the prior screens) . In this example we are going to close Dec, Jan and Feb.

If you select to reclose a month and pc/MRP has a backup of that month, select Reclose, Reprint and report variance (if any) or Reprint wo variance

Enter the closing period

Month   12

Year   2010

Select a prior period action to perform

- Reclose a prior month
- Reprint a prior month(report any variance)
- Reprint a prior month(historical reprint)

FYI: This process will initialize the starting balances of month 01

Select the financial reports you wish to print out

Select Standard or Custom Report

Select the reports to be output	Report Type	Custom File
☑ Profit and Loss Report	Standard	
☑ Balance Sheet For Assets	Standard	
☑ Balance Sheet For Liability + Equity	Standard	
☑ Current Month Trial Balance	Standard	
☐ Div/Dept YTD Exp-Rev Reports		
☑ YTD Expense and Revenue Report	Standard	
☑ Trial Balance Current and YTD	Standard	
☑ General Ledger		
☑ Transaction Report		

Check Show Sub-Accounts to display sub-accounts on Balance Sheet, Trial Balance, General Ledger and YTD Expense and Revenue Reports

☑ Show Sub-Accounts

☐ Manually step thru posting (VERY SLOW)

Check this option if you are out of balance and want to step through and find out which transaction sends it out of balance

Send Report to...

Display

Select Print or Display

Ok   Cancel

Press OK to Post the Month

Reportcursor   9/9

VFP - C:\V846 (User: DOUG)

Modules Tools Optional Configuration Manual Developer Help

Fiscal Year Starts: January

Closing a period in Accounting

Calander Month: January, 2010

Includes accounting transactions dated

From: 01/01/2010

To: 01/31/2010

Ok   Cancel

Press OK to continue. If the month has not had a previous close and option 5 in the "Configuration", "Settings and Utilities Menu" has been set to "Allow date change during month close", you can adjust the ending date of the period you are closing. This allows users to run 4-4-5 accounting periods and or adjust the close to the manufacturing schedule. Once a month has been closed, pc/MRP will not allow you to adjust the dates of the close regardless of how option 5 is set.

Closedat (c:\v846\closedat.dbf)   Record: 300/624   Record Unlocked

If you select to close, re-close the current month (displayed) or close the next month, pc/MRP will display the starting and ending dates of the month you selected to close.

pc/MRP will inform you that it will initialize the starting balances for the month following your close. pc/MRP will ask if you wish to step through posting. Answer "No" to step through posting (you would use this option if you were out of balance and you want to step through the re-close – this process is very slow).

Select "Display" or "Print" your financial statements.

Select "Standard" or "Custom" financial statements.

Select the financial reports you wish to print out from the screen shown below.

pc/MRP will begin closing the month by transferring the starting balance for the current month to the ending balance for each of the chart of account numbers in the chartacc.dbf file. pc/MRP will then use the transaction data base records to debit and credit the ending balances of each account as shown:

Revenue Accounts (RN, RO) and Expense Accounts (EN, EO, EL, ET, EG)

The starting balances are copied to the ending balances. The ending balances are debited and credited by that month's transactions. $0.00 is then copied into the next months starting balances.

Asset Accounts (AC, AL), Liability Accounts (LC, LL) and Equity Accounts QN

The starting balances are copied into the ending balances. The ending balances are debited and credited by that month's transactions.   The ending balances are then copied into the next month's balances.

YTD Retained Earnings, QR

When you close a month, the YTD Retained Earnings Chart of Account is handled as follows:

1. The starting balance for the YTD Account is transferred to the ending balance of the month being closed
REPLACE &MENDBAL WITH MSTART

2. The starting balance of the NEXT month is populated with the total revenue for the month minus the total expenses for the month plus the YTD ending balance for the month
REPLACE &MNSTARTBAL WITH &MENDBAL + MREVTOT – MEXPTOT

3. The Ending Balance of the YTD Account is debited or credited by any adjusting transactions for the month being closed.

The Trial Balance Reports will contain the YTD Retained Earnings Amount from the prior month as the profits are already reflected in the revenue and expense accounts. However, the Balance Sheet Reports will contain the YTD Retained Earnings amount for the month being closed.

The Profit and Loss Income Statement

The General Ledger Income Statement (glincome.frx) uses the chartacc.dbf to sum up and display the following totals for the month being closed:

- Gross revenue (sum of ending balances of all RN accounts)
- Cost of goods sold (sum of ending balances of all EG accounts)
- Gross net profit (gross revenue – cost of goods sold)
- Cost of labor (sum of ending balances of all EL accounts)
- Operating Expenses (sum of ending balances of all EN accounts)
- Net profit before write-offs(gross net profit – labor and operating expenses)
- Write-off expenses (sum of ending balances of all EW accounts)
- Net profit before other income (net profit before write-offs – write-offs)
- Other income (sum of ending balances of all RO accounts)
- Other expenses (sum of ending balances of all RO accounts)
- Net profit before income taxes (net before other + other income – other exp)
- Income taxes (sum of ending balances of all ET accounts)
- Net profit after income taxes(net profit before income taxes – income taxes)

The Balance Sheet

The asset balance sheet (prdebit.frx) displays the ending balance of all asset accounts. The Liability and equity balance sheet (prcrebit.frx) lists the ending balance of all liability and equity accounts except for the year-to-date retained earning accounts (QR), which lists the starting balance for the next month for that account. The YTD retained earnings for the starting balance of the next month consist of the ending balance for the current month plus the revenue-expenses for the month.

The Trial Balance

The trial balance report (gltrial.frx) displays the ending balance for all charts of accounts except for the year-to-date retained earning accounts (QR), which lists the starting balance for the month for that account. This is because the Trial Balance report includes the Expense and Revenue accounts.

The Year to Date Expense and Revenue Report

The YTD Expense and Revenue report (prytd.frx) list the ending balance of all revenue and expense accounts for the month and the year. With the profit and or loss total for the current month and year at the bottom. The YTD retained earnings is calculated by subtracting the YTD expenses from the YTD revenues.

The YTD Trial Balance Report

The YTD Trial Balance report always displays the ending balance for the month and the YTD. The YTD Ret Earn Trial Balance will always = $0.00 as this report contains the Revenue & Expense account totals for the year.

The General Ledger Report

The general ledger report (prgl.frx) displays the starting balance for the year, the starting balance for the month, the transactions for the month, the ending balance for the month, and the ending balance for the year for every chart of accounts that was debited or credited during that month.
The ending balance for each account is the same amount that is displayed in the Trial Balance and Balance Sheets. The Ending Balance for each account can be calculated by taking its beginning balance, adding its Transaction Totals for each of its sub-accounts.

The Transaction Report

The transaction report (prtran.frx) displays all accounting transactions entered for the month being closed. pc/MRP will make a backup copy of the chart of accounts data base file named charxxxx.dbf. In addition, pc/MRP will prompt you to make a copy of the chart of accounts data base file on a 3-1/2" floppy disk and label it charxxxx.dbf. For example if you were to close November 2001, the backup file name would be char1201.

14.6.3 Closing a Month in the Future When a Previous Month has Never Been Closed

pc/MRP will not allow users to close a future month where any previous month was not closed correctly. Months must be closed sequentially.

14.6.4 Closing a Prior Month or Fiscal Year where pc/MRP does NOT have a Backup Copy of that Month

If you select to close a prior month and pc/MRP does not have a backup of that month, pc/MRP will warn you that it has no backup copy of that month and then display the backup copies it does have.

14.6.5 Closing a Prior Month or Fiscal Year where pc/MRP DOES have a Backup Copy of that Month

Users can close, re-close, and print financials from any prior month or fiscal year. If you select to close a prior month and pc/MRP has a backup of that month (charxxxx.dbf), pc/MRP will ask if you wish to **"Reprint"** or **"Re-close"** the month. Both options allow you to display or print the financial statements.

If users select **"Reprint"**, pc/MRP will only reprint the Financials and **NOT** adjust starting or ending balances. The chart of accounts for that month will **NOT** be updated if any GL transaction edits or adjusting transactions were made. The detail on how pc/MRP accomplishes this is listed below.

pc/MRP accomplishes this by creating an empty cursor (file) from the current close (chartacc.dbf) and then populating the cursor account numbers and balances from the backup close (charxxxx.dbf). After printing out the prior period, the cursor will automatically be deleted.

If you select **"Re-close"**, pc/MRP will warn you that after the close, you **must re-close every subsequent month** up to the current month that has been closed. The detail on how pc/MRP accomplishes this is listed below.

pc/MRP accomplishes this by creating an empty cursor (file). pc/MRP will populate the empty cursor file, by appending the chart of account records from the backup close. In addition, it will append the chart of account records (without their ending balances) from the current close that do not exist in the backup close. pc/MRP will replace the old chart of account descriptions with the current chart of account descriptions.

pc/MRP will ask if you wish to retain the current budget figures or the budget figures from the last close (this prompt only occurs if there were any changes to the budget figures). pc/MRP will then go through its normal close procedure as described above using the cursor instead of the chart of accounts data base file. Once the financial statements have been printed out, the cursor itself will become the current chart of accounts data base file (chartacc.dbf).

pc/MRP will make a backup copy of the chart of accounts data base file named charxxxx.dbf. You would now have to **re-close all remaining months up to and including your current close** in order to roll the new balances up into the current month.

14.7 Accounting Reports

14.7   Overview

Selecting Modules, Accounting, and Reports brings you to the Accounting Reports Screen shown above. Financial reports such as Profit and Loss, Trial Balance, Balance Sheet, Expense and Revenue can be printed or displayed only when you post (close or reprint a close) for a specified month (Modules, Accounting, Post a Month with Financials).

14.7.1 General Ledger Transaction Reports

This report displays all accounts debited or credited for every transaction displayed.   This report can be filtered as shown below:
- Month
- Time period
- Balance for a specific date
- All transactions regardless of time

Include all transactions for a:
- Chart of accts #
- Vendor/customer acct #
- Check #
- Related Document #
- Invoice #
- Receiver #
- All transactions

Types of transactions to include:
- All
- Cash sales only (S)
- Receivable vouchers only (O)
- Receivable payments only (R)
- Cash purchases only (P)
- Accounts payable vouchers only (I)
- Payable payments only (E)
- Payroll checks only (W)

14.7.2 Balance for a Date or Time Period Based on Accounting Transactions

This report displays only the specified account for every transaction displayed (T Accounts). This report uses only accounting transactions as a basis to form the report. This report can be filtered as shown below:

Month
> Displays all the transactions for that account for the specified month.

Time period
> Totals all the transactions from day 1 to the start date, displays the starting balance, all the transactions from the starting date to the end date and the total amount debited and credited during that time period.

Balance on a specific date
> Displays all transactions from day 1 for the specified chart of accounts up to the specified date

All transactions
> Displays all transactions from day 1 for the specified chart of accounts

14.7.3 Balance for a Date or Time Period Based on Chart of Accounts

This report displays <u>only the specified account for every transaction displayed (T Accounts)</u>. This report uses the starting balance of the month from the chart of accounts plus the transactions up to the ending date as a basis to form the report. This report is only correct for asset, liability, and equity accounts and will not be correct for expense and revenue accounts.

You will be prompted to enter the chart of account number, start date and end date. You can select a starting date from any month that has been closed in the past. pc/MRP will locate the starting balance at the start month from the chart of accounts database files, total all the transactions up to the start date, display the starting balance for the start date, display all the transactions up to the end date and the total of the starting balance and transactions.

14.7.4 A/P Reports

You can select all open, all closed and aging reports of 30, 60 and 90 days.

If you run an open accounts payable summary report and the balance due for a receiver is less than or equal to 0 and the complete field does not contain a Y, the customer PO# field will contain the words Error Unmarked. You can edit the receiver record and put a Y in the complete field.

14.7.5   A/R   Reports

You can select all open, all closed and aging reports of 30, 60 and 90 days.

14.7.6 FIFO Inventory Value Report

14.7.7   Sales Tax Report

The sales tax report option prints and or displays a sales tax report for a specified time period. The sales tax reports will include all invoices entered during the time period you specify.

If you select In State, pc/MRP will sort and subtotal sales taxes due on the invoice tax type, such as taxable, resale, out of state, US government, etc. The report (taxlog.frx) will consist of invoices created during the time period specified. The invoices must contain sales tax type (automatically inserted from sales orders into invoices). If you create a custom in state report, it must be named ctaxlog.frx.

If you select Out of State, pc/MRP will sort and subtotal sales taxes due by the invoice state and tax entity code such as CA01, CA02, NY01, etc. The report (taxlogo.frx) will consist of invoices created during the time period specified. . The invoices must contain tax entity code (automatically inserted from the address book into sales orders and then into invoices). If you create a custom out of state report, it must be named ctaxlogo.frx.

If you select Out of State for a specified state, pc/MRP will sort and subtotal sales taxes due by the tax entity code such as CA01, CA02 for the specified state such as CA. The report (taxlogo.frx) will consist of invoices created during the time period specified for the specified state. The invoices must contain tax entity codes (automatically inserted from the address book into sales orders and then into invoices). If you create a custom out of state report, it must be named, ctaxlogo.frx

If you are required to pay state sales taxes for only the county you are based in, print out the in state report.

If you are required to pay state sales taxes for other counties in your state, print out the instate report and the out of state report for a specified state (yours.)

If you are required to print out sales taxes to two or more states, print out the instate report and the out of state report.

14.7.8   Sales Commission Report
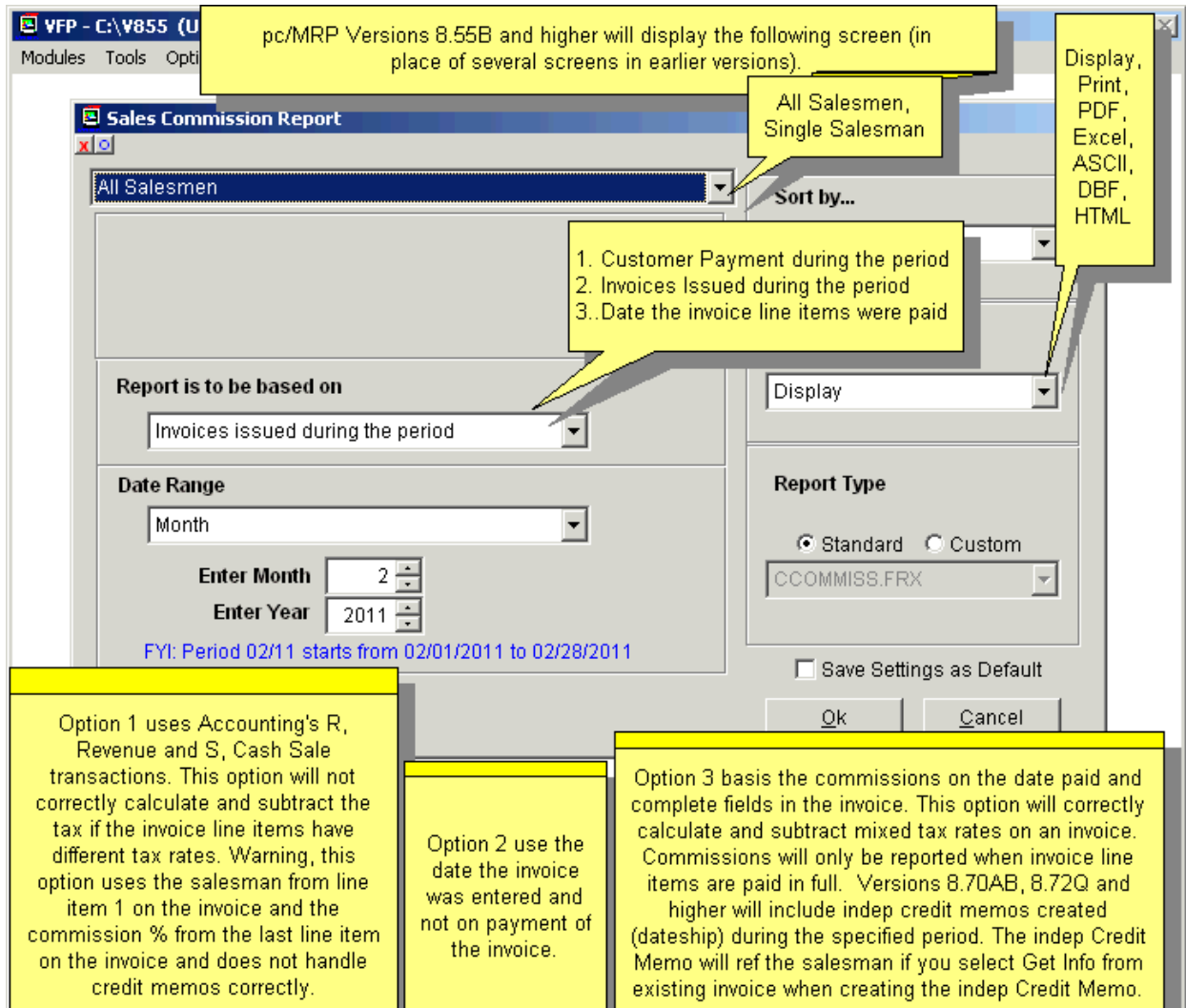
Prints out or displays a Sales Commission Report for a specified month, subtotaled by Salesman. Commissions can be based on:

Payments received during a specified month in the accounting module.

> This option bases the commissions on the accounting's R, Revenue and S, Cash Sale transactions. This option will not correctly calculate and subtract the tax if the invoice line items have different tax rates, and does not handle credit memos correctly.

Invoices issued during the specified month.

> This option bases the commissions on the date the invoice was entered and not on payment of the invoice.

Date the invoice line items were paid in full.

> This option bases the commissions on the date paid and complete fields in the invoice. This option will correctly calculate and subtract mixed tax rates on an invoice. Commissions will only be reported when invoice line items are paid in full.

Note: Version 8.71 does not have this modification.

14.7.9   Cash Out Projection Report (POs)

The Cash Out Projection Report is based on outstanding purchase orders being paid off 30 days from the expected delivery date for each PO line item. Users will be prompted to enter a date range. pc/MRP will display the cost of all Purchase Orders where the expected delivery date + 30 days falls into that range.

14.7.10 Cost of Sales Report

Cost of Sales Report based on
1. Invoices and Related BOMs (Theoretical Cost),
2. Stockroom and Employee Time Sheet (Actual Cost), and or
3. Related Document Numbers (Purchase Orders contain the sales order number its Related Document Number Field).

pc/MRP will allow you to print out a cost of sales report for a specified month based on invoices. Each invoice contains theoretical cost of the BOM based on cost-roll-ups or the cost based on stockroom transactions issued to those invoices. pc/MRP's Configuration Menu, Option 35, will allow you to select how the cost of sale for each invoice is obtained.

If the costs are populated from inventory, Option 35 defines if standard or average costs will be in the cost of sale. For costs to work correctly from inventory all parts in inventory must have a standard or average cost populated and the "Cost Roll Up Option" in inventory module must be ran periodically to update the cost of all assemblies.

(1)

(2)

Versions 8.73P and higher allow a sort choice of Sales Order or Division.

14.7.11   Purchasing Price Variance Report

Accounting's Purchase Price Variance Report compares standard costs or average costs listed in the Inventory Module with the actual purchase price from the receiver. Purchasing can use this report to show management the cost savings per month over list prices.

14.7.12   Check Reconciliation Report

pc/MRP allows you to print out a check reconciliation report for all checks or uncleared checks only. Select **All** checks to see a running pc/MRP and bank balances from day 1. Select **Uncleared checks only** to see the difference in the pc/MRP and bank balance only. Select **Last 160 days only** (assumes all checks over 160 days have been cleared), to see the last 160 days of bank transactions comparing pc/MRP's balance with the bank's balance.

Select how you would like this report sorted: by transaction number, date, or check number. Enter the checking accounts chart of accounts number. pc/MRP will then display/print the reconciled running balances between the bank statement and pc/MRP's transaction files. The balance column contains pc/MRP's balance. The cleared balance column contains the bank's balance. The uncleared balance column contains the differences in the two balances.

The Last 160 days only report first totals up all checking transactions greater than or equal to 160 days old. If pc/MRP finds any deposits or checks have not been cleared over or equal to 160 days old, it will display an error message with the transaction number and return back to the main menu. If all the 160 days and older checks have been cleared, pc/MRP puts the total of all the checks into a memory variable named mprevtot. It then goes on to create a report listing each checking transaction less than 159 days old, a running balance for pc/MRP, a running balance for the bank, and the difference based on if the check cleared or not.

It assumes the starting balance for the bank account six (6) months ago is correct and inserts that balance into the first transaction shown on the report.

To automatically clear all checks greater than 160 days old, go to accounting, select "Pay Bills/Print/Clear Checks", and select "Clear all checks for a date range".

pc/MRP does not calculate the bank balance from all the bank transactions but starts with the bank balance as of the start of the month 160 days back (version **8.14B and higher**).

14.7.13   Debit Memo Reports

This report selects all debit memo records from the receive.dbf file for the specified time period.   You can include all open, all closed or all records.   You can sort the report by vendor account number, part number, or purchase order number.

14.7.14 Licensor Royalty Reports

You can display/print a Licensor Royalty Report for one licensor or all licensors for the time period specified. The report is sorted by licensor and sub sorted by part number, sales price, or royalty rate.   The report uses the invoice database file which will contain the name of the licensor and royalty rate which is automatically inserted into the sales and invoice database files from the partmast database file.

14.7.15 Manufacturing Cost Variance Report

pc/MRP **Versions 8.00 and higher** contain the option to display/print a manufacturing variance report comparing the theoretical cost of sales (from the BOM) to the actual cost of sales (from the stockroom records). pc/MRP prompts the user to enter a date range for the order date of the sales orders to be included. pc/MRP creates a temporary cursor, SalesCursor.dbf containing the sales orders selected. pc/MRP then scans the stockroom records to get the total component and labor cost for each sales order which it compares to the theoretical BOM cost (sales.pocost) found in the sales orders. The standard Manufacturing Cost Variance Report is named soManufacturecost.frx and the custom Manufacturing Cost of Sales Report would be named cCostSal.frx.

14.7.16 Accounting Report Errors

Accounting report errors can occur due to duplicate transaction numbers, duplicate blank transaction numbers, and incorrect dates. Accounting's Audit Option will automatically locate these transactions and allow you to correct them. Duplicate transaction numbers can cause an accounting report to loop on the duplicate number. To correct this delete one of the first duplicate transaction number. If necessary, the transaction can be re-entered with a new transaction number. Duplicate blank transaction numbers can cause an accounting report to loop on the blank transaction printing out only lines and no transactions. To correct this, delete the blank transaction numbers. Invalid dates such as 03/99/13 can cause a transaction report to skip all remaining transaction for month 03. Use the accounting audit option to locate any invalid dates and then edit the transaction's date.

14.8 Accounts Payable

14.8.1 New (Enter an Accounts Payable Voucher)
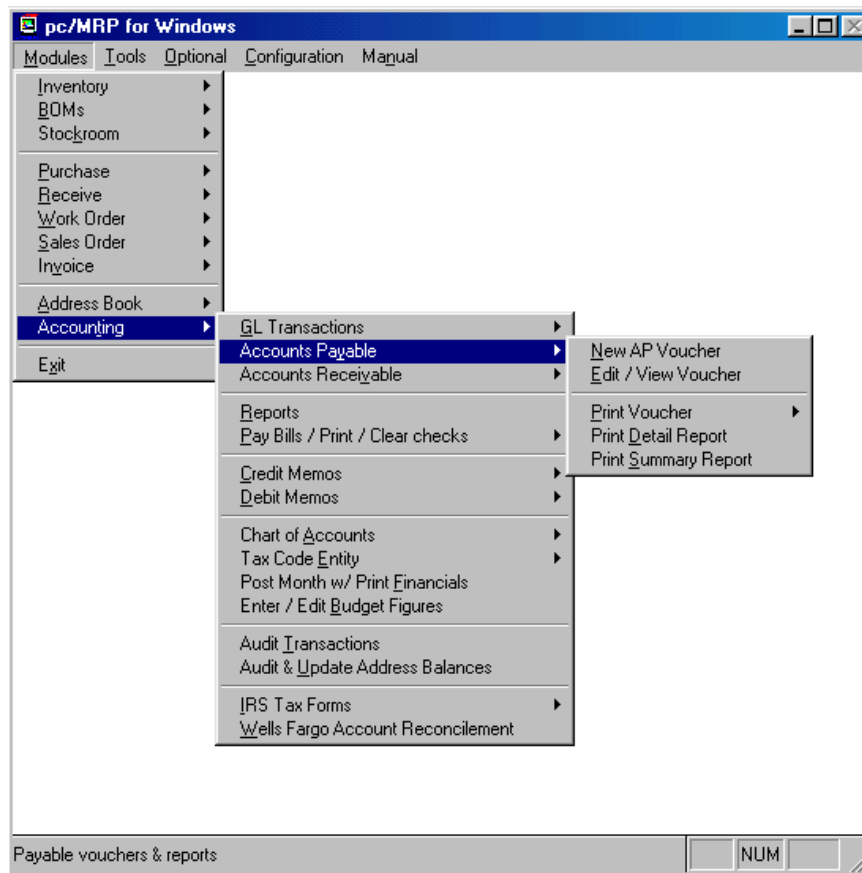
Selection 1 allows you to enter payable vouchers for items or services that are not received by receiving, such as rent, utilities, freight, etc. All vouchers entered by the Accounts Payable Module will contain the letters "AP" as its Item Number. It is not necessary to enter vouchers for items received by receiving since the receiving module enters these vouchers automatically. Vouchers created automatically by receiving will contain line item numbers in their item number field.

Entering an accounts payable voucher will automatically update the general ledger. You must make certain you debit the correct Chart of Account when entering the general ledger. For example if you were entering rent as an accounts payable voucher you would debit 6150 for rent and not 4110 purchases.

Since receiving an item automatically creates an accounts payable voucher you may end up with some unwanted accounts payable records. These records can be eliminated from showing up on the Accounts Payable Report by using the Receiver Edit Module and entering a Y in the Complete field.

Another way to isolate the receivers from automatically entering payables vouchers is to make a separate directory named ACCTING, copy a clean copy of pc/MRP into this directory and now both accounting and receiving can run their own programs. Be aware that this method will now require accounting to reenter the receiver data as vouchers.

When entering an accounts payable voucher you will be issued the next available Receiver Number. The PO Number will contain the word "NONE" and the Item Number will contain the letters "AP".

Date Received is automatically entered and is used by the Accounting Module in aging the Accounts Receivables records. It is also the date used to determine which Receiving records are over one year old and ready for deletion.

The **Part Number** will contain the letters "NA" as this module will not automatically move part numbers from on-order and into onhand as the Receiver Module does.

Description, Manufacturer, Model Number, Order Qty, Unit, Cost, Freight Bill Number, Condition, **Collect**, **Prepaid**, **Number of Packages**, **Weight**, **Delivered To**, and **Inspected By** must be entered manually if they are applicable.

Vendor, **Address**, **Terms**, **Account Number**, **Trade Discount**, **Tax Rate**, and **Freight** can be entered automatically from the Address Book and can be written over if no longer correct.

Quantity Received should be entered by the computer operator. **Vendor Invoice #** must be entered when the vendor sends his invoice. This can be done by editing the Receiver or by entering a Payment Transaction in the Accounting Module.

After you examine the vendor's terms enter the **Date to be Paid.**

The **Complete** (Y/N) field must be filled out with either a **Y** or **N** depending on whether this line item has been paid. This field is used by the computer for the Accounts Payable Report. The Complete field is automatically changed to a **Y** when Accounting enters a transaction paying off this debt.

14.8.2 Edit/View (An Account Payables Voucher)

This option allows users to scroll, edit, delete, undelete, or run queries against AP Voucher records.

Since entering an AP Voucher automatically enters a general ledger transaction, editing an accounts payable voucher automatically takes you to the general ledger editing routine.

14.8.3 Print Voucher

Allows you to print out an accounts payable voucher.

14.8.4 Print Detail Report

Selecting the accounts payable report option will provide a consolidated printout of all accounts or a single account subtotaled on receiver and account numbers. The balance due amounts are totaled in the 0-29, 30-59, 60-90, and Over 90 days columns.

Additional accounts payable reports can be obtained by using the Receiving Report Module. The Receiving Report Module provides a variety of sorts and conditions for open and closed receivers. An open receiver is one that has not been paid and a closed receiver is one that has been paid (the **Complete** field contains a **Y**).

pc/MRP includes the option to print out posted receivers only. This means the accounts payable report will include only those open receivers that have been entered into the general ledger as an "I" type transaction. The advantage of selecting "Posted Receivers Only" is that it guarantees that the accounts payable $ amount in the financial statements will match the accounts payable $ amount in the accounts payable report, provided they are both printed on the same day with no new transactions entered between printouts.

14.8.5 Print Summary Report

(continued)

(continued)

If you run an open accounts payable summary report and the balance due for a receiver is less than or equal to 0 and the complete field does not contain a Y, the customer PO# field will contain the words, Error Unmarked. You can edit the receiver record and put a Y in the complete field.

14.8.6 Select Bills for Payment

See Chapter 14.14 Pay Bills Option, for instructions on paying bills.

14.9 Accounts Receivable
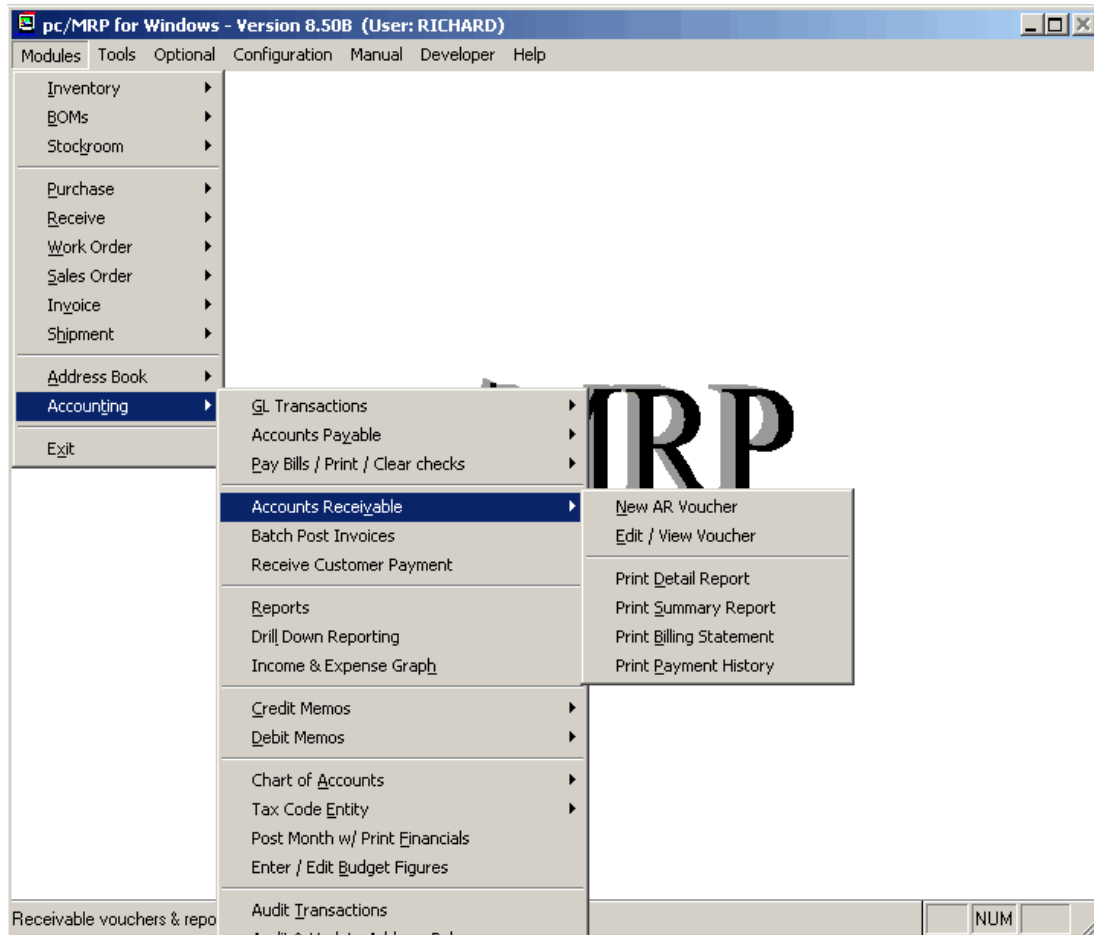
14.9.1 Enter an Accounts Receivable Voucher

Allows you to enter an AR Voucher without having to create a sales order and invoice.

However, we recommend entering a Sales Order, On Account and Carry instead of an AR Voucher. Entering a sales order 'On Account and Carry' is simpler and more automated than entering an AR Voucher. Entering a Sales Order, On Account and Carry creates a completed sales order and an invoice. If Option 8, Auto Accounting is set on for Invoices, it will also make a General Ledger entry, debiting AR and crediting Business Income.

Entering an AR voucher will automatically create an O type transaction debiting AR and crediting Business Income (regardless of how Option 8 is set). See Section: 14.4.1.2.

14.9.2 Edit an Account Receivable Voucher

This option allows users to scroll, edit, delete, undelete, or run queries against AR voucher records.

Since entering an accounts receivable voucher automatically enters a general ledger transaction, editing an accounts receivable voucher automatically takes you to the general ledger editing routine.

14.9.3 Print/Display Accounts Receivable Reports

Selecting the accounts receivable report option will provide a consolidated printout of all accounts or a single account subtotaled on invoice and account numbers. The balance due amounts are totaled in the 0-29, 30-59, 60-90, and Over 90 days columns.

Additional accounts receivable reports can be obtained by using the Invoice Report Module. The Invoice Report Module provides a variety of reports for open and closed invoices. An open invoice is one that has not been paid and a closed invoice is one that has been paid (the complete field contains a Y).

Since invoicing an item automatically creates an accounts receivable voucher, you may end up with some unwanted accounts receivable records. These records can be eliminated from showing up on the Accounts Receivable Report by using the Invoice Edit Module and entering a Y in the Complete field.

pc/MRP offers the option to print out posted invoices only. This means the accounts receivable report will include only those open invoices that have been entered into the general ledger as an "O" type transaction. The advantage of selecting "Posted Invoices Only" is that it guarantees that the accounts receivable $ amount in the financial statements will match the accounts receivable $ amount in the accounts receivable report, provided they are both printed on the same day with no new transactions entered between printouts.

14.9.3.1 Accounts Receivable Detail Report

14.9.3.2 Accounts Receivable Summary Reports

To get a Current AR Summary Report for today or a Historical AR Summary Report, select Accounting, Accounts Receivable, and Summary

An AR Summary Report contains one entry each open invoice. An AR Detail Report contains an entry for each line item on an open invoice.

Will display a Current AR Report based on receivers.

Will display a Historical AR Report based on accounting transactions.

Defaults to AR Account found in the Configuration, Settings and Utilities Option 9.

The Historical AR Report will display the amount due for an invoice provided the following conditions are met: (1) The Invoice's "O" Transaction was Posted before or on the Historical Date and (2) the Invoice's "R" Transaction(s) have not been entered OR the Invoice's "R" Transaction(s) were entered after the Historical Date OR the Invoice's "R" Transaction(s) were entered on or before the Historical Date but were not paid in full.

With pc/MRP Versions **8.50 and higher**, an AR Summary Report will prompt you to create a new independent invoice index on the remote possibility that the standard invoice index could be corrupt.

If you are generating a Historical AR Summary Report and pc/MRP finds one or more Invoices marked as complete and an empty Date Paid Field, the following error message will be displayed.

Some of the closed invoices do not have a date paid.
This may cause the report to be incorrect.

Please click on the View Error button to review the documents.

[View Error] [Continue] [Cancel]

Click on the View Error Button to view/print a list of invoices marked as complete and have an empty Date Paid Field.

Click on continue, be aware the report may be incorrect due to the missing date paid fields.

Click on Cancel to edit the invoice(s) date paid fields and regenerate the report with the correct data.

Sorted and Grouped by Customer Account Number and Invoice

Bal Due 0-29 Days

Bal Due 29-59 Days

Bal Due 60-09 Days

Bal Due > 90 Days

Total Due

Note: Since this is a Historical AR Report the first invoice dated 03/09/2010 is missing.

Behind the scenes Historical AR Summary Report Test Program and Data.

```
USE INVOICE IN 0
SELECT INVOICE
BROWSE FIELDS INVOICENO,SONO,ITEMNO,DESCRIPT,POSTED,COMPLETE,DATESHIP,QTYSHIP,SALEPRICE,A
USE TRANSACT IN 0
SELECT TRANSACT
BROWSE FIELDS TRANNO,TRANTYPE,TRANDATE,INVOICENO,SONO,ITEMNO,DESCRIPT,AMOUNTPD SAVE
USE IN SELECT("INVOICE")
USE IN SELECT("TRANSACT")
```

14.9.4 Print/Display Billing Statements

Allows you to print out a Billing Statement for every open account in accounts receivable. This report will update the balance due fields in the address book.

Billing Statement

Note: Invoices with credit memos show as a single entry on the billing statement (8.70D and above).

You can print a billing statement for all companies, a single company, or a range of companies. You can include all open invoices or all open invoices over a given number of days old. You have the option to also print out an Accounts Receivable Summary Report for all the companies in the range of the above report:

14.9.5 Print/Display Payment History Report

The Payment History Report provides a history of customer payments and the number of days variance from the payment due date for each invoice.

14.9.6 Receive Customer Payment

To record receiving a customer payment, select Modules, Accounting, and Receive Customer Payment.

14.10 Credit Memos

14.10.1 Overview

Users with the necessary rights can enter credit memos from the Sales Order New Screen and from the Accounting Credit Memo Menu shown below.
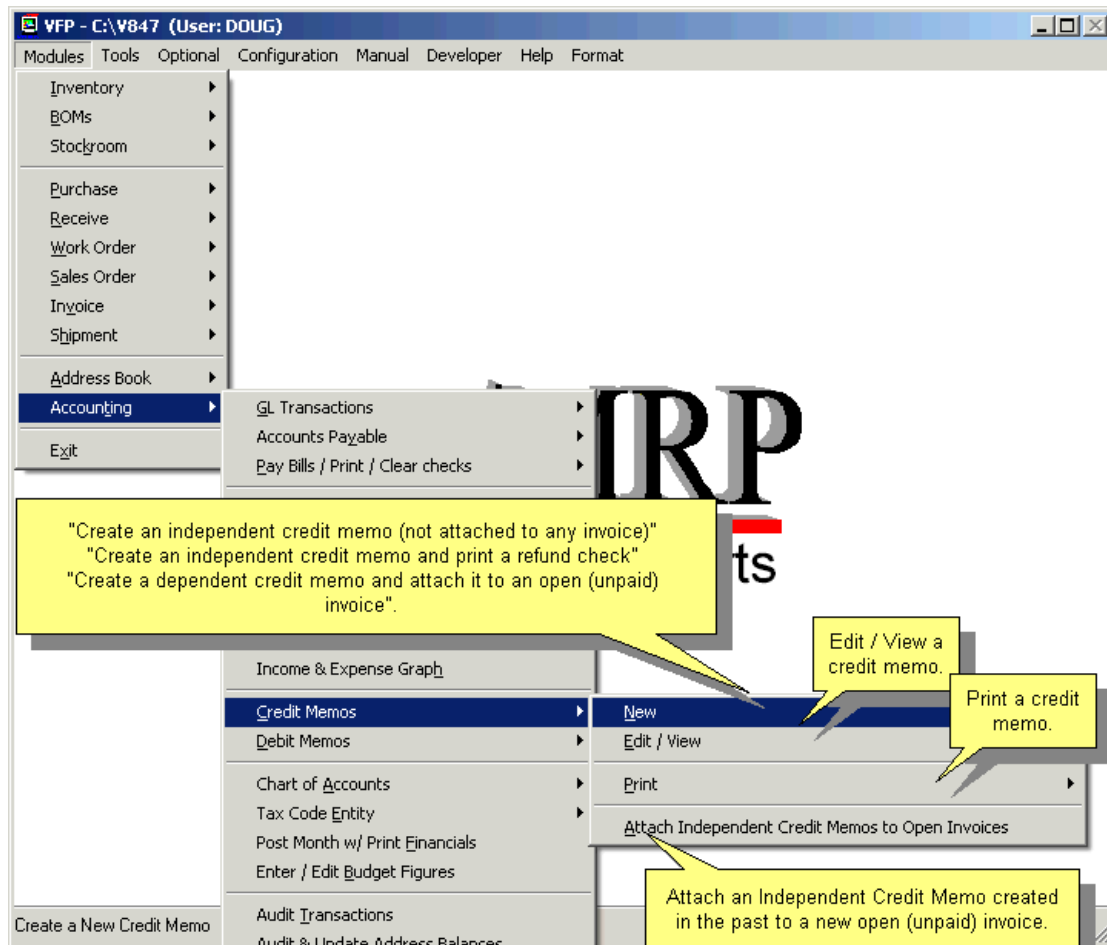
pc/MRP allows users to automatically create credit memos, including customers who currently have no open invoices.   Credit memos can be directed to print checks and/or restock parts.

Select Credit Memos, New to:
    Create an independent credit memo (not attached to any invoice);
    Create an independent credit memo and print out a refund check;
    Create a dependent credit memo and attach it to an open (unpaid) invoice.

Select Attach Independent Credit Memos to:
Attach an Independent Credit Memo created with option 1 above, to a new open (unpaid) invoice.
This will close the original independent credit memo and create a new dependent credit memo attached to the open (unpaid) invoice.
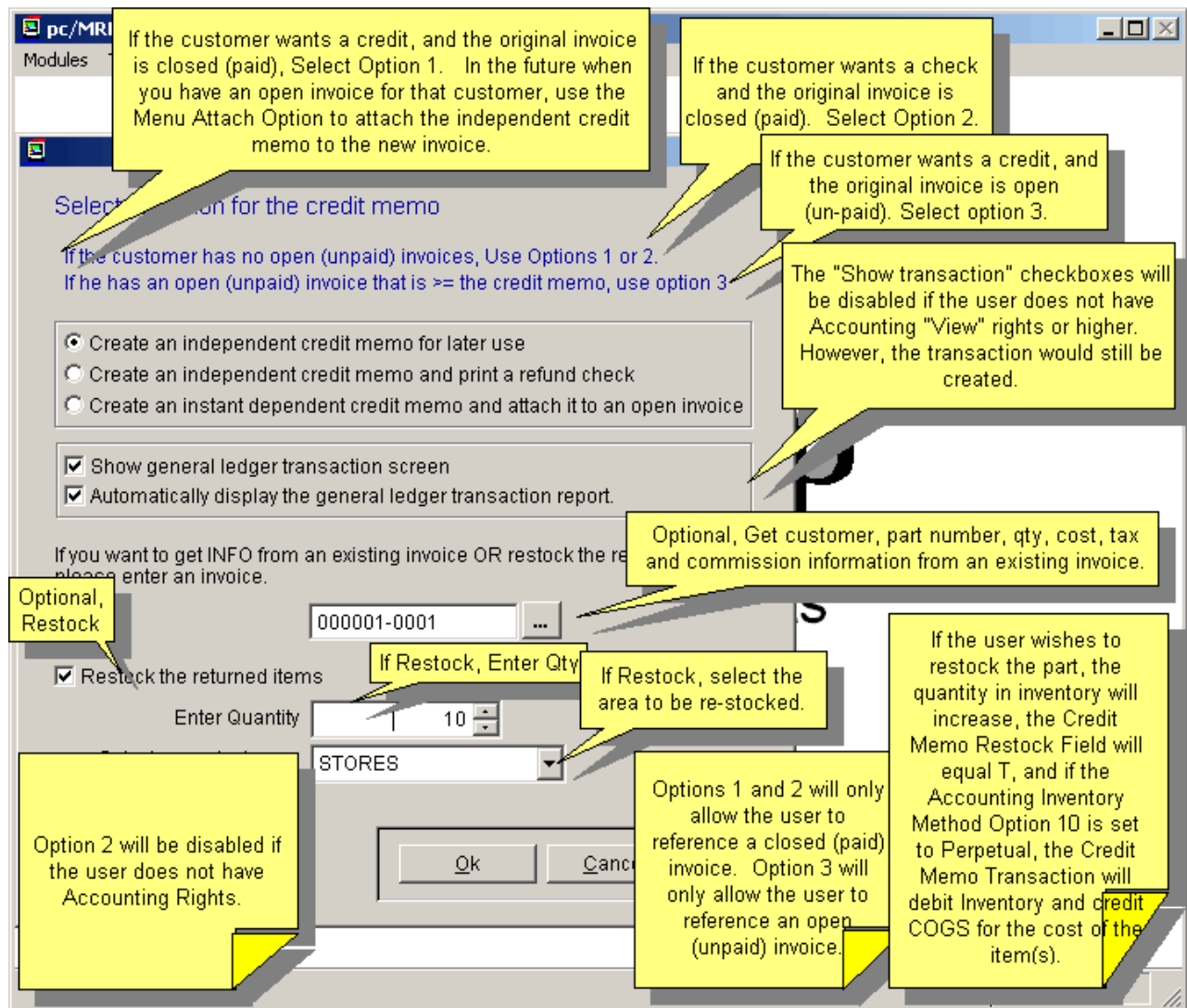
If the customer wants a credit, and the original invoice is closed (paid), select Option 1, "Create an independent credit memo for use at a later date". In the future when you have an open invoice for that customer, you can use the Menu Attach Option to attach the independent credit memo to the new invoice.

If the customer wants a check and the original invoice is closed (paid), select Option 2, "Create an Independent credit memo and print a check",

If the customer wants a credit, and the original invoice is open (un-paid), select option 3, "Create a dependent credit memo, and attach it to an open invoice",

Note: If you are using pc/MRP's Optional QuickBooks Export, and you wish to attach a Credit Memo to an invoice that transferred over to QuickBooks yet has <u>not</u> been paid in QuickBooks, you will need a flag file named "AllowAttchClosedInvoice.flg" in the pcmrpw directory to attach the Credit Memo.

pc/MRP's Credit Memo Module will automatically:
- Create a credit memo
- Restock the part(s) (if Restock is checked)
- Debit Sales and Credit AR or Checking if printing a check
- Debit COGS and Credit Inventory (If Restock and Option 10 set to Perpetual)
- Print a check (if selected)
- Display the transaction screen (If Show general ledger transaction screen checked)
- Display/Print the transaction report (if Display general ledger report checked)

Option 2 is disabled if the user does not have Accounting Rights.
Options 1 and 2 will only allow the user to reference a closed (paid) invoice.
Option 3 will only allow the user to reference an open (unpaid) invoice.

The "Show transaction" checkboxes will be disabled if the user does not have Accounting "View" rights or higher. However, the transaction is still created.

If the user wishes to restock the part, the quantity in inventory will increase, the Credit Memo Restock field will equal 'T', and if the Accounting Inventory Method, Option 10, is set to Perpetual, the Credit Memo transaction will debit Inventory and credit COGS for the cost of the item(s).

You can choose to restock none, some, or all of the items. If the user chooses to restock an item, the user must select the re-stock stores area.

If "Restock the returned items" is not checked, the credit memo will not be included in pc/MRP's Inventory Movement Report.

If the user wishes to restock multiple part numbers from a single invoice, he must create multiple credit memos for that invoice.

Note: If the item is re-stocked is a serialized item:
1. You must delete the serial number record(s) in the detail file of the Serial/Lot Number module for the returned line item serial number(s) and
2. Adjust the master file record qty, of the Serial/Lot Number module, up for the re-stock quantity of that serial/lot number. For serial numbers, you would just adjust the qty from 0 to 1 for each serial number; for lot numbers, you would adjust the qty up by the qty returned.

Users can find all transactions for a specified invoice and it will include all relevant dependent (attached) credit memos.   The Independent Credit Memo's created by Option 1 will eventually be washed out by "R" transactions and replaced by a new Dependent Credit Memo's attached to specified invoices.   This prevents the user from having to re-close a past accounting period as the original credit memo transaction can be left alone and does not have to be adjusted.

For **8.32 and above**, please scroll to Section 14.10.5

14.10.2   pc/MRP Versions 8.31 and Below

A credit memo is issued to a customer to cover returned goods, pricing errors, freight charges, etc. Credit memos can be created from the accounting menu (credit memo, new) and or the sales menu (new, sales return). Credit memos will appear in both your invoice and accounts receivable reports.   You can enter multiple credit memos against an invoice.

pc/MRP will ask if you plan to restock the returned items.

If you answer **Yes**:
- Select the area to be restocked.
- Select the invoice and line item to be credited.
- pc/MRP will then create a credit memo for a negative quantity for the part number found in the line item credited.
- Click on the OK button to accept the credit memo.
- pc/MRP will then increase the onhand quantity of the part number.

If you answer **No**
- Select the invoice and line item to credit.
- Enter the dollar amount to credit the customer.
- pc/MRP will create a credit memo for that invoice with an "NA" part number, a quantity of -1, and the dollar amount.
- Click the OK button to accept the credit memo.

If you are using pc/MRP's Accounting Module

The following instructions assume you have entered an invoice and the O type accounting transaction for the invoice.
** All transaction amounts and chart of accounts described below will automatically be displayed.
** All invoices with credit memos and credit memos will automatically be closed when paid in full.

1. If the customer has not paid the invoice and calls requesting a credit on the invoice or the customer needs a check for a reduced document.
   - Enter a credit memo as described earlier for that invoice
   - Enter an **O** type accounting transaction to register the credit memo, <u>line item CM</u>
     - Debit 3010, business income, enter debit as a + amt
     - Credit 1110, accts receivable, enter credit as a + amt
     - pc/MRP will automatically put a Y in the credit memo posted field
   - Reprint the invoice for reduced amount for you and your customers records
   - When the check arrives for the reduced amount, enter the R type transaction for invoice for the reduced amount.
     - Debit 1020, checking, for the reduced amount
     - Credit 1010, accts receivable, for the reduced amount
     - pc/MRP will distribute the amount received to each line item until it runs out.
     - If the amount paid equals the amount due, pc/MRP will automatically put a Y in each line item and credit memo(s) complete field.
     - pc/MRP will display the correct amount due and the correct amount paid if you wish to reprint invoices or use the amount paid equals the amount due as a criteria to determine open and closed invoices.

2. If the customer has paid the invoice (the **R** type payment for the invoice has been entered into the general ledger) and calls requesting a credit on an existing open invoice.
   - Enter a credit memo as described earlier for the open invoice. Do not restock.
   - Enter an **O** type accounting transaction to register the credit memo, <u>line item CM</u>
     - Debit 3010, business income, enter debit as a + amt
     - Credit 1110, accts receivable, enter credit as a + amt
     - pc/MRP will automatically put a Y in the credit memo posted field
   - Reprint the open invoice for reduced amount for you and your customers records
   - When the check arrives for the reduced amount, enter the R type transaction for invoice for the reduced amount.
     - Debit 1020, checking, for the reduced amount
     - Credit 1010, accts receivable, for the reduced amount
     - pc/MRP will distribute the amount received to each line item until it runs out.
     - If the amount paid equals the amount due, pc/MRP will automatically put a Y in each line item and credit memo(s) complete field.
     - pc/MRP will display the correct amount due and the correct amount paid if you wish to reprint invoices or use the amount paid equals the amount due as a criteria to determine open and closed invoices.
   - If you wish to restock items from original invoice, enter a stock room adjusting transaction (Modules, Stockroom, New, Adjusting Transaction)

3. If the customer has paid the invoice (the **R** type payment for the invoice has been entered into the general ledger) and the customer now requests a credit in the form of a check to be paid at a later date.

- Enter a credit memo as described earlier.
- Enter an **O** type accounting transaction to register the credit memo, <u>line item CM</u>
    - Debit 3010, business income, enter credit as a + amt
    - Credit 1110, accts receivable, enter credit as a + amt
    - pc/MRP will automatically put a Y in the credit memo posted field.
- When you issue a check for the credit memo amt, enter an **R** type transaction for the credit memo, <u>line item CM</u> (do not use pay bills).
    - Enter a negative amount for the credit amount received
    - Debit 1110, accts receivable, enter credit as a + amt
    - Credit 1020, checking, enter credit as a + amt
    - Answer Yes when asked to print the check
    - pc/MRP will automatically put a Y in the credit memo complete field
    - pc/MRP will automatically enter the credit memo amount paid field as a negative amount paid.

4. If the customer has paid the invoice (the **R** type payment for the invoice has been entered into the general ledger) and the customer now requests a credit to be used on a future invoice.

- Enter a credit memo against the next invoice to be created for this customer as described in Section 14.10.2. This will allow will allow you to enter just one O type transaction for the invoice (which will contain the credit memo) and one R type transaction for the invoice when you are paid.

How pc/MRP closes credit memos and invoices with credit memos automatically when an R type transaction is entered for them

- If an invoice line item is selected:
    - The program will add up the amount due, *mamountdu* (cost, freight, tax, discount) for all line items. The credit memo line item will be negative and is included the total amount due.
    - The amount paid is added to the amount paid to date.
    - The total amount paid is distributed to the amount paid field starting at the first line item until the amount paid is expended.
    - If the amount paid equals the total amount due, *mamountrc >= mamountdu*, pc/MRP closes the invoice and attached credit memo by putting a Y in the complete field of each line item and credit memo.
    - Under these circumstances
        - The complete field for all the line items and the credit memo will contain a Y.
        - The amount paid field for the last line item will not equal the amount due.
        - The amount paid field for the credit memo will equal $.00
        - The total amount paid will equal the total amount due for the entire invoice and credit memo.

- If a credit memo line item is selected.
- If any of the invoice line items are not complete, pc/MRP will ask you to select one of the invoice's line items.
- If all of the invoice line items are complete:
    - All credit memo line items will be closed by placing a Y in their complete fields.
    - All credit memo line items will contain a negative amount paid.
    - The total amount due will equal the total amount paid for the entire invoice and credit memo.
    - pc/MRP will prompt you to print a check for the total amount of the credit memo(s).

14.10.3 Entering a Credit Memo

Entering a Credit Memo from the Credit Memo Menu

To enter credit memos from the Credit Memo Menu, select Modules, Accounting, Credit Memos and New.

The user must have "Create" accounting rights or higher to access the New and Attach Options on this menu.

Entering a Credit Memo from the Sales Screen

To enter credit memos from the Sales Screen, select Modules, Sales, New, and Sales Return as shown on the screen below.
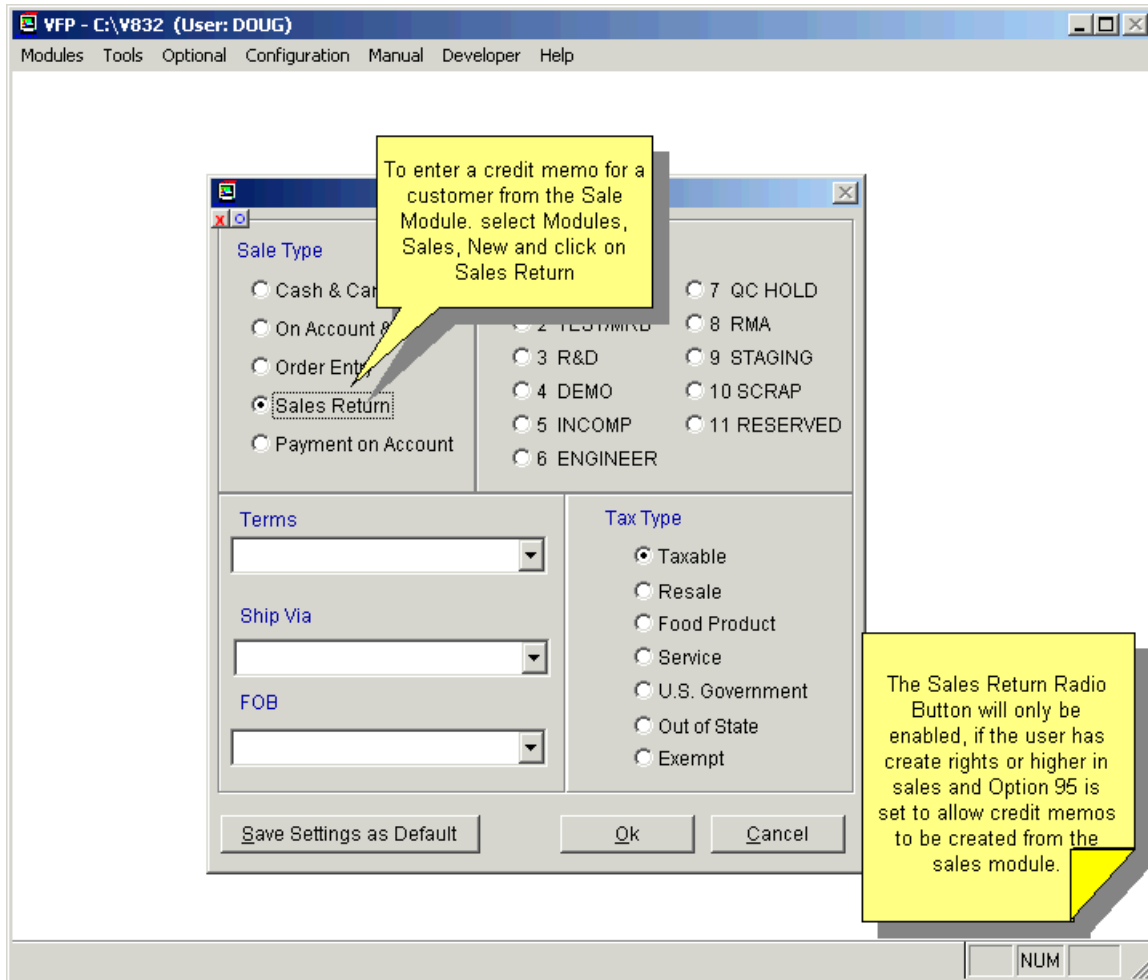
The user must have "Create" rights or higher in the sales module and Configuration, Settings and Utilities, Option 95 is set to "Allow credit memo to be created from the sales module".

Option 95 was added to pc/MRP Version **8.32A** Configuration, Settings and Utilities Screen to give users control over whether or not people in the sales order module can enter a credit memo. If a user has rights to use the sales order module but no rights to the accounting module and Option 95 is set to allow, the user will be allowed to enter a credit memo, but not print a check. Option 95 will initially default to "Allow" for users updating to version 8.32A or higher from a version lower than 8.32. Option 95 will initially default to "Not Allow" for new copies of pc/MRP.

14.10.4 Option 1: Create an Independent Credit Memo for Later Use

Entering a credit memo from the Sales Screen or Credit Memo Menu will display the credit memo screen shown below:

If the customer wants a credit, and the original invoice is closed (paid), Select Option 1, "Create an independent credit memo for use at a later date".   In the future when you have an open invoice for that customer, you can use the Menu Attach Option to attach the independent credit memo to the new invoice.

Option 1 will only allow the user to reference a closed (paid) invoice.

Option 1 will create an independent credit memo (DocType = IndCm) . The credit memo is automatically posted with an inverse "O" type transaction debiting Sales and Crediting AR.
If the user wishes to restock the part, the quantity in inventory will increase, the Credit Memo Restock Field will equal T, and if the Accounting Inventory Method Option 10 is set to Perpetual, the Credit Memo "O" Transaction will debit Inventory and credit COGS for the cost of the item(s).

Option 1, Credit memo screen

If you selected option 1, "Create an independent credit memo for later use", you would get the following credit memo screen:

If an invoice line item was selected, the part number and description will be displayed on the credit memo. If no invoice was selected, the Description will contain "INDEP CM# <CreditMemoNo> 00CM"

If the credit memo data came from an invoice and the freight was greater than $0.00, the freight amount will be displayed in red. The user can credit back the freight or zero it out.

With credit memos pc/MRP will check for the following conditions, Quantity < 0, Sale Price > 0, Freight, Tax %, Discount >= 0, the address is not empty and the Part Number contains an "NA" or a valid part number.

With option 1 credit memos are automatically be posted by inverse "O" type accounting transactions regardless of whether "Show general ledger screen" was checked or not.

Since Option 1 creates an independent credit memo for a closed (paid) invoice, at some point in the future, this credit memo will be closed out and replaced by a new dependent credit memo when the user selects the "Attach independent credit memo to an open invoice" option.

Option 1, Credit memo transaction screen

If "Show general ledger transaction screen" was checked the following screen would be displayed.   If it was not checked, the transaction would be created, but not displayed.

Basically this is the inverse of a normal O (Post Accounts Receivable Invoice) Type Transaction. If no invoice is used as a template, pc/MRP would debit Income and credit AR for the amount of the credit memo.

If "Restock the returned items" was checked and Accounting Inventory Method Option 10 was set to Perpetual, pc/MRP will debit Inventory and credit COGS.

The description contains the description of the part or the words Independent Credit Memo <credit memo number>

Option 1, Print/Display Independent Credit Memo

When a user creates a credit memo, pc/MRP offers to print/display and or email the credit memo as shown in the screen below:

Option 1, Independent Credit Memo Transaction Report

If the "Automatically display general ledger transaction report" checkbox was checked, the general ledger transaction report will be displayed and or printed as shown below:

The next two illustrations show what goes on behind the scenes.

Option 1, Behind the scenes

Behind the scenes, pc/MRP created a new posted independent (has its' own invoice number) credit memo.

14.10.5   Option 2: Create an Independent Credit Memo and Print a Check

Select Option 2, if the customer received an order, wants a check and the invoice is closed (paid).
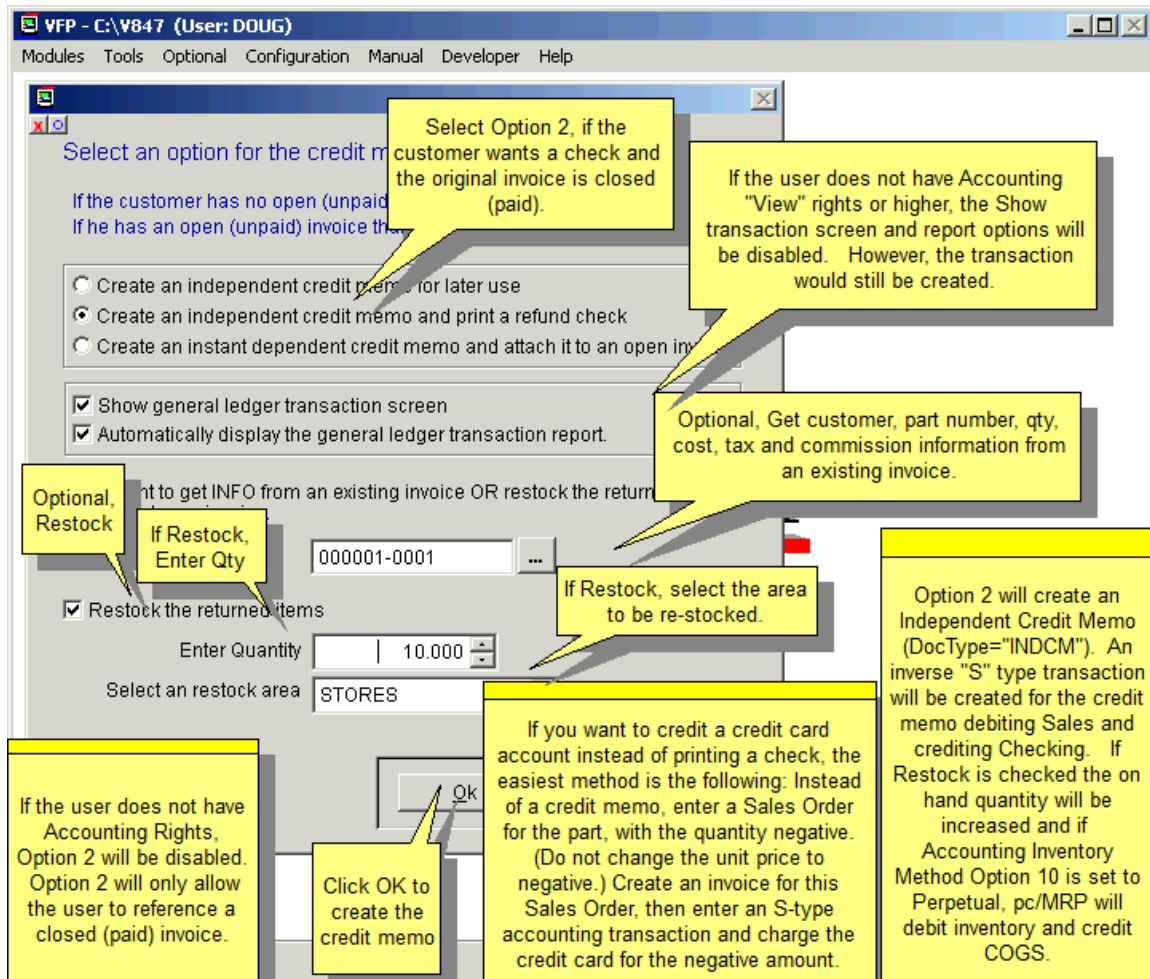
Option 2 will only allow the user to reference a closed (paid) invoice.

If the user does not have Accounting Rights, Option 2 will be disabled

An inverse "S" type transaction will be created for the credit memo debiting Sales and crediting Checking.   If Restock is checked the on hand quantity will be increased and if Accounting Inventory Method Option 10 is set to Perpetual, pc/MRP will debit inventory and credit COGS.

If you want to credit a credit card account instead of printing a check, the easiest method is the following: Instead of a credit memo, enter a Sales Order for the part, with the quantity negative. (Do not change the unit price to negative.) Create an invoice for this Sales Order, then enter an S-type accounting transaction and charge the credit card for the negative amount.

Option 2, Credit memo screen

If you selected option 2, "Create an independent credit memo and print a check", you would get the following credit memo screen:

With Option 2 an "S" Type Transaction debiting Sales and Crediting Checking is automatically created for the credit memo. The credit memo is then completed with a Y in the credit memo's Complete Fields. pc/MRP will then offer to print a check.

Option 2, Credit memo transaction screen

If "Show general ledger transaction screen" was checked the following screen would be displayed. If it was not checked, the transaction would be created, but not displayed.

Basically this is the inverse of a normal S (Cash Sale) Type Transaction. If no invoice is used as a template, pc/MRP would debit Income and credit AR.

If "Restock the returned items" was checked and Accounting Inventory Method Option 10 was set to Perpetual, pc/MRP will debit Inventory and credit COGS.

The description contains the description of the part or the words Independent Credit Memo <credit memo number>

Option 2, Independent Credit Memo Print Check Screen

Option 2 will display the check printing screen shown below:

Put a check in the printer.   Make sure the check number in the Check Number Text Box matches the check number on the physical check.

Option 2, Independent Credit Memo Print Check

Option 2 will print/display the check in the format shown below (stub/check/stub) unless you have created a custom check (CusCheck.frx) or downloaded the custom QuickBooks check (check/stub/stub) from the Technical Support Section of Software Arts' Website, www.pcmrp.com.

Option 2, Print Independent Credit Memo

Option 2 will offer to print, display or email the credit memo as shown below:

Option 2, Print/Display Independent Credit Memo Transaction

With Option 2, if you checked "Show General Ledger Transaction Screen" pc/MRP would Print/Display the following S Type Credit Memo Transaction Report.

The next two illustrations show what goes on behind the scenes.

Option 2, Behind the scenes

Behind the scenes, pc/MRP created a new independent (has its own invoice number) credit memo. In addition, pc/MRP automatically posted the new credit memo.

14.10.6 Option 3: Create a Dependent Credit Memo and Attach It to an Open Invoice

Selected option 3, "Create a credit memo and attach it to an existing open invoice" if the customer wants a credit, and the original invoice is open (un-paid).

Option 3 will only allow the user to reference an open (un-paid) invoice.

Note: If you are using pc/MRP's Optional QuickBooks Export, and you wish to attach a Credit Memo to an invoice that transferred over to QuickBooks yet has not been paid in QuickBooks, you will need a flag file named "AllowAttchClosedInvoice.flg" in the pcmrpw directory to attach the Credit Memo (8.40T and higher, 8.43H and higher).

If the original open invoice is posted, pc/MRP will post the credit memo debiting Sales and crediting AR. If the original open invoice is not posted, pc/MRP will not post the credit memo. The user will then be expected to post the invoice (which now includes the credit memo) at some point in the future.

If the user does not have Accounting View Rights or higher, the "Show general ledger transaction report" and "Display general ledger transaction report" checkboxes will be disabled.

Option 3, Credit memo screen
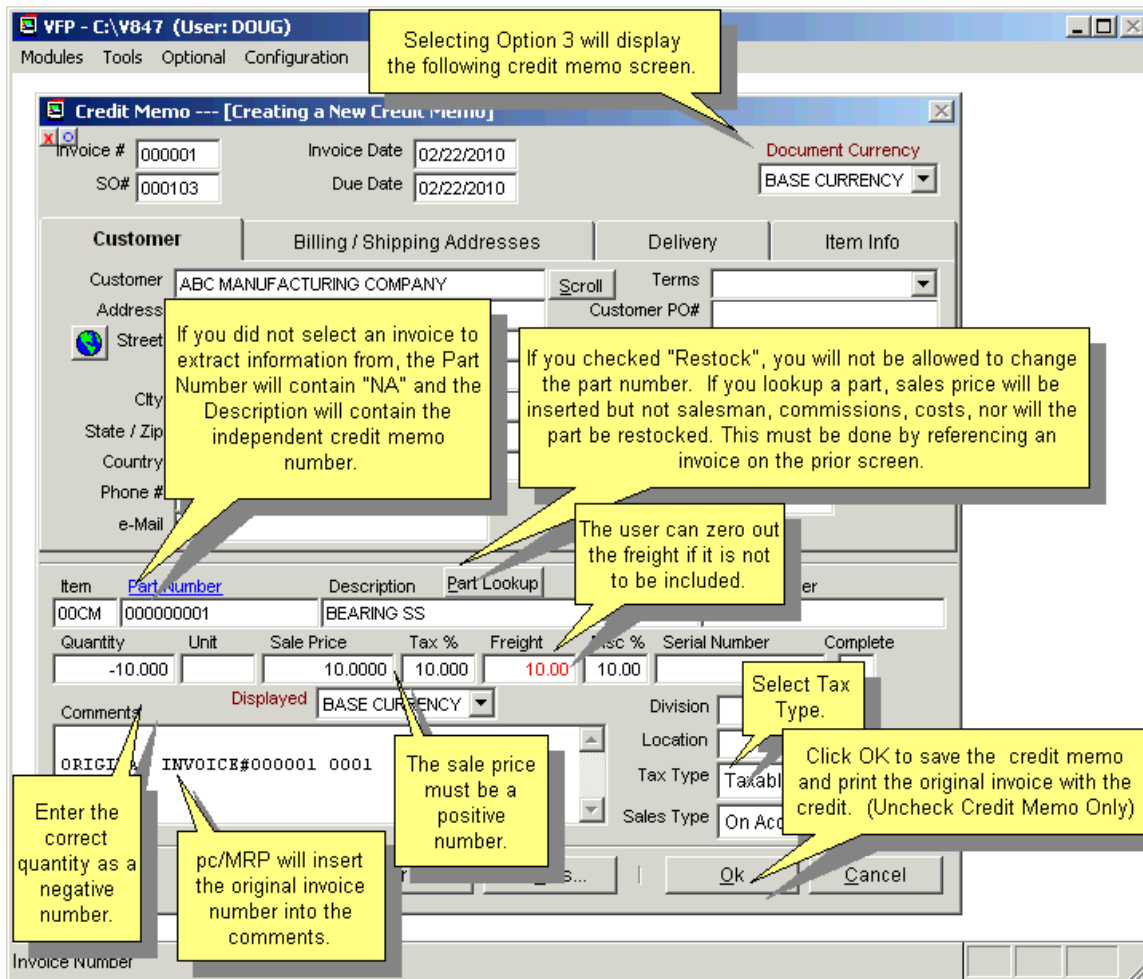
pc/MRP will not allow the following for a credit memo:
- A credit memo that is greater than the invoice
- A positive Quantity
- A negative Sale Price
- An Invalid Part Number other than NA

If "Restock the returned items" is NOT checked the part will NOT be restocked.
If "Restock the returned items" is checked the part number will be restocked.
The credit memo created will be a Dependent Credit Memo (same number as invoice).
If the invoice was posted the credit memo will be posted.
If the invoice was posted and the credit = invoice, both will be posted and complete.
If the invoice was not posted the credit memo will not be posted.

Option 3, Credit memo Transaction

If the original invoice you are attaching the credit memo to has been posted and the "Show general ledger transaction screen" was checked, pc/MRP will display the transaction as shown below.

The Quantity will default to -1. Enter the correct quantity as a negative number. If you accidentally forget to increase the negative qty, it would be better to enter a second credit memo than to edit the original credit memo.

If the original invoice was posted and you did not check "Show transaction", the transaction would be created but not displayed. Basically this is the inverse O Type Transaction debiting sales and crediting AR.

Note: If you are entering a series of credit memos against the same invoice, we recommend creating a dependent credit memo for each line item. However, if you only wish one accounting transaction, do the following:

- **Show General Ledger Transaction Screen** must be checked.
- When the transaction screen is presented to you, press CANCEL except for the final credit memo.
- You will notice that the total of all un-posted line items, including the credit memos are totaled to post on the final accounting transaction. Press **SAVE** on this last transaction.

If the original invoice was not posted and the user checked "Show transaction", pc/MRP would display the message "No general ledger transaction is required since the selected invoice is not posted. Posting the invoice later will post both the invoice and the credit memo in a single transaction.

If the credit memo amount equals the invoice amount, pc/MRP will mark both the invoice and the credit memo as complete.

The description contains the description of the part or the words Independent Credit Memo <credit memo number>

If "Restock the returned items" was checked and Accounting Inventory Method Option 10 was set to Perpetual, pc/MRP will debit Inventory and credit COGS.

Option 3, Print Invoice with attached credit memo

Print the invoice with the attached credit memo (uncheck "Print Credit Memos Only"). Send the invoice with the newly attached credit memo to the customer.

Option 3, Print/Display Independent Credit Memo Transaction

If you checked "Display General Ledger Transaction Screen" pc/MRP would Print/Display the following Credit Memo Transaction Report.

Option 3, Behind the scenes credit memos

Behind the scenes, pc/MRP created a new dependent (same invoice number) credit memo.

The selected invoice may or may not have been posted. If the selected invoice was posted, pc/MRP will post the new dependent credit memo. If the selected invoice was not posted, pc/MRP will not post the credit memo. Later on when the user posts the invoice, pc/MRP will post both the invoice and the credit memo with one "O" type transaction.

If the credit is equal to the amount due on the selected invoice, pc/MRP will close both the selected invoice and the credit memo.

Option 3, Behind the scenes transactions

Behind the scenes, pc/MRP created the following transactions.

The first O transaction posted the invoice debiting AR and crediting sales.   If accounting is set to perpetual pc/MRP will also debit COGs and Credit inventory.

The second O transaction posted the credit memo debiting sales and crediting AR. If accounting is set to perpetual and the credit memo restocked the item, pc/MRP will also debit Inventory and credit COGs.

If the amount on the credit memo equals the amount on the invoice, pc/MRP will automatically close both the invoice and credit memo by putting a "Y" in their complete fields.

14.10.7   Attach Independent Credit Memo to an Open Invoice

If you selected Option 1, "Create an independent credit memo for later use" and there is now an invoice that the credit can be applied to, you would select Modules, Accounting, Credit Memo, and Attach Independent Credit Memo to an Open Invoice as shown in the screen below.
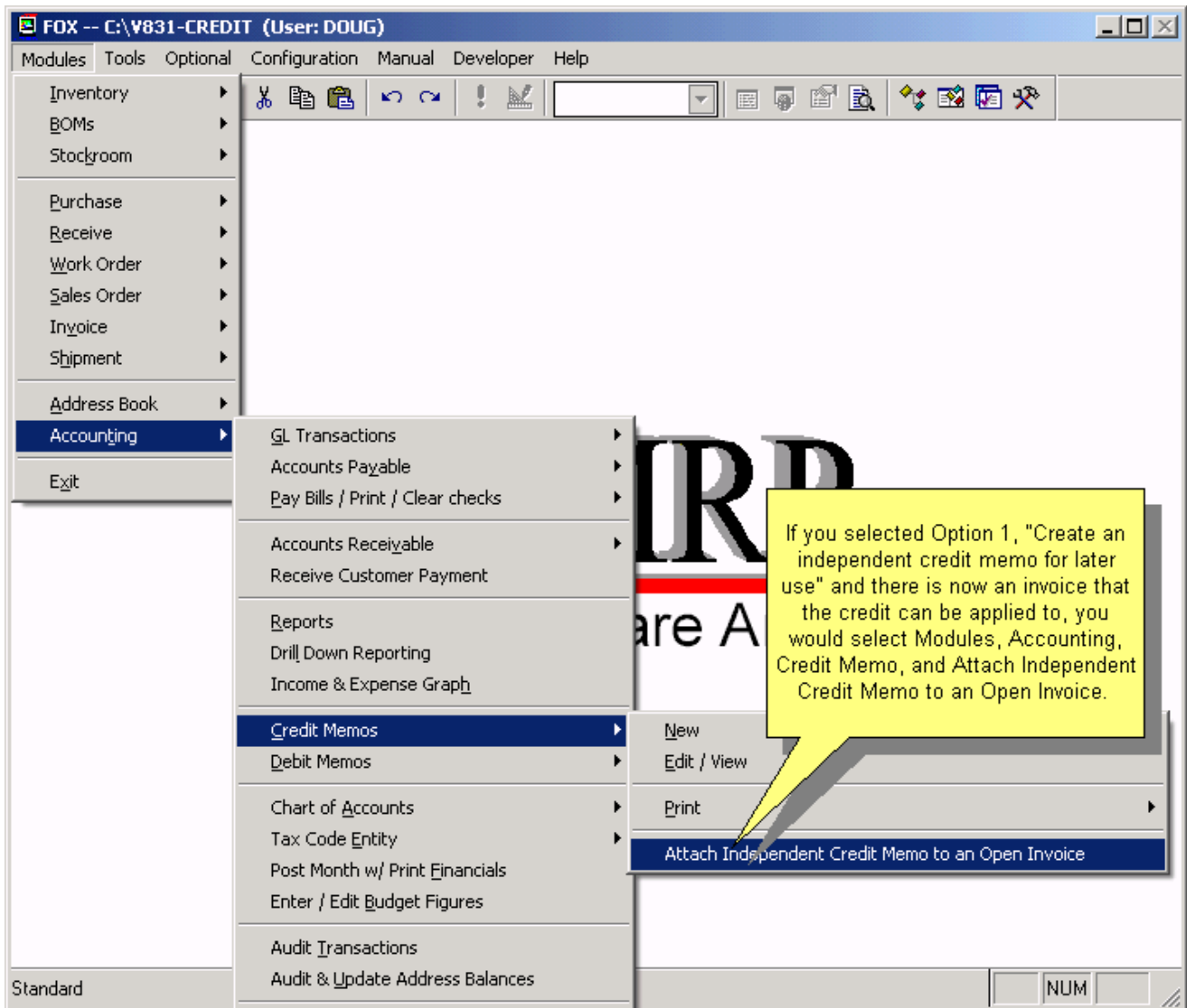
Attach independent credit memo screen

The Attach Independent Credit Memo to an Open Invoice shown below will allow you to select and open, posted or un-posted invoice. It will then display all open, posted independent credit memo for that customer that are equal to or less than the invoices amount due.

Pressing OK will
    pc/MRP will display a dialog box stating credit memo attached
    Create a new "R" type transaction to wash out the original independent credit memo
        Debits AR   Credits Sales
        If the amount = the amount due it closes the original independent credit memo
    Create a new dependent credit memo to replace the original independent credit memo
    If the invoice was posted
        Creates a new "O" type transaction for the new dependent credit memo
            Debits Sales   Credits AR
            Puts a "Y" in the new dependent credit memo's Posted Field

Attach Independent Credit Memo, Print the invoice with new credit memo

Select Modules, Invoice, and Print to send the invoice with the new dependent credit memo attached to it to the customer.

The next two pages show what goes on behind the scenes.

Attach Independent Credit Memo, Behind the scenes

Behind the scenes, pc/MRP created a new dependent credit memo (with the same number as the invoice) to replace the original independent credit memo.   In addition, pc/MRP will close the original independent credit memo.

Original Independent Credit Memo 000002 comment:
ORIGINAL INVOICE#000001 0001
<Replace by new credited memo: 000003 00CM Amount: $60>

New Dependent Credit Memo 000003 comment:
<Replaces Original Credit Memo: 000002 00CM Amount: $60>

If the new attached dependent credit memo amount is equal to the invoice amount due, pc/MRP will close both the new attached dependent credit memo and the invoice.

Behind the scenes, pc/MRP created the following transactions:

<mark>Only Transaction 3 has a comment 'O' Transaction for Independent Credit Memo: 000002 00CM??</mark>

Independent Credit Memos created by option 1 have their own invoice number and will eventually wash themselves out with inverse "O" and "R" transactions.

We can still find all transactions for a specified invoice and it will include all relevant dependent credit memos but not the independent credit memos.

Inventory and COGS will only be included in the transaction if the Accounting Inventory Method Option 10 is set to Perpetual and Restock was checked.

14.10.8 Edit a Credit Memo

To edit a credit memo, select Modules, Accounting, Credit Memos, and Edit.

In the example shown below we have changed the quantity from -5 to -6
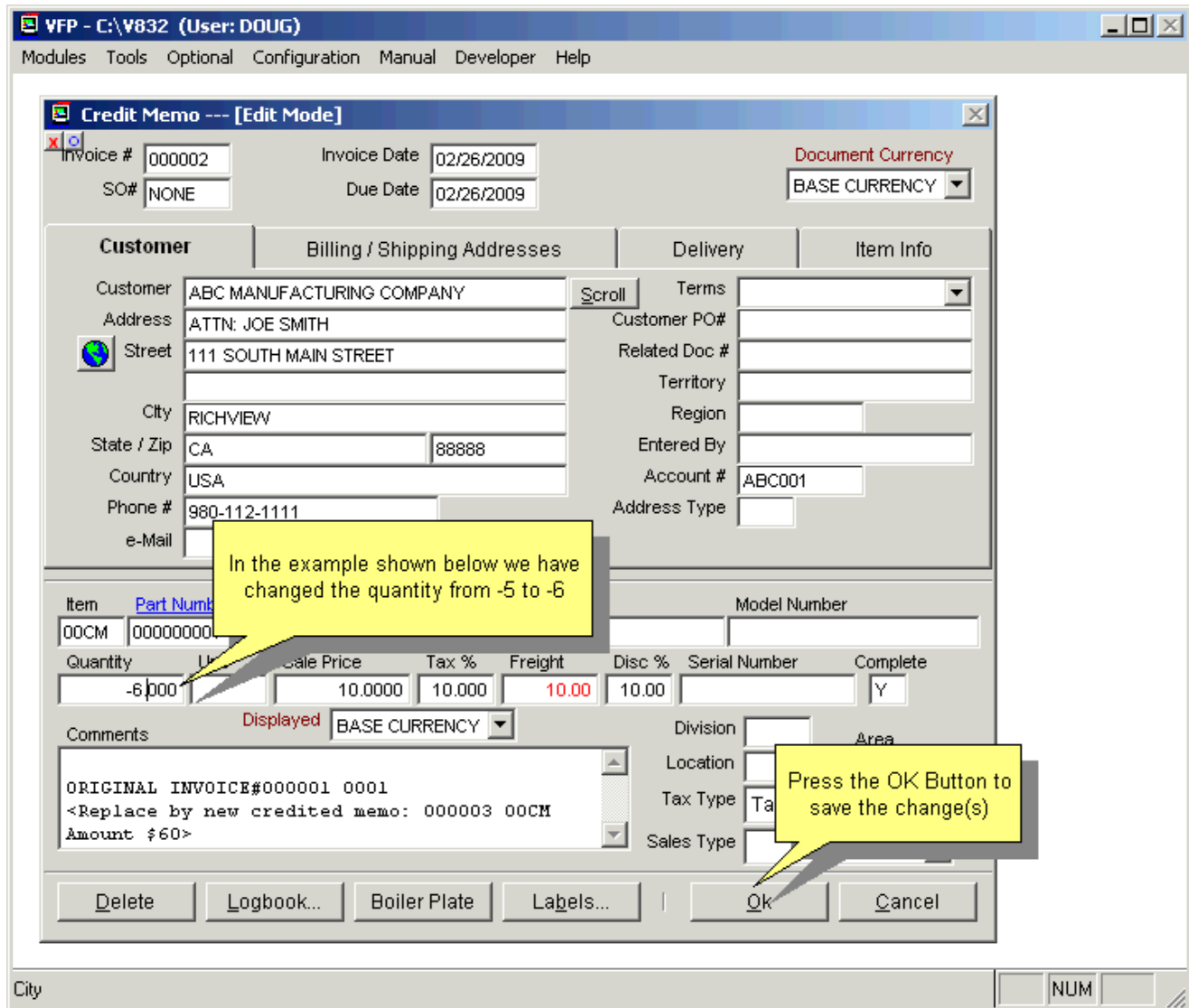
If you want pc/MRP to adjust the inventory quantity check the "Adjust Inventory Qty" Checkbox and select the inventory area to adjust.
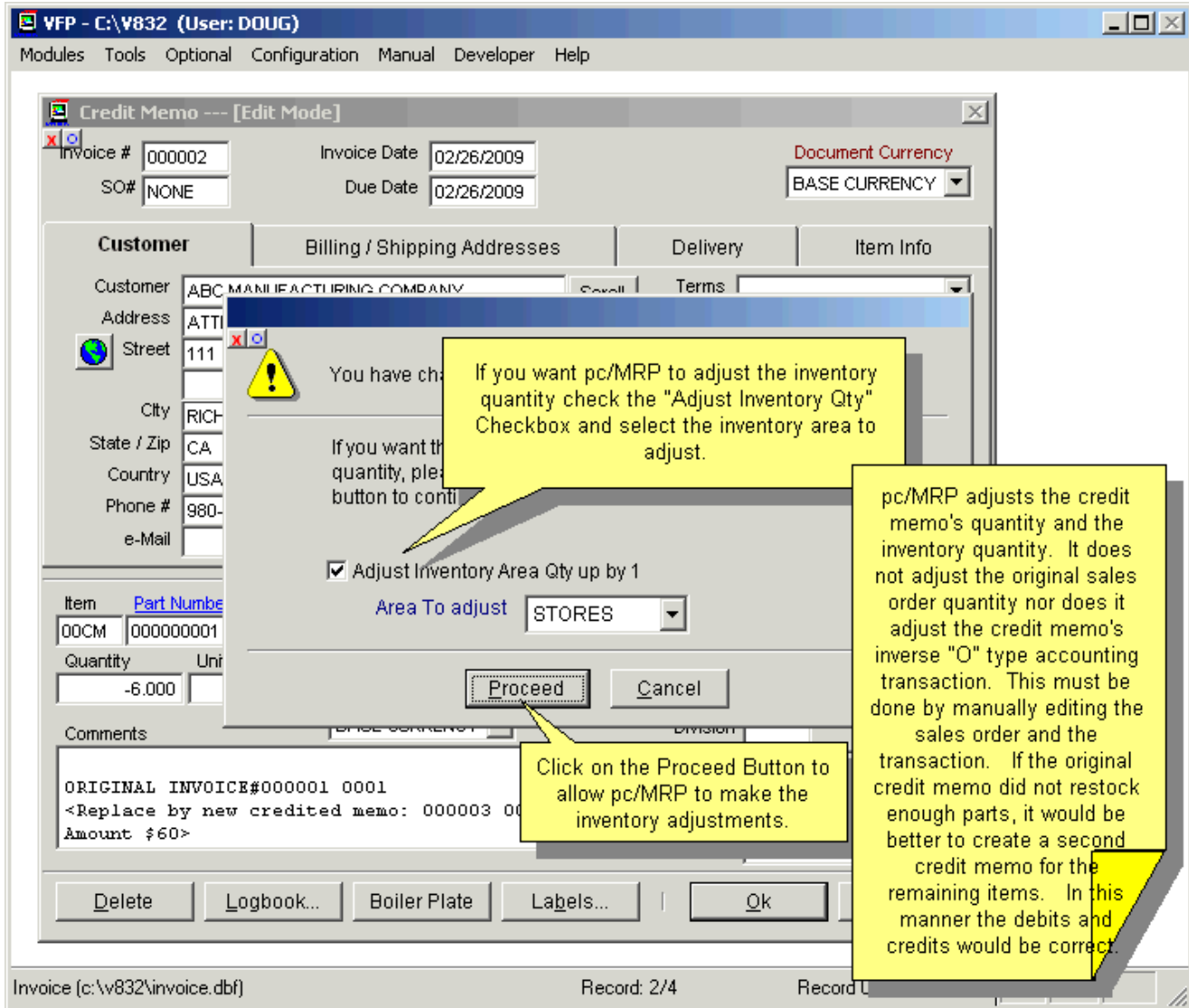
pc/MRP adjusts the credit memo's quantity and the inventory quantity. It does not adjust the original sales order quantity nor does it adjust the credit memo's inverse "O" type accounting transaction. This must be done by manually editing the sales order and the transaction. <u>If the original credit memo did not restock enough parts, it would be better to create a second credit memo for the remaining items</u>. In this manner the debits and credits would be correct.

14.11 Debit Memos

14.11 New (Enter A Debit Memo) Overview

Slideshow at: http://www.pcmrp.com/mrp101/debitmemostart.htm

A debit memo is issued to a vendor to cover returned goods, pricing errors, freight charges, etc. It is basically a negative receiver (a receiver with a negative quantity).

Selecting "Accounting, Debit Memos, New" allows you to enter a debit memo. pc/MRP will prompt you to select the area which received the parts. Select the inventory area the parts are being issued from. Next, pc/MRP will ask, "Should this Debit Memo reference a specific Purchase Order?". Select "Yes" if you can tie it to a specific PO. Enter the quantity you are returning as a negative quantity.

By referring the debit memo to a specific PO, the quantity rejected field in that PO is automatically increased. Select "No", if the debit memo is not from a specific PO. If the part has a part number, enter the part number and the quantity returned as a positive quantity; this will be converted to a negative quantity in the debit memo receiver screen. If the part has no part number, leave the part number as "NA" and quantity as a -1 and the dollar amount you wish to be credited as a positive amount. In either case, if **Freight** is returned, enter a negative value.

When you pay bills, you select the debit memos along with the normal receivers. pc/MRP will print out the check(s) for the difference.

14.11.1 The written method to process debit memos follows:

- Enter POs as you normally would
- Enter Receivers as you normally would
- Enter I type transaction for receivers as you normally would
  - Debits Inventory or purchases for the full amount
  - Credits AP for the full amount
- Enter E or Pay Bills (multiple E) type transactions as you normally would
  - Credits Checking for the full amount
  - Debits AP for the full amount
- When you return parts, enter a Debit Memo (negative quantity receiver) by clicking on Purchase, Return to Vendor or Accounting, Debit Memo, New. Accept the default receiver number pc/MRP assigns to the debit memo (do not attach the debit memo to a receiver). If possible, select a PO line item the part(s) originally came in on (automatically inserts vendor and part number into debit memo and quantity rejected into the PO). Enter the quantity you are returning as a negative number (if you are returning 5, enter -5)
- Enter an I type transaction against the Debit Memo.
  - Debits Inventory or purchases for a negative amount
  - Credits AP for a negative amount
- The next time you use Pay Bills (multiple E) type transactions and there are unpaid receiver(s) for this vendor whose total amount is greater than the debit memo, select the receiver(s) and the debit memo(s).
  - Credits Checking for the full amt of the receiver(s)
  - Debits AP for the full amt of the receiver(s)
  - Credits Checking for the - amt of the debit memo(s)
  - Debits AP for the - amt of the debit memo(s)
  - pc/MRP will print a check for the difference.
- If the total amount due for the receivers exceeds the total amount due for the debit memos for a vendor, pc/MRP will automatically close the debit memos and receivers selected for that vendor as follows:
  - It will put a Y in each line item and debit memo's complete field.
  - Each line item's amount paid field will equal the amount due.
  - Each debit memo's amount paid field will equal the amount due (negative values).

- pc/MRP will distribute only part of the debit memo, if the total debit memo amount exceeds the total receiver amount for that vendor and no check will be printed out.

As you can see, the above method works well if there are unpaid receivers that you can take a credit (actually debit) against. If there are no open receivers, create an accounts receivable voucher for that vendor and create a check against the AR voucher.

14.11.2 The illustrated method to process debit memos follows:
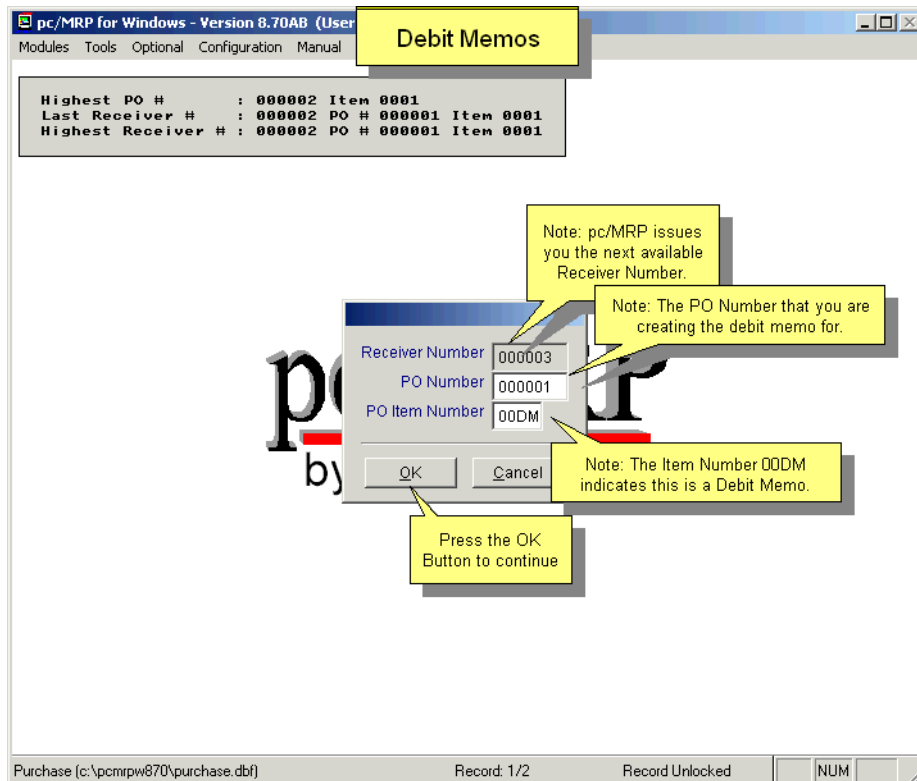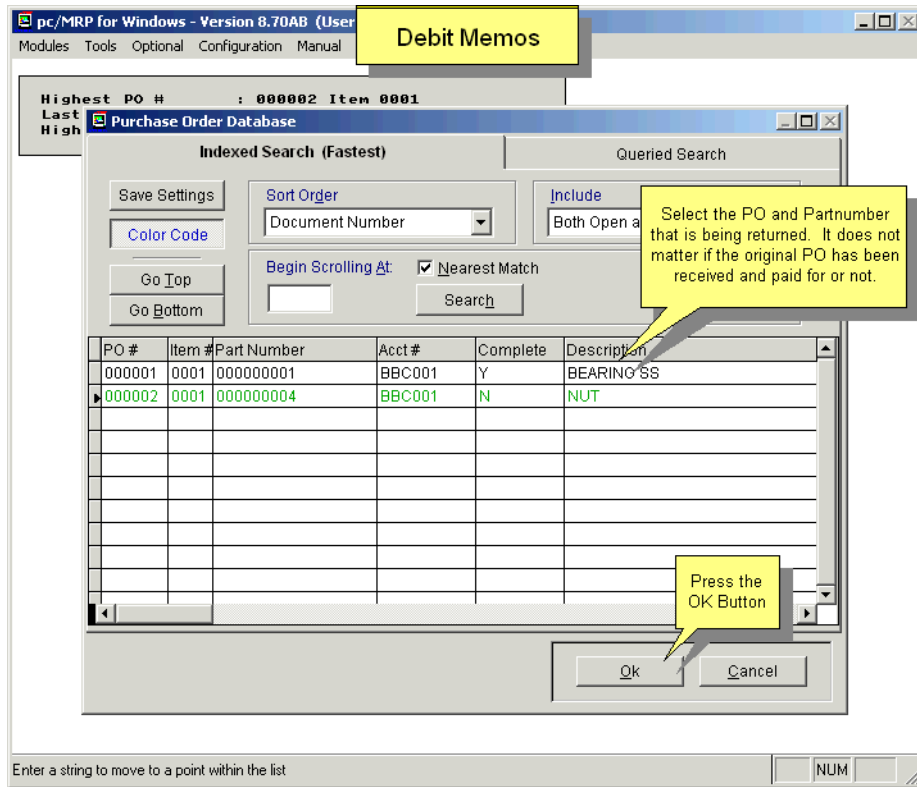
pc/MRP for Windows - Version 8.70AB (User
Modules   Tools   Optional   Configuration   Manual

Creating a New Record

Receiver # 000003   Last Change / /

PO # 000001   Date Received 07/15/2013

Document Currency
BASE CURRENCY

Vendor Information   Item Information

Vendor Acct # BBC001
Vendor Name BBC MANUFACTURI
ATTN: JOE SMITH
Street 111 SOUTH MAIN ST
City RICHVIEW
State / Zip CA
Country USA

[Vendor] Invoice #
[Vend]or Contact
[V]endor Phone
Vendor Fax

If did not select a purchase order to reference, the part number will contain "NA", the Qty will = -1 and you must enter the dollar amount you wish to be reimbursed for as a positi[ve] amount.

1. Enter the qty you plan to return (It must be a negative number)

2. If you wish to be reimbursed for taxes, enter the tax % here.

Item	Part Number	Rev	Description	Manufacturer
00DM	000000001		BEARING SS	

Model Number	Serial #	Qty Received	Unit	Price	Tax %
		-1.000		10.000000	10.000

Comments   Displayed Currency BASE CURRENCY

Disc %   Freight   Location   Area
10.00   -2.00   1 STORES

If did not select a purchase order to reference, the part number will contain "NA", the Qty will = -1 and you must enter the dollar amount you wish to be reimbursed for as a positive amount.

3. If the item was discounted enter the Discount %

4. If you wish to be reimbursed for freight, enter it as a negative dollar amount.

Ok   Cancel

5. Press the OK Button (pc/MRP will reduce the on hand qty)

Print Preview - RECB.FRX

Print Preview   100%

e Arts Inc.
a Del Oro Suite 109
e, CA 95119

408-226-7321

UFACTURING COMPANY
DE SMITH
TH MAIN STREET
V, CA 88888

DEBIT MEMO: 000003

PAGE NO.   : 1
DATE   : 07/15/2013
SHIP VIA   :
VENDOR INV   :
RECVD BY   : DOUG, 16:12:50
PO REQ NO   :
DEBIT/CHRG   :
TERMS   : NET30
REQUESTOR   :
ACCOUNT #   : BBC001
REL DOC #   :

Note: The Debit Memo has its own independent receiver number.

ARTNO	DESCRIPTION	QTYREC	UNIT	COST	EXTN COST
00000001	BEARING SS	-1		10.00	-10.00

/ /   ACTUAL DATE REQ: / /

Note: In this case the debit memo total includes discount, tax and freight.

SUBTOTAL: -10.00
DISCOUNT: -1.00
TAX: -0.90
FREIGHT: -2.00

TOTAL: -11.90

Tempinv (c:\docume~1\doug\locals~1\temp\59151033.dbf)   Record: EOF/1   Exclusive   NUM

To post the debit memo transaction, select Modules, Accounting, GL Transactions and New Transaction. Select "I", Register accounts payable invoice or debit memo.

When it comes to pay your vendors, Select Modules, Accounting, And Pay Bills. Receivers and Debit Memos must be posted to be displayed in the Pay Bills Screen.

14.12 Sales Deposits and Overpayments

14.12.1 Recommended way to process Sales Deposits if pc/MRP's accounting module is used (Auto-accounting on or off)

Create the Sales Order as an Order Entry Sales Order:
1. Create a sales order line item 0001 for the product, e.g. Bicycle, quantity 10 for $50,000.00.
2. Create a sales order line item 0002 for part "NA" for the deposit, say $10,000.00.
3. Create a sales order line item 0003 for part "NA" for a negative deposit (Qty 1, Saleprice -$10,000.00).
4. If you are exporting to QB Create a Sales Deposit, Non Inventory Part Number with a QB Sales Deposit Liability Account inserted into the QB Income Account and a QB Expense Account (as a place holder) in the QB Asset/Expense Field in the part's pc/MRP QB Tab.

Create an invoice for the deposit:
1. Create an invoice for line item 002 for $10,000.

Post the $10,000.00 deposit invoice:
1. Enter an 'O' type accounting transaction for line item 0002
2. Credit Sales Deposit (liability credit account), for $10,000, instead of Business Income.
3. Debit Accounts Receivable account, for $10,000.00.
4. If you are using QuickBooks, ignore 1-3 and export the deposit invoice to QuickBooks

When you receive the deposit for line item 0002:
1. Enter a 'R' type accounting transaction for line item 0002
2. Credit Accounts Receivable, for $10,000.00.
3. Debit Checking account, for $10,000.00.
4. Print out the invoice; it will show the amount paid as $10,000.00.
5. If you are using QuickBooks ignore 1-4 and enter the payment into QuickBooks

Build the product in line item 0001:
1. Enter an 'I' type stockroom transactions to issue parts to WIP.
2. Enter an 'R' type stockroom transaction to receive the finished product into stores.

Create the second invoice, this time for line items 0001 & 0003:
1. Enter an 'O' accounting type transaction for line items 0001 & 0003.
2. Credit Business Income (Sales), for $50,000.00.
3. Debit Sales Deposit (Liability account), for $10,000.
4. Debit Accounts Receivable., for $40,000.00.
5. If you are using QuickBooks ignore 1-4 and export the invoice to QuickBooks

When you receive payment for line items 0001 & 0003:
1. Enter an 'R' type accounting transaction for line items 0001 & 0003
2. Credit Accounts Receivable, for $40,000.00.
3. Debit Checking account, for $40,000.00.
4. If you are using QuickBooks enter the payment into QuickBooks

14.12.2 If pc/MRP's accounting module is not used

If the sale is on account and carry:

1. Enter the sale as on account and carry
2. Note the deposit amount in the comment field
3. Edit the invoice, enter the deposit into amount paid field
4. Print out the invoice, it will now show the amount paid

5. When a payment arrives edit the invoice, add the amount to the amount paid
6. If the invoice is paid in full enter a Y into the complete field

If the sale is an order entry for delivery in future:

1. Enter the sale as order entry
2. Note the deposit amount in the comment field
3. Invoice the sales order when item is ready to ship
4. Edit the invoice, enter the deposit into amount paid field
5. Print out the invoice, it will now show the amount paid
6. When a payment arrives edit the invoice, add the amount to the amount paid
7. If the invoice is paid in full enter a Y into the complete field

14.12.3 Your customer insists on receiving an invoice immediately even though not all of the order can be shipped. (usually to send a deposit amount)

1. Enter an "On Account and Carry" sales order so an invoice is automatically created. Send the invoice to the customer.
2. When you receive the deposit, enter an accounting 'R' (revenue) transaction against the invoice.
3. Re-print the invoice which now will show the amount paid.
4. Create a work order for each sales order line item that needs to be built.
5. Use the stockroom to issue and receive back the work orders. When generating an MRP, only check "Work Orders" and not "Sales Orders".

14.12.4 Handling Overpayments

When you receive a customer's check and they have overpaid, you will first discover they overpaid when you are entering the payment using pc/MRP's Receive customer payments or pc/MRP's R Type Accounting Transaction. In either case, exit and do not enter the payment.

Edit the original sales order and add a line item:
Part Number "NA"
Description "Overpayment"
Sale Type "Cash and Carry"
Qty "1"
Sale Price <amount of the overpayment>
Click on the Finish Button
Select Add to an old invoice
Press Continue

Now post the invoice again by entering an O type transaction (it will just post the overpayment amount).

Now enter the payment for the full amount of the check using pc/MRP's Receive customer payments or pc/MRP's R Type Accounting Transaction.

Now you are free to create a credit memo for the customer selecting Modules, Accounting and Credit Memos. You can select to:

Create an Independent Credit Memo to be applied against a future open (unpaid) invoice.
or
Create an Independent Credit Memo and print a check to the customer.
or
Create a dependent credit memo and attach it to an existing invoice.

http://www.pcmrp.com/mrp101/creditmemooverview.htm

14.13 Purchase Deposits

14.13.1 When You Make a Deposit on a Purchase

In the Chart of Accounts Module, create a Purchase Deposit chart of account
Type = AC, Asset Current, Debit Account

In the Inventory Module, create a Purchase Deposit Part Number
Type = Non Inventory,
Asset / Expense Account = Purchase Deposit

From then on, whenever you need to include a deposit on a purchase order

Purchasing:
1. Make a purchase order line item 0001 contains the part number, qty and unit cost.
2. Add a second line item for the Purchase Deposit PN, qty 1, and a negative dollar amount for the deposit
3. Add a third line item for the Purchase Deposit PN, qty 1, and positive dollar amount for the deposit

Accounting:
4. Accounting will receive the third line item (Modules, Receive, New, select 3rd line item) and enter a unique vendor invoice number
5. Accounting will cut a check (Accounting, GL, New, P) for the receiver containing the third line item.

Receiving:
6. Receiving will receive line items 1 and 2

Accounting:
8. Accounting will add the vendor invoice number to the receiver
9. Accounting will post the receiver (Accounting. GL, New, I)
10. Accounting will cut a second check (Accounting, GL, New, E) for the amount of the goods minus the deposit.

(please turn)

14.13.2 When You Make a Deposit on a Purchase and you are using QuickBooks

Step 1 In QB, create a Purchase Deposit chart of account
Type = Other Current Asset

Step 2 In pc/MRP, create a Purchase Deposit Part Number
Type = Non Inventory
QuickBooks Tab Asset/Expense Account = Purchase Deposit

From then on, whenever you need to include a deposit on a purchase order

Purchasing:
1. Make a purchase order line item one contains the part number, qty and unit cost.
2. Add a second line item for a positive qty of 1 and a negative dollar amount of the deposit
3. Add a third line item for a positive qty of 1 and positive dollar amount for the deposit

Accounting:
4. Accounting will receive the third line item (Modules, Receive, New, select 3rd line item) and enter a unique vendor invoice number
5. Accounting will export the 3rd line item to QB as a Bill
6. Accounting will cut the check in QB for the deposit

Receiving:
7. Receiving will receive line items 1 and 2

Accounting:
8. Accounting will add the vendor invoice number to the receiver and export it to QB as a bill
9. Accounting will cut a second check in QB for the amount of the goods minus the deposit.

14.14 Print or Clear Checks, Recording Hand Checks and EFPs

Overview

This module allows users to print, reprint, clear and unclear checks, hand checks, electronic funds payments and print remittance reports. Slideshow is at: http://www.pcmrp.com/mrp101/paybillsmenu.htm

14.14.1   Pay Bills

Step 1, Select Pay Bills, Print Checks from the menu

The **Pay Bills** option will allow you to select from a list of open (Complete field does not contain a Y) receivers and AP vouchers to be paid from a scrollable window.   This option allows you print checks or register payments (debit AP, credit Checking) for hand checks and electronic funds payments.

To pay bills by check or credit card, register hand checks and electronic funds payments select Modules, Accounting, Pay Bills / Print/Clear Checks and Select Pay Bills Print Checks.

Step 2, Select Age of Receivers and AP Vouchers and Bank Account Chart of Accounts
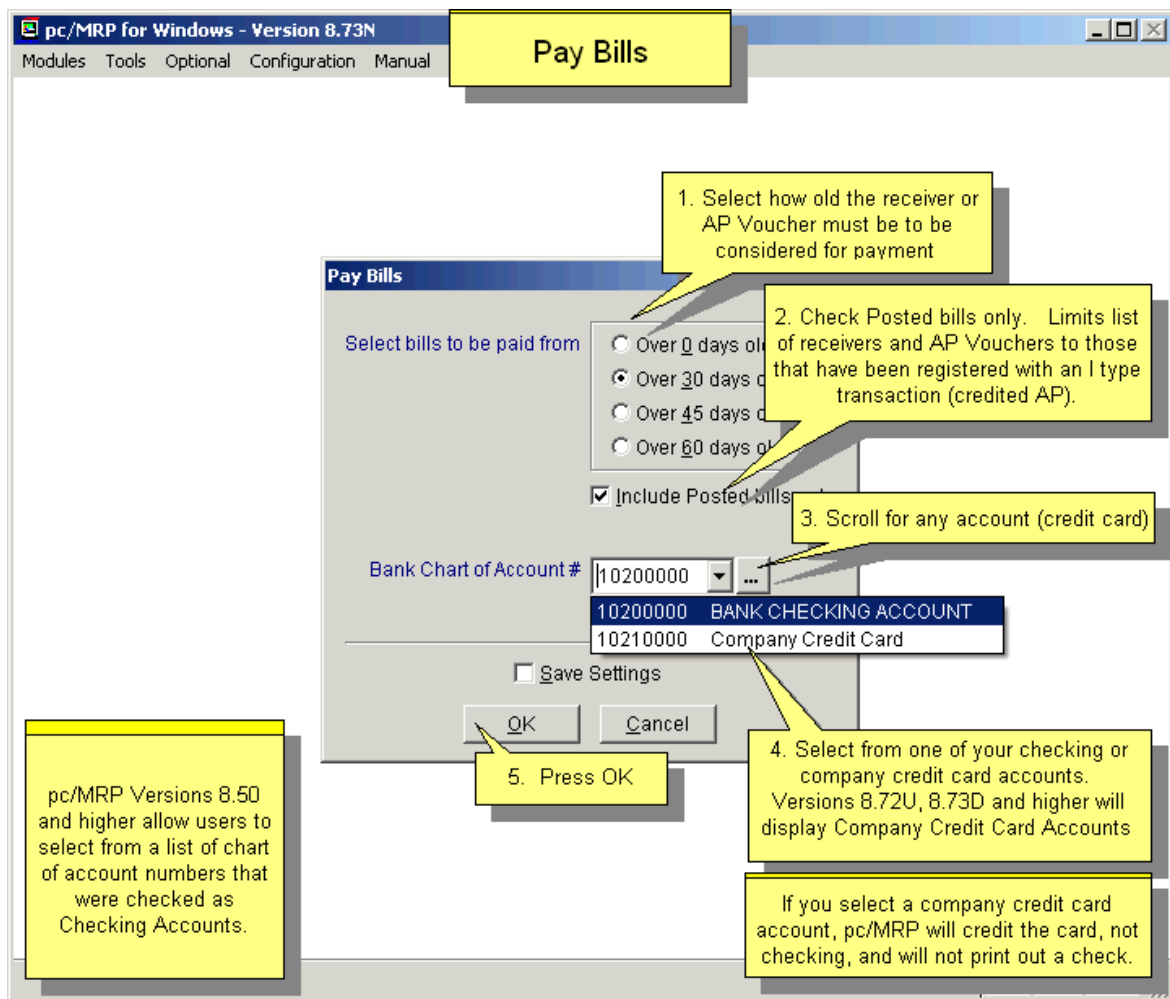
Note: Company Credit Card accounts are available for **Versions 8.73 and higher**.

The accounts payable default screen shown above will allow you to set the minimum age of open (Complete Field does not contain a Y) receivers and accounts payable vouchers to select from.

Checking Include Posted Only will allow you make sure only receivers and AP vouchers that have been posted (with an I type transaction debiting inventory or expense and crediting AP) will be considered for payment.

Select the Bank Chart of Account # and press the OK Button. If the account you are looking for is not available from the drop-down menu, edit that chart of account and make sure the "This is a checking account" box is checked.

pc/MRP looks for a file named lastclos.mem, which contains the month and year that pc/MRP was last closed. If pc/MRP cannot find this file or if the last close did not occur in the current year, pc/MRP will prompt you to enter the balance in the checking account manually. If pc/MRP does find a good current close, it will use the ending balance of last month it was closed and calculate the current balance of the checking account using the checking transactions from the current month found in the accounting transaction file.

Step 3, Select Receivers and AP Vouchers to be paid

To process (debit AP and credit Checking) receivers, AP vouchers and print checks, select Print Checks Now as shown below. Check date will be the current system date.

Note: You must check the 'Show the PRINT CHECK dialog window' if you need to change the printed check currency from the base currency!

To process (debit AP and credit Checking) receivers, AP vouchers that were paid by hand check or electronic funds payment, select Assign Hand Checks or Reference Numbers.
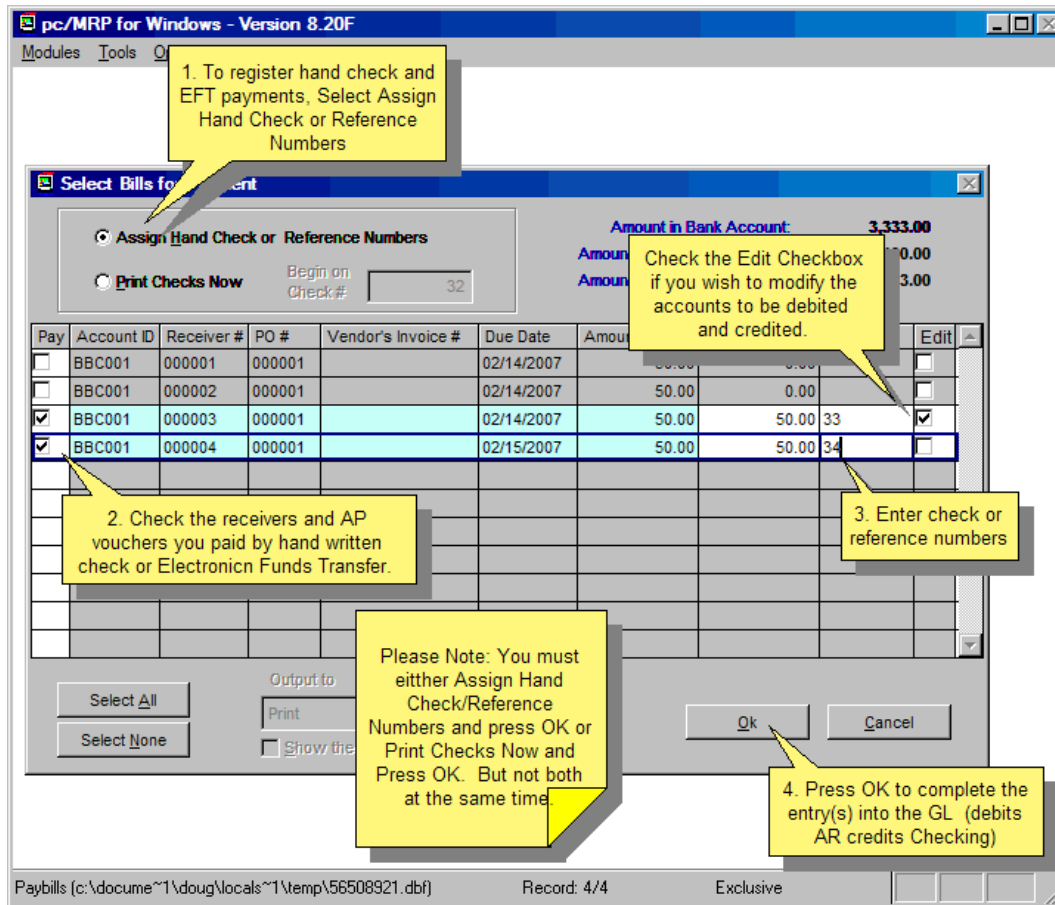
Please note that you can either print and process checks, or process hand checks and electronic funds. You can not do both at the same time.

If you selected Print Checks Now, select the receivers and AP vouchers you wish to print checks for. Load the checks into your printer and press the OK Button.

If you selected Assign Hand Checks or Reference Numbers, select the all the receivers and AP vouchers you wish to process. Enter the hand check number or the electronic fund payment reference number for each receiver or AP voucher selected. Press the OK Button (No checks will be printed).

In both cases, an 'E' type transaction (debit AP, credit Checking) will entered for each receiver or AP voucher you selected.

The "Show Print Check Dialog" checkbox will allow you to stop at each check prior to printing the check.

If a specific check has more than 10 receivers, pc/MRP will prompt you to place a blank check form in the printer, print it, and then ask you to place a blank sheet of paper in the printer to print out a remittance list for that specific check as the check stub does not contain enough room to include more than 10 receivers on a stub.

Step 4, Print a Remittance List

In both cases, you will be asked if you wish to print out a Remittance List (a list of receivers and AP Vouchers that were processed during the check run.

14.14.2   Print Unprinted Checks

The **Print Unprinted Checks** option will allow you to print checks for accounting transactions that have been entered, but no check was ever printed. pc/MRP will give you the option of select "Pick from all open accounting transactions" or "Build your own list" of accounting transactions to print checks for. If you have a small transact.dbf file, and know the receiver numbers, it is faster to use the "Pick" option. If you have a large transact.dbf file and know the transaction numbers, it is faster to use the "Build" option. The "Pick" option will allow you to select from any transaction that has credited the checking account and whose check printed (ChkPrnted) and cleared (cleared) fields do not contain a "Y". The "Build" option will allow you to enter any transaction number, be careful to select only E (accounts payable expense) or P (cash purchase) type transactions. Both options will consolidate multiple transactions from the same vendor and automatically print out a single check for each vendor.

14.14.3   Print Old Check or Void/Reprint a Check

The **'Reprint Old Checks'** option will allow you to reprint checks for accounting transactions that have already had a check printed out. Simply enter the check number you wish to be reprinted. The check number can be changed at this time if needed. If the check number is changed, it is changed in all transactions where the old check number was used.

To **void a check number and reprint a check** (with a new check number) select the **'Reprint Old Checks'** option, enter the checking account chart of accounts number, enter the original check number and click OK. pc/MRP will display the screen shown below (remember to change the check#):

Note: The '**Currency**' dropdown list allows you to print checks in an alternate currency.

Note: These methods do not leave a record of the old check number. To leave a record of the old check number, zero out the original accounting **'E'** transaction. Edit the receiver's amount paid field and enter a new **'E'** type transaction with a new check number. If the check payee needs to be changed, edit the accounting transaction and change the address account ID.

Accounting Void/Reprint a Check

New check with new check number will be printed out.

Date on the check will be the current date (from the computer) and not the original date

This screen shot shows the contents of the Transact, Trandetail, and Receive Database files AFTER a check is voided and a new check is printed in its place.

Original Transaction Date

Newl Check Number

New Check Number

14.14.4 Clear/Unclear Checking Transactions

To clear **checks** and **deposits,** select Modules, Accounting, Pay Bills, and Clear Checking Transactions. pc/MRP will then allow you to check checks and deposits that have been cleared by the bank as per the screen shown below.
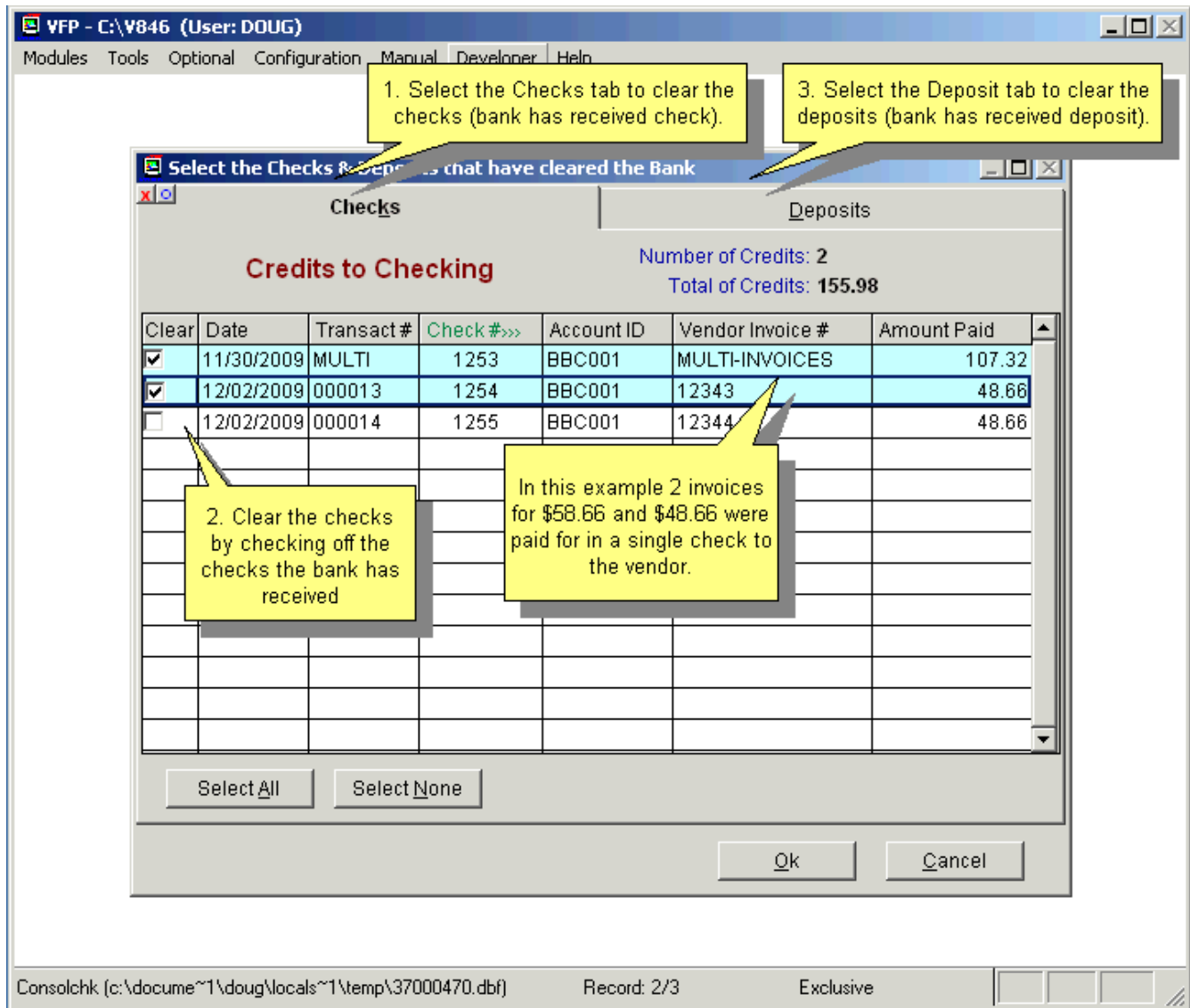
This option allows you to scroll and pick from all uncleared transactions (transactions whose cleared field does not equal "Y" and debits or credits the checking chart of account number). If the transaction database file is large, you must allow quite a bit of time for it to set the filter to display only transactions that debit or credit the checking account.

Once you are finished clearing your checks and deposits, you can run a Check Reconciliation Report to see the difference between pc/MRP's and the banks checking account balances. To display or print a Check Reconciliation Report, select Modules, Accounting, Reports, and Check Reconciliation Report.

The **Unclear Checks** option will allow you to clear a check for a specified transaction number.

14.14.5   Remittance Reports

The **Print Remittance Report** option will allow you to print a check remittance report for:
- A specified transaction number.
- A check number range
- A date range
- All checks for a checking account number
- For the last check run

14.14.6   Ordering Checks and Envelopes

The check-writing module can be preset in the Configuration Menu to use or not use pre-printed check numbers. Laser checks with your company's pre-printed address can be ordered through Rapid Forms (1-800-257-8354), or Deluxe (1-800-328-0304)

When ordering checks specify:
Company Address to be pre-printed
Either pre-numbered checks or blank check numbers
Rapid Forms Check Number LM 102CG-1 (Stub, Check, Stub)
Deluxe Check Number 081013/6-89

Compatible double window envelopes for either laser or Dot Matrix Checks can be ordered from Rapid Forms (1-800-257-8354). When ordering check envelopes specify: Check Envelope Number CHENV

14.14.7   Selecting a Printer for Checks

pc/MRP will automatically use the default printer to print checks. You must set the printer you wish to print checks with as your default printer. If you do wish to select a printer when printing a check, create a txt file named **mltchk.umf** with Notepad and place it in your pcmrpw directory.

14.14.8   Check Numbers

When entering a Pay Bills E, P, or A type transaction, check numbers can only be entered and changed in the Print Check screen and not the Transaction screen. pc/MRP will display the next available check number in the Print Check screen. The user can change the check number. Please remember that pc/MRP will start the check number sequence based upon the last check number used.

When entering an E, P, or A type transaction, the check number will not be displayed.

When editing an E, P, or A type transaction, the check number will be displayed but NOT editable.

To reprint a check, use the "Reprint Check" option. You can use the original check number or a different check number. If you use a new check number, the original accounting transaction and receiver will contain the new check number. If the new check number is greater that the 'next available check number', pc/MRP will restart the check number sequence. If the new check number is less than the 'next available check number', pc/MRP will display a warning with an option to go back and change the check number or proceed.

pc/MRP does not allow more than one person to print checks at the same time.

14.14.9   Remittance Address

It is important to remember that a checking transaction has both a remit-to address ID and a vendor address ID. pc/MRP allows users to select a different remit to address when printing a check. The remit to address (remit_to) is not displayed in the data entry transaction screen.

14.15 Term Discounts

14.15.1 Term Discounts

Customers often ask for term discounts such as 2% Net 10, meaning a 2% discount will be given provided the customer pays within 10 days. The terms discount information is stored in the invoice's terms field and the trade discount information is stored in the invoice's discount field. (**Note:** A trade discount is a discount given to a customer regardless of the payment terms.)

Since one is never sure if a customer is going to take advantage of the payment terms offered, term discounts require some special handling as shown in the example below:

Assume a customer is invoiced, given a 20% trade discount and a 2% Net 10 terms discount on the invoice.

After the customer is invoiced, enter a general ledger transaction to "Register the accounts receivable invoice (O)". The discount field in the invoice would be 20% and the terms field would read 2% Net 10. pc/MRP will include the trade discount but not the terms discount as it has no idea if the customer will pay on time.

If the customer pays, but not within 10 days, enter a general ledger transaction to register the "Accounts Receivable Payment (R). pc/MRP will include the trade discount but not the terms discount.

If the customer pays within 10 days, taking advantage of the terms discount, edit the first line item on the invoice, add the terms discount to the trade discount (20% would be changed to 22%), save the line item and answer YES to update the header on all line items and <u>then enter a general ledger transaction (accounts receivable payment)</u>. Enter the amount received as the amount received, Debit checking for the amount of the check, debit sales discount for the 2% difference, and credit accounts receivable for the full amount originally due.

14.16 Factored Invoices

14.16.1 Overview

The following methods of handling factored invoices assume:

- You know you are going to sell the invoice to the factoring company before you create the invoice.
- The invoice contains a remit to address to the factoring company. The remit to address could be rubber stamped onto pc/MRP's standard invoice or you could use pc/MRP's custom report writer to create a custom invoice named cinvoice.frx that would contain the remit to address in the note section of the custom invoice.
- The invoice for the full AMOUNT is sent to the customer and factoring company.
- The factoring company sends a check for a portion of the invoice.
- The customer sends a check for the full amount to the factoring company.
- The factoring company notifies you that the invoice has been paid.

14.16.2 A simple method for handling factored invoices:

Enter the invoice for the full AMOUNT, print several copies, and send them to the customer and factoring company.

Edit the invoice and put the factoring % in the discount field. Reprint the invoice for your own copy showing the total amount and the discounted amount.

Enter an O type accounting transaction to register the accounts receivable invoice debiting AR and crediting business income for the reduced AMOUNT.

When you receive the check for the reduced AMOUNT from the factoring company, enter an R type accounting transaction. pc/MRP will credit AR and debit the checking account for the reduced amount automatically.

14.16.3 A more sophisticated method for handling factored invoices:

Enter the invoice for the full AMOUNT, print several copies, and send them to the customer and factoring company.

Enter an O type accounting transaction to register the accounts receivable invoice debiting AR and crediting business income for the full AMOUNT.

When you receive the check for the reduced AMOUNT from the factoring company, enter an A type accounting transaction. Credit invoice factor liability and debit checking for the reduced amount.

When you receive notification from the factoring company, that the customer has paid the invoice, enter an R type transaction for the invoice, debit invoice factor liability, debit invoice factor expense, and credit AR for the full AMOUNT of the invoice. You could open pc/MRP's or Window's calculator to subtract the reduced payment AMOUNT from the full AMOUNT to calculate and then paste in the expense AMOUNT.

14.17 1099MISC and 1096 IRS Tax Forms

14.17.1 1099MISC and 1096 IRS Tax Forms Overview

pc/MRP has the ability to print 1099MISC and 1096 IRS tax forms. This feature is accessible by selecting the Accounting Module and IRS Tax Forms. This feature allows users to define address entries that require a 1099 form, print and display the forms, define the tax year, threshold, recipient, and a number of other items. When generating the forms, pc/MRP will automatically search through all of the invoices, based on the criteria defined, and print the forms accordingly.

14.17.2 Defining Address Entries that Require a 1099

Each address entry can be defined as requiring a 1099 form. Select the address desired in the address book module, click on the **Sales Contact Info** tab, click the **check box** next to **IRS Form 1099** and fill in the Tax ID numbers (federal and state) for the vendor**.** The check box must be checked and Tax ID number must be populated with at least 7-digits to work correctly. Having this check box checked will flag pc/MRP to create the necessary forms based on the receivers that were posted to the GL for that vendor.

14.17.3 1099 MISC IRS Form

Selecting Modules, Accounting, IRS Tax Forms, Form 1099 Misc. will display the above screen. Pressing the OK Button (calls Pr1099.prg) will display/print a 1099 MISC form for all vendors or a specified vendor for the selected tax year. It uses all accounting transactions for the vendor entered during the specified year that contain a credit to any checking account within the first 5 credits of each transaction.   The vendor's address book 1099 Form Checkbox must be checked and the vendor's Tax ID must be 7 characters or greater. Select the forms that you want to generate. The system will prompt you to load the form before it starts to print the form.

Note: Versions **8.70P and lower** only used the accounting transactions for the vendor entered during the specified year that contain a credit to the "primary" checking account within the first 5 credits of each transaction.

14.17.4 1096 IRS Tax Form

Selecting Modules, Accounting, IRS Tax Forms, Form 1096 will display the above screen allowing users to print out one or more 1096 forms for the specified Tax Year.

14.17.5 Purchasing IRS Tax Forms

IRS 1099MISC and 1096 forms can be purchased at any office supply store. (Office Depot, Staples....) Be sure to purchase forms for the specific tax year that the forms are to be printed for. Tax forms do change year by year.

Changes to the IRS1099 form that do not necessitate a change in the form layout will still use the current form layout within pc/MRP regardless of what year the program says; just accept the form year.

14.17.6 IRS Tax Forms Troubleshooting

If there are any problems having the forms match correctly to the pc/MRP 1099MISC or 1096 report be sure that the correct year was selected when printing the form. If the forms still do not match after verifying the year, contact Software Arts.
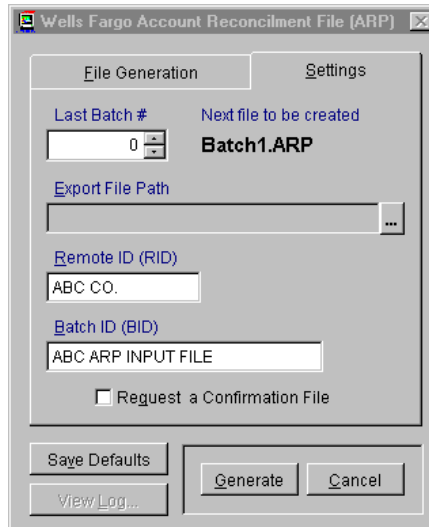
If no matching data is found, make sure the Tax ID and the 1099 check box is checked within the Address entry desired. For versions **8.70P and lower**, also make sure the checking account used to pay the 1099 in question is set as the primary checking account in option 9 in Settings and Utilities.

14.18 Wells Fargo Account Reconcilement (Positive Pay) Option

14.18.1 Wells Fargo Account Reconcilement Overview

pc/MRP contains the Wells Fargo account reconcilement (Positive Pay) option. This option allows companies to create a file containing all checks written during the date range selected. The file, named Batchxxx.arp, can then be sent over the internet to Wells Fargo. If you implement this program with Wells Fargo, Wells Fargo will only cash checks that have been registered via one of your Batchxxx.arp files. If a check is not in any of your Batchxxx.arp files or the amount of the check differs from the registered check, Wells Fargo will call your company, asking if you wish them to cash the check

14.18.2 Wells Fargo Account Reconcilement Settings

Prior to sending your first batch, you must enter your batch settings as follows:

Last Batch Number pc/MRP will automatically increment the number, you can however start at a number higher than 1. If you leave the Last Batch Number at 0 when you generate your first batch, pc/MRP will automatically name the batch file "Batch1.ARP".

Remote ID (RID) Enter the Remote ID that Wells Fargo assigns your company.

Batch ID (BID) Enter the Batch ID that Wells Fargo assigns your company.

Export File Path Press the ellipsis button to the right of the Export File Path text box to locate the drive and directory you would like the Batchxxx.arp to be deposited into. The path displayed within the field will be relative to the pc/MRP main folder. An empty field means that the files will be created within the pcmrpw folder.

Request a Confirmation File Check the Request a Confirmation File check box if you wish Wells Fargo to send back a confirmation file containing the check numbers included in your batch.

14.18.3 Creating a Wells Fargo Account Reconcilement Batch File
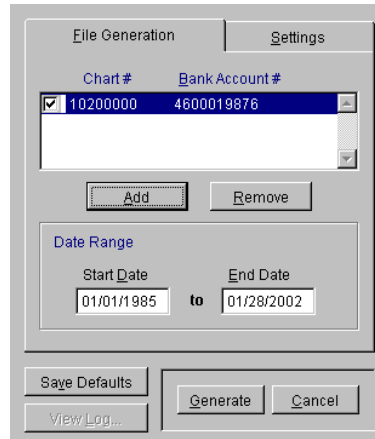
1. If you have not entered the pc/MRP chart of account number for your company's checking account, do so now by pressing the add button. You can enter more than one Wells Fargo Bank account. If you have entered the Wells Fargo Account(s), select the accounts you wish to create a batch file for by checking the respective check boxes.
2. Enter the Start and End Dates (Wells Fargo's program does not mind if you accidentally send the same check number again).
3. Press the Save Defaults button to save the above settings as your default settings.
4. Press the Generate button to create the file.
5. Log into your Wells Fargo Internet account and send the file you just generated.

14.18.4 Viewing your Wells Fargo Account Reconcilement Log
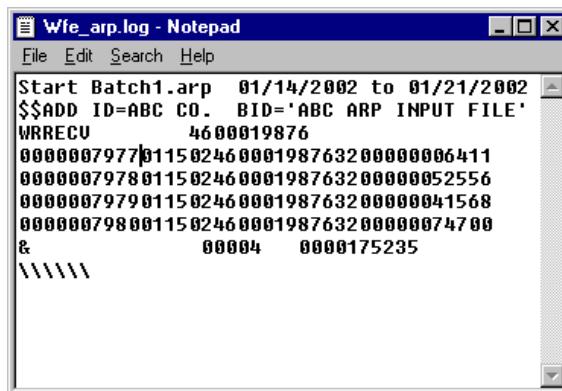
Pressing the View Log, will bring up your Wells Fargo account reconcilement log shown above.

- The first line of any batch contains the word "Start" followed by the batch number, the starting date and ending date.
- Had you selected a confirmation file the next line would contain your confirmation record (none shown on the above example)
- The second and third lines in the above example contain your sign-on and header records.

The detail records would consist of the following:
- Characters 1 through 10 contain the check number (0000007977)
- Characters 11 through 16 contain the check date (01/15/02).
- Characters 17 through 26 contain the bank account number.
- Characters 30 through 39 contains the check amt (0000006411 = $64.11).

To view a specific batch number or check number, open up the log file, select Search and enter the batch number or check number. The individual batch files themselves can be viewed using Windows Notepad.

14.19 Receiving Customer Payments

14.19.1 Overview

Customer payments can be received using the 'Receive Customer Payment' menu item as shown in the following screen shots, or with 'R' type accounting transactions. (With pc/MRP versions **8.22 and lower**, only the 'R' type accounting transactions are available.)
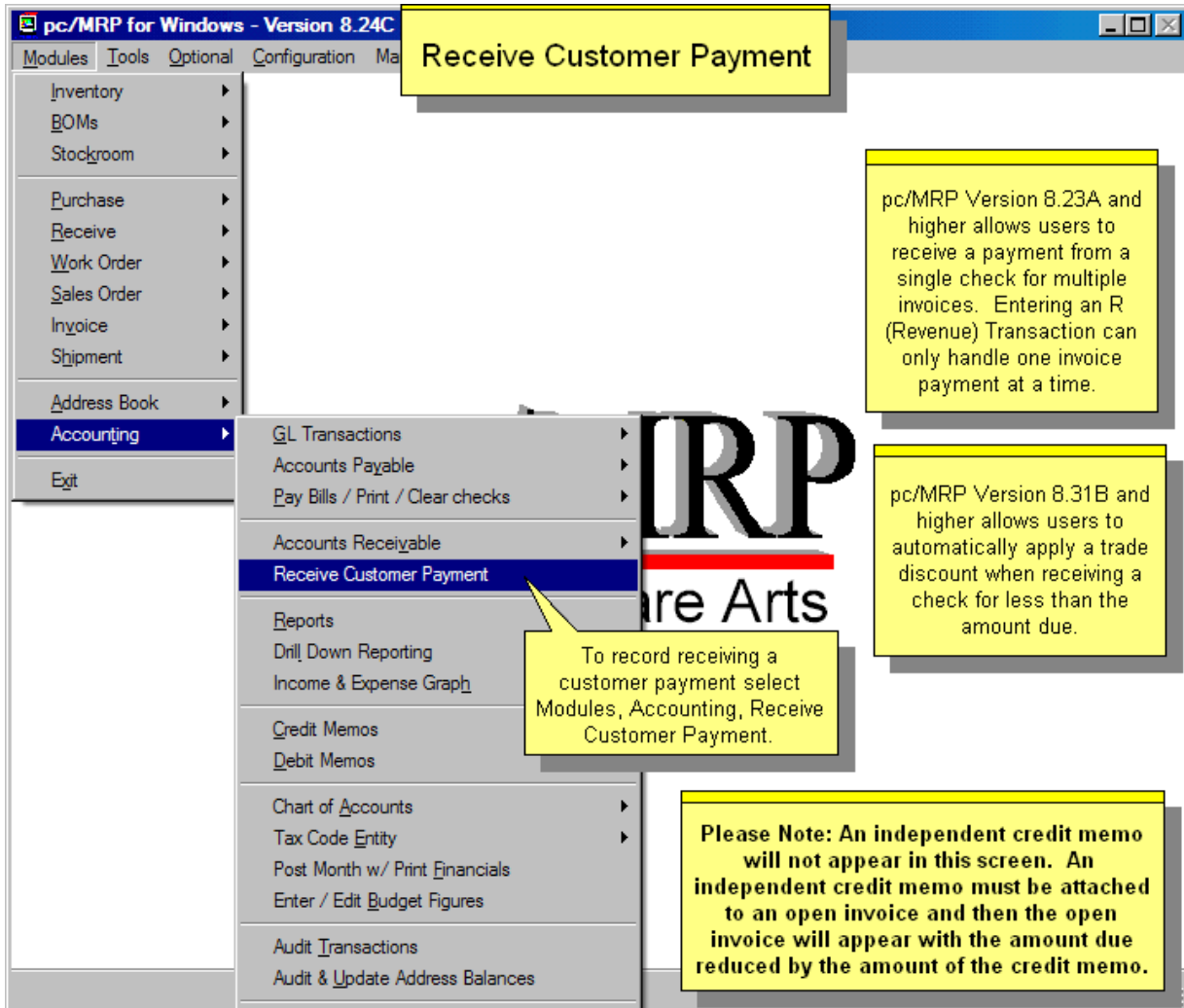
Note: An independent credit memo will not appear in this screen. An independent credit memo must be attached to an open invoice and then the open invoice will appear, with the amount due reduced by the amount of the credit memo.

Note: pc/MRP allows users to automatically apply a trade discount when receiving a check for less than the amount due.

Note: You can receive a single check for multiple invoices. (Entering an R (Revenue) transaction can only handle one invoice payment at a time.

14.19.2 Select the customer and process the transaction

14.19.3 Continue or Finish.

You can now deposit another check for another customer, or click on Exit if you are finished.

15.1 Settings and Utilities

15.1.1   Overview

To configure pc/MRP Settings and run various Utilities, select Configuration, Settings and Utilities, and enter the Configuration Code Number supplied by Software Arts when the package was purchased.

The Settings & Utilities Module allows users to configure pc/MRP to best suit their business operations. To access this feature in the full version of pc/MRP, users will be asked to enter the company's Configuration Code Number. If the user doesn't know the configuration code number, the code number field can be left blank and the user will be given View Only access. Also, the optional Password module can be used to deny access or to grant View or Edit access to this feature on a per user basis.

Note: If the code number gets lost or the phone number in Option 1 is changed, users can obtain the code number by contacting Software Arts (408-226-7321).   This number will only be released to those individuals with administrative level authority within pc/MRP.

The Settings & Utilities screen is shown below:
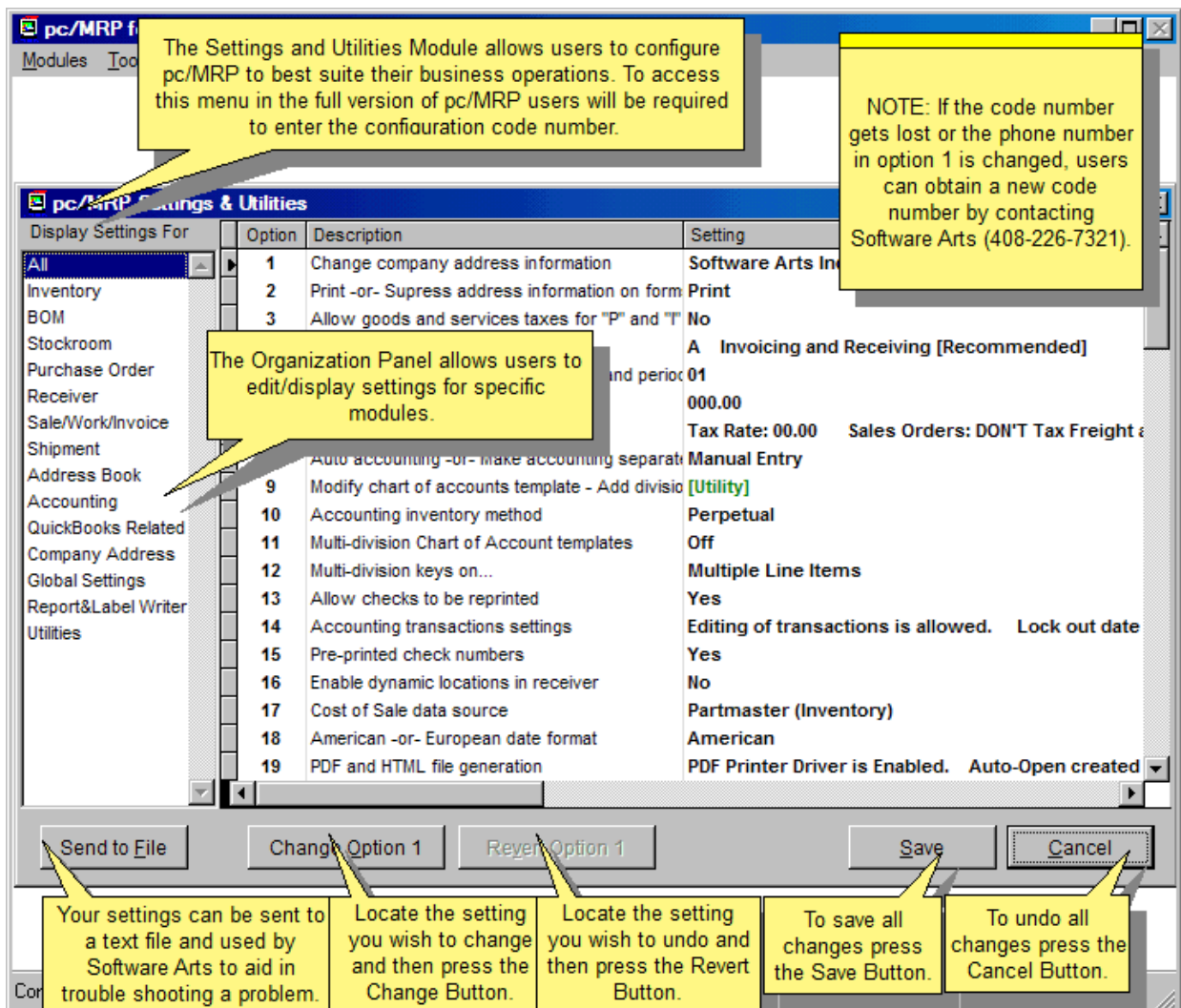
Depending on the option chosen, users will be presented with a **Run Utility** or **Change Option** button. Once an option is changed, users can press the **Revert Option** to undo changes to the option chosen. To undo all changes select **Cancel**. To save all changes press **Save**.

15.1.2　List of Options

Options 1.- 10.

Option 1, Change Company Address Information
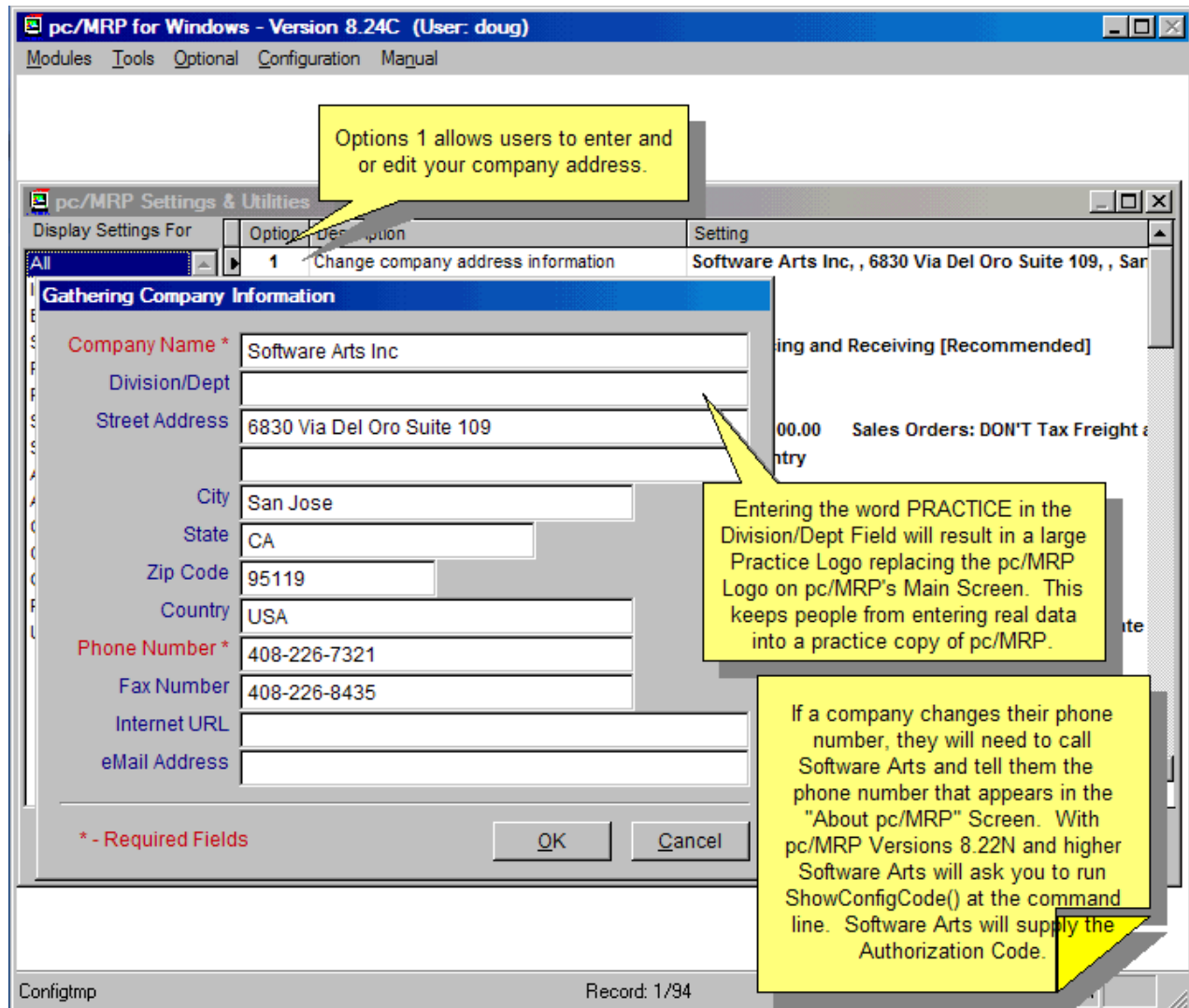
Allows you to change your company address. This is the address that appears in the upper left hand corner of your Invoices, Purchase Orders, etc. If you change the company phone number you must call Software Arts to obtain a new Configuration Code as the company phone number is one of the factors in determining the Configuration Code.

Software Arts, Inc suggests that companies create a test copy of pc/MRP for practice, testing and training purposes. To clearly distinguish between the test copy and the production copy, we suggest that you enter the word PRACTICE in the Division/Dept field of the test copy. This will result in a large red Practice logo replacing the pc/MRP logo on the pc/MRP main screen, and will prevent that users confuse the two copies.

Option 2, Print or Suppress Address Information on Forms

Allows you to configure pc/MRP to print out or suppress your address on your invoice, purchasing, sales, shipper, and receiving forms. This option is provided for companies who desire to print on pre-printed forms containing their company logo and address.

Option 3, Allow Goods and Services Taxes

Option 3, if set to 'Yes', will debit the sales tax liability account when you enter an I (on account purchase) or P (cash purchase) accounting transaction.

Option 4, Inventory Adjustment Method

Allows you to configure the method pc/MRP uses to adjust the inventory. As a general rule, manufacturers, distributors and retailers should select A.

A, allows the invoice and receiving modules to adjust on hand quantities. This is the **default setting** for manufacturers and distributors and retailers. Entering an invoice or receiver will adjust the on hand quantities of the parts or assemblies entered. When entering an invoice for an assembly the on hand quantity of the assembly itself will be decreased. This setting allows manufacturing to build to stock and sell completed assemblies. Note: The Inventory Movement Report is only accurate when the Inventory Adjustment Method is set to "A" during the time period covered.

S, allows the stock room module to adjust the onhand quantities. Issuing parts to shipping and receiving parts from receiving will adjust the onhand quantities. No stockroom transactions are created.

P, allows the invoice and receiving to adjust on hand quantities. When entering an invoice for an assembly pc/MRP will use the BOM to reduce the on hand quantity of the parts. This option can be used by restaurants and manufacturers who do not build to stock. This option reduces the quantities of parts only and not sub-assemblies. Since this option leaves no records, the inventory movement and MRP reports will no longer be accurate.

R, allows receiving to increment on hand quantities and the stock room's ship to shipping to decrement onhand quantities.

W, allows the invoice and receiving to adjust on hand quantities. When entering an invoice for an assembly pc/MRP will use the BOM to reduce the WIP quantities of the parts within the assembly. This option requires users to issue parts to manufacturing, but not receive them back from manufacturing as completed assemblies. If you add the letters "EXP" to the catindex field for each part in the part master, pc/MRP will not stop and notify you when it reduces WIP quantities below 0. Software Arts strongly discourages using this method as breakage, shortages, etc will not be caught.

T, allows receiving to increment on-hand quantities and the stockroom to issue and receive from manufacturing. When the stockroom receives from manufacturing it will decrease WIP, but not increase the on-hand quantities of finished goods. Invoicing will not decrement the on-hand quantity of finished goods. This method will not work well for companies building to stock or using work orders to complete other work orders.

Option 5, Change Starting Month Of Fiscal Year and Period End Dates

Option 6, Change Average Hourly Labor Rate

The average hourly labor rate is used by pc/MRP to determine the labor cost of a work order/sales order when it is completed and returned from the floor. Job cost reports are available from the Stockroom Report module.

Option 7, Sales Tax Rate (%) and Settings

Note: In earlier versions, Option 7 was used to set a default sales tax rate. In current versions users can enter an infinite number of Sales Tax Entities and their associated Tax Rates in the Address Book module.

Option 8, Auto Accounting -or- Make Accounting Separate (Manual)

Will set auto accounting on or off. If auto accounting is set on and the user has at least Enter/Edit rights to the accounting module, entering an invoice or receiver will automatically update the general ledger. If auto accounting is set off, accounting must update the general ledger by pulling up the receiver or invoice. pc/MRP will then automatically debit and credit the proper accounts. Software Arts **recommends** setting auto accounting **OFF** so that invoice and receiver mistakes are not automatically entered into the general ledger.

Users can set auto-accounting for invoices and receivers.

Option 9, Modify Chart of Accounts Template – Add Division/Department
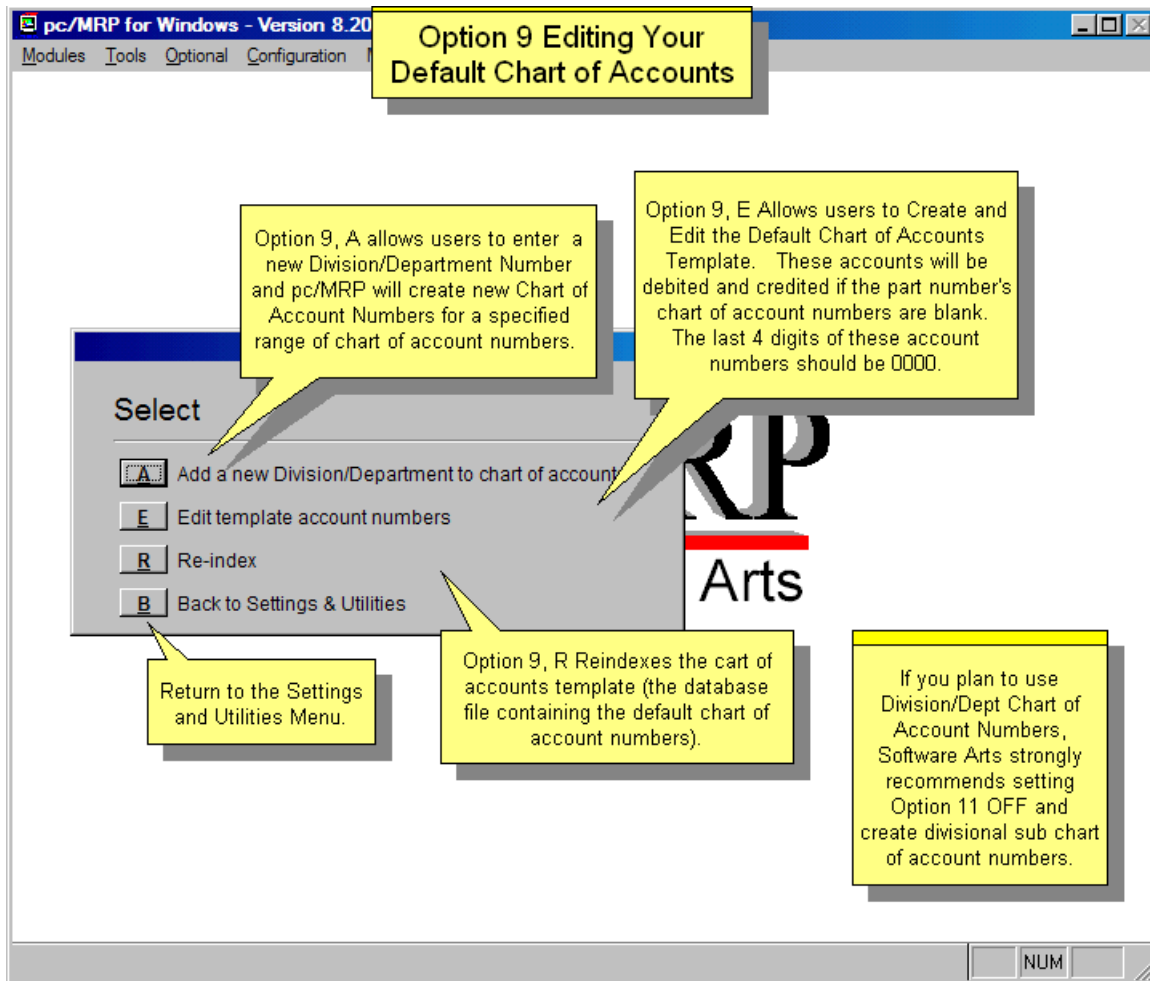
Option 9 allows you to:

Edit the chart of accounts template:

When pc/MRP needs to automatically display a chart of account number(s) for an accounting transaction, it uses the account template to determine the correct account number to bring up. As such, if you change one of the chart of account number that pc/MRP brings up automatically, you use must use Option 9 to change the default account number in the account template dbf file. Here is where you also set the default chart of account number when a credit card is charged.

Add chart of account numbers for a division and or department:

Add new div/dept chart of account numbers to the chart of accounts for all chart of account numbers greater than or equal to a specified chart of account number. This allows you to automatically create revenue and expense chart of account numbers for a specified division and or department.

Re-index the account template dbf file:

This option allows you to re-index the account template dbf file.

Option 10, Accounting Inventory Method

Select Option 10 to run either a perpetual inventory (usually for corporations) or periodic inventory (usually for small business owners & partnerships) accounting system. With a **perpetual** inventory method, the dollar amount of the inventory is automatically adjusted with every transaction (credit BI & Inventory, debit AR & COGS). A **periodic** inventory method requires adjustments to the inventory dollar amount at the end of each month (credit BI, debit AR). In both cases, the costs must be correct and up to date in inventory for each part and assembly.

Options 11.- 20.

Option 11, Multi Division Chart of Account Template

Select Option 11 if you wish to key the accounting templates on division or product code. Leave this option off unless you have a multi-division company. If you set this option to division or product code, each accounting transaction will be keyed to look for the division or the first four (4) characters (product code) of the part number field in the invoice or receiver being processed.

Option 12, Un-assigned

For versions **below 8.47**, Set Option 12 to FIRST if you wish the transaction to key on the div or product code from the first line item only. Set Option 12 to MULT if you want pc/MRP to key on the div or product code for each line item. If Option 12 is set to MULT, transactions cannot be edited, adjusting entries must be entered.

Option 13, Allow Checks to Be Reprinted (Y/N)

Allows or disallows reprinting checks that have been printed.

Option 14, Accounting Transactions Settings

Option 14 can either allow the editing of accounting transactions, or require users to enter adjusting transactions instead. No editing or entering of new transactions can be made on or prior to the lockout date.

Option 15, Pre-Printed Check Numbers.

Will allow pc/MRP to work with pre-printed check numbers or checks without pre-printed check numbers.

Option 16, Enable dynamic locations in receiver.

If set to Yes, changing the location in the receiver data entry screen will change the location in the inventory data entry screen. If the onhand qty in that area = 0, the location in the receiver data entry screen will be blank. Entering a new location will also be inserted into the inventory data entry screen.

If set to No, the location in the receiver data entry screen will be blank. Entering a new location will NOT be inserted into the inventory data entry screen.

Also see Option 44.

Option 17, Cost Of Sale Data Source   - only used in V8.70 and lower

Starting with Version 8.71 Option 17 is no longer used.

Will allow pc/MRP to import the cost of a sale into the Sales Order record from either the Partmaster (Inventory) or from a Related Purchase Order (seldom used). Setting this function to Off will prevent the **Purchase Cost, Additional Cost, Sale Commission %, and the Royalty Rate** from displaying on the sales order, invoice, and sales quote. Please note, the costs will still be inserted into the, sales, invoice, and sales quote tables, simply not displayed. If you select Part Master (Inventory) or Off, Option 35 will determine if the average or standard cost is imported into the Sales Order/Quote at creation time.

The Monthly Cost of Sales Report is available in the accounting report module.

Option 18, American or European Date Format

Selection 18 allows pc/MRP to work with American (MM,DD,YR) or European (DD,MM,YR) dates.

Option 19, PDF and HTML File Generation
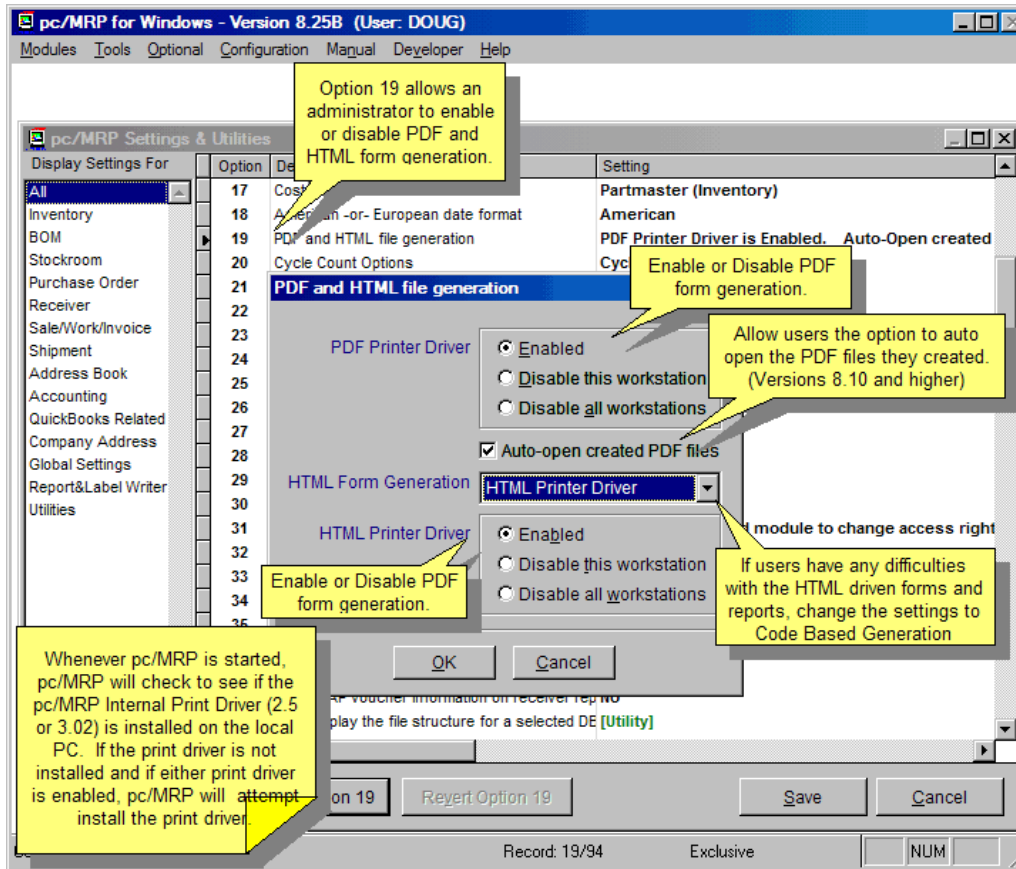
Option 19 allows an administrator to "Enable", "Disable this workstation" or "Disable all workstations" from generating PDF and HTML files. This function basically creates or deletes a flag file named c:\HTMBlock.flg. A drop down HTML Form Generation List Box allows users to select either HTML Printer Driver or Code Based HTML. This option allows an administrator to set form creation through the HTML print driver or code based generated HTML files. If users have any difficulties with the HTML driven forms and reports, change the settings to Code Based Generation. With pc/MRP Versions 8.10 and higher an "Auto-open created PDF files" check box was added to allow users the option to automatically open the PDF files they created.

Option 20, Cycle Count Options

Option 20 allows users to take either **Full** or **Differential** Cycle Counts. See Chapter 6.13 about these methods.

Options 21.- 30.

Option 21, Reformat a Form for HTML Compatibility

This utility can be used to alter the graphical layout of a report, form, or label to be better suited for use with HTML file generation. Backup copies of the files will be saved to the OldForms sub-folder.

Option 22, Enter Boiler Plate Notes for Forms
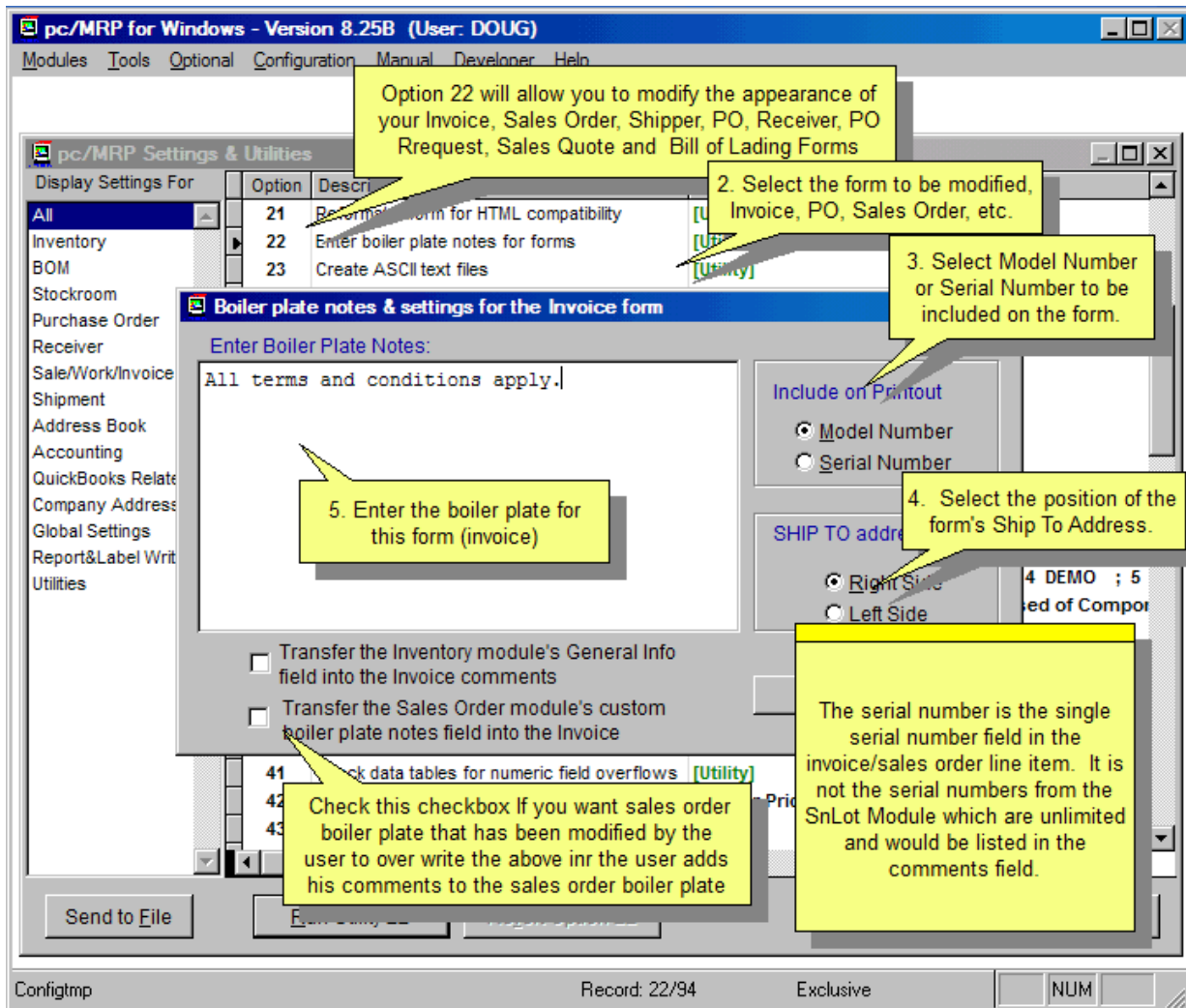
Option 22 will allow you to modify the following items on your Invoice, Purchase, Receiver, Sales Order, Shipper, Purchase Request(internal), Request for Quote(external), Sales Quote, and Bill of Lading forms: Add, delete, or modify boilerplate (notes) for each form; maximum of 9 rows of 46 characters each. Suppress or print out the model number on each form. Import the inventory memo field as part of the line item's description. Place the ship to and bill to addresses on the right or left side of the form for sales orders, invoices, and sales quote forms. Include ship-to address on purchase orders (1st line item needs ship-to address via the option button).

If "Transfer the Sales Order module's custom boiler plate note field into the Invoice" is checked, pc/MRP will transfer the sales order boiler plate to the invoice provided the sales order boiler plate for that sales order was modified by the user and the Invoice boiler plate does not have any text.

Option 23, Create ASCII Text Files

Will create an ASCII text file copy of any of pc/MRP's database files. The original database files will not be changed. pc/MRP will create either an Excel file (.XLS), a dBaseIII or Visual FoxPro file (.DBF), or a comma delimited ASCII text file (.TXT). Users can select which fields they want to include. Note: The .TXT file will have a set of quote marks (" ") around every value. See Section 15.11.1 about how to prepare a file for being imported into pc/MRP.

Option 24, Report Writer (Modify Report/Label/Form)

Using this Option, users can create and modify custom reports, forms, and labels. See pc/MRP Custom Report and Label Making, Section 15.4 of this Manual for instructions on using the report writer.

Option 25, Data to Be Inserted Into the PO's "Placed By" Field

Allows the Placed-By field of the purchase order to be populated by either the user's login name or the inventory Buyer field.

Option 26, Launch a Plug-in Utility Process.

Allows pc/MRP to load and launch utility plug-ins.

Option 27, Re-index All Index Files and Check for Corruption

Re-indexes all of pc/MRP's index files. Remember to set the Admin Lockout and wait for all to exit pc/MRP. If not, you will get a 1705 error message.

Option 28, Define Part Number Size

Sets the size of the part number from 6 to 15 characters, including dashes, product code and suffix. Also see Option 29 & 48.

Option 29, Define Product Code Size

Sets the size of the product code part of the part number from 1 to 6 characters. The product code consists of the first x characters of the part number. It can be used to classify part numbers into a product code. For example, the part number of all cables could start with CAxxxxx. The product code would be CA (size 2) and consist of the first two characters of the part number. pc/MRP will be able to give you the next available part number for a cable provided the remainder of the part number is in numeric form. Also see Option 28 & 48.

Option 30, MessageTimeout in Seconds)

Sets the length of time an update message is shown on the screen. Update messages display a change in on hand quantities, on order quantities, etc. Point of sale operations should set this value to 1 to decrease data input time. If the time out value is set to zero pc/MRP does not display the messages at all.

Options 31.- 40.

Option 31, Change Password (if you do not have the Optional Password Module)

If you do not have pc/MRP's Optional Password Module activated, all users share the same password. Option 31 allows this password to be changed.

Option 32, Check Inventory for Invalid Vendors

Checks the vendor ID codes listed for every part number in inventory. It will display or print a "Vendor ID Error Log" report if it finds any vendors in the inventory records where the ID cannot be found in the Address Book. You should then edit the inventory files and insert valid vendors.

Option 33, Set the Email Default Subjects and Messages

This option allows users to set the default subject and message for each kind of pc/MRP e-mail.

Option 34, Change Names of Alternate Storage Areas in Inventory

Users can change the names of each storage area, except of "Stores".

Option 35, Version 8.71 and higher – Type of Cost Imported into the Cost of Sale
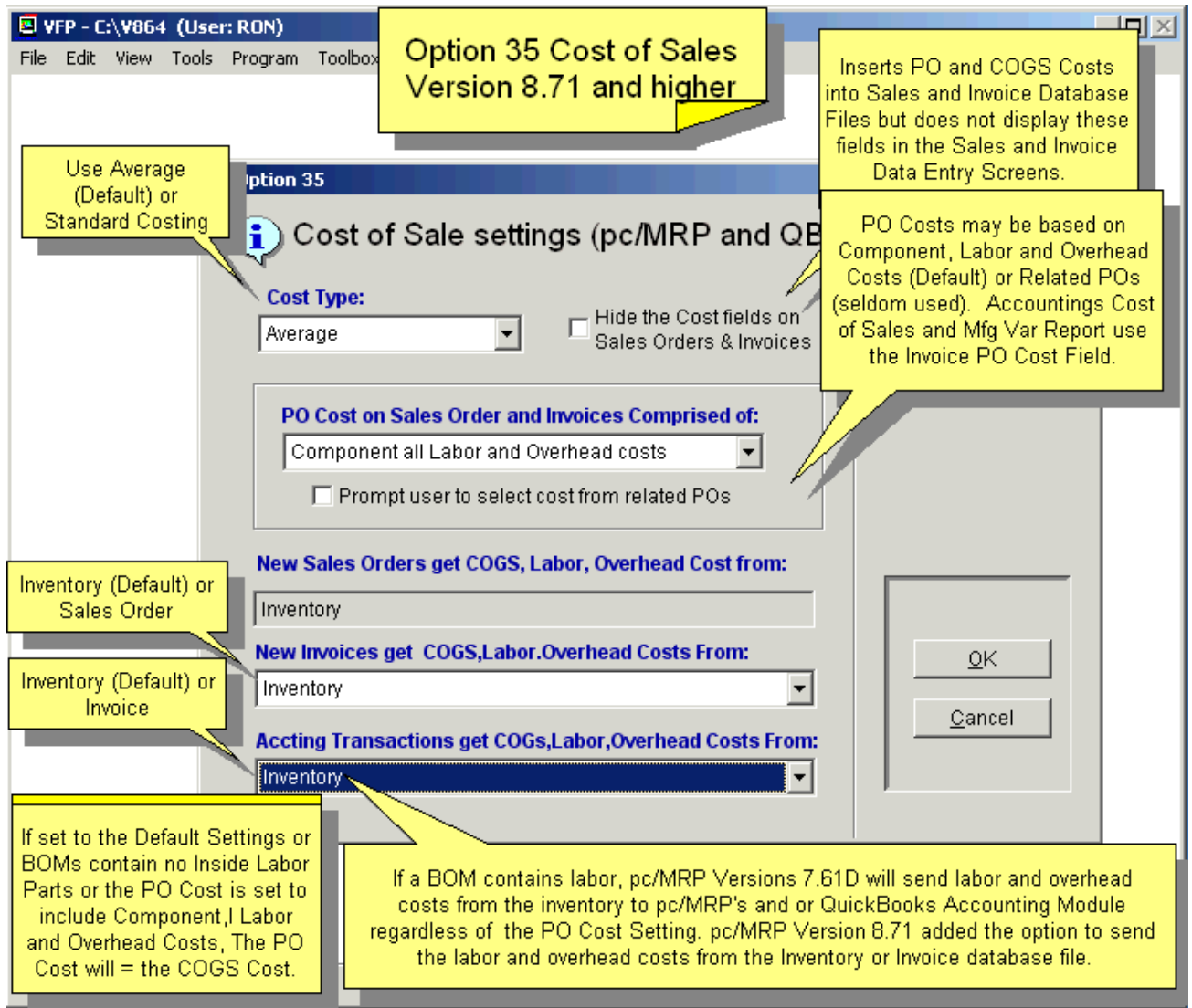
Note: Starting with **Version 8.71**, Option 17 is no longer used as Option 35 now contains Option 17's functionality.

By default, Accounting Transactions get COGS, Labor and Overhead Costs from Inventory. Starting with **Version 8.71**, Option 35 added the option to get these costs from the Invoice database file instead. This new option to transfer costs to accounting from the date the invoice was created instead the date the transaction was created was added for a customer who did not necessarily post his accounting transactions when invoices were created.

Option 35, Version 8.70 and lower - Type of Cost Imported into the Cost of Sale
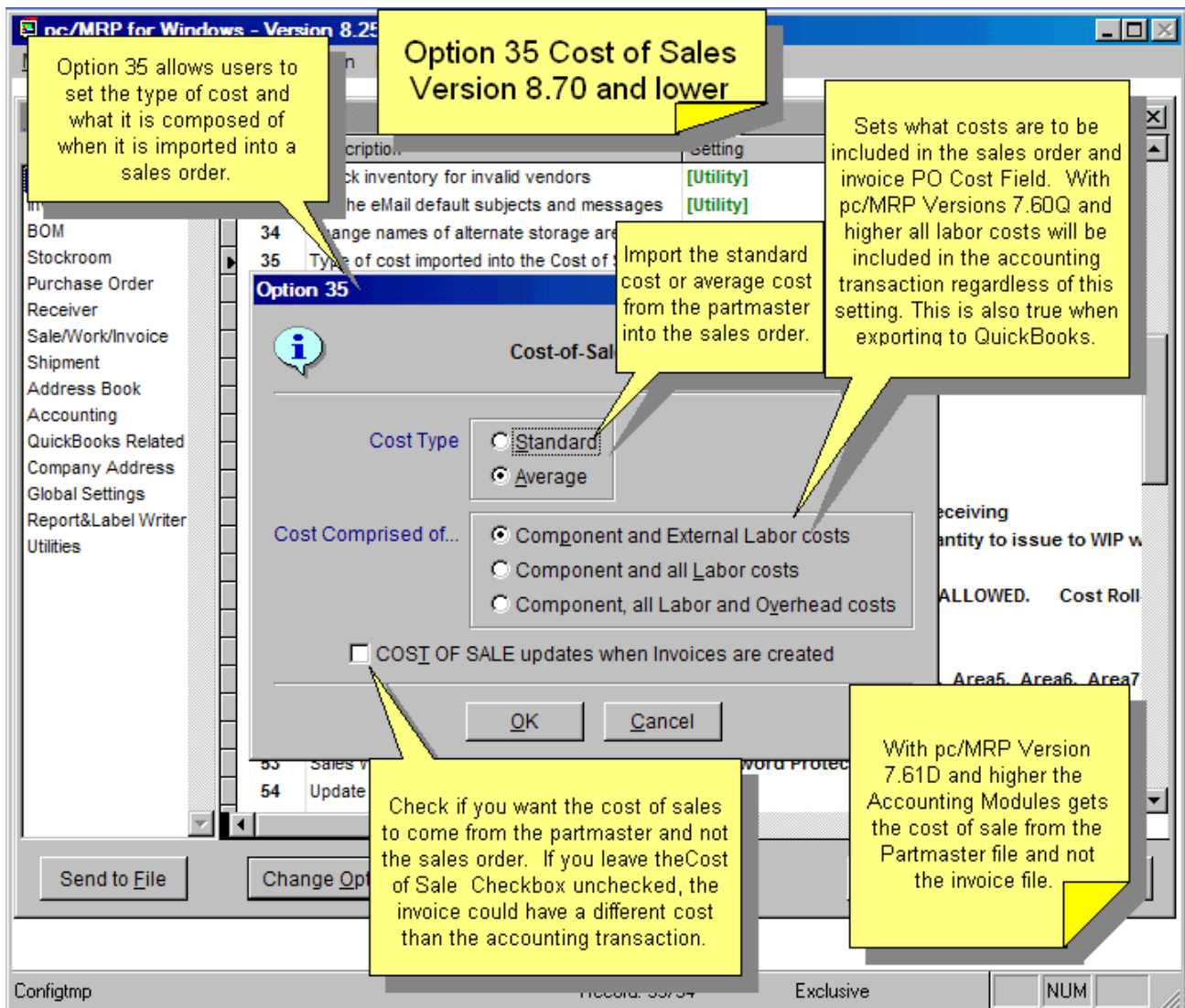
pc/MRP uses Option 35 to get either standard or average costs when entering a sales order, invoice, posting an invoice to pc/MRP or QuickBooks. Regardless of the Cost Comprised of Setting, if labor is added to a BOM, pc/MRP will include the labor in cost roll ups, and cost of goods sold when posting an invoice to pc/MRP or QuickBooks. If you do not want labor to be included in the cost of goods sold, do not add labor to BOMS. The purchase cost sent to a sales order and invoice depends on the "Cost Comprised of" Setting. If cost roll up is not performed on a regular basis the costs exported to sales orders, invoices, accounting and or QuickBooks may not reflect the current cost.

If you leave the Cost of Sale checkbox unchecked, it is possible your accounting transaction will have a different cost than the invoice if a cost rollup changed the cost between the time the Sales order was created and the O type transaction was created. (See Section: 14.4.1.2.)

Option 36, Export or Import BOMs to another Copy of pc/MRP

Option 36 will allow you to export (via email or as file attachments) a parent BOM, and all its related sub-BOMs, parts and vendor addresses to another company using pc/MRP (version **8.20C and higher**).
See slideshow here: http://www.pcmrp.com/mrp101/importoption36settingsandutilities.htm

Option 37, Credit Card Digit Validation & Formatting

Enables validation of credit card number and (optionally) reformats the credit card # by inserting hyphens at the appropriate places. Number validation must be enabled for formatting to work.

Option 38, Include AP Voucher Information on Receiver Reports

Allows AP vouchers (rent, utilities, etc.) to be included or not included in the receiver reports.

Option 39, Print/Display the file structure for a selected DBF table

Allows the user to print out the file structure for any of pc/MRP's data base files. This is useful when creating/modifying custom reports/forms/labels.

Option 40, Import Data into pc/MRP

A utility for taking data from a non-pc/MRP data source and inserting the data into one of pc/MRP's database files. See Section 15.11, "Importing Data Files," for more detail.

Options 41.- 50.

Option 41, Check Data Tables for Numeric Field Overflows

If you see "*********" instead of number values on any report, this indicates numeric overflow. Option 41 checks any or all of pc/MRP's data base files for numeric overflows. Check the "Zero all overflows" check box, if you would like pc/MRP to zero out all of the overflows it encounters.

Option 42, PO Costs Based on "Vendor Price List", "Last PO Cost" or "Ave Cost"

Allows the user to set PO Cost to be automatically inserted into the PO from the "Vendor Price List", Last PO Cost, or Average PO Cost. Vendor Price List is the recommended choice. If Vendor Price List is selected and the vendor price list is empty, the Standard Cost will be used.

Option 43, Un-assigned

Option 44, Set the Default Receiving Area

Sets the Inventory storage area that the receiving module defaults to when receiving. Also see Option 16.

Option 45, Set the Stockroom Defaults

- Option 45 sets the stockroom to record standard or average costs when issuing parts to manufacturing. Accounting should set the default cost.
- It also allows you to set the default action Issue Available Qty or Required Qty when issuing a component that is short. The Available Qty is the recommended setting, as this way pc/MRP will keep track of shortages. **Warning:** Issuing Required Quantities would never create a shortage in WIP and could drive onhand quantities negative.
- When receiving back from MFG, pc/MRP will display a warning if there was a shortage. Setting Yes will allow users receive back the required qty anyway. No will not allow users to receive back any more than issues would allow. Also see warning above.

Option 46, Allow the Auto Receive Option

Turn on/off the ability to automatically receive the remaining items on a purchase order.

Option 47, Set the Inventory Defaults

Turn on/off the ability to mark-up sale prices and roll-up assembly costs from the inventory menu.

Option 48, Set the Part Number Suffix Size and Default Content

Allows users to set a suffix size for the part number. Allowable sizes are dependent upon sizes used in Options 28 & 29, partnumber and product code. Dashes are considered in the count; "-01" is three characters.

Option 49, Set the Part Number Incrementation Method

If users have part number suffixes, Option 49 allows them to set the part number incrementation method.
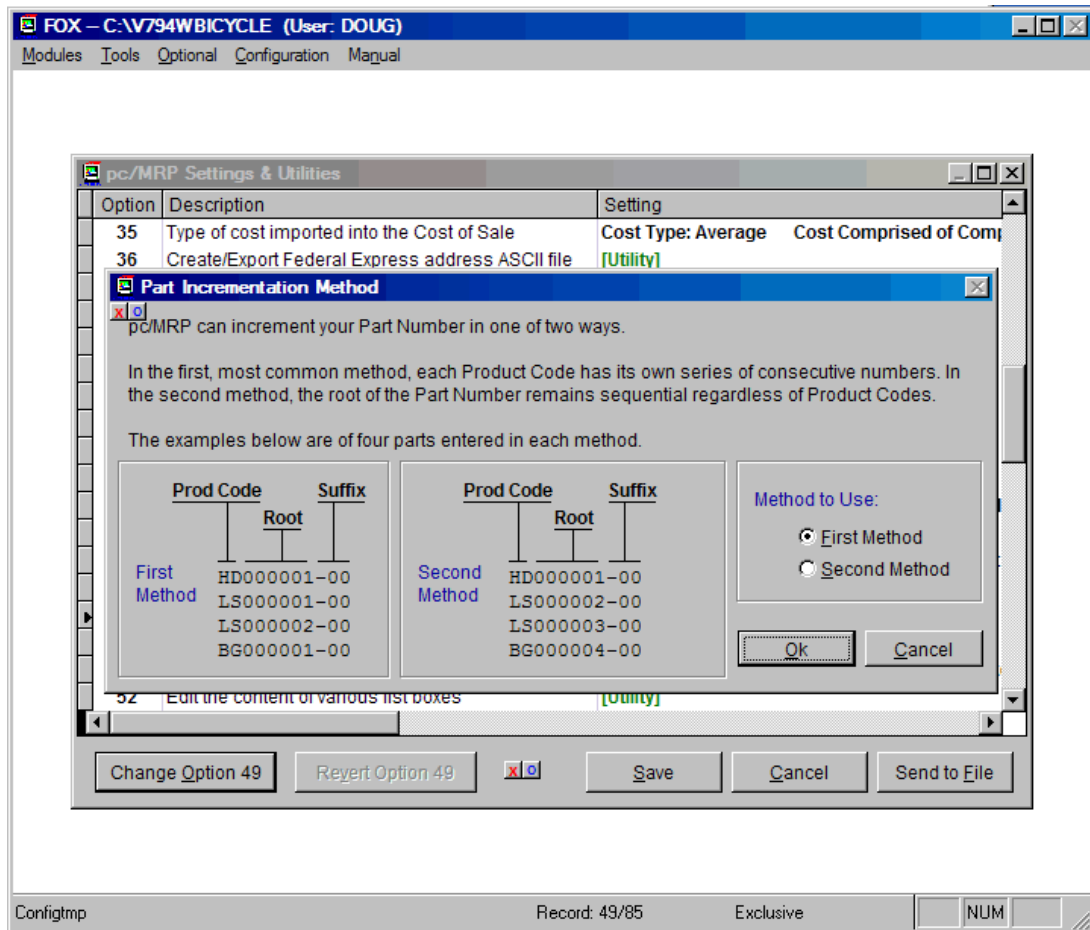
If you would like to have dashes in the part number, they should be included in the Part Code and/or the Suffix Code. Auto numbering will look at all characters in the Product Code and Suffix to determine the uniqueness of the number to increment. For example, if you want your part numbers to have the form 1-200-0001-3, where the 0001 is the root to automatically update for the next part, you would set the Product code to 6 characters (e.g. "1-200-") and the Suffix to 2 characters ("-3"). When selecting new parts, you will want to choose the option of "Next Available Partnumber for a Part Code/Suffix Code". When entering the Part Code, you will need to input the dashes or else the system will leave the extra characters as blanks and recognize the part code as different from the one with dashes. For example, entering the part code "1-200" will generate a new number: 1-200 0000-3 (assuming "-3" was set as the default Suffix Code). This example also assumed both a Part Code and Suffix Code existed. In your application, you may use both, one, or neither of the codes.

Option 50, Set the Average Cost Calculation to Include Area(s):

You can set the cost averaging formula used by pc/MRP to include all stores areas and/or the WIP area for the current quantity on hand number.

Options 51.- 60.

Option 51, Allow a BOM Part or Item Number to be Included in a BOM Multiple Times

Option 51 allows users to add the same part number and/or item number to the same BOM multiple times. Otherwise, you must edit the quantity of that part number in that BOM. This function stores a variable called mulbmprt in the mulbmprt.mem file. If mulbmprt = Y, the user will be allowed to add the same part number to the same BOM.

Option 52, Edit the Content of Various List Boxes

Option 52 allows users to change the contents of pc/MRP's drop down list boxes. Address Concerns (addrconc.txt) , Area of interest (addrint.txt), Lead Source (addrsour.txt), Priority (addrprio.txt), Purpose (addrpurp.txt), States, FOB, Ship Via, Stock Adjusting Reason, Terms, Sales Types, and Tax Types.

Taking a look at the TERMS list in more detail:
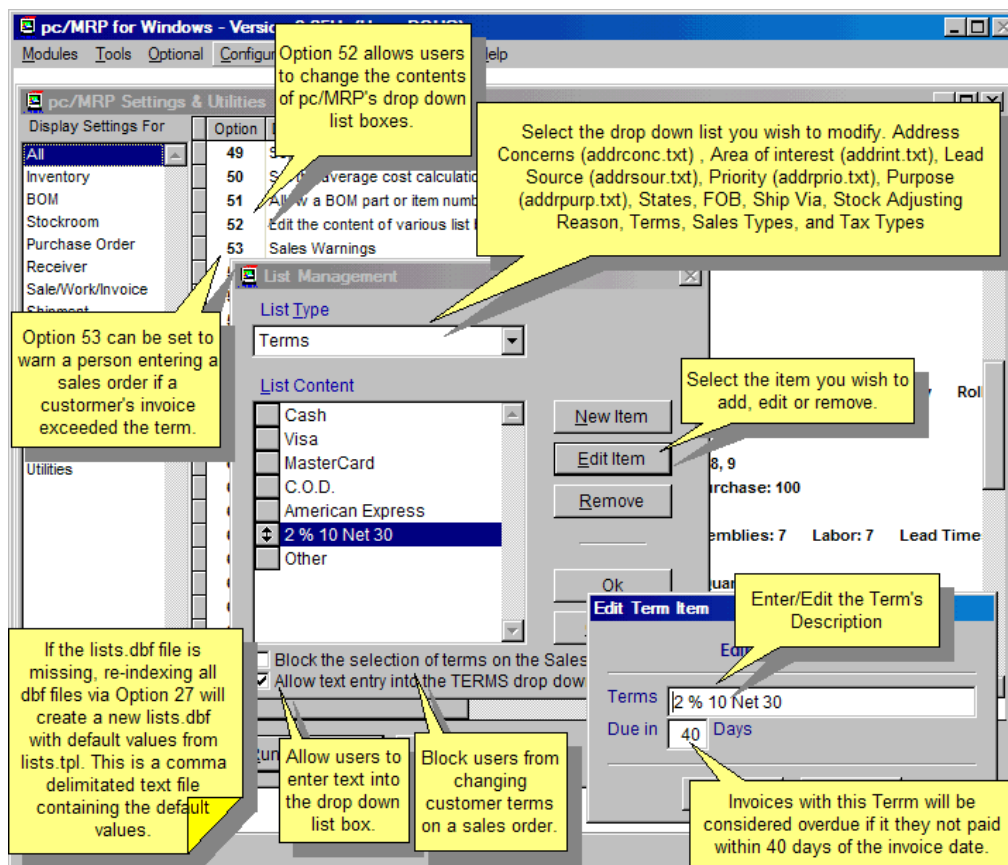
- If you are using pc/MRP's QuickBooks interface module, the terms list should match QuickBooks Terms in spelling.
- When adding or editing a term, if you put in the number of days in the "Due in Days" field, the invoice will evaluate the Due Date.
- If the address book's TERMS field is not blank, it is used as the default in the Sales Order & Purchase Order data entry screens.
- Checking the "Block the selection of terms…" checkbox will not allow a selection from the dropdown list box once you are on the Sales Order screen.
- Checking the "Allow text entry into…" checkbox, lets one highlight the default TERMS and change it to whatever they wish (20 character max). This works even if you do not allow a dropdown selection.

Note: If the lists.dbf file is missing, re-indexing all dbf files via Option 27 will create a new lists.dbf with default values from lists.tpl. This is a comma delimited text file containing the default values.

Option 53, Sales Warnings
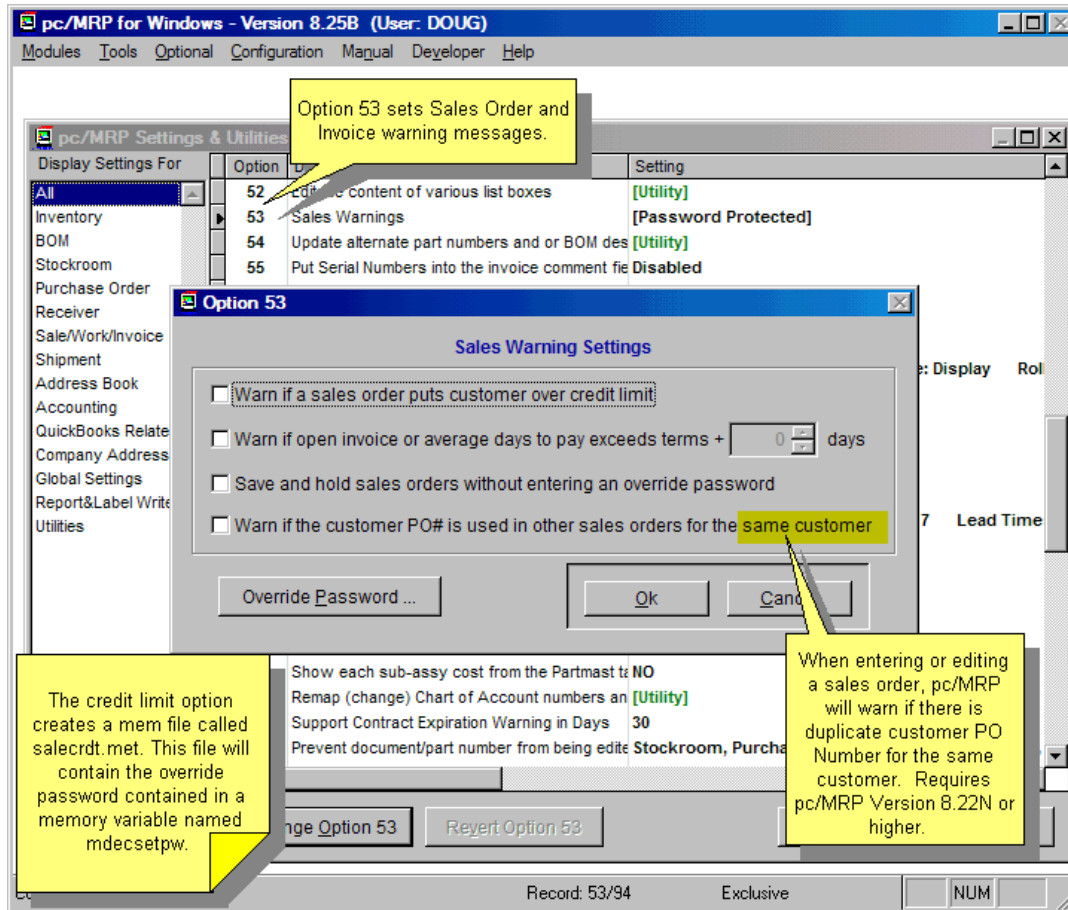
Option 53 can be set to warn if a sales order will exceed the customer's credit limit, etc. This option creates a file called salecrdt.mem. This file will contain the override password contained in a memory variable named mdecsetpw.

Option 54, Update Alternate Part Numbers and or Descriptions on all BOMs

Option 54 allows users to update the alternate part numbers and/or BOM Descriptions in the BOM file with the alternate part numbers and/or part descriptions in inventory.

Option 55, Put Serial Numbers into the Invoice Comment Field.

Option 55 can be set to automatically insert serial numbers and sub component serial numbers into the invoice line item comments field. pc/MRP's Optional Serial Lot Number Module must be activated for this option to work. If you wish to automatically insert serial numbers for sub-components into the invoice line item comments, you must Issue sales orders for the top assemblies and not create any work orders for sub-assemblies. Then all items regardless of the BOM level will be issued to that sales order.

Option 56, Match a Customer Parts List to the pc/MRP Inventory List

Option 56 allows users to find possible matches between a customer's Excel Part's List (such as a BOM) and your existing parts list in pc/MRP. It will produce a report containing each part on the customer list and the pc/MRP part number and field where a match was detected. The report will provide the standard and average cost for each part number that it finds a match for. In addition you can print out a report for customer part numbers it could not find a match. (see 15.4.2.20)

Option 57, Allow Shipper Generation Based on Sales Orders

Option 57 can be set to allow or not allow the creation of a shipper from a sales order.

Option 58, Modify the Part Description Templates

Option 58 allows users to create description templates that can be used when entering part number descriptions. This helps create standard uniform descriptions for part numbers. To use the templates, click on the … button next to the Description field, when entering a new part.

Option 59, Set the Cost Roll-up Defaults

Option 59 allows users to set the cost roll up defaults to:
    Standard Cost, Average Cost, or Last PO Cost
    Roll up phantom BOMs (assemblies classified as inventory parts in the inventory module)
    Send the output to display, printer or neither.

Option 60, Set the Labor Overhead Mark-up Percentage

Option 60 allows users to set the labor overhead percentage. This overhead percentage would be used if labor and overhead were to be included when running a cost roll up.   For example, if you have 1-hour of inside labor in a BOM at $10.00/hr, and the labor Overhead Percentage equals 10%, total labor cost in the BOM would equal $10.00+ ($10.00*10/100)=$11.00. Please note that the 'Overhead %' calculated value is also stored with the labor cost fields in the database.

Options 61.- 70.

Option 61, Automatic Updating of an Assembly's Cost in Inventory

Option 61 allows users to set the ability of pc/MRP to update inventory costs of an assembly whenever an exploded BOM is displayed or printed.

If you check the Receiving Assemblies checkbox and not the Weighted Cost Average checkbox, pc/MRP will perform a cost roll up based on Option 45, Average or Standard Cost, whenever you receive back completed assemblies from manufacturing.   If Option 45 is set to Average Cost and you check both checkboxes, pc/MRP will perform a weighted average based on what was actually issued to the sales or work order being received back from manufacturing.

Note: In **Version 8.62** and lower, Option 61 only allowed users to set the ability of pc/MRP to update inventory costs of an assembly whenever an exploded BOM is displayed or printed.

Option 62, Allow Editing of Sections of the Inventory Screen

Option 62 allows you to turn off the ability of users to edit quantity, costs, and sale price fields. Un-checking the Quantities Fields forces users to use the stockroom's "Adjust quantities" option to change quantities of parts in stock. This will leave a record of the adjustment along with a comment line explaining the adjustment. pc/MRP's "Inventory Movement" will only be accurate if the stock room is used to adjust quantities and not by editing inventory. Un-checking General Costs will protect accounting from costs being changed by a user. pc/MRP will automatically change average costs on a weighted average whenever a part is received.

Option 63, Set Document Item Limits for Sales and Purchasing

Option 63 allows users set the maximum number of line items allowable for sales and purchase orders.

Option 64, Set The Default Inventory Class Type

Option 64 sets the Cycle Count Class Field to be set to "A", "B", or "C" whenever a new part number is created. Class A parts will be counted every 30 days, Class B parts every 90 days, and Class C parts every 120 days.

Option 65, Set Default Lead Times (in Days)

Option 65 sets the default for inventory and assembly lead times. Only check the "Lead Times are allowed to be '0' " check box if you intend to manually enter the lead times for every part number. If the box is unchecked, MRP will use the default lead time for parts with zero lead time.

Option 66, Set new Work Orders as Consumable

Option 66 sets newly created work orders as Consumable by default.

Option 67, Set the Sale Price Lookup Method

Option 67 sets the sales price lookup method to either Sales Level Quantity or Sales Category Matrix. For information about both methods, see the Inventory Chapter. 5.1.3.8.   It is strongly recommended this option be set to Sales Level Quantity as this method is more straight forward and easier to understand.

Option 68, Allow stepping down for BOMs marked as 'P' in the inventory module

Sub-assemblies marked as P in the inventory module are called Phantom BOMs. Option 68 allows users to step down through phantom BOMs while editing or printing out a costed or uncosted exploded BOM.

Option 69, Set the Physical Inventory Entry Window's Button Order

Option 69 allows you to set the order of the Data Entry Buttons to Enter-Add-Cancel or Add-Enter-Cancel.

Option 70, Add Freight Cost (Incoming) into the Cost of Sales

Option 70 can be set to increase the Purchase Cost displayed on the Sales Order and Invoice Screen. We recommend leaving this option set to 0%. Setting this to say 10%, would increase the Purchase Cost by 10%. pc/MRP does not use the Invoice's Purchase Cost Field when it debits COGs and credits Inventory when posting an Invoice in pc/MRP's and QuickBooks Accounting Modules. So it has no effect on accounting.

Options 71.- 80.

Option 71, Show Each Sub-assy Cost from the Partmast table for the Exploded BOM Report

Option 71 allows sub-assembly costs to be displayed along with component costs when displaying or printing an exploded BOM.   We recommend leaving this option set to No. If you set this option to No, only the component part costs are displayed on an exploded BOM. The assembly is displayed but the cost of the assembly is not displayed. If you set this option to Yes, the assembly costs would also be displayed. If one were to manually add up all the costs displayed on an exploded BOM with this option set to Yes, the total would exceed the correct total displayed on the bottom of the printout.

Option 72, Remap (Change) Chart of Account Numbers and Propagate the Changes

Option 72 allows users to change one ore more chart of account numbers. This utility will then propagate the change in every necessary pc/MRP table. (Historic accounting transactions, account templates, backup chart of accounts, inventory, invoice, sales, purchase orders, receivers, sales quotes and purchase quotes.)

Option 73, Support Contract Expiration Warning in Days

Option 73 allows you to set the numbers of days ahead you would like to be warned that your pc/MRP Support Contract is due to expire. The allowable range is -2 to 99 days.

Entering 0 will warn on the last day of your contract.
Entering -1 will warn when your contract has expired.
Entering -2 will disable the popup warning.

Option 74, Prevent Document/Part Number from Being Edited
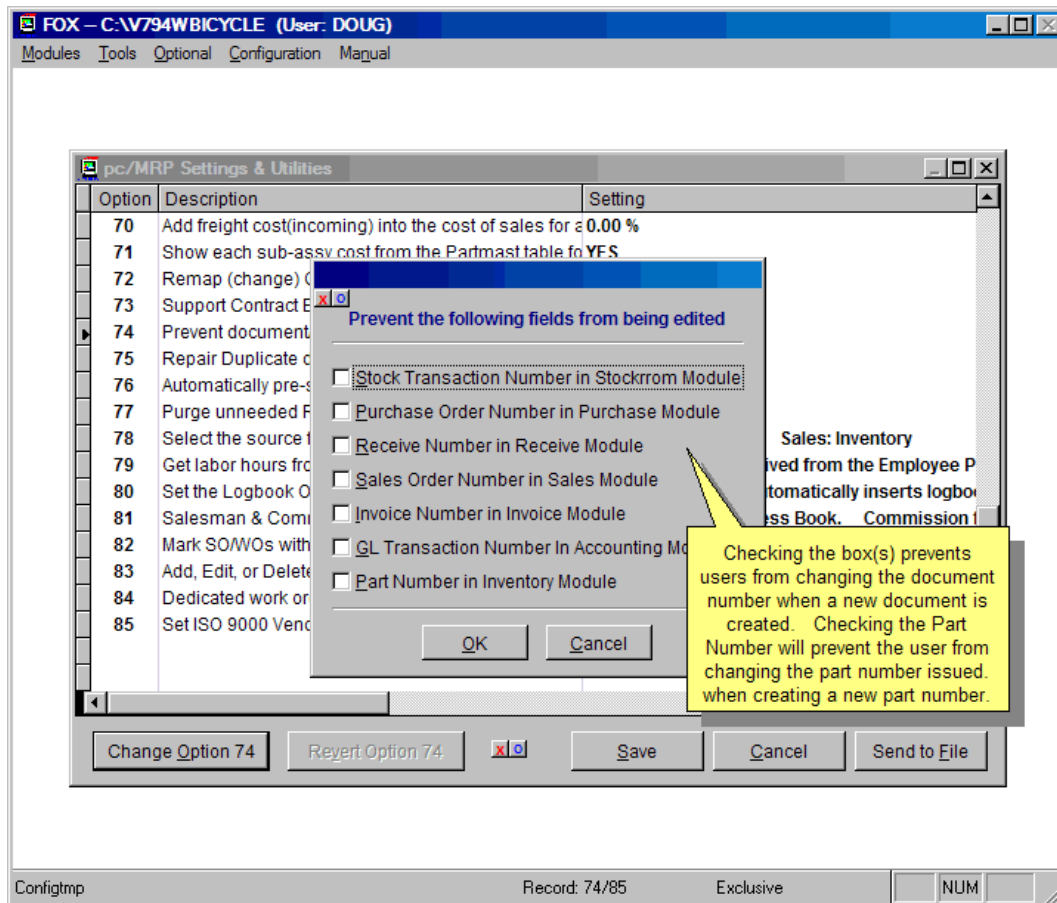
Notes: If you have document numbers that are less than 6 characters and you want to correct this, call Software Arts to add leading zeros to the document numbers. For the stock transaction numbers or the accounting transaction numbers, set an admin lockout, create a backup, open the table. Enter "REPLACE ALL TRANNO WITH PADL(TRIMSTR(RECNO())),6,"0" (or stktrano for Stocktra).

If you need to do this for example for the Purchase table, remember to repeat the process for the Receive and the Transact tables as well.

If you want to completely renumber the document numbers in a table (Purchase, Receive, Sales, Invoice, Stockroom, and Accounting Transactions) call Software Arts. Enter REMOTEFORM("RENUMBER") (or run the renumber.scx and .sct files for older versions).

If full update finds an alpha or space in any module document number, pc/MRP plants a flag file named ODNIM.FLG into the PCMRPW folder. The old document number incrementing method would only increment numeric values, and 99999 goes to 000001. The new method would automatically go to A000001. With the old method you have to manually put an A00001.

Another method to check the document number incrementing method is to enter msg(incrdoc("999999")).

Option 75, Repair Duplicate Document Numbers

Option 75 allows users to renumber records with duplicate document numbers. This utility supports the following tables: transact, stocktra, emptimesh, and inspect. This function searches through the selected table for duplicates. Any duplicate that are detected are renumbered to the next available number.   If you want to completely renumber the document numbers in a table (Purchase, Receive, Sales, Invoice, Stockroom, and Accounting Transactions) call Software Arts to run the remoteform("renumber") utility from the command line. (Or to transfer and run the renumber.scx and .sct files from the command line.)   Set an Administrative Lockout and make a backup before running these options. **Note:** For pc/MRP versions **8.70C and above**, the renumber utility will propagate the document number change for Receivers, Sales, and Invoices into the Serial/Lot detail records.

Option 76, Automatically Pre-seed the Physical Inventory Counts with Current Inventory Value

Option 76 allows users to load (pre-seed) current inventory quantities into the physical inventory team count fields. The pre-seed selection will only function if all team counts in all inventory areas are zero. If all team counts are zero and this option is set to yes, when a user selects to enter a team count quantity for the first time in areas 1-20, the pre-seed option will be activated.

Option 77. Purge Unneeded Revision Update Folders from Disk

Option 77 allows users to remove temporary folders and files that were created during the automatic revision updates. All folders and files are removed except for the most recent folder and associated files.

Option 78. Select the Source for the Division Field on Purchase & Sales Orders

Option 78 allows users to set the source for the division field for purchase orders and sales orders. In both cases uses can select to have the division field populated from the representative inventory item or address entry.

Option 79. Get Labor Hours from Employee Time Sheets when Receiving back completed assemblies from MFG.

Option 79 allows users to enter labor hours when receiving back completed assemblies or have the labor hours populated from the (optional) Employee Time Tracking module.   If you set Get Labor Hours from the Employee Time Sheet Table, you can select to get the hourly labor rate from the Employee Pay Rates or from the average labor rate (Option 6). If the Employee Time Sheet Option is checked, the employee hours will be entered into the stockroom labor record. This means the employee time sheets must be complete before the sales or work order is received back from manufacturing. Please note that the Manufacturing Variance Report uses the stockroom records for employee time and cost.   The Cost of Sales Report based on Stockroom Transactions can report the labor cost for a sales or work order based on Employee Time Sheet Records or Stockroom Records.

Option 80. Set the Logbook Options.

Option 80 sets the file format that will be used when creating logbook files from various pc/MRP modules. The available file format options are**:** "Generic Text Document (.txt)" or "Microsoft Word Document (.doc)". The default is "Generic Text Document (.txt)".

This option also has a setting to automatically pre-insert header information about the current record into the logbook when it is created.

Note: Logbooks cannot be created in "View" mode.

Options 81.- 90.

Option 81. Salesman & Commission Source Settings for Sales Orders.

Option 81 allows users to set where the Salesman's name and commission come from; the Address Book Module or the Inventory Module. In addition users can set where the Salesman's name and commission come from on subsequent line items.

Option 82. Mark SO/WOs with an ISSUE SUBS ONLY assembly as REQUIRE DEDICATED WORK ORDERS.

Option 82 can be set such that newly created Sales/Work Orders be flagged as Requiring Dedicated Work Orders if the sales or work order assembly is flagged as Issue Subs Only in the Inventory Module.

Option 83. Add, Edit or Delete the Terms and Conditions for Purchase Orders & Purchase Requests..

Option 83 allows the user to add, edit or delete Terms and Conditions for Purchase Orders. Terms that are checked as default terms are included in all new purchase orders. When a user is creating a purchase order he can press the Options Button to select Terms and Conditions other than the default Terms and Conditions.

When a purchase request/quote is created in the request.dbf file it will store the default terms in its termcond memo field. If the termcond field is not empty the terms and conditions sheet will print out right after the purchase request/quote prints out. This is the same for a PO with the exception that a PO's Terms and Condition Field can be manually edited by pressing the Options button on the PO Data Entry Screen. Creating 2 files named Requestb.ef and PoQuob_Ship.ef will prevent the T&C page print out. The files should contain PCTERMCONDIDLIST = "" after the ~IN~ clause.

Option 84. Dedicated Work Orders Can Be Issued for Multiple Levels.

Option 84 allows users to issue sub-assemblies and or parts in that sub-assembly to a sales order that requires dedicated work orders. Under normal circumstances the default setting is No, as pc/MRP is expecting to issue completed sub-assemblies that were completed from the dedicated work orders.

Option 85. Set ISO 9000 Vendor Performance Days allowed for On Time Delivery.

Option 85 sets the allowable days early and allowable days late for a vendor delivery to be marked as on-time. The default settings are 99 days early and 0 days late. Changing these settings will not re-calculate the on-time delivery state of prior purchase order line items already received.

Users can select vendor on time delivery based on the date required or the original date required. (**8.72AA, 8.73E and higher**). Purchasing's ISO 9000 Vendor Performance Report displays the current date required. On Time is determined when the part was received and not recalculated when the report is generated.

Option 86. Set DBF File Output Format

Option 86 sets the output of a report sent to DBF, to either dBase III, Visual FoxPro Format or Ask.

Option 87. Close Invoices (AR) and Receivers (AP).

Option 87 is for companies that have been using pc/MRP but have not been using pc/MRP's Accounting Module and would like to start using the accounting module. This option allows users to easily mark multiple invoices and receivers as posted (Y in the Posted Field) or complete (Y in the Complete Field). A "Y" in the posted field signifies the invoice or receiver has been posted (AR or AP was increased). A "Y" in the Complete Field signifies the invoice or receiver has been paid. Continue to mark receivers and invoices as paid until the AR and AP are correct.

Option 88. Allow Issuing Materials for On Hold Sales/Work Orders in the Stockroom Module

Option 88 prevents parts from being issued to on hold sales orders.

Option 89. Shipment Module Settings (UPS Interface)
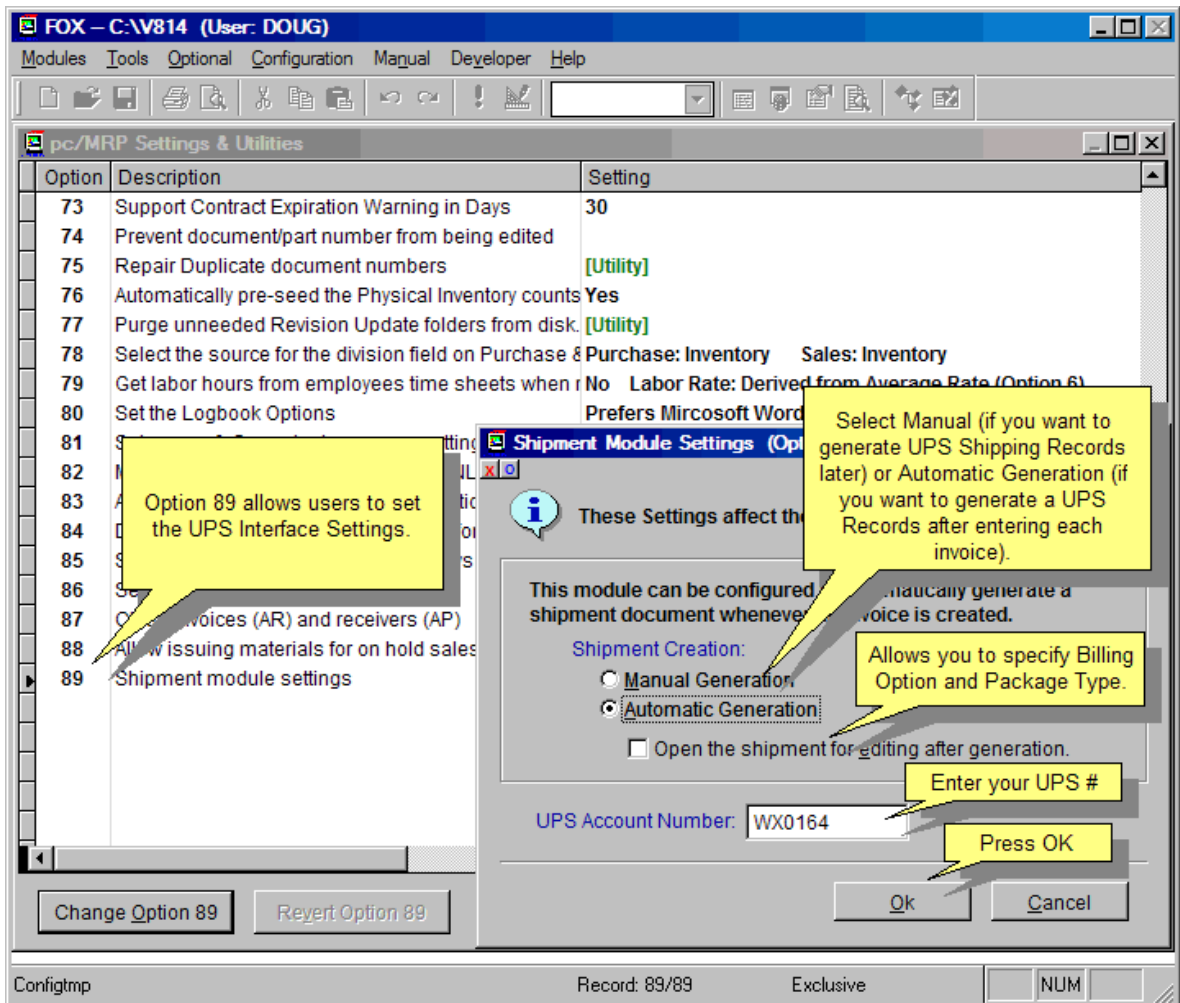
Option 90. Invoice Warnings

Option 90 can be set to
- Require customer purchase order numbers on an invoice prior to saving the invoice.
- Allow a credit memo to exceed the invoice amount.

Options 91.- 100.

Option 91. Require Entry of REQ SHIP DATE on Sales/Work Orders

Option 91 can be set to require a date required prior to saving the sales/work order. This is needed for an **ISO 9000 Customer On-time Delivery** report or when the **Overdue Only** 'Include' option is selected for Sales Order reports. This setting does not effect "Cash" or "On Account" orders.

Option 92. Require Entry of DELIVERY DATE on Purchase Orders

Option 92 can be set to require a delivery date prior to saving the purchase order. This is needed for an **ISO 9000 Vendor Performance** report or when the **Over Due Only** 'Include' option is selected for Purchase Order reports.

Option 93. Change the Configuration Code Number
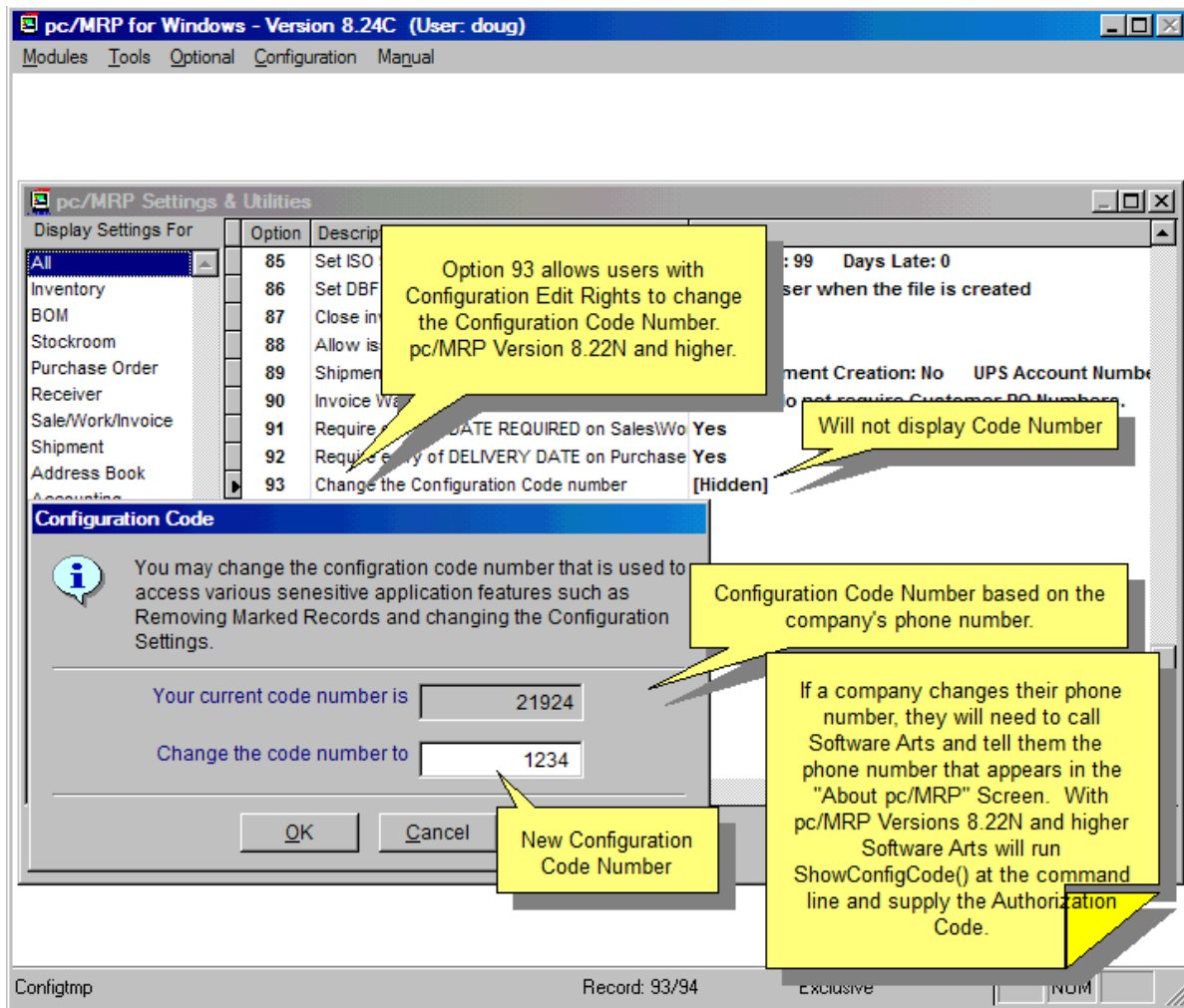
Option 94. Require Users to Enter Valid Chart of Account number

Option 94 allows users to set which modules require valid chart of account numbers before the records can be saved.

Option 95. Allow Credit Memo Creation from the Sales Order Module.

Option 95 can be set to allow credit memos to be created from the sales order data entry screen.

Option 96. Purge Saved User Related Settings, Queries and Lists

This process allows the removal of the various stored settings, query definitions, export field lists, importation maps, etc. for one or more users. This is typically performed after a user's employment has terminated.

Please note that this process will not purge or alter a user's entry in the Password module. Removal of a user's Password access rights must be performed directly within the Password module.

Option 97. Select Inventory Fields to Import from an Existing Part when Creating a New Part.
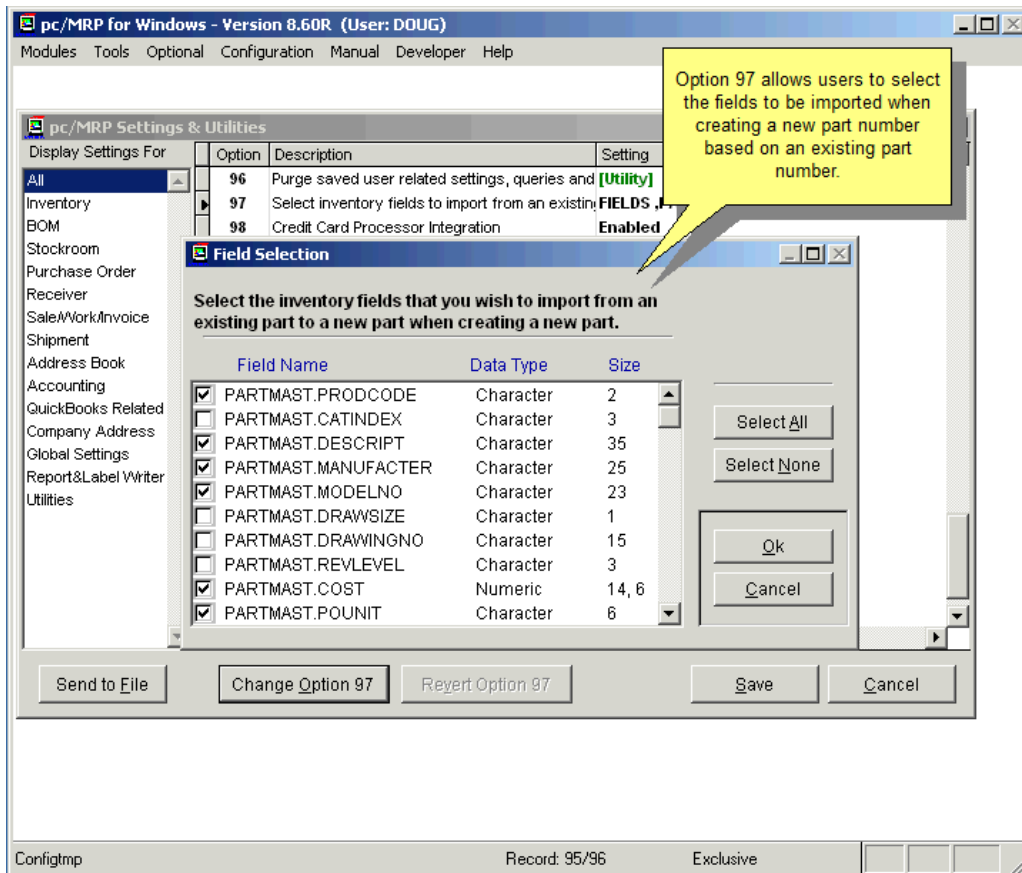
Option 98. Credit Card Processor Integration.
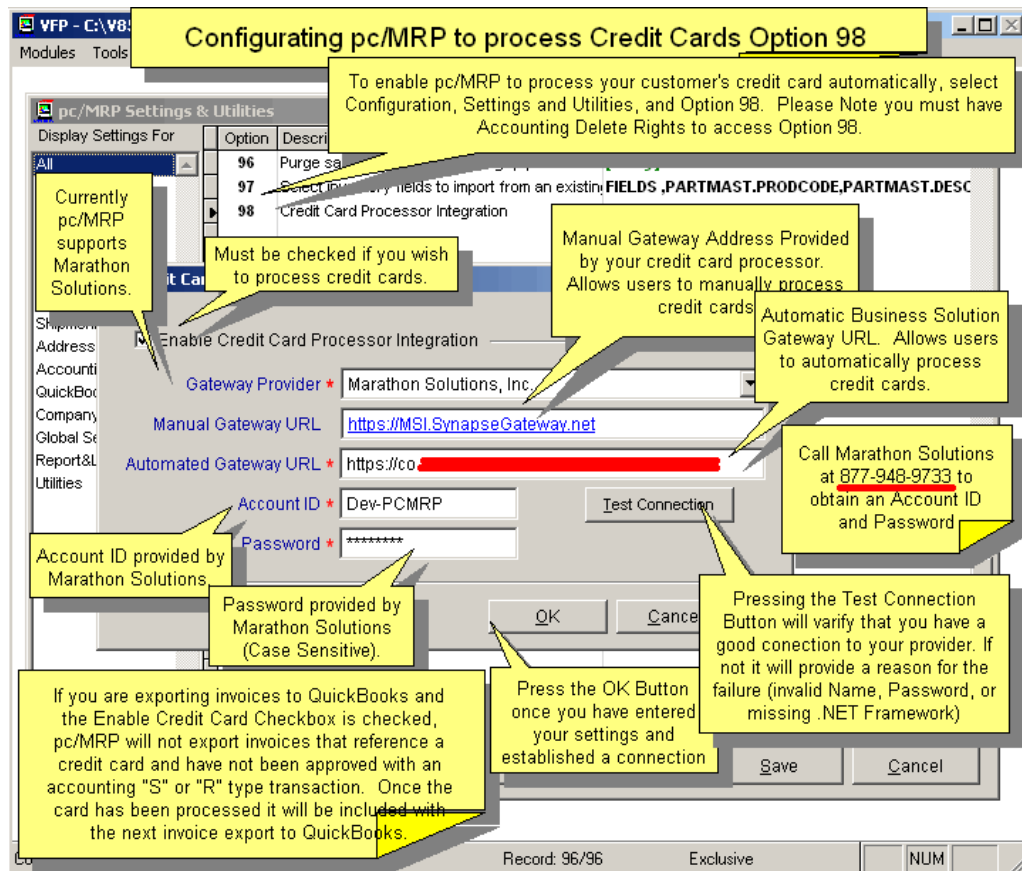
Option 99. CDO Email Configuration

Option 99 CDO Email Configuration

The CDO Option is available on pc/MRP Versions 8.61J and higher

1. Check if you wish to enable pc/MRP to use CDO instead of Outlook to email documents (including Bulk Emailer).

2. Enter the Outgoing Mail (SMTP) Server name or IP address along with the default ports. You can obtain this information from your ISP

3. Enter your name and Email Address Twice as CDO will not send a copy to your Sent Box. Instead it will BCC a copy to your In Box. If the Outgoing Mail Server requires authentication. check the checkbox.

5. Press the Test Connection Button to make sure you have a good connection with the Mail Server

4. Enter the Login Name and Password for your ISP account.

If you are having trouble with CDO, use the same settings for Outlook Express. To create an account, select Tools, Accounts, Mail, and Add. Enter your name, email address, Outgoing Server, Account Name, Password, next and finish. To edit later select Tools. Accounts, Mail, Properties, General, Servers and Advanced.

Option 100. Archive Manager - Archive/Recall Data Records

Note: The Archive option is available in pc/MRP versions 8.71 and higher.

15.1.3   Modules and Related Settings

Address Book Module (Customer and Vendor Information):

37. Credit Card digit validation & formatting
52. Edit the content of various list boxes (U*ser definable pc/MRP dropdown lists*)
78. Select the source for the division field on Purchase & Sales Orders
81. Salesman & Commission source settings for Sales Orders

Inventory Module (Part Item Information):

4.   Inventory adjustment methods (*A is recommended*)
20. Cycle Count Options (*Full or Differential*)
28. Define part number size (*1-15 Characters*)
29. Define product code size (Part Number Prefix 1-6 Characters)
32. Check inventory for invalid vendors
34. Change names of alternate storage areas in inventory
47. Set the inventory defaults (Allow SalePrice Markups and Cost Rollups)
48. Set the part number suffix size and default content (*0-4 Characters*)
49. Set the part number incrementation method
50. Set the average cost calculation to include area(s)
56. Match a customer part list to the pc/MRP inventory list
58. Modify the part description templates
59. Set the Cost Roll-up defaults (*Average, Standard, LastPO*)
60. Set the Labor Overhead Mark-up percentage
62. Allow editing of sections of the inventory screen (*Costs, Quantities, Etc.*)
64. Set the default inventory Class type (*Cycle Count A,B,C*)
65. Set the default lead times (in Days) (*Allow 0 days*)
67. Set the Sale Price Lookup method (*Sales Level Quantity is recommended*)
69. Set the Physical Inventory entry window's button order (*Enter Add Cancel*)
74. Prevent document/part number from being edited (*Invoice, Purchase Order, Etc.*)
76. Automatically pre-seed the Physical Inventory counts with the current Inventory value.
78. Select the source for the division field on Purchase & Sales Orders (*Address or Inventory*)
81. Salesman & Commission source settings for Sales Orders (*Address or Inventory*)
97. Select inventory fields to include when creating a new part number and copying fields from an existing part number.

BOM Module:

36. Export/Import BOM to another copy of pc/MRP
51. Allow a BOM part or item number to be included multiple times
54. Update the alternate part numbers on all BOMs (*From Inventory file*)
59. Set the Cost Roll-up defaults (*Average, Standard, LastPO*)
61. Allow costed BOM reports to update the assembly cost in inventory
68. Allow stepping down for BOMs Marked as 'P' in the inventory module
71. Show each sub-assy cost from the partmast table for the Exploded BOM Report

Stockroom Module:

6.   Change average hourly labor rate (*used in Job Cost Reports & BOM Costs*)
45. Set the stockroom defaults (Cost to use: Avg/Std; Issued Qty when short)
52. Edit the content of various list boxes (*Stock adjusting reason list*)
74. Prevent document/part number from being edited
75. Repair Duplicate document numbers
79. Get Labor from the Employee Time Sheets when Receiving back completed assemblies.
88. Allow issuing materials for on hold sales/work orders in the Stockroom module

Purchase Order Module

7. Sales tax rate (%) and settings
22. Enter boiler plate notes for forms
25. Data to be inserted into the PO's "Placed By" field
42. PO cost based on …. (Get PO cost from vendor price list, last PO cost, average cost)
52. Edit the content of various list boxes (U*ser definable pc/MRP dropdown lists*)
63. Set document item limits for Sales and Purchasing
74. Prevent document/part number from being edited
78. Select the source for the division field on Purchase & Sales Orders
83. Add, Edit, or Delete the Terms & Conditions for Purchase Orders
85. Set ISO 9000 Vendor Performance Days Allowed for On Time Delivery
92. Require Delivery Date on Purchase Orders

Receiver Module:

16. Enable dynamic location in receiver
22. Enter boiler plate notes for forms
38. Include AP voucher information on receiver reports
44. Set the default receiving area
46. Allow the Auto Receive option
50. Set the average cost calculation to include area(s)
52. Edit the content of various list boxes *(User definable pc/MRP dropdown lists)*
74. Prevent document/part number from being edited
87. Close invoices (AR) and receivers (AP)

Sales /Work Order/Invoice Modules:

7. Sales tax rate (%) and settings
17. Cost of sale data source. (
22. Enter boiler plate notes for forms
35. Type of cost imported into the Cost of Sale
52. Edit the content of various list boxes (*User definable pc/MRP dropdown lists*)
53. Sales Warnings (Credit Limit, Save & Hold, Password setup)
55. Put Serial Numbers into the invoice comment field
57. Allow shipper generation based on sales orders
63. Set document item limits for Sales and Purchasing
66. Set the new Work Order as Consumable
67. Set the Sale Price Lookup method
70. Add freight cost (incoming) into the cost of sales for a sales order based on a % of standard costs
74. Prevent document/part number from being edited
78. Select the source for the division field on Purchase & Sales Orders
81. Salesman & Commission source settings for Sales Orders
82. Mark SO/WOs with an ISSUE SUBS ONLY assembly as REQUIRE DEDICATED WORK ORDERS.
84. Dedicated work orders can be issued for multiple levels
87. Close invoices (AR) and receivers (AP)
88. Allow issuing materials for on hold sales/work orders in the Stockroom module
90. Require Customer Purchase Order Numbers on Invoices
91. Require Date Required on Sales/Work Orders
95. Allow Credit Memo creation from the Sales Order module.

Shipment Module:

52. Edit the content of various list boxes *(User definable pc/MRP dropdown lists)*
89. Shipment module settings.

Accounting Module:

3. Allow goods and services taxes for "P" and "I" accounting transactions
5. Change starting month of fiscal year and period end dates
8. Auto Accounting-or-Make accounting separate (Manual)
9. Modify chart of account template – Add division/department to chart of accounts
10. Accounting inventory method (Perpetual recommended)
11. Multi-division chart of account templates
13. Allow checks to be reprinted
14. Accounting transactions settings (*Allow editing of transactions and Lockout Date)*
15. Pre-printed check numbers
32. Check inventory for invalid vendors
35. Type of cost imported into the Cost of Sale
50. Set the average cost calculation to include area(s)
59. Set the Cost Roll-up defaults (*Average, Standard, LastPO)*
60. Set the Labor Overhead Mark-up percentage
72. Remap (change) Chart of Account numbers and propagate the changes
74. Prevent document/part number from being edited
75. Repair Duplicate document numbers
81. Salesman & Commission source settings for Sales Orders
94. Records that require a valid Chart of Account number
98. Configuring pc/MRP to process credit cards

QuickBooks Related Settings:

10. Accounting inventory method
28. Define part number size (*1-15 Characters*)
35. Type of cost imported into the Cost of Sale
50. Set the average cost calculation to include area(s)
60. Set the Labor Overhead Mark-up percentage
70. Add freight cost (incoming) into the cost of sales for a sales order based on a % of standard costs

Company Information Settings:

1. Change company address information (*Name, Address, phone, etc.*)
2. Print or Suppress address information on forms (*Sales, Invoice, Shipper, etc.*)
93. Change Configuration Code
99. CDO Email Configuration

Global Settings:

18. American-or-European date format
19. PDF and HTML file generation (*Enabled & printer driver or Code based*)
30. Message Timeout in seconds (*Display time for Update messages*)
31. Change Password (pc/MRP login password if not using the Advanced Password Module)
33. Set the eMail default subjects and messages
52. Edit the content of various list boxes *(User definable pc/MRP dropdown lists)*
73. Support Contract Expiration Warning in Days (*-2 to 99)*
80. Set the Logbook Options (*Select MS Word or MS Notepad*)
86. Set DBF file output format (*DB-III or VFP or Ask User*)

Custom Report & Label:

24. Report Writer (Modify Report/Label/Form) (*Customer Custom Modifications*)
39. Print\Display the file structure for a selected DBF table (*Shows name & description*)

15.1.4   Utilities

9.   Modify chart of account template – Add division/department to chart of accounts
21. Reformat a form for HTML compatibility
22. Enter boiler plate notes for forms
23.   Create ASCII text files (Select the Database file to convert)
24.   Report Writer (Modify Report/Label/Form) (*Customer Custom Modifications*)
26. Launch a plug-in utility process (Standalone processes purchased by customer)
27. Re-index all index files and check for corruption (*Lockout all other users*)
32. Check inventory for invalid vendors
33. Set the eMail default subjects and messages
36. Export/Import BOM to another copy of pc/MRP
39. Print\Display the file structure for a selected DBF table (*Field Names & Descriptions*)
40. Import data into pc/MRP (Various import formats; DB-III preferred)
41. Check data tables for numeric field overflows
52.   Edit the content of various list boxes (U*ser definable pc/MRP dropdown lists*)
54. Update the alternate part numbers on all BOMs **(***From Inventory file*)
56. Match a customer part list to the pc/MRP inventory list
58. Modify the part description templates
72. Remap (change) Chart of Account numbers and propagate the changes
75. Repair Duplicate document numbers
77. Purge unneeded Revision Update folders from disk
83.   Add, Edit, or Delete the Terms & Conditions for Purchase Orders
87.   Close invoices (AR) and receivers (AP)
96. Purge saved user related settings, queries, and lists
100. Archive/recall data records

15.2 Backup Methods

15.2.1 Backup Strategy

Data that has been stolen, damaged, or is found to be corrupt can be easily recovered by simply having a backup. A strong backup method is essential to the success of every company. The question is not if you will need a backup, but when. It is just a matter of time until a hard-drive fails, data is intentionally or unintentionally erased, or a power surge simply crunches the data.

To prevent data loss from occurring, simply make a backup. pc/MRP, unlike most programs, does not write to the system registry and thus can be backed-up by copying the entire pc/MRP folder. As such, the data can be completely recovered by copying back the backup made or copying back specific files. Please call Software Arts, Inc. to determine which files to restore. By following the backup method outlined below you will have the best chances to recover data if it is necessary.

Step One

Select a good medium to store your backups. Many customers use anything from CD-RWs to Zip drives. We recommend CDs, DVDs, Zip drives, Jazz drives, or solid state USB devices. I**t is essential not to use an incremental or compressed backup method**. To make a backup of pc/MRP simply copy the entire folder.

Step Two

With whatever medium you select, we suggest using four different versions for backing up pc/MRP.

One backup set should be labeled **odd days** for backing up on odd days during the week.
One backup set should be labeled **even days** for backing up on even days during the week.
One backup set should be labeled **weekly** for backing up on the last day of the week.
One backup set should be labeled **monthly** for backing up on the last day of the month. This copy should be kept off site in the event of fire or theft.

Using this alternating method allows users to go back days if not weeks to recover data. This also makes sure we are not writing over our last good backup.

Step Three

To prepare pc/MRP for a Backup re-index all files and check for corruption. To do this select Configuration, Settings and **U**tilities, and <u>Option 27.</u>

Step Four

Simply make your backup. You can do this through Windows Explorer. Do not drag and drop files. Use the CTRL-C and CTRL-V (Copy and Paste) commands. Do not write over existing backup data. Always delete the existing backup and then write to that disk. Do not do incremental backups. Do not compress backups. Do not randomly shut-off your computer. Always shut down your computer the correct way by exiting all programs first. Always store one of your recent backups off site.

15.2.2 pc/MRP Back-up Suggested Procedures

pc/MRP's directory is self contained. That is, pc/MRP runs entirely within its directory with no links to the Windows Registry or any '.ini' files. If your IT department allows you to make a backup of the pc/MRP directory, and you know where the directory is located, navigate to that directory and follow these instructions.

These instructions are referencing a "C:\" drive, yours may be different!

Therefore, to backup pc/MRP, just:

1. Go to "My Computer" (or Windows Explorer)
(You may have to: go to the menu bar and select: View, Explorer Bar, Folders to show the directory folders)

2. Navigate to the directory structure on the right showing pcmrpw.

3. Right-click on the pcmrpw directory in the right-hand window.

Manual   Copy
mrp101   Create Short
MSOCache Delete
OFFICE11 Rename
Office_10
pcmrp_cop Properties
PCMRPW

4. Select "Copy"

View
Arrange Icons By
Refresh

5. Right-click where you wish to create the backup of pc/MRP

Paste
Paste Shortcut
Undo Delete   Ctrl+Z

New

Properties

6. Select "Paste"

7. A new directory, "Copy of pcmrpw" is created and the files copied there.

WS_FTP.LOG
Copy of PCMRPW

This copy of pc/MRP can be put on a solid-state device, USB hard-drive, etc. You may also want to re-name the directory to include the current date. As in 'pcmrpw20100531'.

Software Arts, Inc. recommends you create a backup media for:

Even numbered days
Odd numbered days
Weekly
Monthly

And, of course, a year-end backup.

Once again, Software Arts, Inc. recommends you create a backup media for:

Even numbered days
Odd numbered days
Weekly
Monthly

And, of course, a year-end backup.

15.2.3 Quick Backups

pc/MRP allows users to make backups of the pc/MRP data files by using the Configuration, Scheduled Administrative Tasks option.

These options should not be used as a replacement of full rotational backups as discussed above.

15.3 Creating Macros in pc/MRP

15.3.1 Purpose of Macros

Macros are created by the end user to simplify data entry and or processing procedures. Macros through the use of user-defined keystrokes perform repetitive procedures with several steps in one keystroke. When used properly macros are a powerful tool that greatly increase office efficiency.

15.3.2 A Few Suggestions before Making the Macro

- Have a clear understanding of what you want the macro to perform and the necessary steps to complete the function. Once recording begins, every step will be recorded.
- Be sure to use only the keyboard while creating your macro. A macro will NOT be created if the mouse is being used while the macro is recording.

15.3.3 Creating Macros

Macros are created by selecting Tools then Macros from the main menu or by pressing ALT-F9. pc/MRP will first ask for the Macro Key Definition. This defines the keys you wish to use to perform the macro. We suggest using the Ctrl, Shift, or Alt keys in combination with other keys on the keyboard. Enter a macro name; Macro names must NOT contain spaces. Once the Macro Key Definition has been chosen by pressing Enter, recording of the macro begins. Use the keyboard to record from beginning to end the exact task(s) you wish the macro to perform in the exact order they are to be performed. Recording of the macro ends by pressing ALT-F9.
After pressing ALT-F9 the Stop Recording Macro screen appears. By pressing Enter, the macro is complete.

15.3.4 Changing Existing Macros

An existing macro can be changed by simply choosing the same Macro Key Definition after selecting Tools then Macro from the drop down menu or pressing ALT-F9. This will prompt the user to overwrite or append the existing macro.

15.3.5 Macro Trouble Shooting

- Be sure that the macro was created by using only the keyboard. From the moment recording begins until ALT-F9 is pressed stopping the recording process; only the keyboard (not the mouse) can be used to record the actual actions the macro is to perform.
- Be sure that the end user that created the macro is logging in as the same user. pc/MRP keeps track of macros via individual user.
- The Demonstration version will not save macros after pc/MRP is exited.
- A macro file can become too long or corrupt. Delete the macro file, "username.fky" and re-enter the macro(s).
- Macro names cannot contain spaces.

15.4 Custom Report and Label Making

15.4.1 Overview / Example

The configuration menu in pc/MRP contains a custom Visual FoxPro report writer that allows users to modify pc/MRP reports, forms and labels. The table below contains the name of pc/MRP's standard and custom reports/forms/labels and the dbf file used with each of these. Keeping the original (standard) files will come in handy if you make a mistake and need to restore the original files.

It is best to open a standard report, rename & save it to the correct custom name, and then modify the new report. When pc/MRP is updated to a newer version, standard reports are overwritten and custom reports are not overwritten.

Note: When you select your custom report or form, you must remember to select the original report from the dropdown list box of reports that the custom report is based upon.

A good place to start is our web site that describes report modifications:

http://www.pcmrp.com/mrp101/customtableofcontents.htm

To create a custom report in pc/MRP:

1. Select Configuration, Settings and Utilities.
2. Enter your configuration code number.
3. Select Option 24.
4. Select Form or Label.
5. Select the correct file you wish to use as a basis for custom report, form or label
6. Click on **Open**
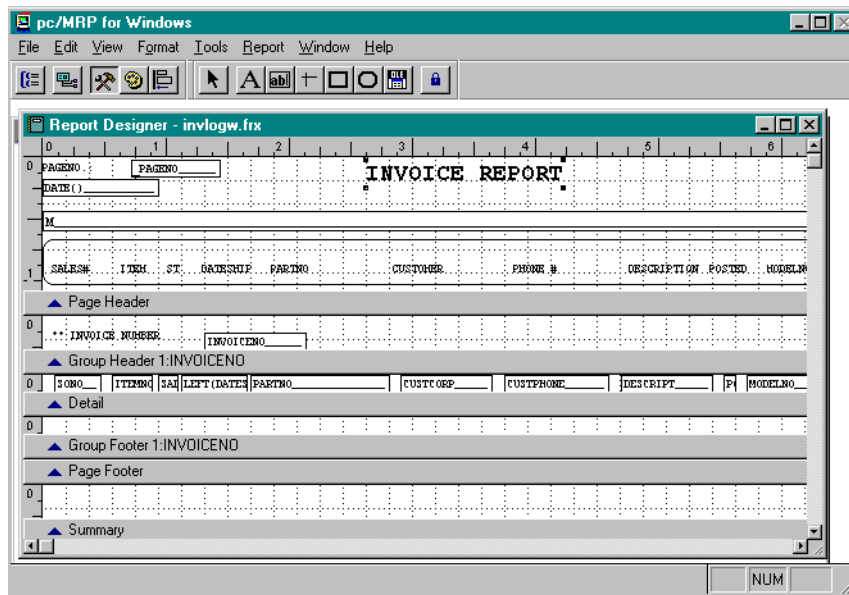
7. Select **File**, **Save as**, enter the file as a custom .**frx** report (see sections starting at 15.4.2.1 for correct custom file names to use for your custom reports, forms, or labels), then press **Save**.
8. Make your modifications
9. Select **File, Close, Save Changes**
10. Return to pc/MRP's Main Menu
11. Remember to first pick the **Standard** report that your **Custom** report is based upon, as the report writer needs to open and create the same files and variables for your **Custom** report.
12. Print out the new report selecting **Custom** instead of **Standard** for reports and then select your **Custom** report. You can click on Save Settings to make custom reports default.

pc/MRP's Custom Report Writer is shown above with the following icons under Report Controls: text **A**, field **ab**|, line, sq box, rounded box, and picture (bit map). Clicking on an icon will allow you to add an object. Double clicking on any object allows you to edit and or move it.

Double clicking an object brings up the Report Expression dialog box (shown below) which allows you to edit the object.
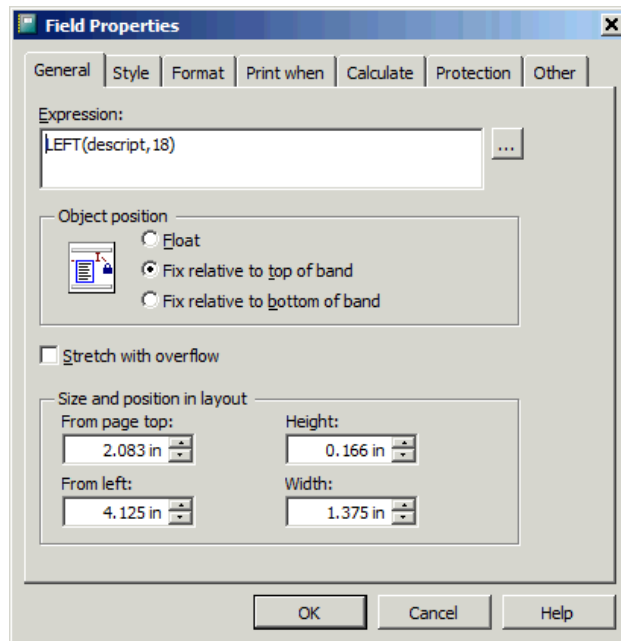
The first box contains the expression (field, memory variable, or text) you would like to print out in that area of the report. In the example above the first 18 characters of the description would print out in the area you are editing. Clicking on the […] button will allow you to select the memory or field variable from a list rather than typing in the variable expression by hand as shown below.
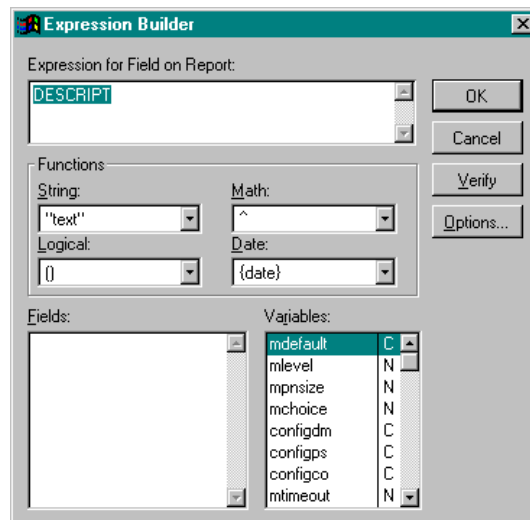
In the above example the descript field was selected by double clicking on the descript field in the fields list. To print out the first 18 characters of the part number, you could type in left(descript,18) into the expression box or click on the string function list and select the function left(). The String list contains all FoxPro string functions (substr(), alltrim(), etc.). The Logical list contains all FoxPro logic functions (and, or, etc.). The Math list contains all FoxPro math functions (+, -, /, *,AVG(), SIN(), etc.). The Date list contains all FoxPro date functions (ctod(), dtoc(), month(), etc.). The Verify button will automatically verify that the expression you have built in the expression box is valid.

Under the Format tab you can format the data (!!!! = upper case, 999.999.99 = numeric only with 2 decimal places, etc.). Make sure you select the right data type: Character, Numeric or Date. The Print when tab will allow you to specify conditions that must be true for this item to print out. For example entering len(alltrim(partno)) > 0 would print out the part number only if it the length of the trimmed part number were greater than zero.

Example of Modifying a Report

Suppose that you wish to make some changes to an inventory report.
1. Go to the Main Menu
2. Click on Configuration
3. Click on Settings and Utilities
4. Enter you Configuration Number
5. Scroll down to find Option 24 or simply type 24
6. Click Run Utility 24
7. Click on Custom Form
8. Select the **parts$.frx** file by double clicking or click **OPEN**

Your screen should look like this:
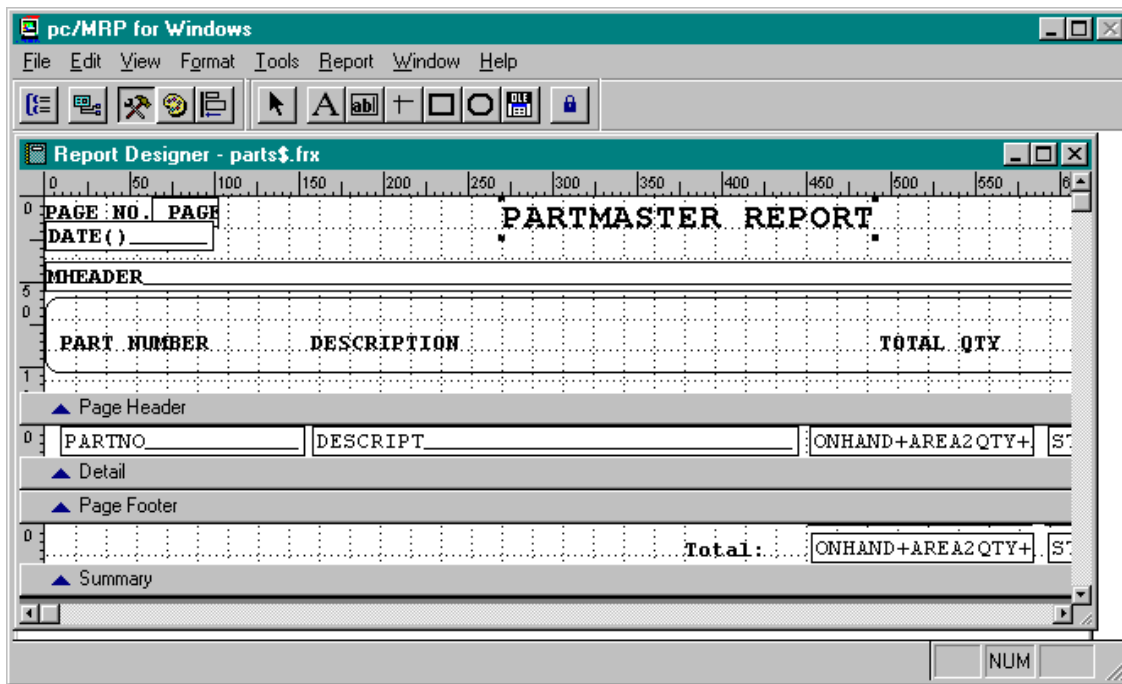
The first thing you want to do is to rename and save the file.

You want to save using the custom form name so as not to overwrite the original file.
1. Click on File
2. Click on Save As
3. The 'Save Report As' box should read: **cuspar*.frx** (* means any characters you want. Keep the report names relatively short. Some reports will only have a ? or ??. This means your report name can end in any single character or double character you want.)
4. Click the **Save** button
5. Place your cursor over the title "Partmaster Report"
6. Hit the "delete" button on your keyboard
7. Click on the text box (**A**) over on the left hand side of the screen
8. Place the cursor over where "Partmaster Report" use to be and click
9. Type in "Partmaster Inquiry" and click somewhere on the screen
10. Click back onto your new text to highlight it with the little square boxes
11. Now go to the menu bar and click on Object

12. Click on Font; this should bring you to a font dialog box
13. The font should be Courier New, font style is Bold and size is 16; click **OK**
14. Click on Object again
15. Click Pen Color
16. Chose the color red

Your screen should look similar to this:
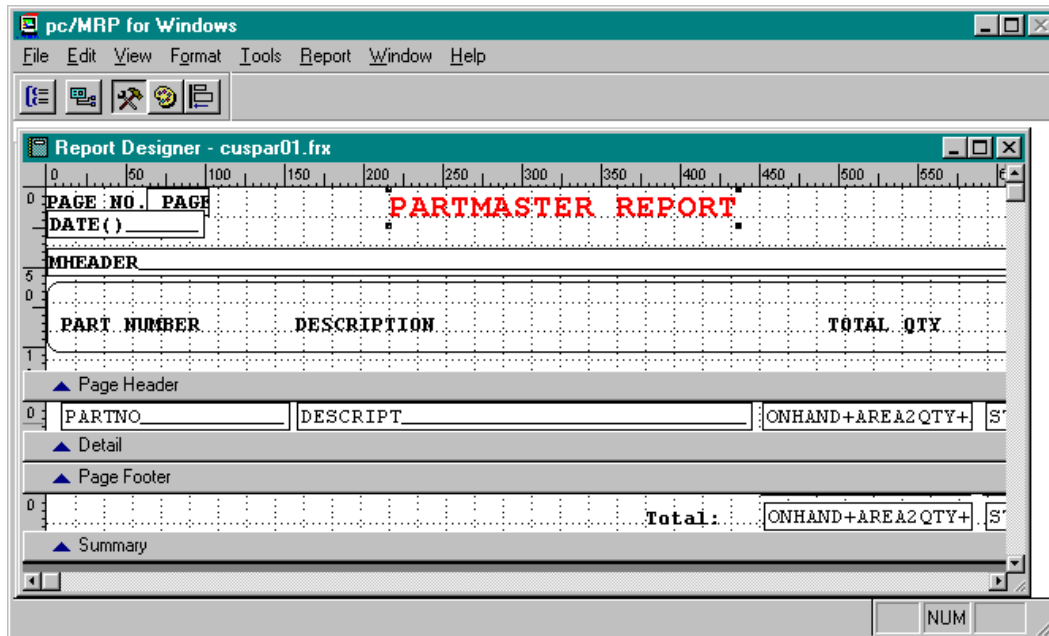
- Delete the text "DESCRIPTION" in the Page Header field
- Delete the field "DESCRIPTION" in the Detail field
- Click on the Text (**A**) icon
- Place the cursor where DESCRIPTION used to be in the Page Header field and click
- Type in "CLASSIFICATION" (make sure you type in capital letters)
- The font should be Courier New, bold, size 8
- Highlight CLASSIFICATION and check the font information to make sure
- Click on the Field (**ab|**) icon
- Place the cursor where DESCRIPT used to be the Detail field and click
- The Report Expression dialog box should pop up
- In the Expression Box type in "CLASS"
- Check the middle radio button: Top--Field Can Stretch
- Click **OK**
- Now you must stretch out the Field (**ab|**) cursor using the arrow cursor
  You will know when you can stretch out the field when you get a cursor with arrows pointing out from the middle

Your screen should look similar to this:
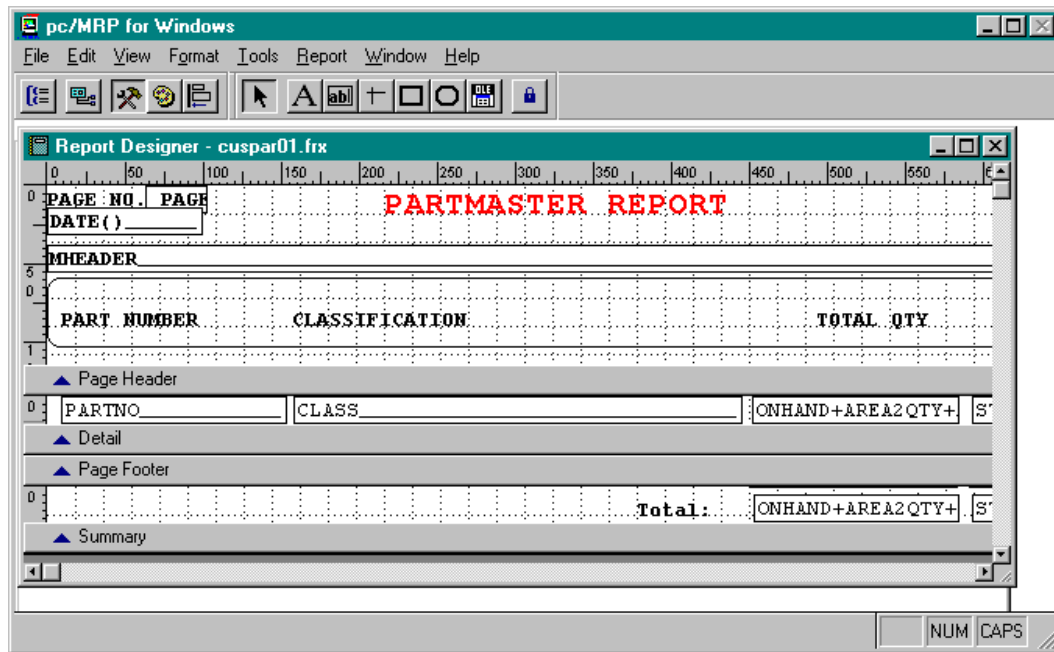
When you close the parts$.frx screen, you do not need to save any of the changes. This exercise is designed to get you familiar with modifying any report you want.

15.4.2   List of Reports

pc/MRP for Windows includes the report, forms, and labels listed below. If the last character in the report name is "w" it is the wide carriage report. For example the UNCSIN report is the report used for 8.5" x 11" print outs and the UNCSINW report is the report form used for 14" x 11" printouts.

When viewing any report you can view the open tables by pressing CTRL-F12. This will open a TXT file with all of the open tables in the "select area" statement.

By example:
"Select area: 1, Table in Use:

C:\MY DOCUMENTS\PCMRPTEST\PCMRPW870\PARTMAST.DBF Alias: PARTMAST"

This means the partmast.dbf is open when running this report.

REPORT LISTINGS HAVE THE FOLLOWING FORMAT:

REPORT(.FRX) REPORT DESCRIPTION   DBF FILE USED

BOM Module

Standard BOM Reports		
ALLBOM	standard all BOMs	bomtemp.dbf
AVABOM	standard parts availability report	bomtemp.dbf
CNVBOM	standard convert parts to assy report	bomtemp.dbf
EXPBOM	standard costed exploded BOM (incls comments)	bomtemp.dbf
PICBOM	standard pick list exploded and single level	bomtemp.dbf
PICBSN	standard pick list with available serial#'s	bomtemp.dbf
SINBOM	standard costed single level BOM	bomtemp.dbf
UNCEXP	standard uncosted exploded BOM (incls comments)	bomtemp.dbf
UNCSIN	standard uncosted single level BOM	bomtemp.dbf
UNCSRF	standard uncosted single level BOM w ref des	bomtemp.dbf
WHEBOM	standard where used	bomtemp.dbf
WHEBOMML	multi-level where used	wheretree(tmp) partmast, BOM
Custom BOM Reports		
CUSBOM* CUSTBOM*	custom BOM & Convert Parts to Assembly reports	bomtemp.dbf

Note: tmpb+[the first four characters of the users name].dbf instead of bomtemp.dbf for BOM reports. BOM reports automatically have a set relation into the partmast.dbf (except of where-used)
To set this relation: USE PARTMAST IN 0 ORDER FULLPN
                          SET RELATION TO UPPER(PARTNO) INTO PARTMAST

Accounting Module

Standard Accounting Reports		
ACCPAY	accts payable report	receive.dbf
ACCPAYW	accts payable wide carriage report	receive.dbf
ACCREC	accts receivable report	invoice.dbf
ACCRECW	accts receivable wide carriage report	invoice.dbf
BILL	billing statement form	billtmp.dbf
CASHOUT	standard cash out report	purchase.dbf
CHART	standard, narrow, wide carriage chart of acct	chartacc.dbf
CHKREC	check reconciliation report	prgltmp.dbf
COMMISS	commission report based on payment	transact.dbf
COMMISSI	commission report based on invoices issued	invoice.dbf
COSTSALD	cost of sale from stockroom + Employee Module	stocktra.dbf
COSTSALE	cost of sales report based on invoices	invoice.dbf
CURBAL	Std Balance for a date/time period based on the Chart of Accounts	prgltmp.dbf, acctcursor
FIFO	FIFO report	fifotmp.dbf
FORM 1096	1096 Form	
FORM 1099	1099 Misc. Form	Form1099.dbf
GLINCOME	standard current month GL income statement	chartacc.dbf
GLTRIAL	standard trial balance report	chartacc.dbf
HREC	accts receivable payment history report	billtmp.dbf
PPV	purchase price variation report	ppvtmp.dbf
PRCHECKS	single laser check form	mchktmp.dbf
PRCREBIT	standard liability + equity side of bal sheet	chartacc.dbf
PRDCHK	single dot matrix check form	mchktmp.dbf
PRDEBIT	standard asset side of balance sheet	chartacc.dbf
PRGL	t-acct,4th close Mon,curr bal,accting reports	prgltmp.dbf
PRGL2	Std balance for a month, date, or all transactions	prgltmp.dbf, acctcursor
PRGLALL	standard balance for a time period	prgltmp.dbf, acctcursor
PROFITANDLOSS	YTD profit & Loss, Div/Dept YTD Exp & Revenue	Profitandloss.dbf, Chartacc.dbf

PRTRAN	general ledger and 5th close month gl reports	prtrntmp.dbf
PRYTD	year to date expense and revenue, Div/Dept YTD Exp & Revenue report	chartacc.dbf
RECLOG	standard debit memo report	receive.dbf
RELCOSTSO	Cost of sale based upon related doc number	relcostso
REMIT	single check remittance report	transact.dbf
REMITALL	standard remittance list	transact.dbf
ROYALTY	standard royalty report	invoice.dbf
SOMANUFACTURECOST	Sales/Work Order manufacturing cost report	salescursor
SPAY2	summary accts payable report	acpaytmp.dbf
SREC	summary accts receivable report	billtmp.dbf
TAXLOG	in state sales tax report	invoice.dbf
TAXLOGO	out of state sales tax report	invoice.dbf

Custom Accounting Reports and Checks		
CACCPAY*	custom accts payable report	receive.dbf
CACCPAYW	custom accts payable wide carriage report	receive.dbf
CACCREC*	custom accts receivable report	invoice.dbf
CACCRECW	custom accts receivable wide carriage report	invoice.dbf
CBILL*	custom billing statement form	billtmp.dbf
CCASHOUT*	custom cash out report	purchase.dbf
CCOMMISS*	custom commission report based on payment	transact.dbf
CCOMMISS*	custom commission report based on invoice	invoice.dbf
CCOMMISS*	custom commission on payment/invoice	transact.dbf invoice.dbf
CCOSTSAL*	custom cost of sales(invoices),Manufact Variance	invoice.dbf
CFIFO	custom FIFO report	fifotmp.dbf
CCHKREC*	custom check reconciliation report	prgltmp.dbf
CGLTRIAL*	Custom current month Trial Balance report	chartacc.dbf
CHREC*	custom accts receivable payment history rpt	billtmp.dbf
CPRCREDIT* CPRCRBIT*	custom Balance Sheet, Liability & Equity	chartacc.dbf
CPPV	custom purchase price variation report	ppvtmp.dbf
CPRDEBIT*	custom Balance Sheet, Assets report	chartacc.dbf
CPRGL*	custom t-acct,4th close mon, cur bal acct reports	prgltmp.dbf
CPRTRAN*	custom general ledger, 5th close month gl reports	prtrntmp.dbf
CPRYTD*	Custom year to date expense and revenue report	chartacc.dbf
CRECLOG	custom debit memo report	receive.dbf
CRELCOSTSO*	Custom cost of sale based upon Related doc nbr	relcostso
CROYALTY	custom standard royalty report	invoice.dbf
CSOMANUFACTURECOST	Custom SO/WO manufacturing cost report	salescursor
CSPAY2*	custom summary accts payable report	acpaytmp.dbf
CSREC*	custom summary accts receivable report	billtmp.dbf
CTAXLOG*	custom in state sales tax report	invoice.dbf
CTAXLOGO*	custom out of state sales tax report	invoice.dbf
CUSCHECK	custom check	mchktmp.dbf (tmp)
CUSIRS*	custom 1099, 1096 forms	
CREMITAL	Custom remittance list	Transact.dbf
CREMIT	Custom single check remittance report	Transact.dbf
CPROFITANDLOSS*	Custom profit and loss report	Chartacc.dbf
CGLTRIAL2*	Custom trial balance current and YTD	Chartacc.dbf

Inventory Module

Standard Partmaster Reports		
AVL	Assigned vendor list	Partmast.dbf(v820-) Avldata (v830+)
BLNKINV	standard disp and pr physical/inventory form	partmast.dbf
BLNKINVW	standard wide carriage physical/inventory frt	partmast.dbf
COSTINV	physical inventory variance report	partmast.dbf
CYCLECNT	cycle count standard form	cyctmp.dbf
CYCLEDIFFCNT	Differential cycle count form	Cyctmp.dbf partmast.dbf
DISPPART	inventory/partmaster find part report	partmast.dbf
PARMOV	partmaster inventory movement report	movement.dbf
PARMOVP	physical inventory, inventory movement report	movement.dbf
PART	standard uncosted disp and pr inventory rpt	partmast.dbf
PART$	standard costed pr and wide inventory report	partmast.dbf
PARTW	standard uncosted wide inventory report	partmast.dbf
PIH	physical inventory history report	pih.dbf
PRICELIS	standard price list report	partmast.dbf
Custom Partmaster Reports		
CUSPAR*	custom inventory report	partmast.dbf
CBLNKINV	custom physical inventory count form	partmast.dbf
CUSPIH*	custom physical inv history report	pih.dbf
CUSTCYC*	custom cycle count form (full or differential)	Cyctmp.dbf
CUSTPHY	custom physical inventory variance report	Partmast.dbf

Note: There is also a link to the Partvend.dbf (**8.30 and higher**)

Sales Order/ Work Order Module

Standard Sales Report		
SALELOG	narrow carriage and displayed sales report	sales.dbf
SALELOGW	wide carriage sales report	sales.dbf
SOPER	ISO 9000 Customer on time delivery report	sales.dbf
SALES_PO	Std Open SO, PO, & WO report sorted by Partnumber	Sopocursor
Standard Sales/Shipper Form		
SALE	shaded sales order form	sales.dbf
SALEB	boxed sales order form	sales.dbf
SHIPPER	shaded shipper form	sales.dbf
SHIPPERB	shaded boxes shipper form	sales.dbf
Custom Work Order/Sales/Shipper Form		
CSO*	custom work order and sales order form	sales.dbf
CSHIP*	custom shipper form	sales.dbf
Custom Sales Order Reports		
CUSSO* CUSTSO*	Custom Sales Reports	sales.dbf
Custom Work Order Reports		
CUSWO* CUSTWO*	custom work order reports	sales.dbf

Note: Sales Order reports and forms automatically have a set relation into the Partmast.dbf, Partvend.dbf, and Addrbook.dbf.

Invoice Module

Standard Invoice Reports		
INVLOG	narrow carriage invoice report	invoice.dbf
INVLOGW	wide carriage invoice report	invoice.dbf
Standard Invoice/Shipper Form		
INVOICE	shaded invoice form	invoice.dbf
INVOICEB	boxed invoice form	invoice.dbf
SHIPPER	shaded shipper form	invoice.dbf
SHIPPERB	shaded boxed shipper form	invoice.dbf
CI	commercial invoice form	Invoice.dbf
Custom Invoice Reports		
CUSINV*	custom invoice report	invoice.dbf
Custom Invoice/Shipper Form		
CINV*	custom invoice form	invoice.dbf
CSHIP*	custom shipper form	invoice.dbf
CCI*	custom commercial invoice form	invoice.dbf

Note: Invoice reports and forms automatically have a set relation into the Partmast.dbf, Partvend.dbf,   and Addrbook.dbf in pc/MRP.

Shipment Module

Standard Shipment Reports & Forms		
SHIPMENT	standard shipment report	shipment.dbf
BOL	Bill of Lading (BOL) form	shipment.dbf
Custom Shipment Reports & Forms		
CUSSHP* CUSTSHP*	custom Shipment report	shipment.dbf
CBOL*	custom Bill of Lading (BOL) form	shipment.dbf

Note: Shipment reports automatically have a relation to the Shipitem.dbf

Receiver Module

Standard Receive Reports		
RECLOG	narrow carriage receiver report	receive.dbf
RECLOGW	wide carriage receiver report	receive.dbf
Standard Receive Forms		
REC	shaded receiver form	receive.dbf
RECB	boxed receiver form	receive.dbf
Custom Receive Reports		
CUSTREC*	custom receiver report	receive.dbf
Custom Receive Forms		
CREC*	custom receiver forms	receive.dbf

Note: Receiver reports and forms automatically have a set relation into the Partmast.dbf, Partvend.dbf, and Addrbook.dbf.

Purchase Module

Standard Purchase Report		
LGMINREQ	standard min max report	partmast.dbf
LGPARREQ	standard display/print MRP report (Single Bucket)	partmast.dbf
PURLOG	narrow carriage purchase report	purchase.dbf
PURLOGW	wide carriage purchase report	purchase.dbf
VENPER	ISO 9000 vendor performance report	purchase.dbf addrbook.dbf
Standard Purchase Form		
PO	shaded PO form	purchase.dbf
POB	boxed PO form	purchase.dbf
PO_SHIP	shaded PO form with shipping address	purchase.dbf
POB_SHIP	boxed PO form with shipping address	purchase.dbf
TC	standard Terms & Conditions form	termcond.dbf
Custom Purchase Report		
CUSPO* CUSTPO*	custom purchase order report	purchase.dbf
CUSTMRP	custom min max report	partmast.dbf
CUSTCMRP	custom consolidated MRP (Single Bucket) report	partmast.dbf
Custom Purchase Form		
CPO*	custom PO forms	purchase.dbf
CTC	custom Terms & Conditions form	termcond.dbf

Note: Purchase Order reports and forms automatically have a set relation into the Partmast.dbf, Partvend.dbf, and some to the Addrbook.dbf.

Sales Quote Module

Standard Sales Quote Report		
QUOLOG	standard quote report	quote.dbf
Custom Quote Report		
CUSTQUO*	custom quote report	quote.dbf
Standard Sale Quote Form		
QUOTE	standard shaded sales quote form	quote.dbf
QUOTEB	standard boxed sales quote form	quote.dbf
Custom Quote Form		
CQUO*	custom sales quote form	quote.dbf

Note: Sales Quote reports and forms automatically have a set relation into the Partmast.dbf, Partvend.dbf, and Addrbook.dbf.

Infinite Bucket MRP Module

Standard MRP, Min Max, Infinite Bucket Reports		
MRP2	standard non-consolidated inf bucket MRP report	action.dbf, mrppart, mrpso
MRP2BUY	standard infinite bucket buy report	Action.dbf partmast.dbf
MRP2CBPP	standard infinite bucket pre-shortage report	action.dbf, mrppart, purchase
MRP2CONS	standard consolidated inf bucket MRP report	mrp2cons.dbf
MRP2EXCS	standard infinite bucket excess inventory rpt	exectmp.dbf (tmp)
MRPSHRT2	standard infinite bucket issued shortage rpt	tempshrt.dbf action.dbf, mrppart,mrpso, routing, mrpstock,
PUSHPULL	standard infinite bucket push pull report	avail.dbf, mrppart, mrpso
WOLOG	standard created Work Order report	salestmp.dbf
WPARREQ	standard wide carriage MRP report	partmast.dbf
Custom MRP Report		
CUSMRP* CUSTMRP*	custom MRP report found in infinite bucket	action.dbf

Note: Most Infinite Bucket MRP "All" reports use the action.dbf, mrppart.dbf, and mrpso.dbf.

Address Book Module

Standard Address Book Report		
ADDRESS	standard address book report	addrbook.dbf
ADDRESSW	standard wide carriage address book report	addrbook.dbf
Custom Address Book Report		
CUSADR*	custom address book report	addrbook.dbf

Stockroom Module

Standard Stockroom Reports		
AVABOM	standard parts available report	bomtemp.dbf
AVABUY	standard buy report	bomtemp.dbf
BOMBUILD	standard max no of BOMs that can be built	bomlist-cursor partmast.dbf bom.dbf
CNVSBOM	standard stockroom I transaction report	bomtemp.dbf
ISUSHORT	standard stockroom P and shippable report	stocktra.dbf
MAKEUPWO	standard stockroom P transaction by W/O	stocktra.dbf
SKTRCMFG	standard receive from manufacturing report	stockrtra.dbf
STKISSSHRT_PO	Standard stock issued report with POs	Stockrtra.dbf
STOCKLOG	standard stock room transaction report	stocktra.dbf
SWOLOG	std stock room report subtotaled by sales/work#	stocktra.dbf
SWOINCDEWOLOG	All sub-totaled by SO/WO report – issued to MFG only, include dedicated WO	stkcursor
UNISSUE	standard stock room U transaction report	stocktra.dbf
Custom Stockroom Reports		
CUSBMB	custom max no of BOMs that can be built	bomlist-cursor
CUSBOM*	custom parts available report	bomtemp.dbf
CUSMUS*	custom stockroom P transaction report	stocktra.dbf
CUSSTK* CUSTSTK*	custom stock room report	stocktra.dbf
CUSBOM*	custom stockroom I transaction report	bomtemp.dbf

Sales Analysis Module

Standard Sales Analysis Report		
MAKECONM	standard consolidated multiple BOM report	makecons.dbf
MAKECONS	standard consolidated single BOM report	makecons.dbf
SANAL	std sales analysis report	sanal.dbf
SANAL2	std sales analysis report sorted by division	sanal.dbf
SANALCS	std cost of sales report	costsale.dbf
Custom Sales Analysis Report		
CUSSANA	custom sales analysis report	sanal.dbf

Purchase Request/Quote Module

Standard Purchase Request Forms		
REQUESTB	standard boxed PO request form	request.dbf
REQUEST	standard shaded PO request form	request.dbf
PURLOG	standard purchase request/quote report	request.dbf
Custom Purchase Request Form		
CREQ*	custom PO request form	request.dbf
Standard Purchase Quote Forms		
POQUOB	standard boxed quote form	request.dbf
POQUO	standard shaded PO quote form	request.dbf
Custom Purchase Quote Form		
CPOQUO*	custom PO quote form	request.dbf
Custom Purchase Request Report		
CUSREQ* CUSTREQ*	custom Purchase Request/Quote Report	request.dbf

Note: Purchase Request/Quote reports and forms automatically have a set relation into the Partmast.dbf, Partvend.dbf, and Addrbook.dbf.

Serial/Lot Number Module

Standard Serial/Lot Number Form		
AUDITSN	standard Serial/Lot Audit report form	auditsn.dbf
SNLOG	standard master serial/lot number report	snlot.dbf
SNDLOG	standard detail serial/lot number report	snlotdet.dbf
Custom Serial/Lot Number Form		
CAUDITSN	custom Serial/Lot Audit report form	auditsn.dbf
CUSTSN	custom master serial/lot number report	snlot.dbf
CUSTSN(sic!)	Custom detail serial/lot number report	snlotdet.dbf

Routing Module

Standard Routing Form		
ROUTE	standard Routing Module report	routing.dbf
ROUTEW	wide carriage Routing Module report	routing.dbf
Custom Routing Forms		
CUSTRTR* CUSRTR*	custom Routing Module report form	routing.dbf

Employee Time Tracking Module

Standard Employee Tracking Forms		
EMPFRM	employee profile form	employee.dbf
EMPLOG	all employee form	employee.dbf
EMPTIMECOST	all Labor cost forms	emptimesh.dbf
EMPTIMESH	all time sheets forms	emptimesh.dbf
Custom Employee Time Tracking Forms		
CUSEMP*	custom employee report form	employee.dbf
CUSTIM*	custom time sheet form	emptimesh.dbf

Inspection Module

Standard Inspection Forms/Reports		
INSPIL	standard inspection list report	inspect.dbf
INSPALL	standard all inspection report	inspect.dbf
INSPECT	Standard inspection form	inspect.dbf
Custom Inspection Forms/Reports		
CUSINS*	custom inspection report	inspect.dbf
CINSPECT*	Custom inspection form	inspect.dbf

ECN Module

Standard ECN Form		
ECN	standard inspection list form	ecn.dbf
Custom ECN Form		
CECN	custom inspection form	ecn.dbf

QuickBooks Module

Standard QuickBooks Export Form	
QBEXPORT	standard Invoice/Receiving Export report form
Custom QuickBooks Export Form	
CUSQBEX	custom Invoice/Receiving Export report form

Audit Trail Module

Standard Audit Trail Reports		
TRAIL	Standard Component Matches report form	temp.dbf
RAILBOMCOST	Standard Component Un-Matched report form	temp.dbf

Note: The temp.dbf for the Audit Trail reports contains the following fields:
Database, record, item, user, date, time, the_field, oldcontent, newcontent, partno, descript, & onhand

Configuration, Settings & Utilities Reports

Option 56 (15.1.56)		
CMPLIST	Standard Component Matches report form	matches.dbf
CMPLIST2	Standard Component Un-Matched report form	nomatch.dbf

15.4.3 List of Labels

LABEL(.LBX)   LABEL DESCRIPTION   DBF FILE USED

Inventory Labels **(also see Section 5.1.9)**		
PARLABBAR	Standard parts labels w/barcode for one part	TmpTable.dbf
PARLABEL	std parts labels for all,prod,div,pn dot matrix pr	partmast.dbf
PARLAB2X	std parts labels for all,prod,div,pn laser pr	partmast.dbf
SHIPPER	standard shipper label, see 10.1.6	
Custom Inventory Labels		
CPARLAB	custom parts labels for all parts, prod, pn	partmast.dbf
CUSPAR*	custom parts labels for all parts, prod, pn	partmast.dbf
CUSTPAR*	custom parts labels for all parts, prod, pn	partmast.dbf
Assembly Labels		
BOMLB	standard parts labels for an assy dot matrix	bomtemp.dbf
BOMLB2X	standard parts labels for an assy laser pr	bomtemp.dbf
Custom BOM Labels		
CUSBOMLB	custom parts labels for an assy	bomtemp.dbf
CUSBOM*	custom parts labels for an assy	bomtemp.dbf
CUSTBOM*	custom parts labels for an assy	bomtemp.dbf
Receiver Labels		
RECLABEL	Inventory parts labels for a receiver (dot matrix)	receive.dbf
RECLAB2X	Inventory parts labels for a receiver (laser)	receive.dbf
RECLABBOX	Receiver parts labels for a receiver RoHs Checkbox	Labprnt.dbf
RECLABQTY	Receiver parts labels for a receiver showing qty	Labprnt.dbf
RECLAB2X	Receiver parts labels	Labprnt.dbf
Custom Receiver Labels		
CRECLAB	custom label for inventory and receiver module	receive.dbf
CUSREC*	custom label for inventory and receiver module	receive.dbf
CUSTREC*	custom label for inventory and receiver module	receive.dbf
Address Book Labels		
ADDRLBS	pin fed standard address label 15/16x3-1/2	addrbook.dbf
ADDRLBM	laser standard address label 4"x2-7/8"	addrbook.dbf
DDRLBMS2	pin fed standard address label 4"x2-7/8"	addrbook.dbf
Custom Address Book Labels		
CUSADRXX	custom address labels	addrbook.dbf
CUSTADRX	custom address labels	addrbook.dbf
Sales/Work Order Serial Number Labels		
LBLWO-SN	Tmptable=copy of partmast w/ModelNo=Serial#) and:	sales.dbf partmast.dbf
Custom Sales/Work Order Serial Number Labels		
CUSSNL*	See above for files.	
CUSTSNL*	See above for files.	
Stock Issue Labels		
STKLAB	custom stockroom labels	stocktra.dbf
Custom Stock Issue Labels		
CSTKLAB	custom stockroom labels	stocktra.dbf
CUSSTK*	custom stockroom labels	stocktra.dbf
CUSTSTK*	custom stockroom labels	stocktra.dbf

Note: Invoice and Receiving shipping labels and custom shipper labels are described in Section 10.1.1.11 for Invoices, and 8.5 for Receivers.

15.4.4   Advanced Features

15.4.4.1 Adding a picture or logo to a report, form, or label for each Partnumber on a report.

1. Select Configuration/Settings & Utilities
2. Enter your Configuration Code Number.
3. Run Utility 24.
4. Choose either "Form" if you are adding a picture or logo to a form or report or choose "Label" if you are adding it to a label.
5. Select the '.frx' or '.lbx' file to modify. In this case, parlab2x.lbx.
6. Check the pc/MRP Manual, Section 15.4.2 for the proper prefix of a custom report. In this case, 'cusparlab2x' for example.
7. Choose 'File/Save As' and enter and save your new custom report name.
8. Click on the OLE(Picture/ActiveX Bound Control). Move your cursor to the position you wish to add the picture and draw a box that will contain your picture. A window for Report Picture appears.
9. If you are adding a logo or picture that appears in the page header portion of the report or form, select 'Image file name' and click the ellipse button to locate the logo or picture BMP, JPG, or GIF file (skip to #13). If you are adding pictures to the detail line where you might want a different picture for each part, select 'Expression or variable name' and type in the words 'partmast.Image_File'. This is the field name for the location of the image file for the part in the Part Master database.
10. In the section "If source and frame are different sizes", choose "Scale contents, retain shape."
11. Press the Print When Button; a 'Print When' form appears.
12. In the Print only when expression is true box, Enter "Not Empty(FileChk(alltrim(Partmast.Image_File)))" (without quote marks)
13. Press 'OK'
14. Save the file and exit the Designer.

The new report/form/label is available in the drop-down area when you choose "Custom" for the report/form/label you are running.

15.4.4.2 Address information layout used for forms

Addresses in the Purchase, Receive, Sales, and Invoice forms (not reports) are stored in a long single memory variable. For example, "MVENDOR1" in the PO form has the following layout:

```
SUBSTR(MVENDOR1,1,41) = VENDOR NAME
SUBSTR(MVENDOR1,42,41) = CONTACT NAME
SUBSTR(MVENDOR1,83,41) = STREET ADDRESS 1
SUBSTR(MVENDOR1,124,41) = STREET ADDRESS 2
SUBSTR(MVENDOR1,165,30) = VENDOR CITY
SUBSTR(MVENDOR1,195,20) = VENDOR STATE
SUBSTR(MVENDOR1,215,10) = ZIP
SUBSTR(MVENDOR1,225,30) = COUNTRY
```

Therefore, the ZIP code is located 215 characters into the variable for a length of 10.

Note: In Excel the formula is: =MID(ZIP,215,10)

15.4.4.3 Adding Bar Code Fonts to Custom Labels, Forms, and Reports

See Section 16.4.1 in this Manual.

15.4.4.4 Setting an additional filter when printing/displaying a report

The following modifications should only be made by a person who is familiar with dBase and FoxPro commands.

The new filter replaces the old filter

If you wish to use your own filter and <u>ignore the existing</u> filter, you could use the Set Filter To command. Let's say you want to filter a Purchase report by a specific buyer (Anna). This information is stored in the OrderBy field.

~IN~
Set Filter To (Upper(OrderBy) = "ANNA")

The additional filter is built is into the report

The AddFilter() function provides a mechanism whereby a filter expression can be applied to a table <u>without interfering</u> with another filter that may already be applied to the table.

Let's say you wish to add a filter to an existing Purchase report that is currently filtered by Related Document Number, and you want it to be filtered by a specific buyer (Anna). This information is stored in the OrderBy field.

~IN~
AddFilter("Upper(OrderBy) = 'ANNA'", "PURCHASE", "AND")
where "Upper(OrderBy) = 'ANNA'" is the added filter condition,
      "PURCHASE" is the database file
      "AND" is the join condition.

15.4.4.5 The report prompts the user for the additional filter

This section explains how to get a custom report to <u>prompt for an additional filter</u> condition. For example, a user may wish to have a custom bill of materials report that lists only part numbers that start with the prefix "33-". To make the modifications follow the steps listed below:

Users can use numeric and or logical fields not just text fields. When you run the report, you will be prompted for the default filters for text, numeric, date, or logical fields as shown below unless the last parameter is other than a '1', the default.

    If the filter is a text field:
        1. contains (DEFAULT)
        2. does not contain
        3. start with
        4. is equal to
        5. is not equal to

    If the filter is a numeric or date field:
        1. not equal to (DEFAULT)
        2. less than
        3. less than or equal to
        4. equal to
        5. greater than or equal to
        6. greater than

    If the filter is a logical field:
        1. All (DEFAULT)
        2. No (false, unchecked)
        3. Yes (true, checked)

To set the defaults, users can add a default value and operator. For example users could enter:

　　　DO APNDFIL WITH "DESCRIPT", "Enter a Description", "BEARING", 1

When the report is printed pc/MRP will pop up a window asking the user to enter a description with a default entry of BEARING and the default filter value of 1 (contains).

Depending upon the data type, one of the following pop-ups is presented:

For text fields:
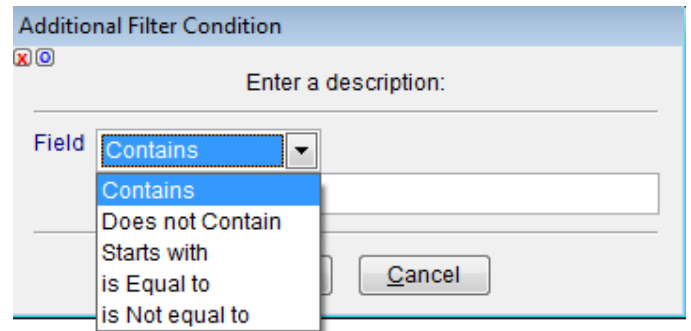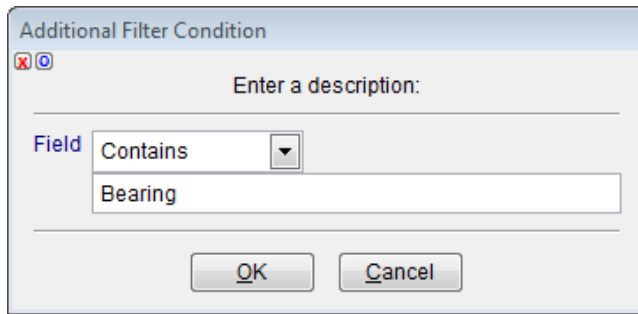
For logical fields:
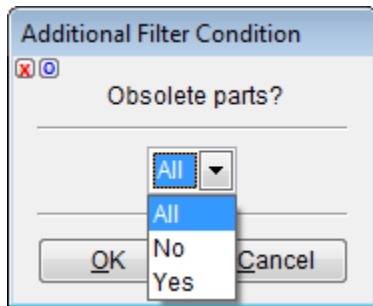
For numeric or date fields:
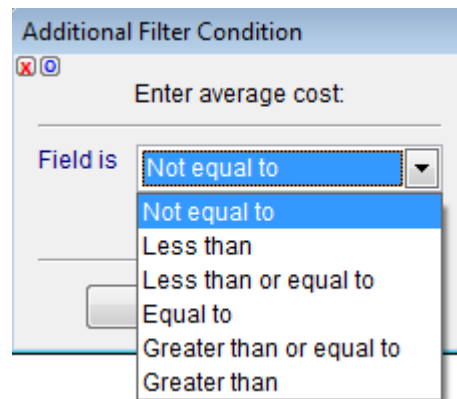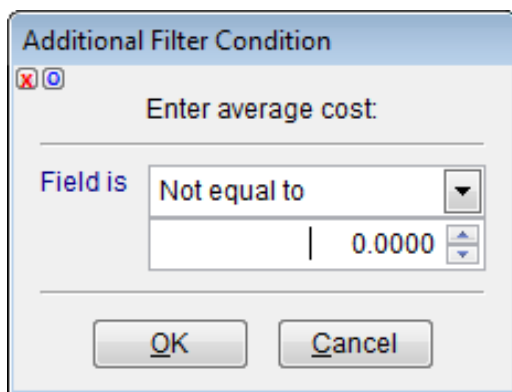
15.4.4.6 Prompting the user for input

You may also create an '.EF' file to ask the user to enter data (while printing labels as an example). Here is sample code to refer to:

Note: Please do not use MS Word to create '.EF' files as Word will use curly/angled quotes that the Visual FoxPro report writer does not like. If you still wish to use MS Word:

1. On the Tools menu, click AutoCorrect Options, and then click the AutoFormat As You Type tab.
2. Under Replace as you type, select or clear the "Straight quotes" with "smart quotes" check box.

Note: You can find and replace all instances of single or double curly quotes with straight quotes in your document. To do this, clear the "Straight quotes" with "smart quotes" check box on the 'AutoFormat As You Type' tab. On the Edit menu, click Replace. In both the Find what and Replace with boxes, type ' or ", and then click Find Next or Replace All.

15.4.4.7 Opening an additional related database file when printing/displaying a report

The following modifications should only be made by a person who is familiar with dBase and FoxPro commands.

This section explains how to open up another related database file when running a report for the purpose of printing out data from the original database file and the related database file. For example, a user may wish to have a custom sales order report print/display the drawing number for each sales order listed in the report. The drawing number is not in the sales.dbf, so the user must modify pc/MRP such that the partmast.dbf file is open and related to the sales.dbf file whenever that report is run. To make the modifications follow the steps listed below:

Sales Orders, Sales Quotes, Invoice, Purchase, Purchase Quote, and Receiver **reports**, pc/MRP automatically sets a relation to the PARTMAST and ADDRBOOK database files. As such, you would simply add a field to the custom report with the name of the table (database file) as a prefix e.g. 'partmast.drawingno' or 'addrbook.resale'.

Sales Orders, Sales Quotes, Invoice, Purchase, Purchase Quote, and Receiver **forms**, pc/MRP automatically sets a relation into the PARTMAST and ADDRBOOK database files.

For all other reports or DBF files, you must use Window's Notepad program to create an ASCII text file with the same name as the custom report you plan on running, with the extension of ".ef". For example if you had a custom sales report named "CUSTSO1.FRX" and wanted to include data from another data base besides sales.dbf you would use Notepad to create a new file in the pcmrpw directory named "CUSTSO1.EF"

Enter the following dbase/FoxPro commands into the "CUSTSO1.EF" file. The first command, **~IN~**, tells pc/MRP to follow this set of commands before starting to print the report. The second command, THISAREA=SELECT(), stores the name of the first database file in a memory variable named THISAREA. The third through fifth commands then set relation between the two files. The last command, GO TOP, makes sure the original dbf file (in this case, sales.dbf) is initialized and ready to begin printing. **~OUT~**, begins the instruction set pc/MRP will follow after it has finished printing the report. The remaining commands after the ~OUT~ command, simply close the related dbf file and select the original dbf file as the primary dbf file.

Note: If you need these modifications for an .EFX file, do not create an .EF file, but enter these commands inot the ~IN section of the .EFX file.

Note: Both the "~IN~" and "~OUT~" **must** be capitalized!

```
~IN~
THISAREA = SELECT ()
USE PartMast ORDER ByPartNo IN 0
SELECT (THISAREA)
SET RELATION TO UPPER(LEFT(PartNo,MpnSize)) INTO PartMast ADDITIVE
GO TOP                          && (in some cases, "GOSAFE(RecNo())" will be needed)

~OUT~
USE IN SELECT("PartMast")
```

The above commands work for any DBF file (not just the partmast).

If you need to set a relation to the address book ("addrbook") or partmaster file ("partmast"), or ("both"), the following example code will work as well:

```
~IN~
RELATE("partmast")

~OUT~
USE IN SELECT("partmast")
```

Save the file as the report/form/label name appended with ".ef" (no quotes), e.g. "CUSTSO1.EF", in the pcmrpw directory.

Finally, one would modify the custom report (in this case, CUSTSO1.FRX), adding the fields from the related dbf file to the report (in this case, PARTMAST.DRAWINGNO). Please note, that you must preface the fields from the related dbf file with the name of the related dbf file followed by a period and the name of the field.

When viewing any report you can view the open tables by pressing CTRL-F12. This will open a TXT file with all of the open tables in the "select area" statement. By example: "Select area: 1, Table in Use: C:\MY DOCUMENTS\PCMRPTEST\PCMRPW870\PARTMAST.DBF Alias: PARTMAST" This means the Partmast.dbf is open when running this report.

15.4.4.8 Code based HTML Files

Code based HTML forms can only be modified by personnel at Software Arts. Software Arts can send you a custom fxp file containing your modifications.

Modules	Std Fxp File	Custom fxp
Sales/Sales Quote/Work Order	EMSO.FXP	CEMSO.FXP
Purchases	EMPO.FXP	CEMPO.FXP
Receivers	EMREC.FXP	CEMREC.FXP
Purchase request	EMREQ.FXP	CEMREQ.FXP
Invoices	EMINV.FXP	CEMINV.FXP

The custom fxp files would be copied into the main pcmrpw directory.

15.4.4.9 Adding the RoHS information to a report, form, or label (or any logical field).

The RoHS field is a logical field in the inventory database on the Misc. tab. To use in a report, form, or label, the field must be added to the report detail band and the header description band. The detail band field is defined as follows:

    IIF (ROHS, "YES", "NO")

Or for a one character field, use "Y","N".

15.4.5   Troubleshooting

15.4.5.1 Converting custom 16-bit report forms to 32-bit report forms

Installing an update to a 32-bit version of pc/MRP will copy in all new 32-bit standard report forms. Starting pc/MRP for the first time after installing the update will convert all non 32-bit reports, Custom and Standard, to 32-bit.

To individually convert a 16-bit report to 32-bit, open the command line and enter:
    CONVERTFORM("filename.frx")

You could also enter:
    CONVERTFORM()   - it will allow you to scroll and select the report to be repaired.

15.4.5.2 Clearing the save environment feature on FoxPro for Windows reports

FoxPro for Windows reports save the name of the dbf files that were open when the report was created or last run. This feature can inhibit customizing the report if several dbf files were open when the report was last run or created. If several data base files were open at the time, the report may pick the wrong dbf file to open when you try to view your modifications. To turn off the "save environment" feature, open up the report using the modify report command in FoxPro's command window and follow the steps listed below:

1. Click on report
2. Click on page layout
3. Click on data environment
4. Click on clear
5. Click on ok
6. Click on file
7. Click on save

Reopen the report and repeat the above process, if you were successful you will see the environments clear and restore buttons are now disabled. Go ahead and click on cancel. Now you will have to enter the related dbf file manually prior to modifying the report, however it will be the correct dbf file.

15.4.5.3 Clearing printer codes from all forms and labels.

Running 'frxhpfix_all()' from the pc/MRP command line removes printer codes from all forms and reports that were accidently saved with the form or report.

15.4.5.4 Set Enginebehavior

The Visual FoxPro 'Select' command does not operate as a 'pure' SQL command. If the results are not what you expected and:

If an '.EF' file contains a select command with a GROUP BY or ORDER BY clause, it's behavior will vary depending upon the SET ENGINEBEHAVIOR setting. It is important to reset the enginebehavior if you change it. Add the following code to the '.EF' file or create the text file with the 'custom_report_name.EF'.

~IN~
PUBLIC InOldEngine
lnOldEngine = SET("enginebehavior")
SET ENGINEBEHAVIOR 70 && could use 80 or 90

~OUT~
SET ENGINEBEHAVIOR lnOldEngine
RELEASE lnOldEngine

PROGRAMMING Note:
The scope of SET ENGINEBEHAVIOR is global.

Using SET ENGINEBEHAVIOR set to 70 might lead to ambiguous results from SQL SELECT commands when the DISTINCT and UNION clauses are used with memos and the GROUP BY clause, the HAVING clause without a GROUP BY clause, and when using the LIKE clause.

When SET ENGINEBEHAVIOR is set to 70 or 80, results from the TOP clause in the SQL SELECT command can include more than nExpr records when rows with identical values for columns specified by the ORDER BY clause exist. For example, suppose you specified 10 rows for nExpr. If more than 10 rows with identical values exist in the columns specified in the ORDER BY clause, the query result might contain more than 10 rows.

15.4.5.5 Zebra printer settings

The following settings have been found to work on Zebra printers we have been called upon to help get printing correctly:
Once you have Configuration, Settings & Utilities, Option 24 open with the label, do the following steps:

1. Menu item File, **Print**, select the Zebra printer
2. Menu item File, **Page Setup**, **Print Area** to Whole page, printer is Zebra
3. Zebra driver **Properties**, **Page Layout**, **Page Setup**, **Size** to 4x3 & **Orientation** to Portrait, save all/OK
4. Check that the menu item Report, **Printer Environment** menu item is checked

Please note that you may have a different size label than 4"x 3" and you may also have to adjust the label positioning on the Zebra's roller.

15.4.5.6 Creating a custom report and printing to a specific printer (usually for a check printer).

Please see the MRP101 slideshow for a more detailed look at report customization:

http://www.pcmrp.com/mrp101/customtableofcontents.htm

The following screen shots will demonstrate how to set this up.
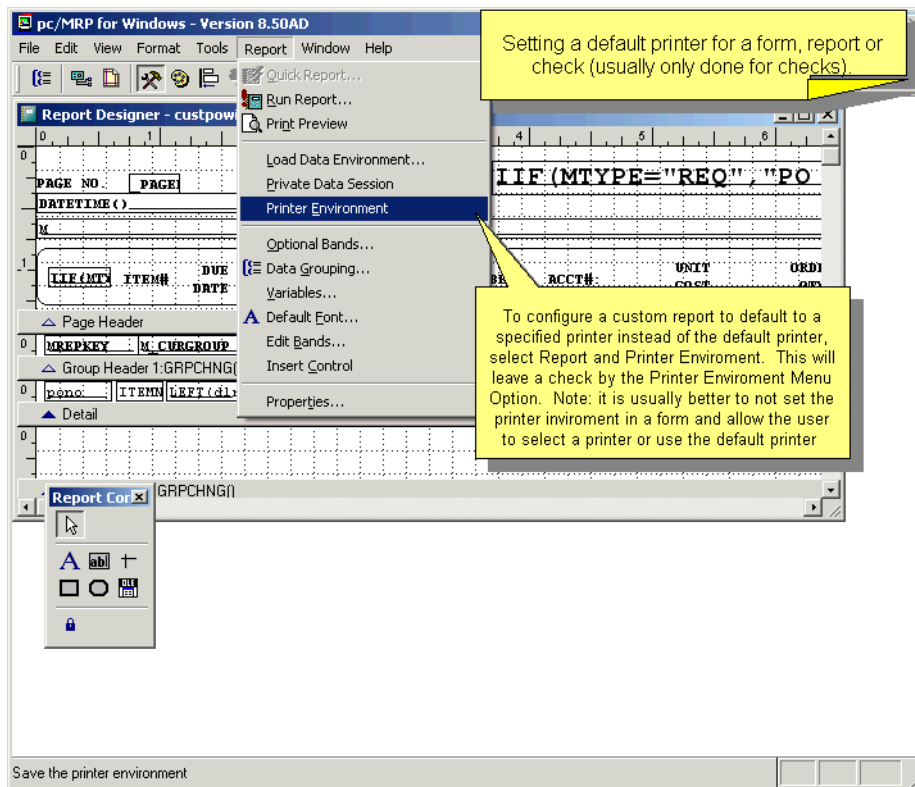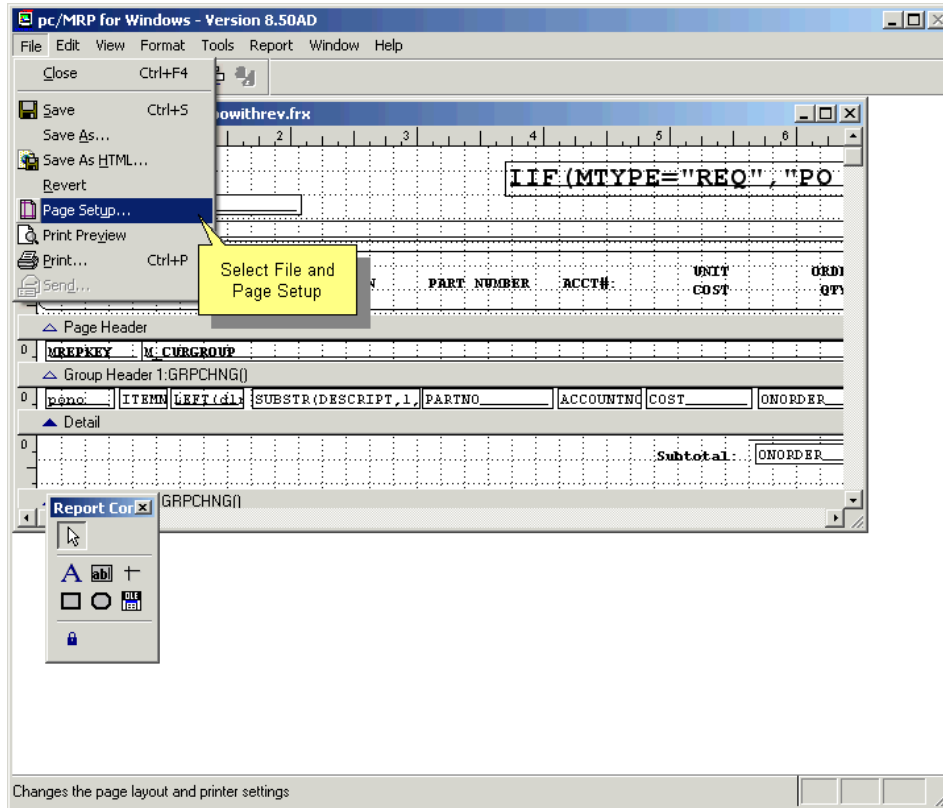
And finally:
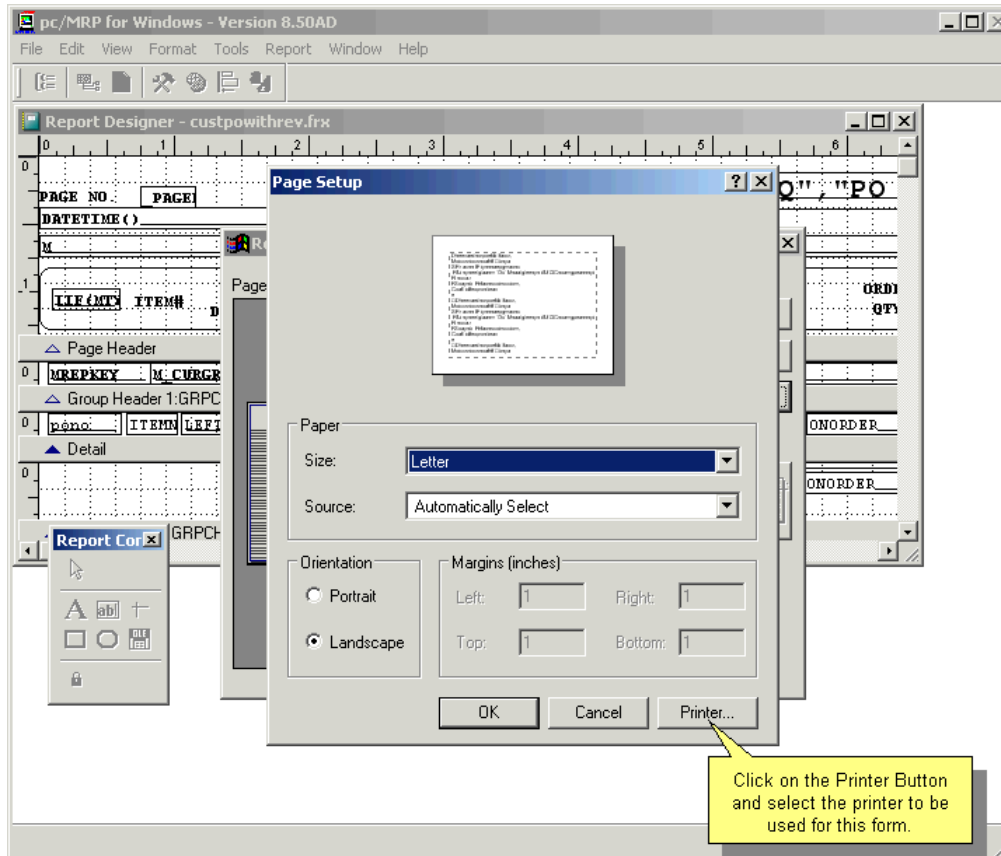
15.5 Exporting Raw Data out of pcMRP

15.5.1 Overview

pc/MRP uses Visual FoxPro 9 database files.   There are not many import programs that offer the option to import Visual FoxPro 9 data base files.   Therefore, this chapter will outline how to export pc/MRP's data into more widely used formats such as Excel (XLS), ASCII (txt) or dBase III formats.

The following sections will cover several ways to export raw data out of pc/MRP. Finally, we will address a few rules to follow. An online slideshow is located here: http://www.pcmrp.com/mrp101/exportfilesmodules.htm

15.5.2 Using Option 23 to extract all data from a table of pc/MRP into XLS, ASCII, or dBase III format

First select Configuration, Settings and Utilities, and set Option 86 to dBase III file format. Next use Option 23 to extract the data from pc/MRP into Excel (XLS), Comma Delimited (TXT) or Data Table (dBase III DBF). Click on the … button to choose your file. Enter a name for your new file, click Save.   Select the fields you wish to include and click OK.
Note: For versions **lower than 8.73P** see the last section of this chapter.

15.5.3 Using a pc/MRP report to extract a subset of data from pc/MRP into XLS, ASCII, or dBase III format

First set Configuration, Settings and Utilities, and set Option 86 to dBase III file format. Next click on Modules, select the module (purchasing, sales, parts, BOMs, etc). Select Reports, select the sort and conditions (all open, all in a date range, etc.).   Send the report to ASCII, Excel or DBF. Enter a name for your new file.   Select the fields you wish to include.
Note: For versions **lower than 8.73P** see the last section of this chapter.

15.5.4 Extracting pc/MRP data using Microsoft's VFP ODBC

An online slideshow located at: http://www.pcmrp.com/mrp101/odbcopeninternetexplorer.htm demonstrates how to install Microsoft's VFP Driver.   After that, you can use any language you prefer to establish a connection to the ODBC file and extract subsets of pc/MRP data with select statements.

15.5.5 Sending Reports to Excel

pc/MRP offers to send most reports to Excel. For Versions **8.73P and higher**, all fields can be exported, as long as the computer that runs pc/MRP has Excel installed. (If pc/MRP is run on a terminal server, Excel has to be installed on the terminal server.) If Excel is not available on the computer, pc/MRP does not offer the memo type fields (like the general info in inventory, the reference designators in the BOM table, the tracking number and comments in the invoice table, etc.), similar to the earlier versions.

15.6 Creating Practice and What If Directories

Test copies allow users to do a number of things. New employees just getting familiar with pc/MRP will have a chance to practice entering parts, POs, accounting transactions, etc. without doing any harm to the production copy. Users can try rarely used features of pc/MRP (like merging addresses), and get familiar with new features when a new version of pc/MRP is released, without making any changes in the real copy. Also, it is often easier to see the results of your action if there are only a few records in your database tables.

15.6.1 Generating a What If or Practice Directory for pc/MRP

What if or practice directories are easily generated by copying pc/MRP into a different location on a local computer or server. To do this simply copy and paste the entire pcmrpw folder into an alternate location.
1. Find where pc/MRP currently resides
2. Highlight the pcmrpw folder
3. Press CTRL-C to copy the pcmrpw folder
4. Find the desired folder and double click on that folder
5. Press CTRL-V to paste the pcmrpw folder into the alternate folder

Users can now start the practice or what if copy by double clicking the pcmrpw.exe found within the alternate folder.

Note: Users must be certain to not confuse themselves with the REAL copy vs. the TEST copy.

You should modify the background of the pc/MRP logo by doing the following:

1. Go to Configuration, Settings & Utilities, Option 1
2. Change the Division/Dept line to the word 'PRACTICE'
3. Save and exit the program.

You now have a red background for the pc/MRP logo and a warning underneath.

15.7 Windows Server Administration

15.7.1 Viewing users who are logged on

The following steps will allow you to view who is logged on to the server:
1. Click on the start button
2. Select Programs
3. Select Administrative Tools
4. Select Server Manager
5. Double click on the server you want to view
6. Select Users

15.7.2 Viewing users and the files they are using

The following steps will allow you to view a list of files is use:
1. Click on the start button
2. Select Programs
3. Select Administrative Tools

For Windows NT
1. Select Server Manager
2. Double click on the server desired
3. Select in Use

For Windows 2000
1. Select Computer Management
2. Select System Tools
3. Select Shared Folders
4. Select Sessions
5. Select Open Files

15.7.3 Monitoring network performance

The following steps will allow you to monitor the network traffic and performance:
1. Click on the start button
2. Select Programs
3. Select Administrative Tools
4. Select Network Monitor

Watch the % Network Utilization bar chart. Readings of 35% or less are good. Readings of 60% or more would indicate problems.

15.7.4 Monitoring CPU and memory performance

The following steps will allow you to monitor the CPU and memory performance:
Right click in the open space of the Start bar, then:

1. Select Task Manager
2. Select Performance

15.7.5 Protecting pc/MRP database files on a Windows 2000 Server

15.7.5.1 The following commands will prevent users from deleting key pc/MRP database files through Windows Explorer.

Set up pcMrpUsers and pcMrpSupervisors user groups as below:

1. Click the **Start** button.
2. Select Settings, Control Panel, Administrative tools, and Computer Management.
3. Under the System Tools, expand the Local Users and Groups
4. Right click on the **Groups** folder and select the **New Group ...**
5. Enter "pcMrpUsers" for **Group Name** and "Mrp users without deletion rights" for **Description**.
6. Click the **Create** button to save the pcMrpUsers.
7. Enter the group name of the second group: "pcMrpSupervisors" and "pc/Mrp users with deletion rights to pc/Mrp database tables" for **Description**.
8. Click the **Create** button to save the pcMrpSupervisors.
9. Click **Close**.
10. Double click on the pcMrpUsers and add users into the group.
11. Double click on the pcMrpSupervisors and add users into the group.

15.7.5.2 Set up PCMRPW folder access permissions for pcMrpUsers group, pcMrpSupervisors group, and administrator.

1. Start window's explorer
2. Right click on **the PCMRPW** folder and select **Properties**.
3. Select the **Security** tab.
4. Uncheck the Allow inheritable permissions from parent to propagate to this object.
5. Remove **Everyone** group.
6. Add pcMrpSupervisors, pcMrpUsers, and administrator.
7. Select administrator, check the allow check box for **Full Control**, **Modify**, **Read** & **Execute**, **List Folder Contents**, **Read**, and **Write**.
8. Select pcMrpSupervisors, check the allow check box for **Full Control**, **Modify**, **Read** & **Execute**, **List Folder Contents**, **Read**, and **Write**.
9. Select pcMrpUsers, check the allow check box for **Modify**, **Read** & **Execute**, **List Folder Contents**, **Read**, and **Write**.
10. Click on the **Advanced** button, click the Add button to add pcMrpUsers group.
11. Select "**this folder Only"** for the **Apply Onto**, and check the deny check box for the **Delete** permission.
12. Click on the **Add** button to add pcMrpUsers group.
13. Select "this folder, subfolders and file" for the Apply Onto, and check the deny check box for the Change Permission.
14. Click Ok.
15. Click Apply.

15.7.5.3 Set up permissions for the following database files.

1. Double click on the **PCMRPW** folder.
2. Right click on the partmast.dbf and select properties.
3. Select the Security tab.
4. Check the **allow inheritable permissions from parent to propagate to this object**
5. Click on the **Advanced** button.
6. Click on the **Add** button and select pcMrpUsers.
7. Click on the deny check box for the Delete permission.

15.7.6 Clear, Delete and Refresh ARP Cache Entry

ARP (Address Resolution Protocol is the standard method for finding a host's hardware address when only its network layer address is known. In other word, in IPv4 and Ethernet network environment, Windows operating system uses ARP to translate IP addresses to Ethernet MAC addresses. However, Microsoft Windows ARP cache will occasionally become corrupt and need to be cleared and deleted so that the cache can be refreshed.

http://www.windowsnetworking.com/kbase/WindowsTips/Windows2003/AdminTips/Miscellaneous/Clearingthe
ARPCache.html

The Address Resolution Protocol (ARP) is very crucial for TCP/IP network communication. If you begin to notice network connectivity problems such as particular web pages not loading or not being able to ping certain IP addresses then clearing your ARP cache is a good place to start.

You can view your workstations ARP table by typing "**arp –a**" from a command prompt. Deleting the ARP cache is just as simple and can be done from a command prompt by typing "**netsh interface ip delete arpcache**".

15.9 Special Cases

15.9.1   Non-Stocking Manufacturing Reps

When the customer places an order:
- Enter a PO to manufacturing (Your cost)
- Enter a sales order to you customer (your cost plus commission)

When manufacturing ships to the customer
- Enter a false receiver from the manufacturing
- Enter a false invoice to the customer

When manufacturing sends commission check
Enter general ledger transact, debit Checking credit Business Income

When the salesman is paid
Enter a general ledger transact, debiting sales commissions and crediting checking

15.9.2   Outside Manufacturing

Method 1 (Convert parts to assemblies)

Use pc/MRP's Configuration Module to set Invoice/Receiving Modules increment and decrement onhand quantities.

Construct the BOMs so they include both your part numbers and the outside assembly labor. Enter the labor as a part number into inventory but fill in the PartLabor/Assy/Labor field as "L".

When finished products are to be assembled by an outside mfg:
Place a PO for the outside assembly labor PN.

When the finished products are received:
Receive the finished assemblies under the outside assembly labor #.
Use the Convert Parts to Assemblies Option to change the individual parts into finished assemblies.

For example, if your business consisted of purchasing raw tweezers, having them Teflon coated by an outside manufacturing operation, and then reselling them as Teflon coated tweezers, you would enter the raw tweezers into inventory as one part number, 00-000-0001 and the Teflon coating outside labor cost per tweezers as another part number, 00-000-0002. You would then enter a BOM, 00-000-0003 for the Teflon coated tweezers, which would consist of part numbers 00-000-0001 and 00-000-0002. Rolling up costs in inventory or Exploding BOM 00-000-0003 would total up and load the cost of the finished tweezers into inventory.

Purchasing and receiving x amount of raw tweezers would result in an onhand quantity of x raw tweezers, 00-000-0001.

Purchasing would then issue a PO for x amount of labor, PN 00-000-0002 and send the raw tweezers to the outside manufacturer. When the finished tweezers are returned, they would be received as PN 00-000-0002 since this part is classified as labor and not as a part. No change in the on hand quantity would occur.

Use the "Convert Parts to Assemblies" Option in Stock Room Module to convert these parts into x amount of finished Teflon coated tweezers 00-000-0003

Method 2 (Create work orders/issue parts)

This method makes 3 assumptions:

pc/MRP's Inventory Adjustment Method, Configuration, Settings and Utilities Method Option 4 is set to **A**.
pc/MRP's Accounting Method , Configuration, Settings and Utilities Method, Option 10 is set to **Perpetual**.
You are actively running pc/MRP's 'Cost Roll Up' function to keep the assembly costs up to date.

Create an "Outside Labor" Part Number, to cover the cost of assembly labor and material supplied by the vendor.

Create a BOM for the finished sub-assembly, include the component parts you supply the vendor and the "Outside Labor" Part Number.

Create a PO for the Outside Labor Part Number.

Create a work order for the job if you are building to stock or an order entry sales order for the job if you are building to a customer order. If the Work Order is required to fill sales orders, make the Work Order consumable, with a date required that is prior to the Sales Order's date required.

Use pc/MRP's Stockroom Module's 'I type transaction to Issue the sales/work order to manufacturing. This will move the component parts from on hand into WIP.

Give the component parts and the PO to the vendor.

When the finished products are received:

Use pc/MRP's Receiving Module to receive the PO for the Outside Labor. pc/MRP will debit Inventory and credit Accounts Payable when accounting enters an I type accounting transaction or the receiver is exported over to QuickBooks.

Use pc/MRP's Stockroom Module to Receive back the completed sub-assembly. This will decrease qty in WIP and will increase the on hand quantity of the finished sub-assemblies.

If you created a sales order for a customer, invoice the sales order. This will decrease the quantity of the finished assembly. pc/MRP will debit COGS and credit Inventory when accounting enters an "O" type transaction against the invoice or the invoice is exported to QuickBooks. (See Section: 14.4.1.2.)

If you were to run a purchasing consolidation report, select exclude work orders if these parts are being built for existing sales orders.

Method 3

Use pc/MRP's Configuration Module to set Invoice/Receiving Modules increment and decrement onhand quantities (Inventory adjustment method = **A**)

Issue a PO for the assembly to be built by an outside manufacturer. Receiving assemblies will trigger the prompt, "Item you are receiving is an assembly, Increase the onhand quantity of the assembly or Convert parts to assemblies?". If you press "Convert parts", the onhand quantity of the assemblies will be increased and the related parts in stock will be decreased based on the assemblies BOM. If you press, "Increase", the onhand quantity of the assemblies will be increased. This method has the disadvantage of incorrectly lowering the average cost of the assembly. If you use this method, you must use standard costs to value your inventory.

Method 4

There is an assumption here that you do not stock the parts that the contractor supplies. If this is the case (otherwise you would just supply the parts), you can:

1. Add the parts the vendor supplies to inventory as inventory part numbers.
   Check these parts as FLOOR STOCK, this way they will not be issued
   Set the cost to $0.00 for each of these parts.

2. Create an outside labor part number
   Its cost should include vendor's labor and material cost.

3. Add the $0.00 floor stock parts and the outside labor partnumber to the BOM

From then on:

1. Create a work order for the assembly
2. Issue the work order and give your parts to the vendor
3. Create a PO for the vendor to cover his material and labor cost

4. When you receive back the finished assemblies from the vendor:
   Use the Receiving Module to receive back the PO
   Use the Stockroom Module to receive back the finished assemblies

This is not a good solution if you use those same floor stock items in other assemblies where you have to buy those same parts.

Method 5 Need to keep list of vendor parts and you supply some of the parts

1. Create a partial brake assy BOM for the vendors list of parts ($99.00 per unit) + an outside labor part number for labor cost ($1.00 per unit) for a total of $100.00 per unit.

2. Change the BOM to an inventory part in the inventory module to an outside labor part number

3. Create a BOM for the finished brake assembly, It consists of:
1 The partial brake outside labor part number ($100.00)
1 pad

Create a work order for the finished brake assembly
Use the stockroom to issue the work order. Give the pad to the vendor not your mfg floor.
Create a PO for the outside labor part number covering his costs for the parts and labor ($100.00 per unit)

When the vendor returns the finished rear brake assys
Use the stockroom to receive back the work order
Receive the PO for the outside labor part number ($100.00 per unit).

This is a simple example. Of course the pad could be in its own sub assy consisting of all the parts you supply the vendor.

15.9.3   Consignment Inventory

One method to handle consignment and your own inventory would be to assign the first 4 characters (3 letters and a hyphen) of a part number to identify the company who owns the part. You would then set the product code portion of the part number to 4 characters. The remaining characters in the part number would identify the part number.

For example:

> If the name of your company is Jurong Manufacturing
> If the name of one of your customers that provides you with consignment parts, is ABC
> You could use the configuration menu, Option 29, to define the product code size as 4 characters.
> You could use the configuration menu, to define the total length of your part number to 10 characters
> You and other customers use and inventory a 5-ohm 1/4 watt resistor.
> You could assign your part number for the 5-ohm resistor as JUR-000055 with a cost of 25 cents apiece
> You would then assign ABC's part number for the same 5-ohm resistor as ABC-000055 with a cost of 0 cents apiece

The above method has the following advantages:
- Inventory can be printed out for a specified customer (All inventory for a specified product code)
- Customer's inventory could be tracked throughout the system by placing POs for customer inventory ($0.00 unit cost). This can then be received by receiving and issued by manufacturing to help track of inventory movements.
- When you purchase inventory that you are footing the bill for, you would purchase the JUR- part, which has a real cost which will not foul up your inventory valuation, as the JUR- parts would contain real unit costs and the customer parts would contain $0.00 unit costs.
- If you did need to borrow parts to complete a job you would know the equivalent part numbers automatically.

15.9.4   Return Material Authorizations

15.9.4.1 pc/MRP's method 1 to handle RMA(s) - An assembly is returned, rebuilt and sent back to customer

1. **This step is optional.**
   a. Enter one or more RMA part numbers into pc/MRP's Inventory Module as an Assembly Type part number (e.g. 999999 & description RMA) with a unit cost of $0.00 or higher.
   b. Enter a $0.00 or higher PO for the RMA part number with the customer listed as the vendor (if you were to enter a PO for the real part number, pc/MRP's MRP Module would think the real part number is on order).
   c. When you receive the RMA part number back from the customer enter a receiver for that PO with the RMA part number (if you were to receive back the real part number, pc/MRP would perform a cost average on the real part number).   All remaining instructions use the "real" part number.
2. Enter a sales order for $0.00 or more to the customer for the "real" part or assembly number. Click on the Item Info Tab and put a capital "Y" in the Issued To MFG Text Box.   If you do not enter the 'Y', pc/MRP's MRP Module would think you have demand for that assembly and create buy action items for the components.
3. This step is optional.
   a. When the part arrives, enter a new Stockroom 'A' - Adjusting transaction for the real part number.   This will increase the quantity on hand for that part number.
   b. If the part is a serialized item, pc/MRP will prompt "Enter Serial Lot Numbers for this part number". Click on No as we do not want this serial number to be available to another sales order until it is repaired.
   c. Enter a new Stockroom 'L' type transaction and issue the part number that you received back, as an "Assembly", to the sales order.   This will decrease the quantity on hand for that part number and increase the quantity in WIP.
   d. If the part is a serialized item, Press the Skip button and do not select a serial number.
   Note: Including step 3 requires more work but would have the advantage of creating a serial lot number record of the part being received in the form of an adjusting transaction and another serial lot number record showing it being issued immediately to manufacturing for repair.   If you use step 3, set Option 55 to "Off" or "Invoiced item and sub-components".
4. If you need to issue parts to repair the returned assembly, use the Stockroom's 'L' type transactions to issue parts to the sales order.   **Note:** Time spent repairing the item can be entered into pc/MRP's Employee Time Sheet module.
5. After the repair is complete use the Stockroom's 'R' type transaction to return the completed assembly back from manufacturing.   This will reduce the quantity of parts in WIP and increase the quantity on hand of the repaired assembly.   If the part is a serialized item, enter the serial number. This will create a "Receive from Manufacturing" Serial Lot Number detail record and increase the on hand quantity for that serial number
6. Create an Invoice for the original sales order.   This will decrease the quantity on hand.   If the part is a serialized item, select the serial number you plan to ship. This will create a "Receive from Manufacturing" Serial Lot Number detail record and increase the on hand quantity for that serial number. Use pc/MRP's Invoice module to print out an invoice and shipper for $0.00 or higher.   This will close the original sales order and decrease the quantity on hand.   If the part is a serialized item,, this will decrease the quantity on hand for that serial number. The serial number(s) will print out on the invoice if **Option 55** is set to do so.
7. If the invoice is greater than $0.00,   Accounting would enter an 'O' type transaction to post the invoice. (Charging for fixing, e.g. labor & parts)

         DEBIT A/R $0.00 or amount of charge.
         DEBIT COGS or RMA cost of goods sold for the $ amount of the parts.

         CREDIT Business Income $0.00
         CREDIT Inventory for $ amount of parts

pc/MRP's Stockroom and Employee Time Sheet Module would provide time and material costs for each the RMA sales order . pc/MRP's Accounting Reports, Cost of Sales Report, would provide combined material and time costs for RMA sales orders.

You can set the stockroom's issue 'L' type transactions to automatically insert a 'Y' into the sales order's Issued To Manufacturing Field, by creating a file named LISSUPWO.FLG in the pc/MRP Directory.   We do not recommend creating this file as it prevents a safety check against people accidentally entering 'L' type transactions and no initial 'I' type transactions for standard sales and work orders.

The above method assumes the part being returned is an assembly. If the part being returned is a component part and you plan to repair and return it, use Notepad to create a file named **AllowPartIssRec.flg** in the pc/MRP directory.   This will allow the stockroom module to receive back a part

15.9.4.2 pc/MRP's method 2 to handle RMA(s) - An assembly is returned, rebuilt and sent back to customer

(Courtesy of John Lee, Focus Medical)

1. Create a purchase order using the following information:
    a.) Purchase Vendor is RMA001.
    b.) Use the address lookup function to set the "ship to" as the customer's Business.
      Use CP as the part number of the item.
      Modify the description to put the actual item information for example
        "IPL returned for repair" or
        "Hand Piece for Lamp replacement".
2. Receive the customer owned goods using a standard receiver.
    a.) Create a Sales Order to the customer.
      Place the CP item on the Sales order with the same description.
    b.) Create an In House Repair Record (a paper document that will be attached to the device) with the customer's information.
    c.) Evaluate the returned goods to provide an estimate of the costs and a recommendation for the customer as to the next steps.
    d.) Call the customer to ask for approval for the work to be performed.
    e.) Repeat the above steps if needed for secondary work.
    f.) Use the in house repair record to add work done and parts used to the sales order as separate line items. Note that all parts used must be added to the sales order even if we are not charging for the work or the parts (warranty situation).
    g.) Call the customer and determine the payment method, shipping method and shipping charges.
3. Invoice the sales order and ship the goods back to the customer.
The RMA process is now complete for this item.

15.9.4.3 pc/MRP's method 2 to handle RMA(s) - Repair an assembly that you do not build

1. Create a Sales Order with line item 1 as a "NA" partnumber and a description of the item being repaired. Add to the comments area any parts you already know you will need.
2. Print out and give the Sales Order to the person making the repairs.
3. Add line items of parts you use to repair the unit listed in line 1.
4. When you are finished repairing the unit and have entered the last Sales Order line item, invoice the Sales Order.

Note: No need to 'Issue' to WIP. Watch out for the fact that parts in inventory are not reduced until you Invoice the Sales Order. To alleviate this situation, you could, at the time of entering a Sales Order line item, create a Stockroom 'B' transaction moving the qty to a RMA stores area (you have 10 extra stores areas of which one could be re-named to 'RMA'.) Then when you Invoice the Sales Order to ship the repaired item, you would invoice from the RMA stores area instead of the normal 'Stores' area.

15.9.4.4 pc/MRP's method 3 to handle RMA(s) - Companies using no serialization.

Note: If using average costs, make sure that in the Configuration Menu, in Option 61, the Receiving Assemblies checkbox is unchecked. If you still wish to leave these boxes checked call Software Arts, Inc. before performing this process or see Section 15.9.6.5 below.

Enter a PO (customer is vendor in this case) for the real part number. The cost can be $0.00 unit cost.
When the part arrives receive it. (increments the on hand qty)
Enter a sales order for $0.00 or more for the "real" part number. Put a Y in the sales order Issued to MFG Field.
Use Stockroom's L transactions to issue the returned part and other parts to the sales order (dcr onhand,incr wip).
Once it is repaired, use Stockroom's R Transaction to receive back the part back (incrs on hand qty, dcrs wipqty)
Invoice the sales order for $0.00 or more (decrements on hand qty).

15.9.4.5 pc/MRP's method to handle re-work

This method is for handling re-work on an assembly that for example did not pass inspection. **Note:** If using average costs, make sure that in the Configuration Menu, Option 61, the Receiving Assemblies from Manufacturing checkbox is unchecked. If you still wish to leave these boxes checked call Software Arts, Inc. before performing this process or see Section 15.9.6.5 below.

1. If there is a sales order for this assembly, check the Hold check box on that sales order.
2. Create a work order for this assembly. Before saving it, on the Item Info tab change "Issued to MFG" to a Y.
3. Enter an L-type (not I-type!) stockroom transaction to issue this top assembly to the new WO. When asked, select to issue the complete assembly.
4. Issue additional parts using L-type transactions, as needed.
5. Enter R-type stock transaction to receive back WO from MFG.
6. Uncheck the Hold check box on the sales order.

15.9.4.6 If performing the processes described in #4 or #5

If using average costs, make sure that in the Configuration Menu, in Option 61, the Receiving Assemblies checkbox is unchecked. If you still wish to leave these boxes checked call Software Arts, Inc. before performing this process. In this process the top assembly itself is being issued to the work order. The top assembly cost already includes any outside labor cost, and receiving it back from MFG via an "R" stock transaction doubles up on the outside labor cost, making the average cost erroneously higher. To prevent this, BEFORE receiving back from MFG, edit the stockroom transaction that issued the top-assembly to the WO. Decrease the assembly cost by the outside labor cost the BOM includes. Explain in a comment.

15.9.5   Issuing Tools to Manufacturing

One method to handle tools would be to use the stockroom to do an "L" type issue to issue the tool(s) to a sales or work order. However, you must remember to do a "U", return unused parts to inventory, before your do the "R" to receive the completed assembly or your tools will be consumed in the build.

15.9.6   Advanced Replacement for Customer Return

An advanced replacement is when a customer requests a part prior to sending in the same part for repair or replacement.

1. Create generic or specific RMA partnumber(s) for $0.00 cost (must be an assy if real part is an assy).
2. Create a PO for the RMA partnumber, not the actual partnumber, at $0.00 to the Customer returning the part.
3. Create a SO for the actual partnumber to the customer at current price or $0, on account and carry so that an invoice is created. Enter the serial number if needed. Do not post invoice if there is a dollar amount on it!
4. Receive the PO for the RMA partnumber from customer into a stores area noting serial number if needed.
5. If the invoice has a dollar amount, enter a credit memo against the received items and post the invoice and credit memo.
6. Create a WO for the RMA partnumber.
7. Use a Stockroom 'L' type transaction for the parts needed to repair the RMA partnumber, or an 'L' type transaction if a Repair Kit is used.
8. Create a Stockroom 'R' type transaction to receive back the RMA partnumber. PCMRPW directory must contain a file named LIssUpWo.flg (can be created with Notepad but avoid giving a .txt extension). This will put a Y in the isstomfg field in the WO allowing it to be received back.
9. If the part is repaired, do a Stockroom 'A' type transaction to increase the onhand quantity of the 'real' partnumber sent to the customer in step 3. If the RMA partnumber is scrapped and you have a scrap stores area, the 'A' type description for the real partnumber should increase the Scrap area quantity. If no scrap area, do not do an 'A' type transaction.

15.9.7   Advanced Shipment of Sub-assemblies

An advanced shipment of sub-assemblies is when a customer requests the sub-assemblies shipped prior to shipping the top-level assembly listed on the sales order.

First create a stores area called "**PRESHP**".
1) Create the Sales Order (Order Entry sale type) for the Top Level Assembly with a date required.
2) Create a Work Order for the Sub-assembly
    a. For a quantity required by the Top Level Assembly
    b. A date required prior to the date required of Top Level Assembly
    c. Check the box for consumable.
3) Generate the MRP Infinite Bucket to get the dates needed for issuing and building both the Sales Order & Work Order. Do not include the **PRESHP** area.
4) Issue the Work Order from **STORES** and receive back into **PRESHP**.
5) When you are shipping the Sub-assembly:
    a. Create a Sales Order (**On Account & Carry** sale type) for a part number of "NA"
    b. A description of the Sub-assembly
    c. Quantity you are shipping (this will not reduce the quantity of the Sub-assembly in **PRESHP** as you have a "NA" part number)
    d. Use a zero **Sale Price** on the line item and a zero **Purchase Cost** on the Accounting tab
    e. Include comments noting this is a pre-shipment of Sub-assemblies for the final Top Level Assembly Sales Order "XXXXXX"
6) Prior to issuing the Top Level Assembly to manufacturing:
    a. Create a stockroom "**B**" type transaction, moving the Sub-assembly (quantity from **PRESHP** to **STORES**
    b. Create a Stockroom "**I**" type transaction, remember to select the choice for "**Assembly (If available), then Component Parts**" (this is default). This will issue the Sub-assemblies previously built and reduce the Sub-assembly quantity in **STORES**.
7) Receive back the completed Top Level Assembly and invoice the customer, reducing the quantity of the Top Level Assembly in **STORES**.

15.10 Transferring Data from Peachtree or QuickBooks into pcMRP

15.10.1 Exporting data from Peachtree into pc/MRP

- From the file menu, select Import/Export.
- For the Customer List select: Accounts Payable and Customer List.
- For the Vendor List select: Accounts Receivable and Vendor List.
- Click on the export button
- Click on the layout Tab and select the fields you wish to export. For best results keep a written record of the order and the contents of each field you wish to export. Example:
    - Field 1 Customer ID
    - Field 2 Customer Name
- Select options and make sure the "Include Headings" box is <u>NOT</u> checked. Write down the name and location of the file to be exported.
    - C:\customer.csv
    - C:\vendor.csv
    - C:\inventory.csv
- Click on the OK button to create the file
- Within pc/MRP go to the Data Import Program, Option 40 in the pc/MRP configuration mode. Importing data into pc/MRP is covered within in Section 15.11.1 of this Manual.

15.10.2 Exporting parts and addresses from QuickBooks into pc/MRP

See Sections 16.16.2.8 and 16.16.2.10

15.11 Importing Data Files

15.11.1   Overview

In essence, what we need to do is change your existing data into a readable format for pc/MRP. To do this we will use Excel and perhaps Access to manipulate your data. Your existing data will have to be exportable into Excel or other spreadsheet readable formats. If you feel more comfortable with Lotus or a different spreadsheet program than Excel you are welcome to use that instead. The instructions are however written specifically for manipulating Excel files, saving them as a CSV file, and importing them into pc/MRP. To begin this process we will first address how your data is stored in pc/MRP. The lesson will continue with how to manipulate your existing data so pc/MRP will recognize it as an acceptable format. We will then address how to import this data into pc/MRP.

Please note that Software Arts feels that you have the best chance of a successful import if you always save the Excel file as a CSV file, preferably with column headings.

This chapter is specifically written for importing data in this order:

1. Settings & Utilities, Option 39 overview

2. Settings & Utilities, Option 40 overview

3. ADDRBOOK for customer and vendor information
        http://pcmrp.com/mrp101/importcsvaddroverview.htm

4. PARTMAST for inventory parts and costs, etc.
        http://pcmrp.com/mrp101/importcsvpartoption39.htm

5. PARTVEND to relate an inventory part with one or more vendor's price and quantity breaks
        http://pcmrp.com/mrp101/importpartvendvendorstab.htm

6. BOM for defining an assembly and sub-assembly structure using the previously entered inventory parts
    http://pcmrp.com/mrp101/importcsvbomoverview.htm

7. SALES to add current open and closed sales orders
        http://pcmrp.com/mrp101/importcsvsaleoverview.htm

Most of the steps and recommendations however are applicable for every module. If you follow the steps, study the data structure, manipulate your legacy file as needed, and import using **Option 40,** you should be successful every time.

Settings & Utilities, Option 39 overview

Option 39 in Settings & Utilities will allow you to print out file structures for any of pc/MRP's data tables. Use these names and field lengths when creating the import data file. (See the address book example below.)

Please note that the 'TYPE' column should be the same in Excel as listed in the Option listing. Also, the Excel column width should be the same as listed in the Option 39 listing.

Types consist of:

- Character
- Numeric
- Logical
- Date
- Memo (only for saving as dBase III files)

Settings & Utilities, Option 40 overview

MODIFICATION HISTORY:
- pc/MRP versions 7.93B and higher:
  - Character fields are automatically left-justified.
  - Automatically removes blank records in resultant pc/MRP DFB table.
  - Automatically prompts to remove duplicate records (original or new).
  - Prompts for BOM number and BOM Description if missing.
  - When importing new BOMs, new parts and BOMs are added to pc/MRP's Inventory file (partmast.dbf) if the new parts and BOMs do not exist in the partmast.dbf file. PARTDESC is used for the partnumber description when adding a new part while importing the BOM.
  - Adds BOM number and BOM description to partmast.dbf file when importing a BOM.
- pc/MRP version 8.02E and higher added the following new feature:
  - Adding a file named NoPartsFromBOM.flg will prevent pc/MRP from adding parts not in the partmaster from a BOM being imported into pc/MRP.
- pc/MRP version 8.32 and higher:
  - Adding the option to import 2003 XML files from Excel.
- pc/MRP version 8.43F and higher:
  - Adding the option to import Sales Orders from a ShopSite shopping cart.
  - Added the option for each user to save their importer settings.
  - Importing Sales, Purchases, Invoices or Receivers will insert address information from the AddressBook.
  - Import as a CSV (comma separated values) file.
  - Save the Option 40 import mapping as a template.

15.11.2   Address Book

Step 1 Use Settings & Utilities, Option 39 to print out the address book file structure (15.11.2).

Selecting Configuration, Settings and Utilities, Option 39, and BOM.DBF will allow you to display or print the ADDRBOOK.DBF File Structure as shown below.

```
Dictonary Table Structure for ADDRBOOK.DBF
Used by Module: Address Book

=========================================================================
===========
Field   Field Name   Type         Width    Dec   Purpose
-------------------------------------------------------------------------
-----------
   1    ID           Character        9      0    Account Number
   2    NAME         Character       41      0    Company Name
   3    PNAME        Character       41      0    Contact Name
   4    ADDRESS      Character       41      0    Street Address
   5    CITY         Character       30      0    City
```

In Excel, you can right-click on a column to set the data character width and whether the data is numeric, text, logical (TRUE or FALSE), or a date. Using the same column names as our item names allows you to sync the fields without manual mapping when importing via Settings & Utilities, **Option 40**. (See example above)

Step 2 Format the Address Excel worksheet and save as a CSV File with or without column headers

This is an example where the first row contains field names:

1. If you are importing data from an xls spread sheet, click on File, Open and select your xls file.

2. Optionally you can insert a header row containing the pc/MRP Field Names. This would allow you to automatically map the xls columns to pc/RP Field Names at a later step. pc/MRP Field Names can be displayed/Printed from Configuration, Settings and Utilities, Option 39 Else the first row can just contain data.

3. Right click at the top of each column, select Format Cells and set the correct catagory (text or numeric). Right click again and set the column's width to the size listed in option 39 for that field.

A	B	C	D	E	F	G	H	I
1	id	name	pname	address	city	state	zip	phone	type
2	ABC001	ARROW	JOE CARTRIGHT	123 ARROW ST	ARROW CITY	AZ	12300	123-123-1234	CUS
3	MOU001	MOUSER	DON JOHNSON	456 ARROW ST	MOUSEVILLE	MO	45600	465-456-4560	VEN
4	DIG001	DIGI-KEY	BILL WILLLIAMS	789 DIGI AVE	DIGITOWN	CA	78900	789-789-7890	VEN
5	ALL001	ALLIED	DOUG SMITH	444 ALLIED WAY	ALLIED CITY	AL	44400	444-444-4440	VEN

ID should be in a text column 9 characters wide. pc/MRP will add it if missing

Name (Company Name) should be in a text column 41 characters wide.

Pname should be in a text column 41 characters wide.

Address should be in a text column 41 characters wide. There is also an Address2 41 character field not shown in this example

City shoud be in a text column 30 characters wide.

State shoud be in a text column 20 characters wide.

Zip shoud be in a text column 10 characters wide.

Phone shoud be in a text column 25 characters wide.

Type shoud be in a text column 3 characters wide.

Please ensure that the data type and width are followed to ensure a successful import. Now save this file as a "CSV", comma separated file, file such as ADDRBOOK.CSV.

When you save an Excel file as a .CSV file, Excel gives you several warnings. It is OK to just select "YES" each time.

Step 3 Use to Option 40 and importing the address book information.

It is a good idea to set an Administrative Lockout before importing data into pc/MRP.

Locate the **ADDRBOOK.CSV** file you just saved:
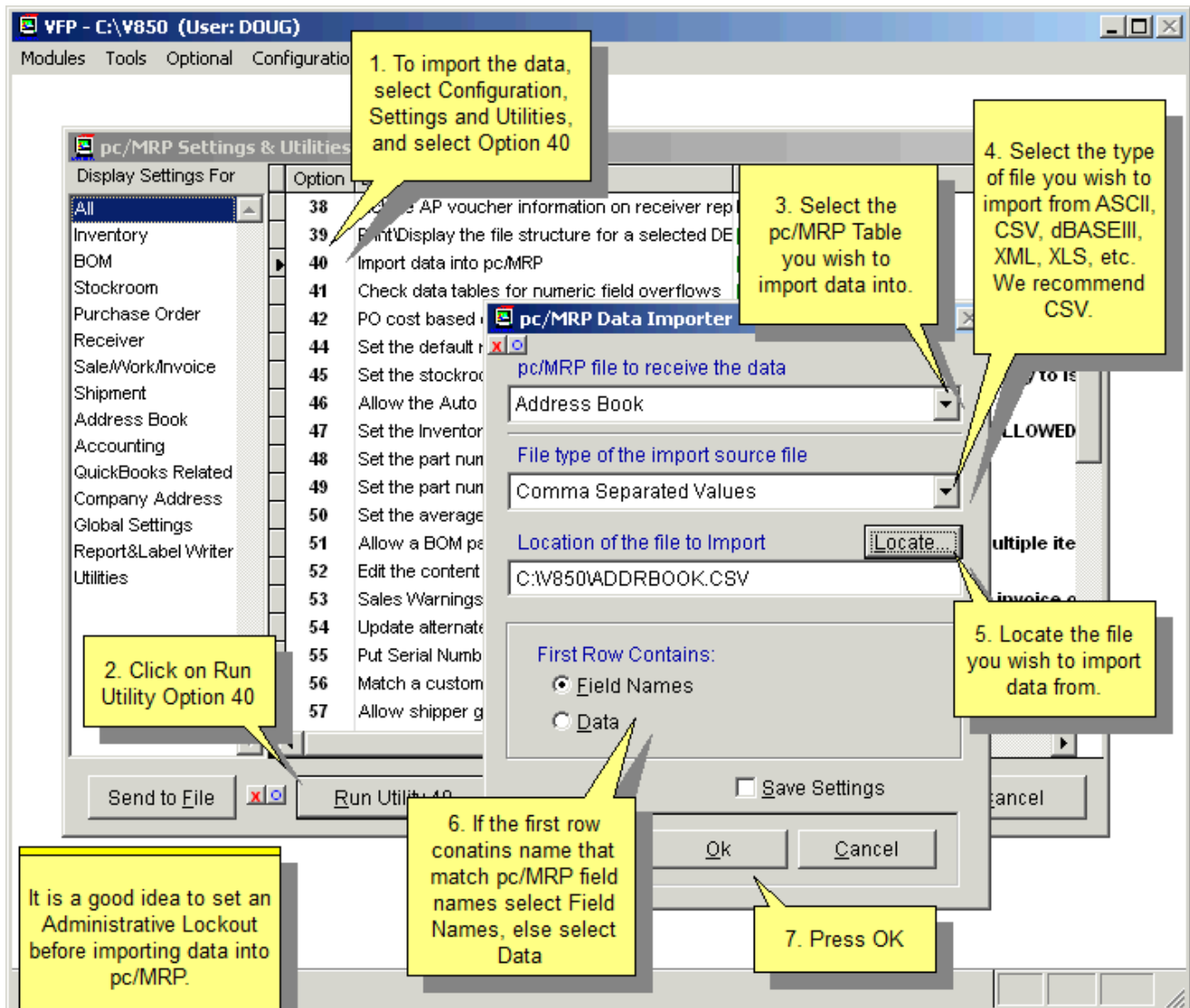
Make sure that you have selected Field Names for "First Row Contains". Now press the OK button.

Step 4 Import the data into pc/MRP's Address Book.

Remember that you can press **Autosync** if the field names in the CSV file are the same as the field names that pc/MRP uses. If not, you must manually map the field names by selecting the names in both columns and pressing the **Select** button. **PLEASE Note: The Import Method "Remove current records and insert new records" does just that. It will delete all the records in the current database and then only add the new records!** Press the OK button and the data will be imported. If any duplicates are found, you will be asked to either keep the new records or the ones already in the database.

15.11.3   Inventory (Partmast)

Step 1 Use Settings & Utilities, Option 39 to print out the inventory file structure.
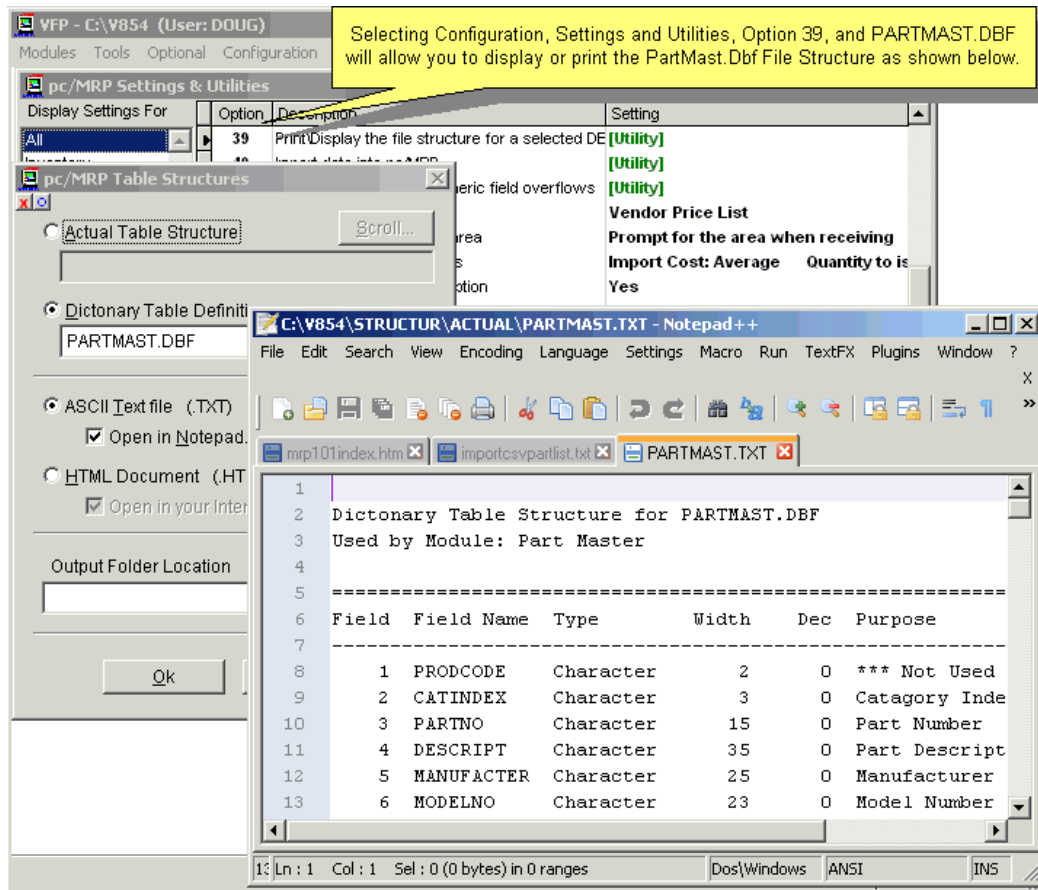
The Inventory Module is simple to understand. Everything that deals with inventory data is stored here. The BOM module stores the 'recipe' while the Inventory module stores the 'ingredients'. For complete details about the Inventory Module, see the chapter on the Inventory Module. When importing data into the inventory module, there is really only one required key field, the part number. However, a person should try to import as many fields as possible to save time. Listed below are a few of the key fields in Inventory and their use.

PARTNO: This is your part number field. KEY FIELD (Limited and truncated to 15 characters)
DESCRIPT: This field is your inventory part description (Limited and truncated to 35 characters).
MANUFACTER: The part manufacturer name (Limited and truncated to 25 characters).
MODELNO: The part manufacturer number (Limited and truncated to 23 characters).
PART_ASSY: This one character field defines this part as a Part or Assembly as described below. KEY FIELD
OUTSOURCE: This logical field is used in conjunction with the PART_ASSY field as described below.

    Part – Inventory: (part_assy = P, outsource = .F. or False in Excel)
    Part – Non Inventory: (part_assy = P, outsource = .T. or True in Excel)
    Assembly: (part_assy = A, outsource = .F. or False in Excel)
    Labor Inside: (part_assy = L, outsource = .F. or False in Excel)
    Labor Outside: (part_assy = L, outsource = .T. or True in Excel)

ALTPARTNO: Titled as General info on the inventory screen. This is a Memo field and is unlimited in length.

The rest of the fields can be imported if the data exists but they are not essential fields.

Note: If there is no "Shippable" field in the import file, the default value is .T. (**8.73 and above**).

Step 2 Format the Inventory Excel sheet and save as a CSV file with or without column headers

This is an example where the first row contains data (not a header row).

When you save an Excel file as a .CSV file, Excel gives you several warnings. It is OK to just select "YES" each time.

Step 3 Use Option 40 to import part number information.

It is a good idea to set an Administrative Lockout before importing data into pc/MRP.

In this screen, you would need to select the **Data** as the option for **First Row Contains**.

Press OK to continue to the next screen for Option 40 import.

Remember that file structure may change with newer versions of pc/MRP and you should always print out the layout for your version. As an example, the additional fields for CCO and ECCN are only available in pc/MRP **versions 8.73** and higher.

Step 4 This screen shows importing with the first row containing data

This screen shows the names of the columns as 'FIELD_1', etc. as the spreadsheet did not contain column headings; you can save the match-up for use another time if the Excel sheet has the data columns in the same order.

PLEASE Note: The Import Method "Remove current records and insert new records" does just that. It will delete all the records in the current database and then only add the new records!

This screen is Step 4 if you are importing with field names in the first row

The screen below shows that the CSV file has column headings and in this case you can select the **Autosync** button and then manually match the names that are different spellings for the same data.
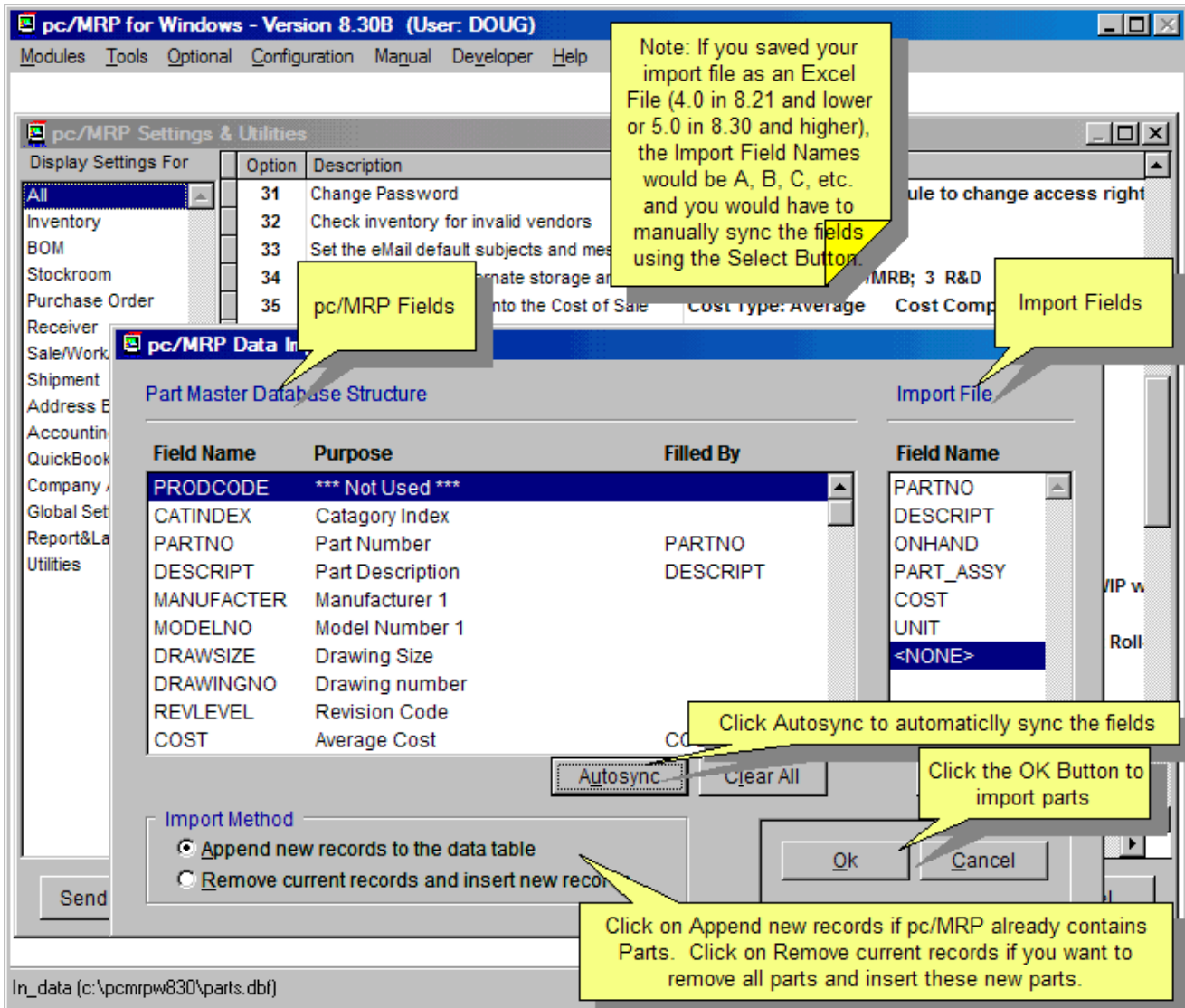
PLEASE Note: The Import Method "Remove current records and insert new records" does just that. It will delete all the records in the current database and then only add the new records!

Press the OK button and the data will be imported. If any duplicates are found, you will be asked to either keep the new records or the ones already in the database.

Note: See Section 15.11.8 if you also import the **General info (Altpartno) field**.

15.11.4   PartVend

Step 1 Use Settings & Utilities, Option 39 to print out the partvend file structure.

The **PartVend** table allows for an unlimited number of vendor and price quantity breaks. These versions will use the vendor name or phone number to insert into the vendor fields of the partvend table. The PARTVEND table contains KeyId, PartNo, VendId, StdCost1-15, QtyL2-15. The KeyId field need not be included in the import as it is automatically filled in by the importer.

Please note the field names as they are useful when selecting the Autosync option when importing with **Option 40**.

Step 2 Format the PartVend Excel sheet and save as a CSV file with or without column headers

This screen shot does not show a header row for column data names.

You always have an option to use or not use column headings. If not, you will not be able to autosync the data and must manually map the excel columns to the pc/MRP data field names. Use **Option 39** to get field names for the PARTVEND table and **Option 40** to import.

When you save an Excel file as a CSV file, Excel gives you several warnings. It is OK to just select "YES" each time.

Step 3 Use Option 40 to import the data.

It is a good idea to set an Administrative Lockout before importing data into pc/MRP.

Since the first row of the Excel spreadsheet does not contain column headers, you will select **Data**, for "**First Row Contains**".

Step 4 This screen shows importing with the first row containing data

VFP - C:\V854 (User: DOUG)

Modules   Tools   Optional   Configuration   Manual   Developer   Help

pc/MRP Data Importer

Part Vendors   Database Structure   Import File

Field Name	Purpose	Filled By		Field Name
PARTNO	Part Number	FIELD_1		FIELD_1
PREFER	Preference			FIELD_2
VENDID	Vendor Address ID			FIELD_3
VENDNAME	Vendor Name	FIELD_2		<NONE>
VENDPHONE	Vendor Phone			
VENDCURNCY	Vendor Curren			
QTYL2	Level 2 Qty			
QTYL3	Level 3 Qty			
QTYL4	Level 4 Qty			
QTYL5	Level 5 Qty			
QTYL6	Level 6 Qty			
QTYL7	Level 7 Qty			
QTYL8	Level 8 Qty			
QTYL9	Level 9 Qty			
QTYL10	Level 10 Qty			
QTYL11	Level 11 Qty			
QTYL12	Level 12 Qty			
QTYL13	Level 13 Qty			
QTYL14	Level 14 Qty			
QTYL15	Level 15 Qty			
STDCOST1	Level 1 Cost	FIELD_3		

Display: All, Invento, BOM, Stockro, Purcha, Receive, SaleW, Shipme, Addres, Accoun, QuickB, Compar, Global, Report&, Utilities

1. Click on an import file column.

2. Double click on the equivalent pc/MRP Field. Repeat for every column to map the data to be imported.

If the first row has column names that match pc/MRP's field names, Autosync will automatically map the columns to the pc/MRP fields

Save Import Map   Restore Import Map

Autosync   Clear All

WARNING! "Remove current records and insert new records" does just that. It will delete all the records in the current database and then only add the new records!

Import Method
○ Append new records to the data table
● Remove current records and insert new records

Ok

3. If you are adding to a table select Append. If you wish to replace the data in a table select Remove. Then click OK.

In_data (c:\docume~1\d

PLEASE Note: The Import Method "Remove current records and insert new records" does just that. It will delete all the records in the current database and then only add the new records!

Press the OK button and the data will be imported. If any duplicates are found, you will be asked to either keep the new records or the ones already in the database.

15.11.5 BOMs

Step 1 Use Settings & Utilities, Option 39 to print out the BOM file structure.

pc/MRP uses a very simple system to organize the Bill of Materials. Take a moment to view the picture below. The picture below depicts a simple bike assembly and the fields necessary to import a BOM into pc/MRP. (The reference designator field, Refdesmemo, is optional but will receive some special attention later.)

Please note the field names as they are useful when selecting the Autosync option when importing with **Option 40**.

This picture shows an Excel spreadsheet with the first row containing column headings.

Note that in a multi-level BOM, the BOM number (**BOMNO**) and description (**BOMDESCRI**) must be repeated for each item in that BOM. If a single level BOM, you do not need to include the BOM number or Description.

When you save an Excel file as a CSV file, Excel gives you several warnings. It is OK to just select "YES" each time.

This picture shows a BOM exploded report of the BOM structure within pc/MRP.

Another way of showing how pc/MRP organizes entries in the BOM module is to see a report. Take a moment to view the example report below. The report below is the exact same information as pictured above simply presented in a different format.

```
BOM NUMBER         :000000011        REV:              BOM STATUS: Released
BOM DESCRIPTION    :REAR WHEEL AXLE ASSY                   MODEL NO:
DATE               :04/05/2011 02:18:03 PM
QTY                :1.0000
UNCOSTED EXPLODED LEVEL BOM REPORT

P/B ITEM BOM/PART NUMBER                          DESCRIPTION
PART 0002 000000003                               REAR AXLE
BOM  0001 000000010                               WHEEL ASSY
.PART 0001 000000001                              BEARING, 3" OD x 1" ID
.PART 0002 000000002                              SPOKE
.LABR 0003 000000013                              LABOR INSIDE
.LABR 0004 000000014                              LABOR OUTSIDE
```

Now in the process of comparing the two reports, notice that BOMNO 000000011 contains one sub-assembly and one part. Within BOMNO 000000011, BOM 0000000010 exists. This BOM contains 2 parts and two labor items. We distinguish between parts and assemblies by using the Part_Assy field band using an **A** for assembly, **L** for labor, and **P** for parts. As you can see, a BOM can call an assembly. This BOMNO calling an assembly (and later the assembly calling additional assemblies) allows pc/MRP to have infinite levels for an indented Bills of Materials.

Stated in a different way, the Bicycle's TOP ASSEMBLY calls for several parts, one being an assembly. The assembly it calls for is 000000010. We know 000000010 is an assembly because it has an A in the Part_Assy field. Further down on the BOMNO column 0000000010 is called. This BOMNO calls for a few more parts, 000000001 and 000000002 (we know that these are parts because they have a P in the Part_assy field) and labor items 000000013 and 000000014.

If your intention is to import BOM data with multiple levels, you will need to format your bills of materials and subassemblies in the format exactly as described above. If you plan to import your BOM data into pc/MRP with only one level, pc/MRP can use the same BOMNO for each PARTNO.

The BOM module uses three different files: partmast.dbf (Inventory), BOM.DBF, and BOM.DBT. In inventory this part can be only listed once. In the BOM module this part can be listed as many times as needed. All inventory data is stored in the partmast.dbf. All BOM data or recipe data is stored in the BOM.DBF and BOM.DBT. A BOM number is also stored in the inventory database.

Below is a list of the required field names and use for each record of a BOM in the BOM DBF. Key fields are fields that must exist and have contents for a successful import.

> KEYID – **Do not include** this field as pc/MRP will automatically fill this field
> **BOMNO** - BOM Number KEY FIELD (15 char max). If left blank, pc/MRP will ask for a value. If a multi-level BOM import, this field is required to have data.
> BOMDESCRI - BOM description KEY FIELD (35 char max). If left blank, pc/MRP will ask for a value. If a multi-level BOM import, this field is required to have data.
> PARTNO - Part Number KEY FIELD (15 char max)

ITEMNO - pc/MRP organizes everything in lists. This numerically orders each item in a given level of a
BOMNO key field. (numeric integer field)

QTY - The quantity of the item needed in that specific level to finish that specific level. **KEY FIELD**
(numeric, 8.4, 12 total)

PART_ASSY - This field labels this line item as a Part or Assembly. KEY FIELD (1 char)

REFDESMEMO - This field uses the BOM.DBT file and stores the reference designators or locators. This
field in Excel is a char field; max length is what your version of Excel supports per cell.
If your reference designators exceed 254 characters and you are using version **8.72D or lower**, you
will need to update to 8.72E or higher, or follow the instructions in the section for importing BOMs
with large reference designator fields.

PARTDESC - field contains the name for the part and is used when added to the partmaster if it does not
already exist in the partmaster table. (35 char max)

Step 2, Format the BOM spreadsheet and save as a CSV file with or without column headers

After performing your edits, your spreadsheet should look similar to the picture below.

Note: The Excel file should <u>NOT</u> have any hidden or frozen panes.

Now save as a .CSV (comma separated values) file for import.

When you save an Excel file as a CSV file, Excel gives you several warnings. It is OK to just select "YES" each
time.

Step 3, Finishing up with Option 40:

It is a good idea to set an Administrative Lockout before importing data into pc/MRP.
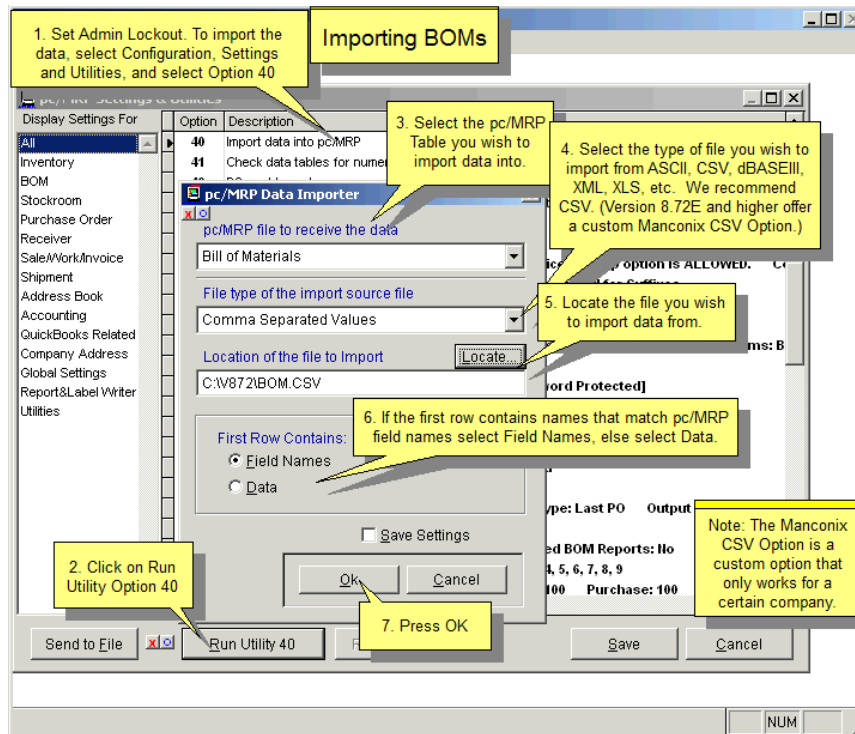
Step 4 Import the data into the BOM database

The first row contains header information so select "Field Names" for the "First Row Contains" selection.

PLEASE Note: The Import Method "Remove current records and insert new records" does just that. It will delete all the records in the current database and then only add the new records!

Importing BOMs

pc/MRP Data Importer

Bill of Materials   Database Structure

Field Name	Purpose
PARTDESC	Used for Importing Only
MANUFACTER	Manufacturer 1
MODELNO	Model Number 1
REVLEVEL	Revision Code
POUNIT	Purchase Order Unit
PORATIO	Purchase Order Ratio
UNIT	Stocking/Sales Unit
MINQTY	Minimum Stocking Quantity
MAXQTY	Maximum Stocking Quantity
LTIME	Lead Time (in weeks)
SALEPRICE	Sale Level 1, Price Level 1
LOCATE	Location in Primary Stores
STDCOST	Standard Cost
VENDID	Vendor Address ID
VENDNAME	Vendor Name
RECEIVE	Receive inspection required
MFG	MFG Return inspectn required
INVOICE	Invoice inspection required
SHIP	Shipping inspection required
XFERAREA	Xfer area inspectn Required

With pc/MRP Versions 8.72E and higher the following part information can be imported into the partmast database file. provided the part does not already exist in the partmast file.

Import File

Field Name

PARTNO
ITEMNO
QTY
PART_ASSY
REFDES
REFDES2
REFDES3
REFDES4
ALTPART1
ALTPART2
ALTPART3
ALTPART4
ALTPART5
ALTPART6
REFDESMEMO
KEYID
STAGEBIN
PARTDESC
<NONE>

Autosync   Clear All   << Select

Ok   Cancel

pc/MRP Versions 8.72AD and higher includes a progress bar and will import more than 255 characters into the REFDESMEMO Field. Version 8.73K and higher displays the est time for importing the first 254 characters or all of the characters of the Ref Designators and allows you to select one or the other .

Exclusive   NUM

Note: See Section 8 "Importing large fields into pc/MRP" later in this chapter if you also import **Reference Designators**.

If One or More BOMs Already Exist in pc/MRP (Version 8.72E and higher)

Note: Manconix CSV Option only

The Manconix Option expects a custom Manconix XLS file saved as CSV file. This option will automatically select Bills of Materials and use a custom template. It expects to find the Top BOM No at row column 1,7 and the Top BOM Description at 2,7. It then deletes first 5 rows. It will continue to delete rows until it finds a row where the first character of the first column is a digit as this represents the level number within the BOM.

The code found in Importer2.scx AutoSyn_Manconix automatically creates the manconix mapping template.

Column Field Contents
1. BOM Level
2. Item No
3. PartNo
4. RevLevel
5.
6. Part Description
7. Manufacter
8. ModelNo
9. VendName
10. VendID
11. PoUnit
12. Qty
13. RefDesMemo
14 Part_Assy
15. StdCost
16.
17.
18. LTime
19. MinQty

15.11.6   Sales Orders

Step 1 Use Option 39 to print out the sales.dbf file structure.

Please note the field names as they are useful when selecting the Autosync option when importing with **Option 40**.

Step 2 Format the Sales Excel file data and save as a CSV file with or without column headers

Please note that the structure of the CustCorp, BillTo, & ShipTo fields are concatenated fields described in Section 15.4.10.1 for pc/MRP versions 8.03 and lower; and Section 15.4.10 2 for pc/MRP versions 8.04 and higher.

When you save an Excel file as a CSV file, Excel gives you several warnings. It is OK to just select "YES" each time.

Step 3 Using Option 40 to Import Sales Order Data from the CSV file

It is a good idea to set an Administrative Lockout before importing data into pc/MRP.

Remember to select the **FIELD NAMES** for the "First Row Contains" selection.

Step 4 Finishing up the Import with Option 40

PLEASE Note: The Import Method "Remove current records and insert new records" does just that. It will delete all the records in the current database and then only add the new records!

15.11.7 Saving as a DB-III file from Excel 2003 and earlier.

1. Enter the data to be imported into an Excel spreadsheet.
2. In Excel, you must have the first row containing the column headings.
3. Select File, Save As, and select the DB-III or DB-IV file format.
4. In Option 40, select the "pc/MRP Data file to receive the data" from the dropdown list
5. Select the DB-III import file for "File Type of the Import Source File"
6. "Locate" the dBase file to import
7. Select **Field Names** for the "First Row Contains" selection
8. Press OK and continue to the second screen
9. Press "Autosync" to match the column headings with the pc/MRP field names. If the names are spelled different or named differently, you will have to manually map the data by clicking both sides that are to match and pressing "Select"
10. Select "**Append…**" or "**Remove…**"
11. Press OK to import the data

PLEASE Note: The Import Method "Remove current records and insert new records" does just that. It will delete all the records in the current database and then only add the new records!

15.11.8 Importing large fields into pc/MRP.

Follow the steps below if you are importing large fields like **Reference Designators** into the BOM module or the **General Info** field into the Inventory module.

Note: pc/MRP Versions **8.72E and higher** can import more than 254 characters into the REFDESMEMO field. **8.72AD and higher** includes a progress bar. If you are importing a very large number of BOMs at the same time <u>and</u> some of your reference designators are longer than 254 characters, the import can take a long time. **8.73K and higher** displays the estimated time to import your file. The following example resulted from attempting to import over 60,000 records. You might want to import your BOMs in batches, rather than all at once.
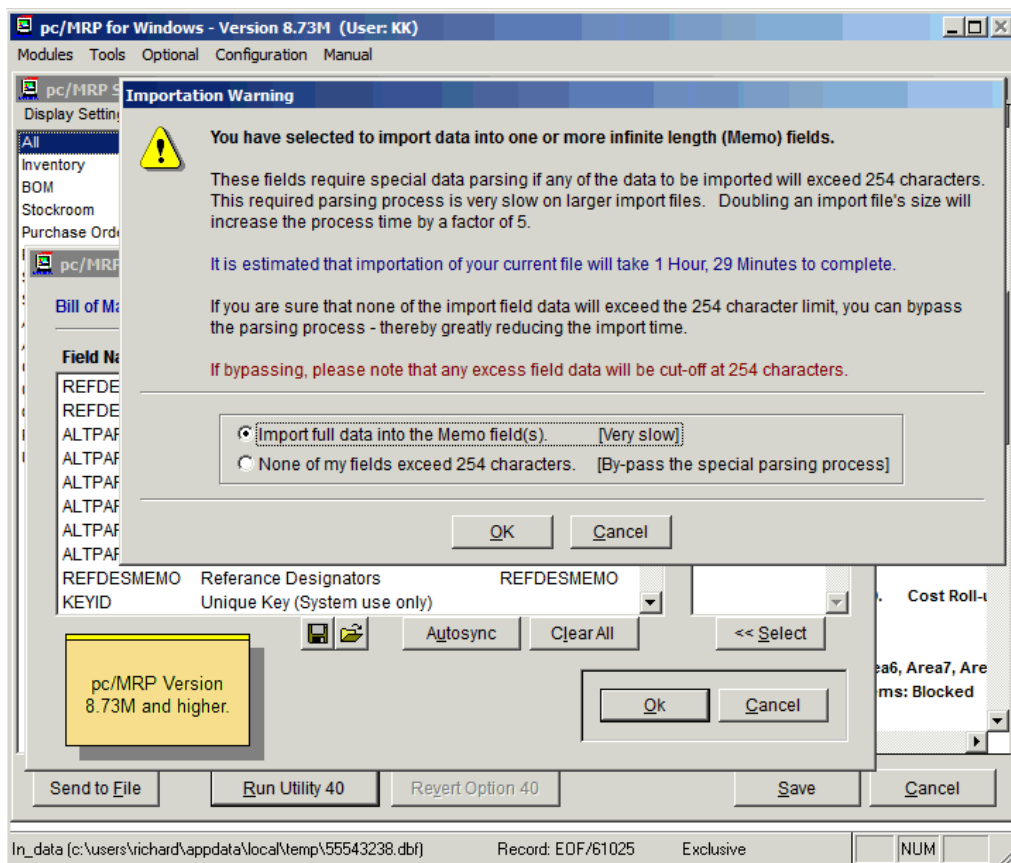
15.11.9   Possible Problems with Importing Excel Files

- Your Excel file contains hidden columns.
  - To display the hidden columns, press Ctrl-A. Select File, click on New, select Edit, select Special Paste, and select Values. All of the hidden columns will now be displayed. The new columns can now be edited or deleted.
- Your Excel columns may be right justified.
  - All Excel text columns should be left justified. To left justify all Excel columns, press Ctrl-A. Select Left Justify, in the Excel Toolbar located above the spreadsheet. .
- Your dates are not right.
  - Make sure that the Excel file contains dates in a MM/DD/YYYY format. You might need to create a custom format in Excel for that.
- Your text fields are truncated.
  - Any char field that exceeds the length of the field in pc/MRP will be truncated to the length required in pc/MRP.
- You get an error that the imported file needs exclusive assess to the file.
  - The file is still open in Excel or another program.
  - You have not selected the correct file type to import.

You are done. You should understand by now that this is complicated. Importing however is easy to do if you follow the rules. The most important rule is to have back-ups. If you have questions or would rather have Software Arts import your data, call. Reading this is free. Having us walk you through this or do this ourselves requires the use of support time.

15.12 Tracking Serial Numbers

15.12.1 Overview

pc/MRP comes standard with the ability to track one serial or lot number per line item. The optional Serial/Lot Number Tracking Module allows users to track an infinite number of serial numbers per line item.

For companies with the need for an advanced serial/lot number tracking method, Software Arts, Inc suggests to use the Optional Serial/Lot Number Module, covered in detail in Ch. 16.10 in this Manual. The optional Serial/Lot Number module allows the user to issue, invoice, receive, and track an infinite number of serial or lot numbers per line item. In fact, each item in inventory can have a serial number and be issued, received, and shipped by serial number.

15.12.2 Tracking Methods (without the optional module)

Either or both of the methods listed below can be used.

- The Address Book, Sales Order, Receiver and Invoice Modules can record the serial number of an item by entering the serial number into the 15 character Serial Number Field. Sales Orders, Invoices, and Shippers can be configured to print out the Serial Number or the Model Number using the Configuration Menu's Change Boiler Plate Option. (If you need both, you can create a custom report.) You can print out All Receivers, Sales Orders and Invoices for a Serial Number.

- The Stock Transaction Module can be used to track serial numbers by answering "Y" to tracking lot numbers and then entering the serial number into the lot number field. The Stock Room Reporting Module will provide a record of all transactions for a specified lot number (serial number).

15.13 Updating pc/MRP

15.13.1 Overview

There are two kinds of updates. A new pc/MRP **version** has changes in a database structure. Software Arts, Inc releases a new version about once a year. You will see a number change, like from 8.70 to 8.80. At the time of the releasing this Manual, these updates are only available (and they are free) for our customers on a Support Contract. These updates require an administrative lockout, a full backup, and a total of about 25 minutes of time.

A **revision** update goes for example from 8.80D to 8.80E. These contain no database structure changes, and they can be done from the configuration menu by the user, just about any time. Software Arts, Inc recommends users perform a revision update about once a month. These contain minor improvements, mostly bug fixes. You do need to set an admin lockout before the update, but the backup is optional. The total downtime is usually 2-3 minutes.

Users can learn about the changes in pc/MRP from Software Arts' web site:
http://www.pcmrp.com/870update.htm

15.13.2 Version Updating Instructions

1. Call Software Arts if you have any difficulties in following the procedures below.
2. If you have a multi-user copy of pc/MRP, make sure everybody has logged off pc/MRP before starting this update.
3. Select Configuration, User Connectivity and Administrative Lockout. Click "Set administrative lockout". Wait until the "You are the only user currently accessing the pc/MRP Application" message appears.
4. Exit from pc/MRP.
5. Make a back-up copy of the current production pc/MRP directory and all of its contents (Usually named '…\PCMRPW').
6. Make sure that no files in the pc/MRP directory are attributed read only.
7. Single click on the URL in the email containing the update .exe file.
8. When prompted select Save As.
9. Browse and select your desktop to store the update .exe file.
10. Once the download is complete, double click on the new update .exe file.
11. The update program will ask you to browse and locate the pc/MRP directory.
12. Clicking Next will extract and copy files into the pc/MRP directory.
13. Click on Finish to exit from the update program.
14. Start pc/MRP, it will detect that it has been updated and make any necessary changes to pc/MRP to apply the update.
15. Verify the pc/MRP data.
16. Remove the Admin lock you set in step 3.
17. Now you can delete the update .exe file from your desktop.

Note: To minimize downtime, perform the backup from the server. Download the .exe file ahead of time.

Note: Setting and Administrative Lockout is available **8.10 and above**.

15.13.3 Revision Updating Instructions

1. Set Admin Lockout as in Step 3 above.

2. Exit pc/MRP.

3. Create a copy of the current production pc/MRP directory and all of its contents (Usually named '…\PCMRPW').

4. Re-start pc/MRP and select Configuration, Download & install a new revision.

5. pc/MRP will re-start and finish the update if needed.

6. Verify the pc/MRP data.

7. Remove the Admin lock you set in step 1.

15.13.4 Revision Update Reminder

The following window will appear if you have not updated pc/MRP in 60 days.
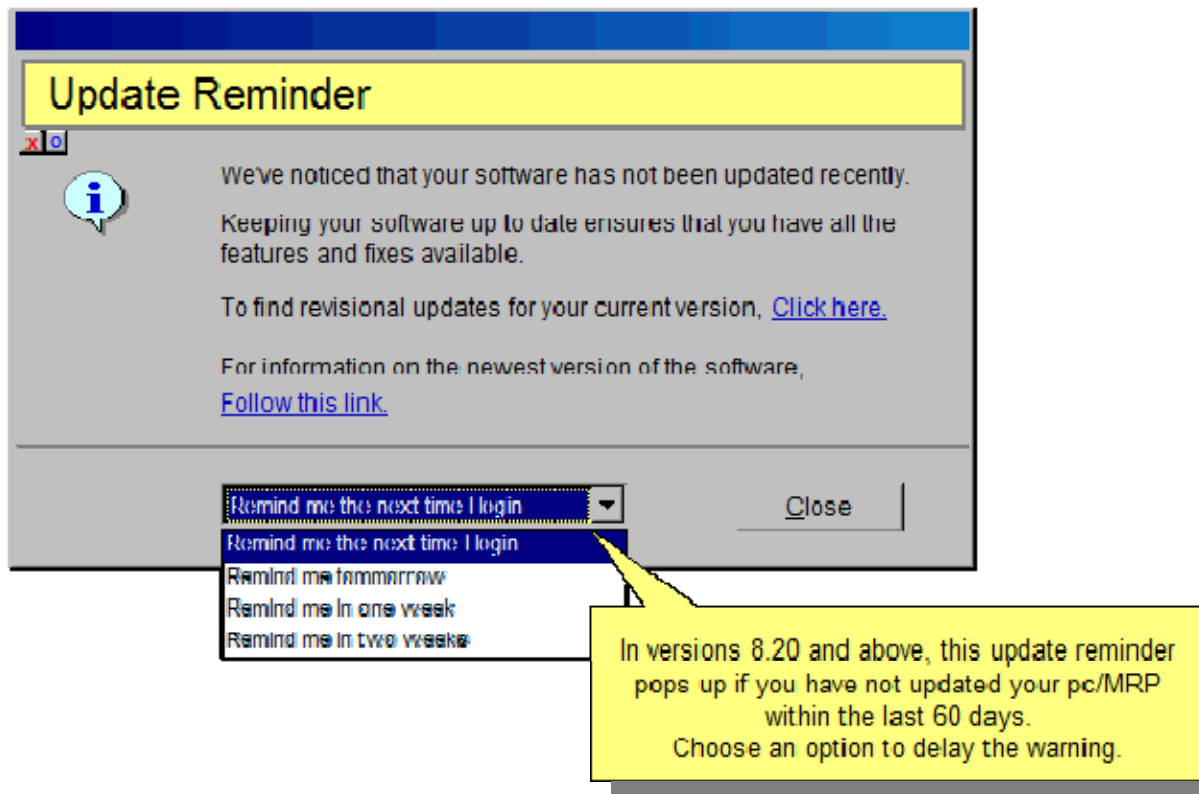
15.13.5 Possible Installation Errors

- While installing the update from the update .exe file, the update program asks for disk two. Recover from the back up, and re-download the update .exe file. This time, once the download is complete, make sure the file size of the update .exe file is equal to the file size next to the URL link within your e-mail.
- While installing the update from the update .exe file, an error is generated. Either a file is attributed read only or a user is still using pc/MRP. Recover from the backup and start over. If this error persists, call Software Arts while the error is on the screen.
- After installing the update .exe file and starting pc/MRP, pc/MRP does not detect an update is in progress. The update files were installed in the wrong location. Re-install the update. This time, after browsing for the path, visually verify that the path is correct.

15.14 Common pc/MRP Functions

15.14.1   Queried Searches

The **Queried Search** tab in most scroll screens allows users to build, run, save and load queries. The query can be run against any field in that specific module including the comments of each record.

15.14.1.1 Creating and Running a New Queried Search

The **Queried Search** tab screen is the same for every module. Only the **Fields** change according to the fields available in each module. The above example is from the Address Book Database.

Click on the **Queried Search** tab. The top window has each **Field** in the table. In that window, users can scroll up or down to view additional fields of that table. Each row is the queried value of that **Field**. Within each row, users can define:
- **Not**: check box
- **Operator**: Equal To, More Than, Less Than, Contains, Is Empty, In List, In Range (a "|" separates values in a list or range). 'Contains' is not valid for date fields such as OBSDATE or DATEREQ.
- **Value**: the actual search value
- **Match Case**: matches upper, lower, or mixed case.

When the query is ready to run, simply press the **Run Query** button. The bottom window contains the results of the query after it is run.

Notes:
Equal To' is actually a 'Begins with' operator.
'Contains' does not use the "|" as there is only one value that 'Contains' looks for in the field. You can even have a value of "this and that" and it will find the exact data string wherever it is located in the field.
'In a Range' is for from/to values; E.G. Name, In a Range, "zuk|zum". Will return all starting values from zuk thru zum. Notice, no spaces.
'In List' is for an exact beginning; E.G. selecting Name, In List, "eng|con" will only return values beginning with 'eng' and 'con'. Again, no spaces.

As you can see, 'In List' and 'Equal To' are very similar.

Example 1: If you wanted to search for a customer name of ELECTRONICS, you could set the query to search for a NAME of ELECTRONICS. If NAME only started ELECTRONICS, the operator could be left as Equal To, however we may have last names or multiple names in the NAME field. Thus, change the Operator to Contains. To run the query click on the Query button.
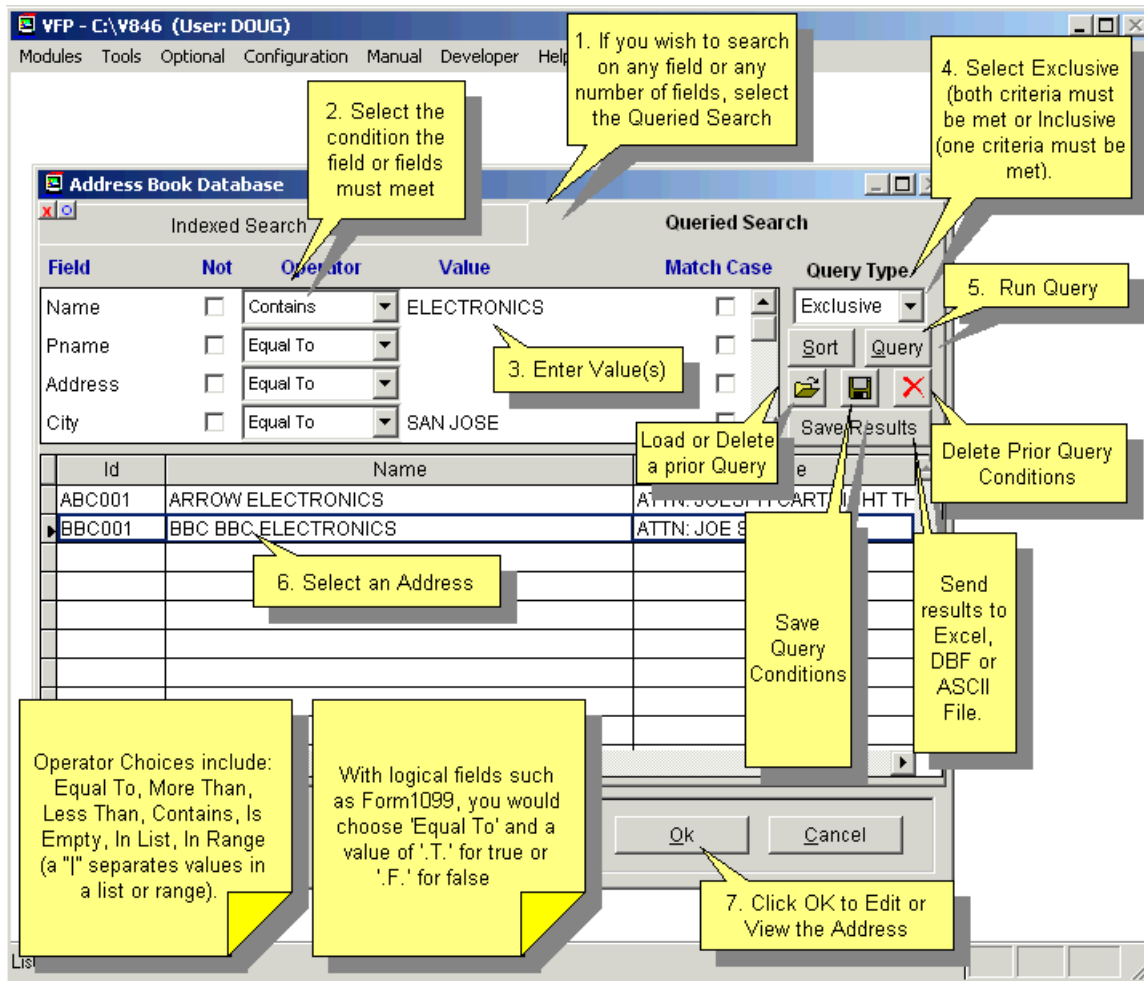
Every Address Book entry that contains a NAME of ELECTRONICS will then be listed in the scroll screen.

Every field can contain a query value to further build specific constrains for the query. The ability to enter multiple constrains allows users to further narrow the search down to the criteria specifically desired.

Example 2: If we were to want to see all Address Book entries for the PNAME of JOE that do not reside in the City of San Jose, we could scroll to the City field, enter a check in the Not field, an Operator of Equal To, and a Value of San Jose. For LOGICAL fields such as Form 1099, you would choose Equal To and a value of '.T.' for true or '.F.' for false. A date field is entered as mm/dd/yyyy.

Users can further define multiple constrains through the **Query Type** field. The Query Type allows users to define the query as **Exclusive** or **Inclusive**. A query with multiple constraints that is Exclusive must meet all of the criteria to be listed in the scroll window. A query with multiple constraints that is Inclusive must meet only one constraint to be listed in the scroll window.

By example, if we were to search for an Address Entry that either has a PNAME of JOE or resides in San Jose, the Query Type would need to be set to Inclusive.

15.14.1.2 Saving, Loading, and Deleting a Queried Search

Once the query has been built, it can be saved for future use by pressing the disk save button.

A name and description can be defined per query. Queries can also be saved and made available to all users or just the user that created the query.
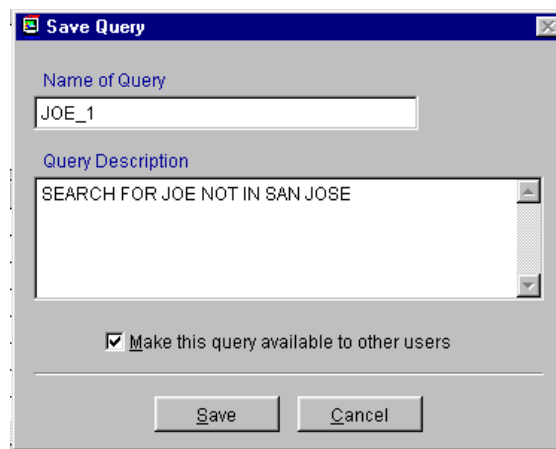
To load a previously created Queried Search press the load from folder button.

Once a user presses the load from folder button, all that are available to that user will be viewable.
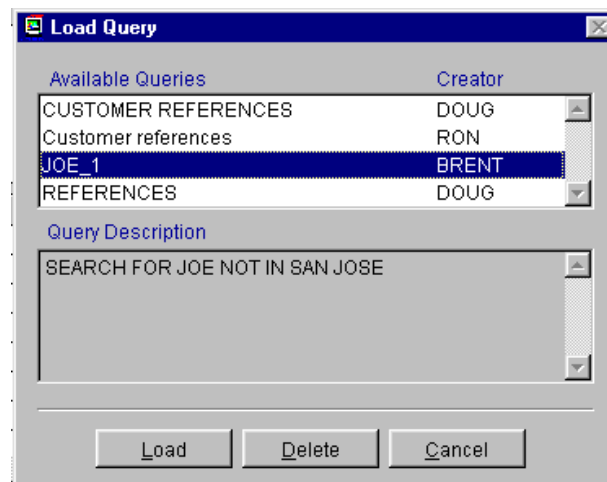
From this screen, queries can be loaded or deleted.
Note: Only the user logon that created the query can delete it.

15.14.2   Indexed Searches
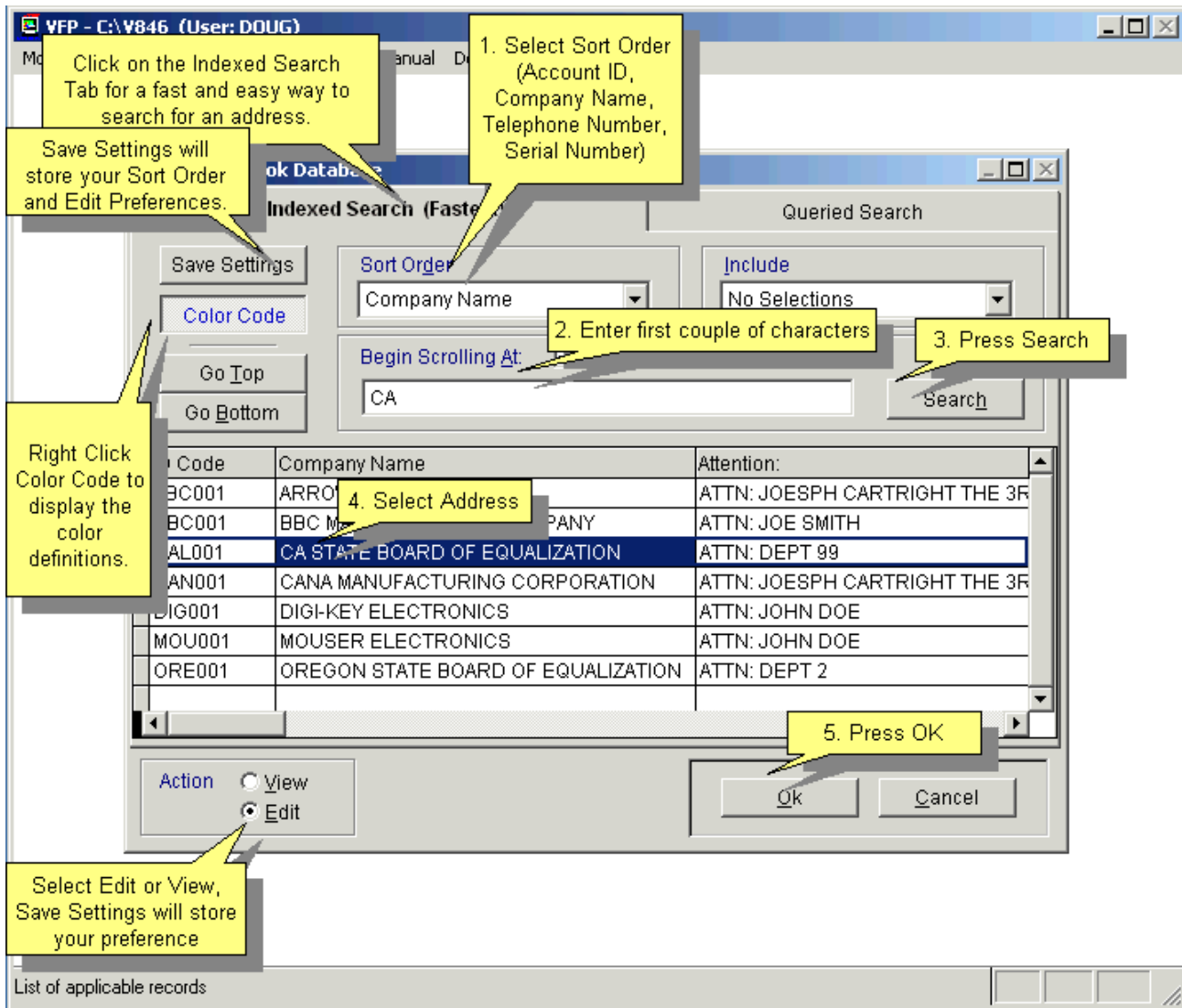
Selecting an **Indexed Search** allows users to search on indexed fields. This allows pc/MRP to find the information much faster. To perform an **Indexed Search**, select the following:

1. Select the **Indexed Search** tab
2. Select the desired **Sort Order** from the dropdown list.
3. Enter the search data in the **Begin Scrolling at:** field.
4. Select the desired action, **View** or **Edit**
5. At this time, you can press the **Save Settings** button which saves the selected settings for your logon name.
6. Press **Search**

pc/MRP will automatically scroll to the desired record or the nearest match. Select the correct record by scrolling and press OK to proceed to the edit or view screen for that record.

Note: Some modules will have an **Include** dropdown list to select from.

15.14.3   Index Database Table

Re-creates the Index Files to the associated module. pc/MRP automatically updates its index files under normal operation. However, if you ever get a "record out of range" error message, re-indexing the index file is usually the cure. Re-indexing is wise to do after a heavy editing session or after adding many transactions simply as a precautionary step.

15.14.4   Remove Marked Records

Removes <u>from the disk</u> all of the records that were previously marked for deletion (in the associated module).

pc/MRP will automatically create backup files of the databases in the PACK directory prior to any removal of records. pc/MRP does this in case any hardware problems occur during the removal process.

Note: The automatic backup is available **8.20AA, 8.23F and higher**. If you have pc/MRP versions **8.20Z, 8.23E and lower**, you should create a copy of the database files prior to running this utility, otherwise the records will no longer be recoverable. Call Software Arts for help in this area.

15.14.5   Remove Over X Years

Applies to:
- Stockroom data
- Purchase data
- Receiver data
- Work Order and Sales Order data
- Invoice data
- Shipment data
- GL Transactions

Deletes and removes from the disk all records in the associated module(s) over a specified number of years old.

Note: Since Sales Orders and Work Orders are stored in the same database table, removing Work Orders over X years will also remove Sales Orders over X years, and vice versa. If you want to keep all data in one module and only want to delete old data in the other module, call Software Arts for assistance.

pc/MRP will automatically create backup files of the databases in the PACK directory prior to any removal of records. pc/MRP does this in case any hardware problems occur during the removal process.

Note: In pc/MRP versions prior to **8.20AA and 8.33F**, it is advisable to save the associated database files to disk and label it "*Module Name* data DBF as of mm-dd-yy". For accounting, you should also generate a printout of the file prior to closing it out. Call Software Arts for help in this area.

15.14.6   Sending Reports to Excel.

pc/MRP offers to send most reports to Excel. For Versions **8.73P and higher**, all fields can be exported, as long as the computer that runs pc/MRP has Excel installed. (If pc/MRP is run on a terminal server, Excel has to be installed on the terminal server.) If Excel is not available on the computer, pc/MRP does not offer the memo type fields (like the general info in inventory, the reference designators in the BOM table, the tracking number and comments in the invoice table, etc.), similar to the earlier versions.

15.15 User Connectivity & Administrative Lockout

15.15 User Connectivity & Administrative Lockout Overview

This is the area you first visit for doing any kind of exclusive administrative work on pc/MRP such as backing up the database files or running exclusive processes as re-indexing all pc/MRP's indexes. If the system is not locked down and scheduled tasks need to start (see Section 16.16), these tasks will produce an error, stop processing, and wait to re-start according to their schedules.

You can also get a list of the users currently accessing pc/MRP.

Setting or removing an Administrative Lockout requires <u>D</u>elete rights to the Configuration Module (if the Advanced Password Module has been activated).

15.15.1 Step 1, Set Admin Lockout, Click the Set Administrative Lockout Button

Press the Show Users Button to display who besides yourself is presently online with pc/MRP.   Click the Set Administrative Lockout Button to send a message to those users to log out of pc/MRP.
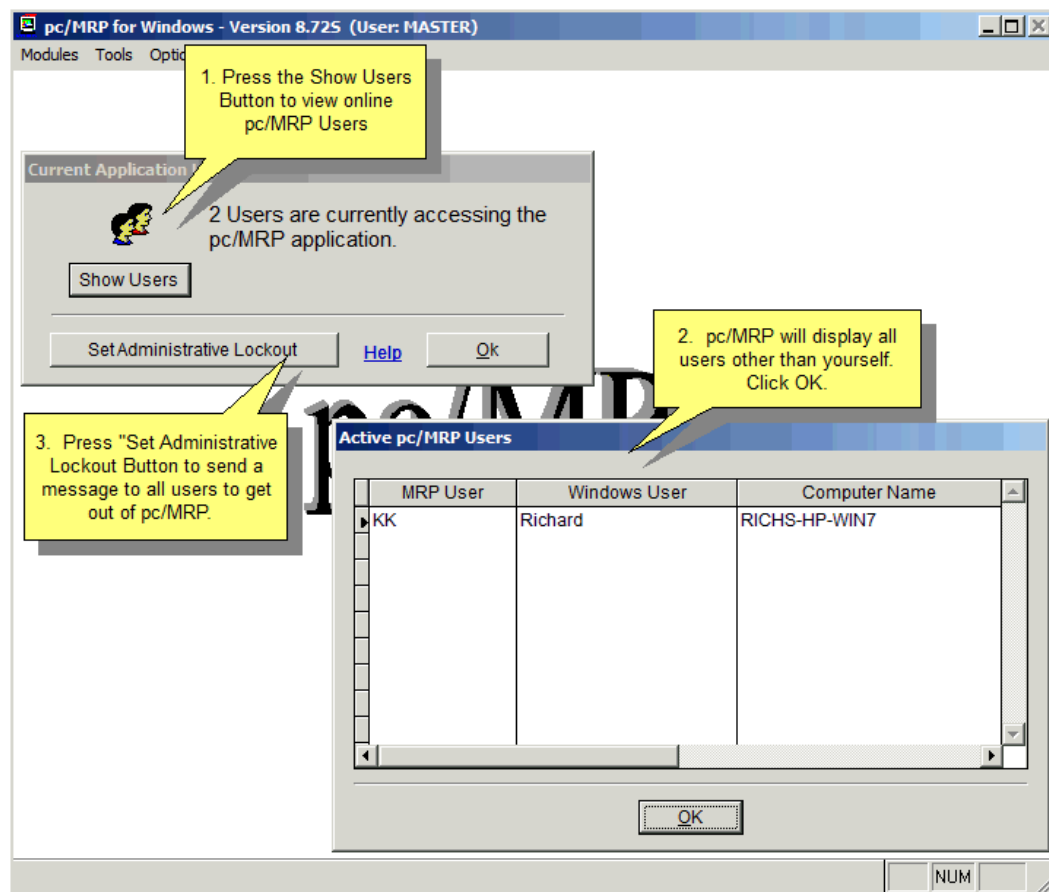
15.15.2 Step 2, Set Admin Lockout, Wait for users to log off of pc/MRP
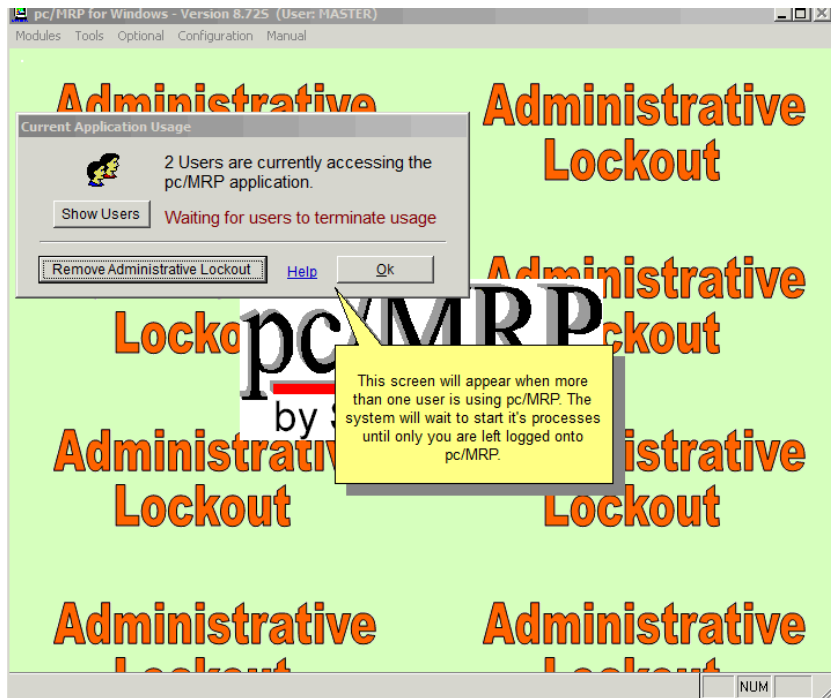
15.15.3 Step 3, Set Admin Lockout, Press the OK Button

Once all users of pc/MRP except you have logged of, the following screen appears. You can now press the OK Button and proceed with your administrative tasks.
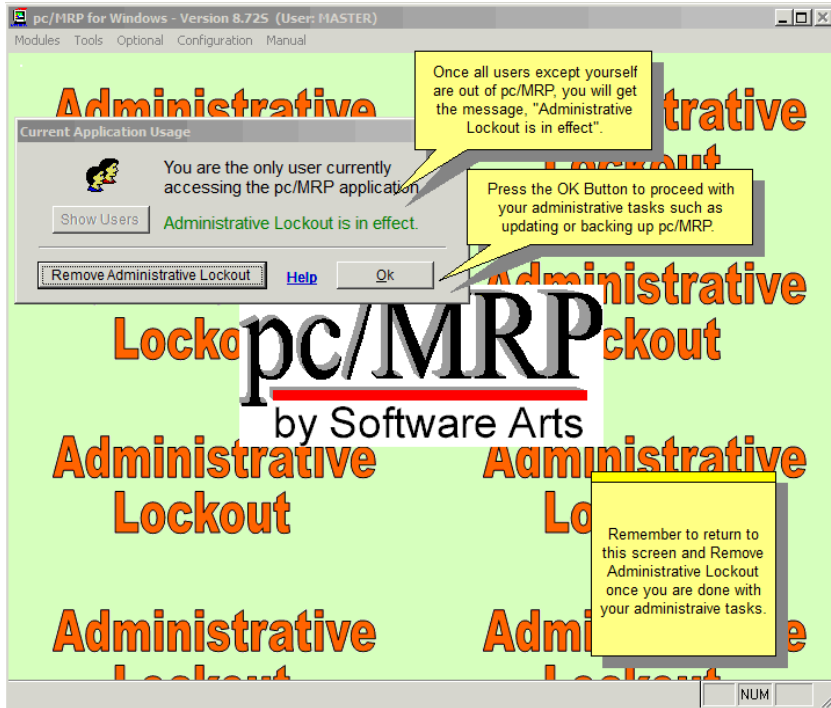
15.15.4 Step 4, Removing the Admin Lockout

Once you are finished with your administrative tasks, you must return to this module and press the Remove Administrative Lockout Button. If the person setting the lockout logs out of pc/MRP, he must log back into pc/MRP using the same PC and the same user name, in order to remove the lockout. If he cannot log back into pc/MRP, contact your system administrator to remove the file MRPBUSY.FLG from the pcmrpw directory.

15.16 Scheduled Tasks

15.16 Scheduled Tasks Overview

There are numerous tasks you can set to run automatically, during the night when users are gone:

- Export Invoices to QuickBooks
- Export Receivers to QuickBooks
- Infinite Bucket MRP Generation
- Perform a Rollup of Average costs on assemblies
- Perform a Rollup of Last PO costs on assemblies
- Perform a Rollup of Standard costs on assemblies
- Regenerate index tags for all application tables
- Remove records marked for deletion from all application tables
- Rollup the Mean Time Between Failure (MTBF) on assemblies
- Update Alternate Part Numbers on BOMs
- Update Customer account balances in the Address Book
- Update the On-Demand quantities in inventory
- Update the On-Order quantities in inventory

Select Configuration, Scheduled Administrative Tasks, Define Schedule. You must leave the computer that is scheduled to run these tasks, logged into pc/MRP so that the tasks can be executed. You should create a user, named 'scheduler' as an example, with NO rights to any modules. Now log into pc/MRP as the user 'scheduler' on the computer set to run the tasks and leave the computer logged in and turned on during the night.

Note: With the Password module implemented, you must have 'Delete' privileges to the Configuration menu to define schedules.

15.16.1 Scheduling Tasks, Step 1, Set PC, Retry, Interval Settings

Press the Scheduler Settings Button to set which PC is to perform the tasks, Retry Settings, and Time Interval between tasks.
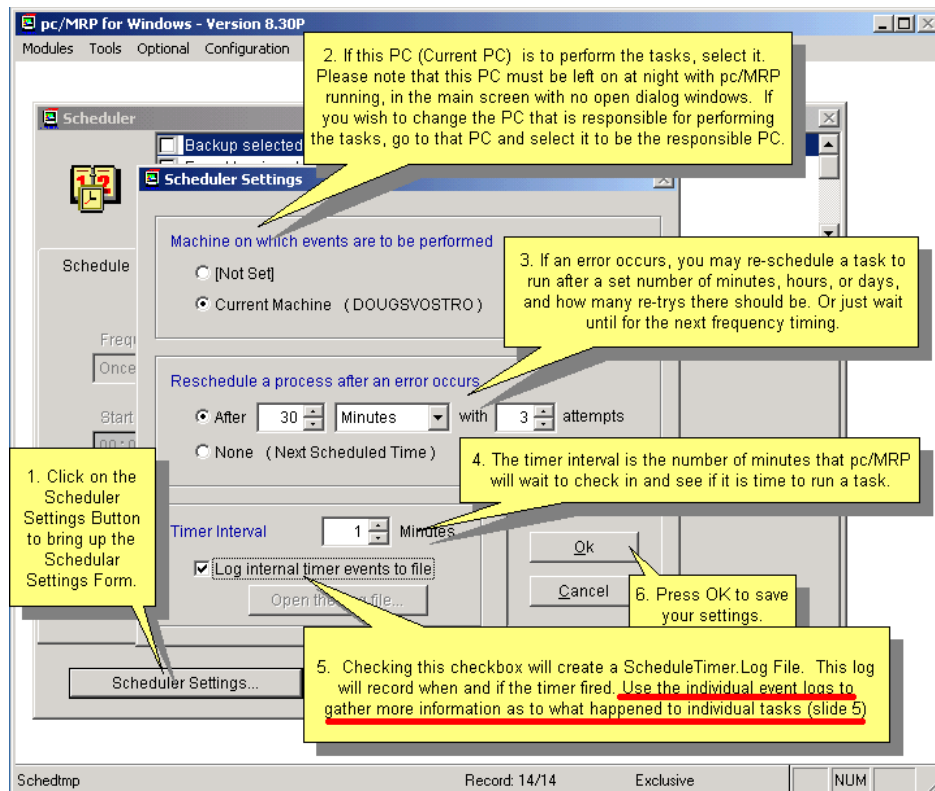
15.16.2 Scheduling Task's, Step 2, Select and Schedule a Task

First select the process to schedule. Then select the Schedule Options tab and set up the Frequency (Once, Daily, Weekly, or Monthly), the Start Time (time is in 24-hour notation, therefore 21:00 is 9:00PM), and the Start Date. Schedule Tasks always runs with Admin authority, and then the computer goes back to its original rights.
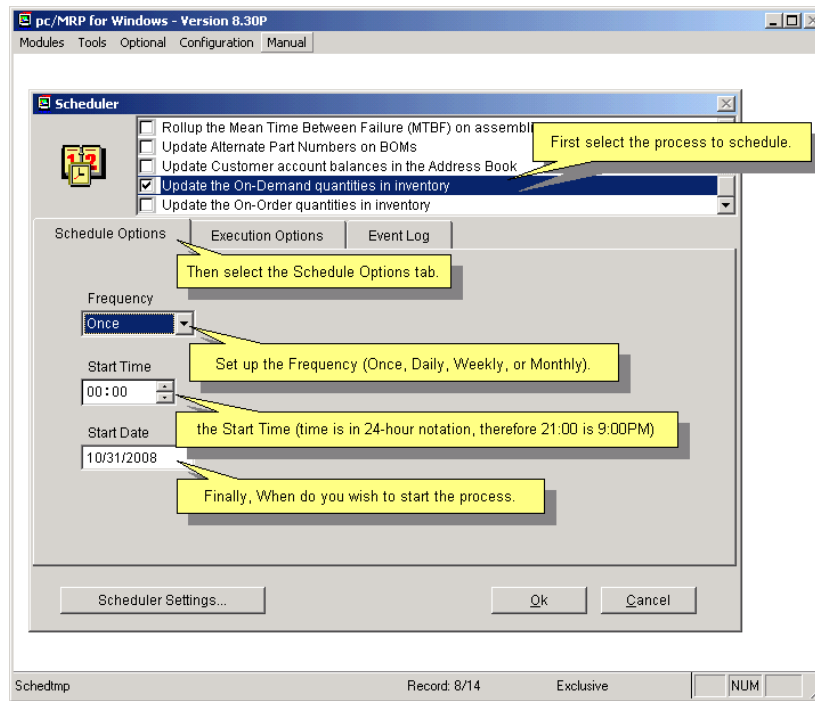
15.16.3 Scheduling Task's, Step 3, Select Execution Options

A task's execution options will vary by task. Please note each task's options carefully. As an example:
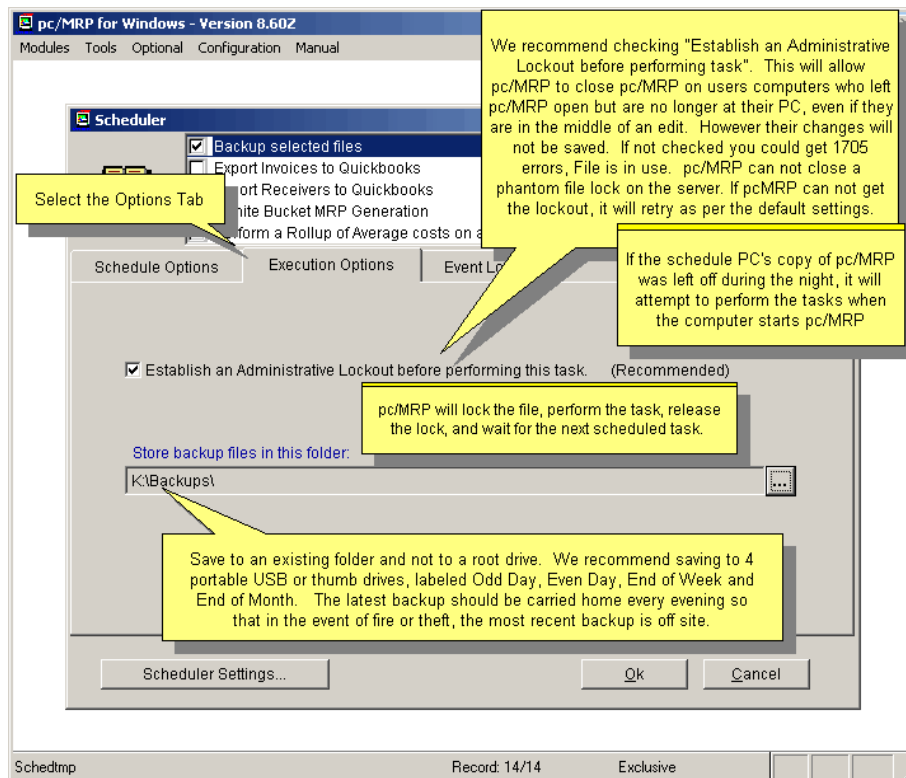
Conversely, the 'Update the On-Order quantities in inventory', has no configuration options.

15.16.4 Scheduled Task's Event Log

Users can use the event log to see if and when tasks were performed. Each task has its own log.
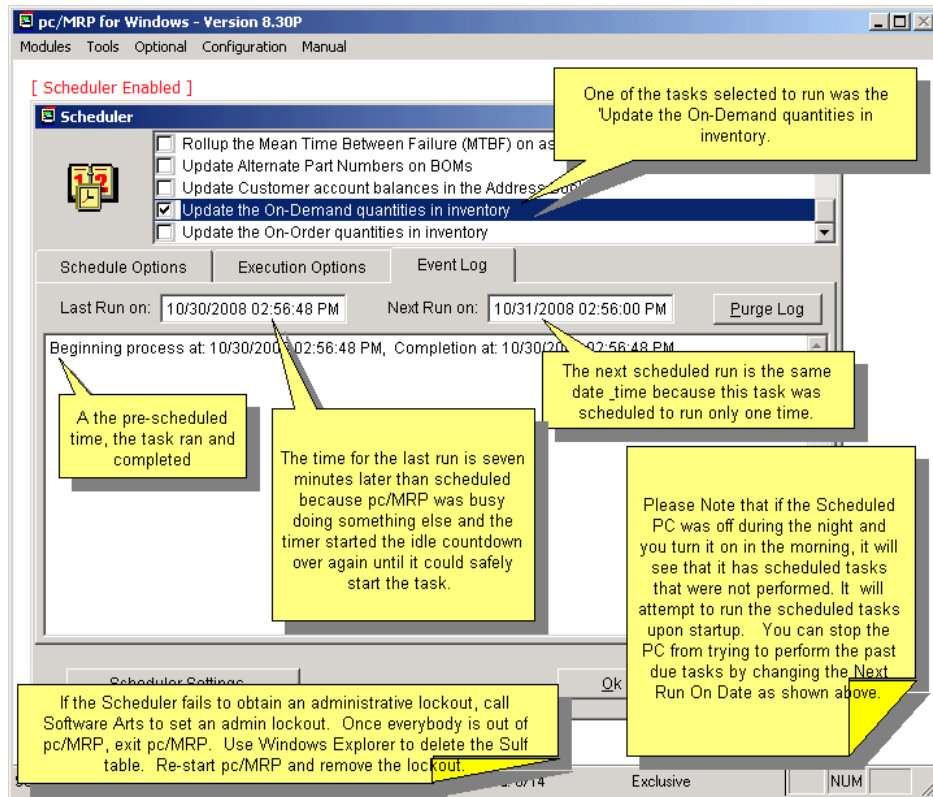
15.16.5 Active Tasks

Select Active Tasks on the Menu to see currently scheduled tasks.
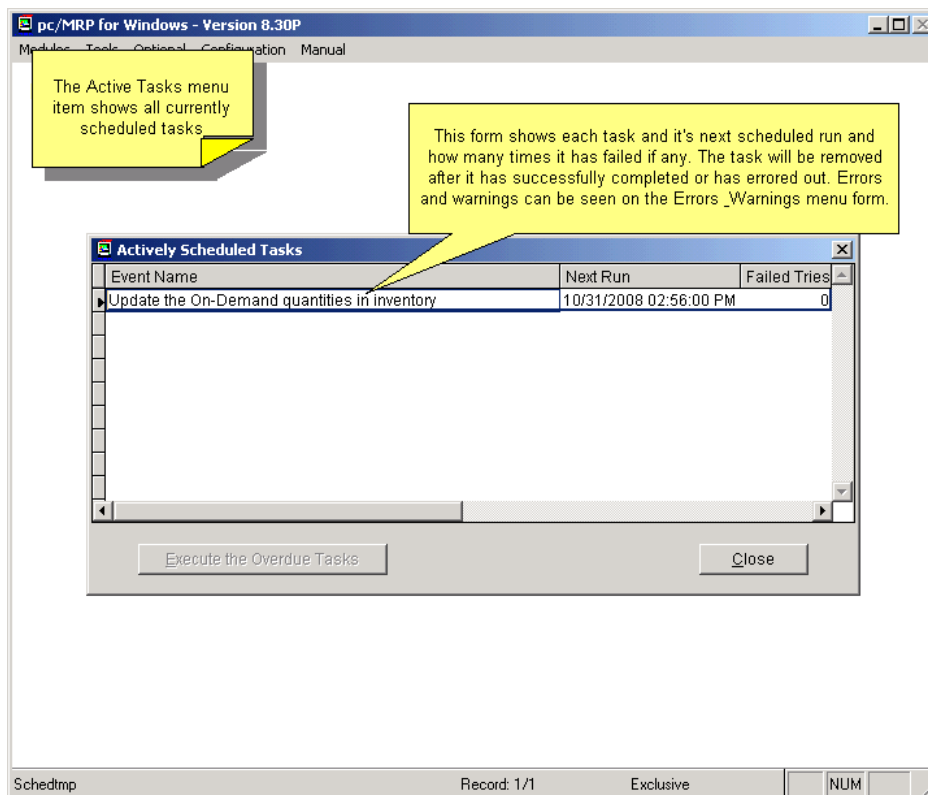
15.16.6 Scheduled Task's Errors & Warnings

The log shows information about currently scheduled tasks that did not complete for some reason.

If you get a message, "Another back-up was in progress" preventing you from running a back-up and there is no back-up in progress, delete a file named "**BackUpInProgress.flg**" in the pcmrpw directory and re-run the back-up.

Check the "Log internal timer events to file" checkbox to record an internal event log into the **SCHEDULETIMER.LOG** file.

The ScheduleTimer.log is basically a process trouble shooting file with entries such as:
- Administrative Lockout has been set by another user
- Begin loading next event
- Administrative lockout successful
- Setting Administrative rights
- Removing Administrative rights
- Removing Administrative lockout
- Finished loading nest event

If the scheduler label does not appear in the upper left corner of the pc/MRP screen on the scheduler PC, or the scheduler refuses to run, set an admin lockout, exit pc/MRP and use Windows Explorer to delete the **SULF.DBF** file in the PCMRPW folder.

If you wish to remove the Scheduler Enabled text from appearing in the upper left of the PC selected as the scheduler PC, uncheck all tasks and delete the **schedule.mem** file in the pc/MRP directory.

15.17 Creating a pc/MRP VFP ODBC DSN

15.17 Overview

A slideshow is available at:
http://www.pcmrp.com/mrp101/odbcopeninternetexplorer.htm

pc/MRP product is written with Microsoft's Visual FoxPro. For better security and data reliability, pc/MRP uses the native Visual FoxPro database structure instead of a dBase-III structure. This requires the use of the Microsoft ODBC drivers for Visual FoxPro tables if you use a program such as Excel, Access, Crystal Reports, etc. to read the pc/MRP data.

15.17.1 Step 1 Access the pc/MRP web site.

15.17.2 Step 2 Navigate to the Technical Support page.

Scroll down the page and select the Support Files link.
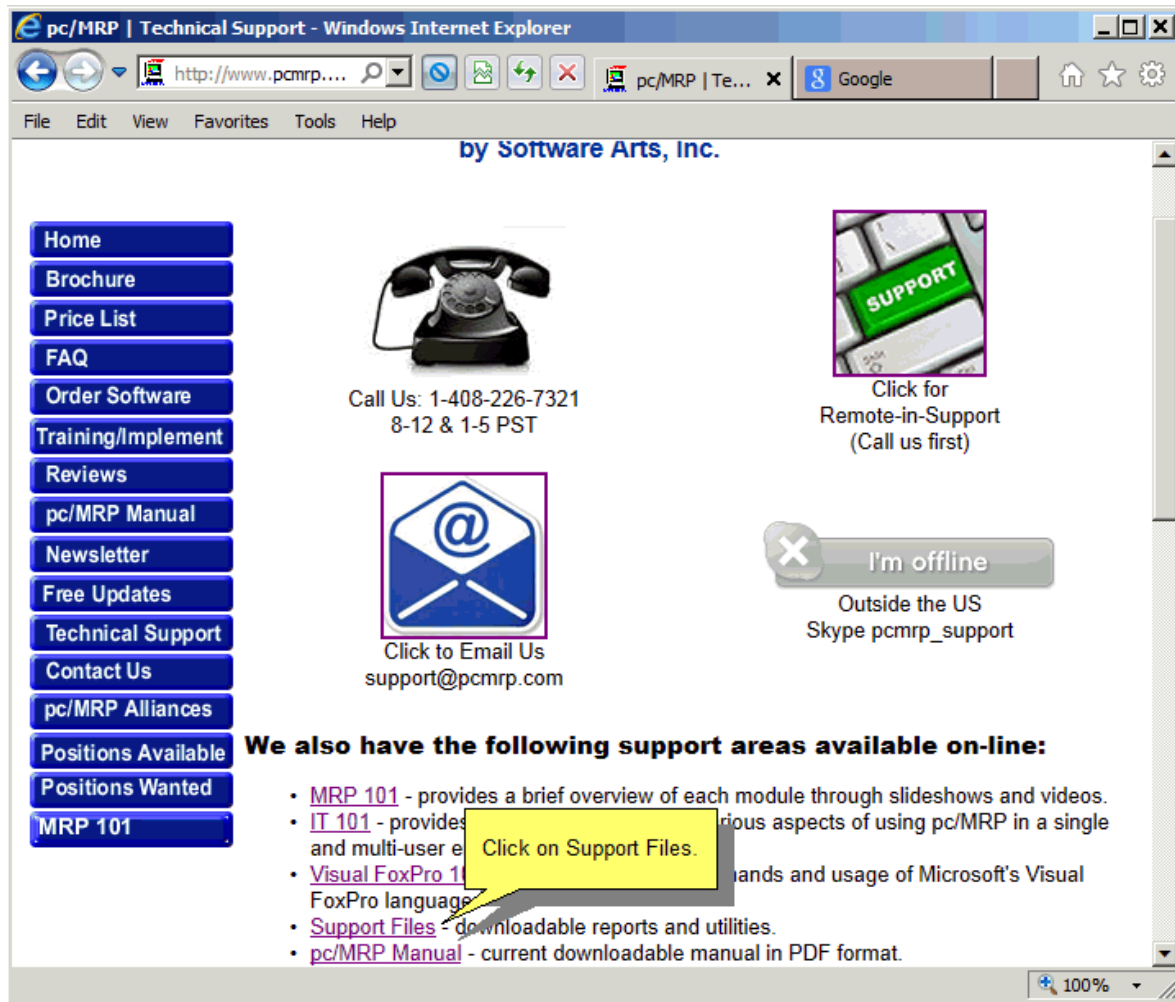
15.17.3 Step 3 Find the file download page.

Scroll down to and click on the Visual FoxPro ODBC Drivers link. There is another link in the same paragraph with instructions like these in a MS Word document; it also contains the ODBC link.

This will take you to Microsoft's web site for the download.

Windows XP and higher may have already installed the Visual FoxPro ODBC drivers as a part of the operating system. You can verify this by going to Step 7 (Section 15.17.7).

15.17.4 Step 4 Download the file and run it.

Double-clicking in the **VFPODBC.msi** file will automatically start the install process.

15.17.5 Step 5 After the install is complete, start the Data Sources (ODBC) menu.

Select Control Panel, Administrative Tools, Data Sources. Select **System DSN** as that allows any logon user of this computer to use this pc/MRP Data Source to access pc/MRP.
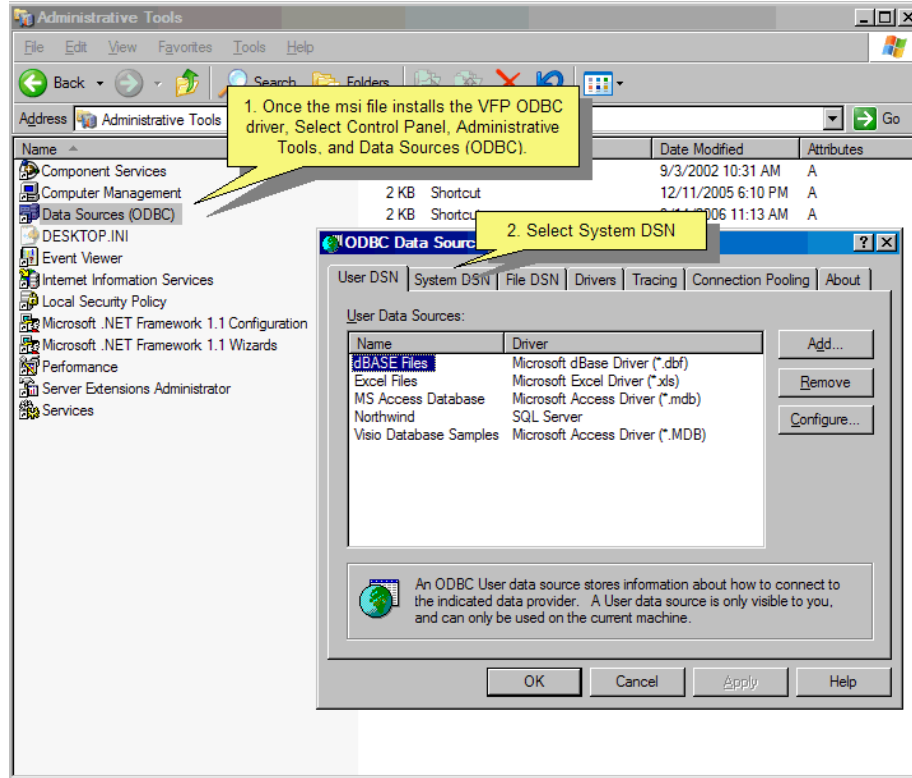
15.17.8 Step 8 Clicking Add presents the following screen to select an ODBC driver to configure.
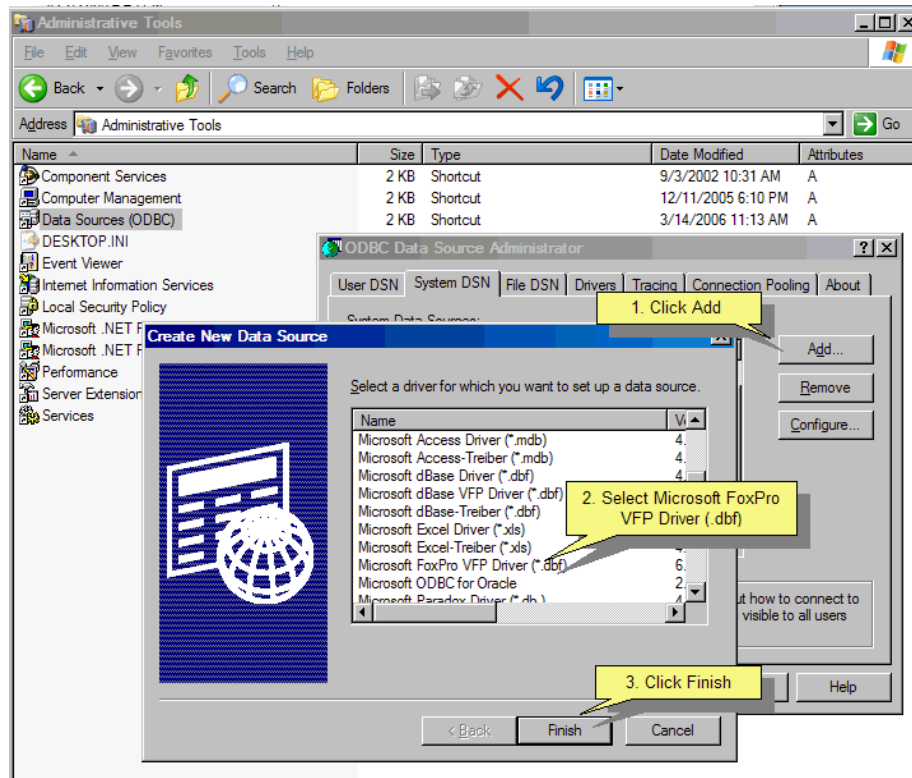
There may be more FoxPro drivers listed. Be sure to select the **Microsoft FoxPro VFP Driver (*.dbf).**

15.17.9 Step 9 After selecting the VFP driver and clicking 'Finish' you need to connect to pc/MRP.
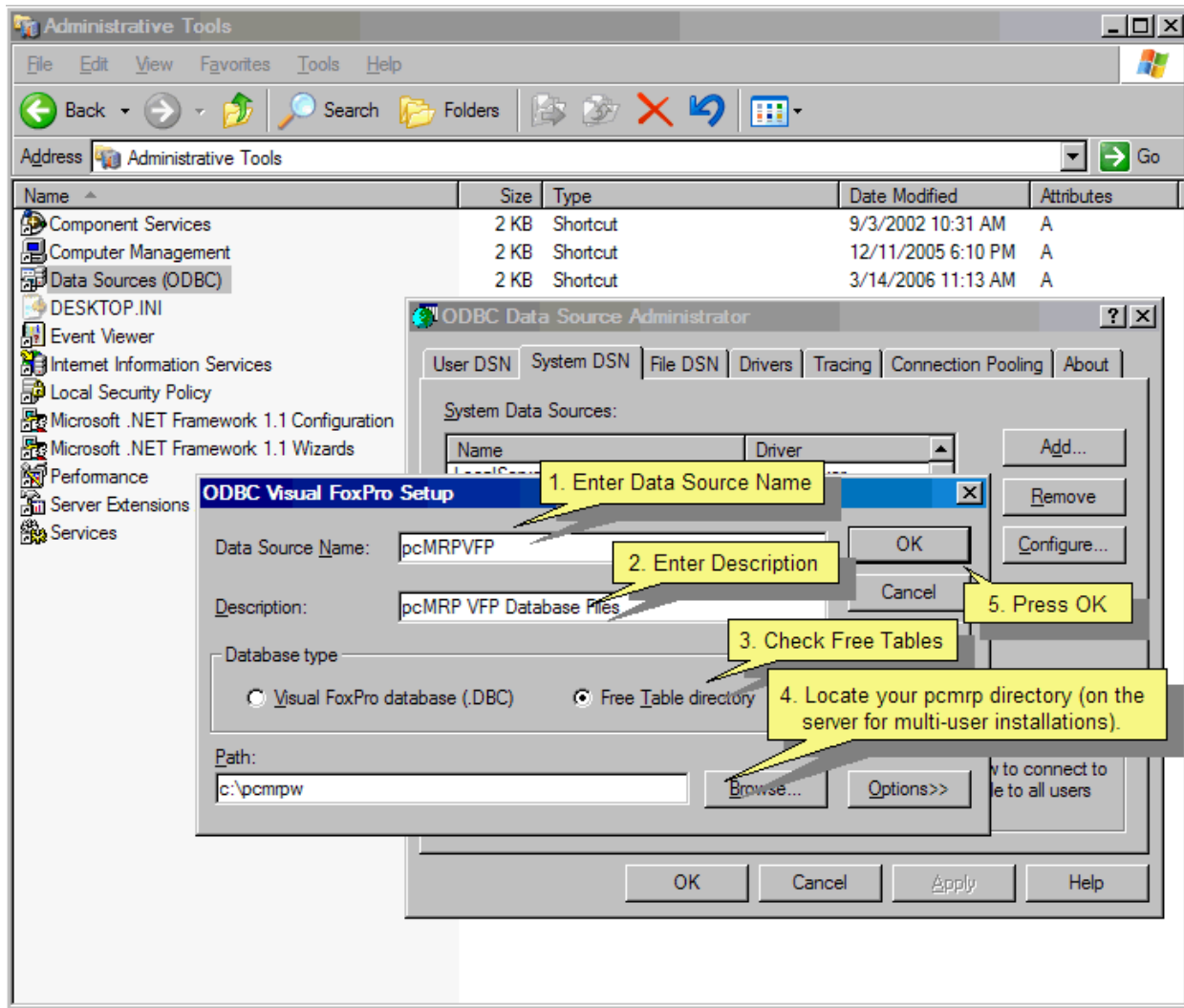
The Data Source Name must be 'pcMRPVFP' if you are connecting pc/MRP to UPS shipping.

The Description field is your choice.

You MUST choose **Free Table directory** as the Database type.

Browse to your pc/MRP directory to select the Path to the pc/MRP files. Single-user versions of pc/MRP are usually located at 'C:\pcmrpw' whereas a multi-user version is on a server and you need to browse to that directory for pc/MRP.

Some customers have a Peer-to-Peer network and the pc/MRP directory may be on that workstation. You would just browse to that workstation instead of a server.

Now press 'OK' twice to end the ODBC setup for pc/MRP.

15.18 pc/MRP Integration with UPS WorldShip

15.18 Overview

A slideshow of the UPS Import/Export Wizard is available at:
http://www.pcmrp.com/mrp101/ups2integrateconfigurationsettings.htm

The UPS Import/Export Wizard is available for pc/MRP versions **8.73 and higher**. These versions have a ShipLog table and code to extract data from this file.

For older versions see the slideshow and the following explanation:
http://www.pcmrp.com/mrp101/upspcmrpupsmappingfile.htm
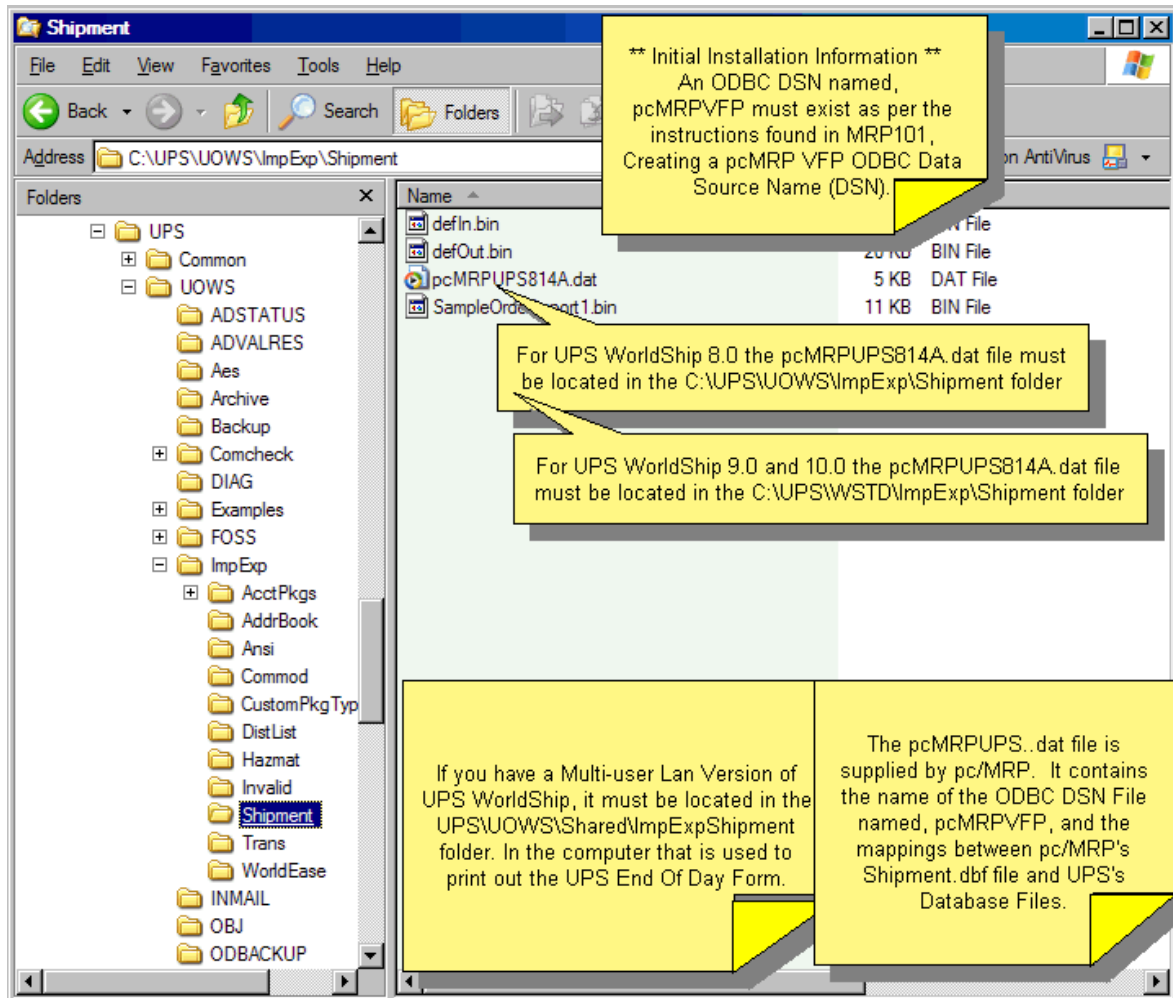
Note: You must have already created your ODBC connection to pc/MRP (see Section 15.17).
UPS WorldShip version 8.0 or above must be installed on your computer or accessible via the LAN.

UPS WorldShip version 8.0: The pcMRPUPS814A.dat file must be copied to the \UPS\UOWS\ImpExp\Shipment directory of your UPS software.

UPS WorldShip version 9.0: The pcMRPUPS814A.dat file must be copied to the \UPS\WSTD\ImpExp\Shipment directory of your UPS software.

Note: The number '814A' on the dat file supplied by Software Arts, Inc. refers to the minimum version of pc/MRP supported by the UPS interface.

15.18.1 Step 1 Modify the Shipuser.ini file of UPS.
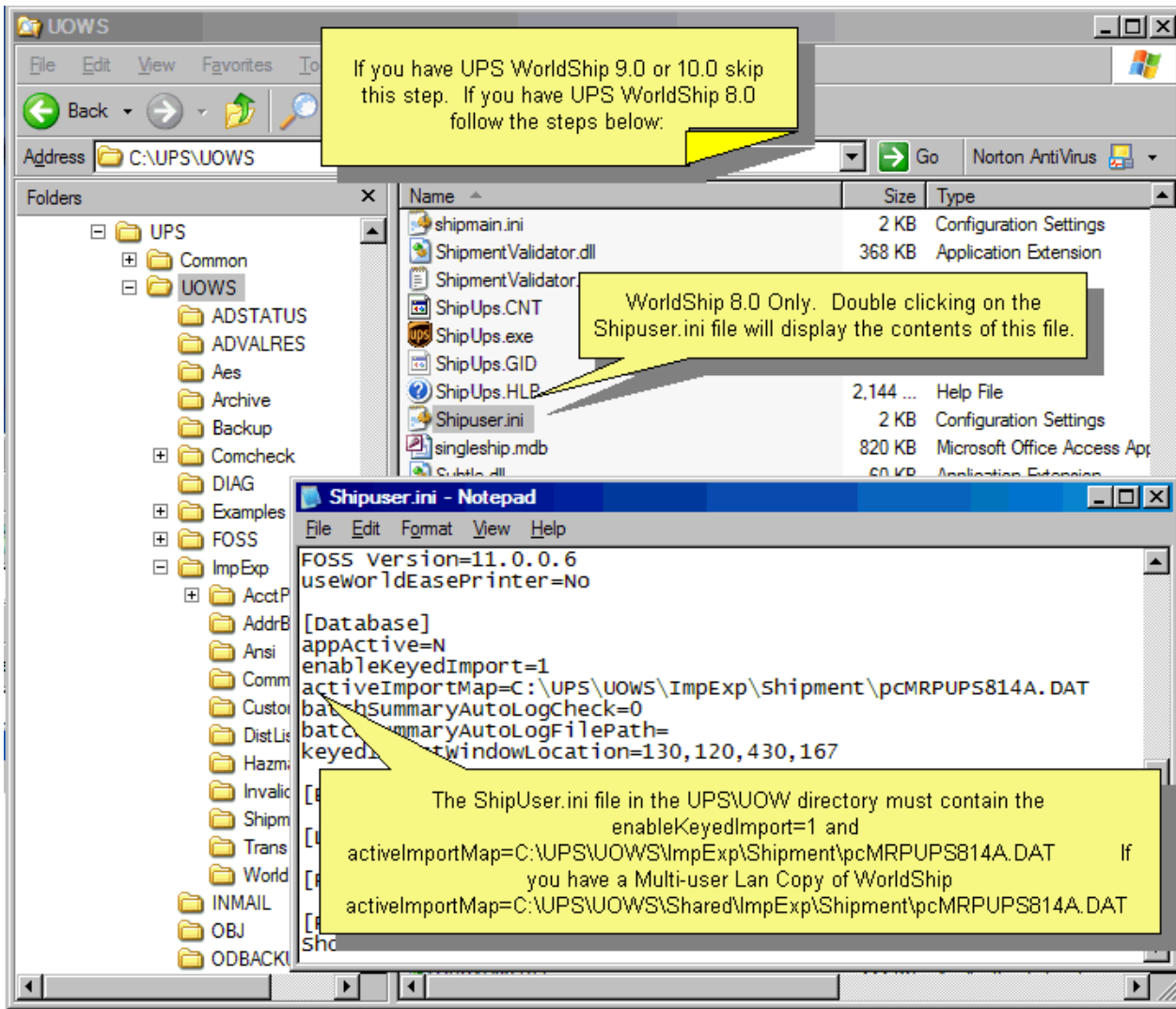
Windows '.ini' files are normally associated with Windows Notepad. The configuration for this is located in Windows Explorer, Tools, Folder Options. Scroll down to the '.ini' extension and you should see Notepad in the "Opens with:" area. If not, and it is not a different text reader, change to a text reader like Microsoft Notepad.

Now note the two changes that must be present to interface with pc/MRP.

The 'enabledKeyedImport=1' and
 the 'activeImportMap='. (\UPS\UOWS\ImpExp\Shipment -directory of your UPS software) (or WSTD)

Save this file and continue to Step 2.

15.18.2 Step 2 Set up the pc/MRP Interface to UPS WorldShip.

Select Configuration, Settings & Utilities menu. You must have modify rights to the Configuration menu in a multi-user environment with the Optional Password module. See your pc/MRP administrator if you need and do not have the rights to the Configuration menu.

15.18.3 Step 3 Modify the Shipment Module Settings.
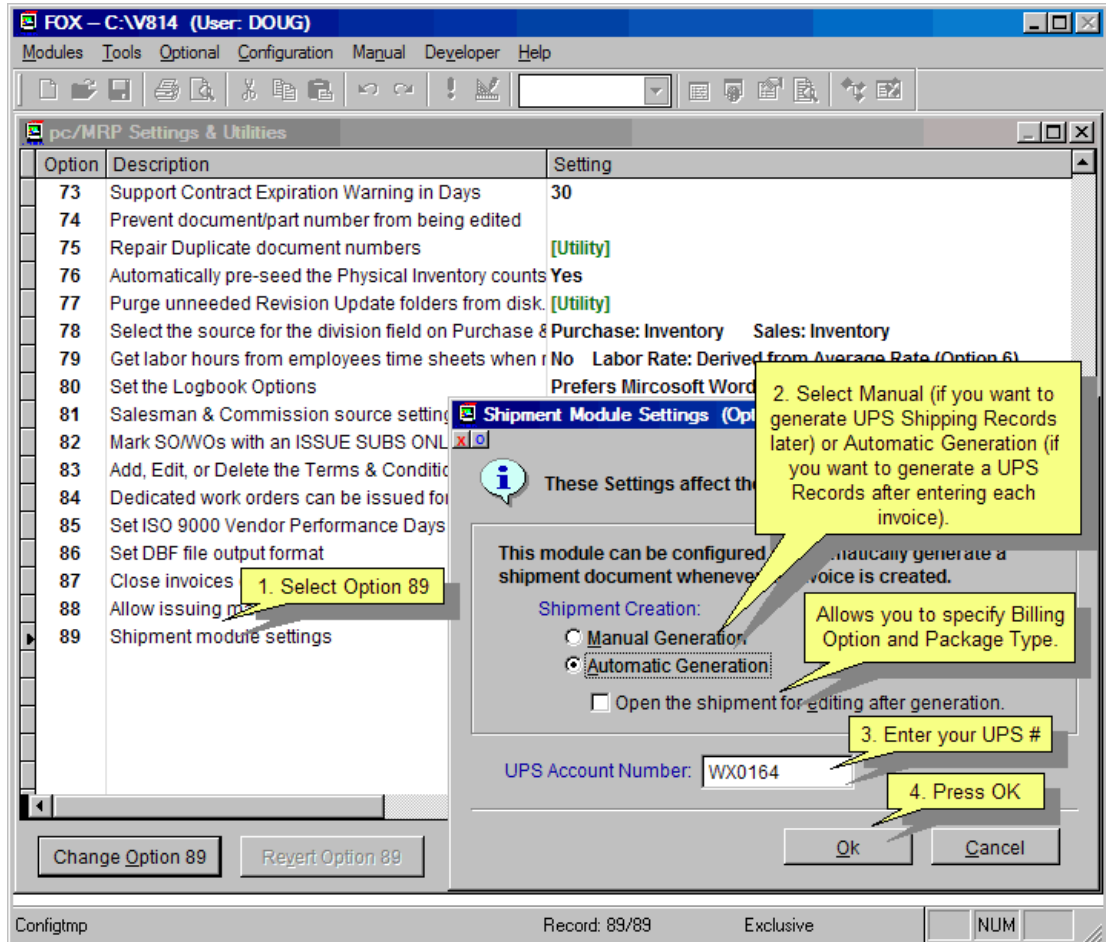
Enter 89 to select Option 89, Shipment module settings.

Manual Generation allows you to create an Invoice record without a shipment record. You will have to create the Shipment record manually.

Automatic Generation will create a Shipment record immediately after the Invoice record.

Note: No Shipment record will be created if there are no line items marked as Shippable. A shippable line item will have a check in the **Shippable item** checkbox on the line item's Delivery tab of the Invoice. The Shippable item's checkbox is automatically carried forward from the Inventory item's Miscellaneous tab's Shippable item checkbox, to the Sales Order, and then to the Invoice.

You can also open or not open the Shipment record for editing automatically.

Enter your company's UPS number in the space provided.

Pressing OK saves the settings.

15.18.4 Step 4 Save the changes to the Shipment module settings.

Click on Save to save your changes. Exit or minimize pc/MRP.

15.18.5 Step 5 Navigate to your UPS WorldShip program
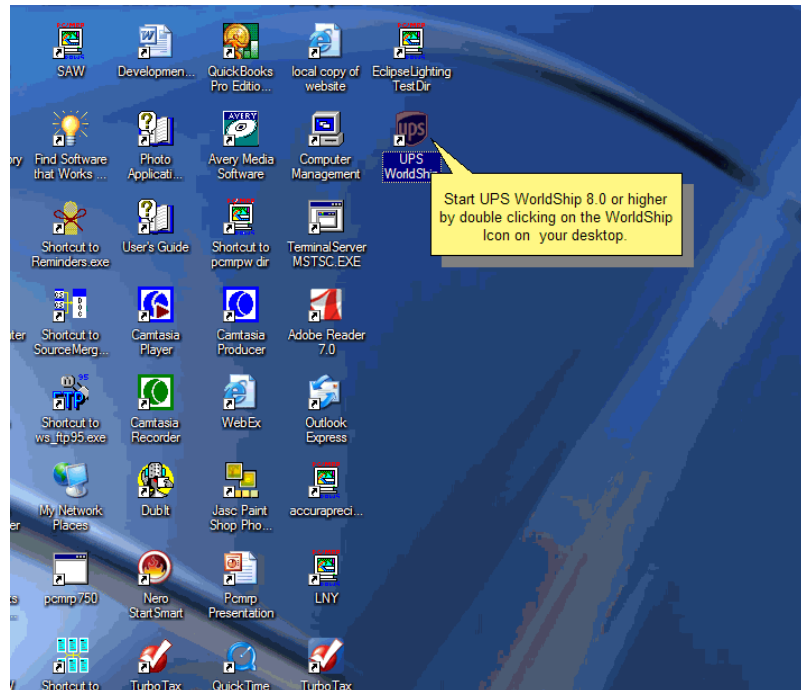
Double-click on the UPS WorldShip icon, or navigate to the UPS WorldShip program via the Start menu of your desktop and run the UPS WorldShip program.

15.18.6 Step 6 Set up the UPS WorldShip System Preferences.
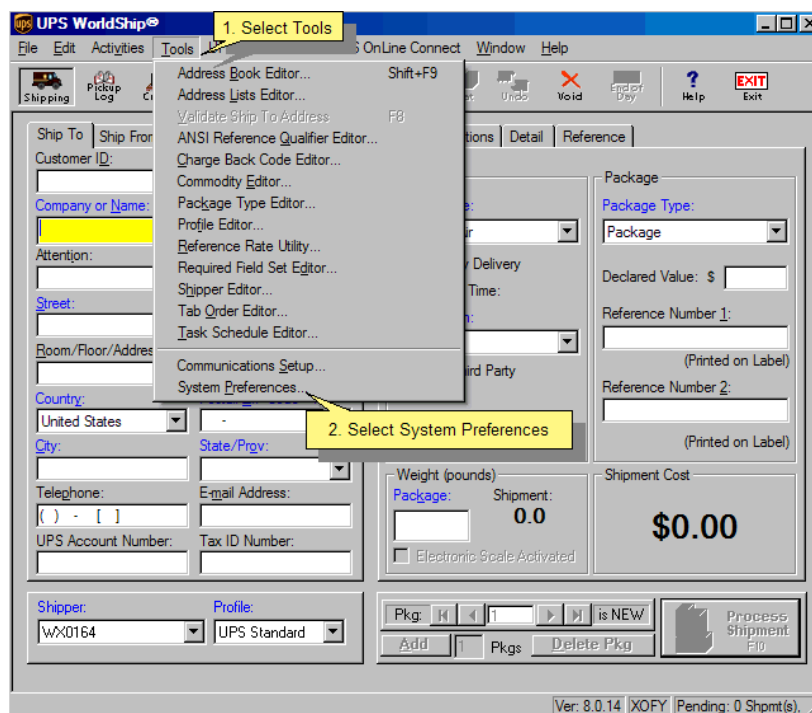
Select Tools and System Preferences and follow the setup instructions starting in Step 7.

15.18.7 Step 7 The UPS WorldShip System Preferences screen.
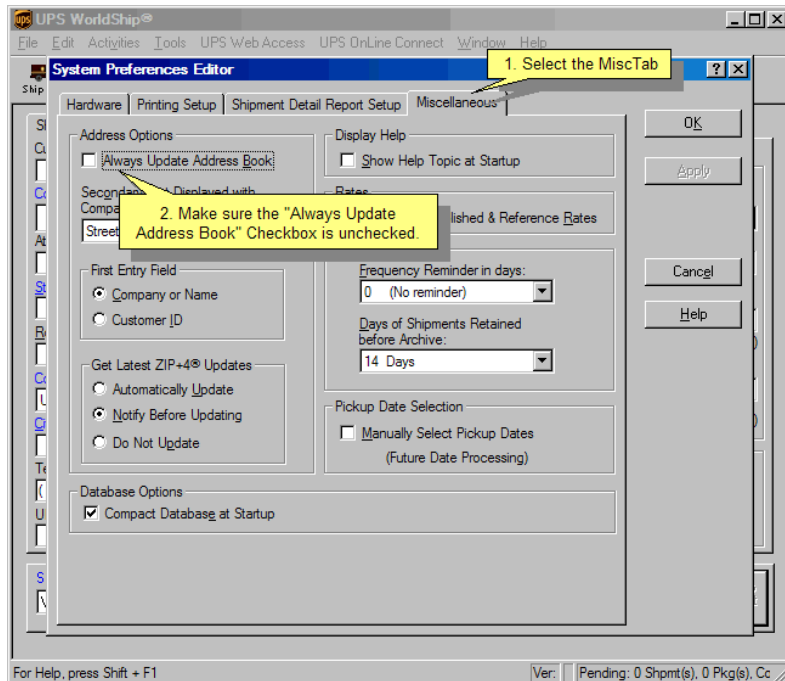
Select the **Miscellaneous** tab and ensure the **Address Options** for **Always Update Address Book** is not checked.

Click the OK button.
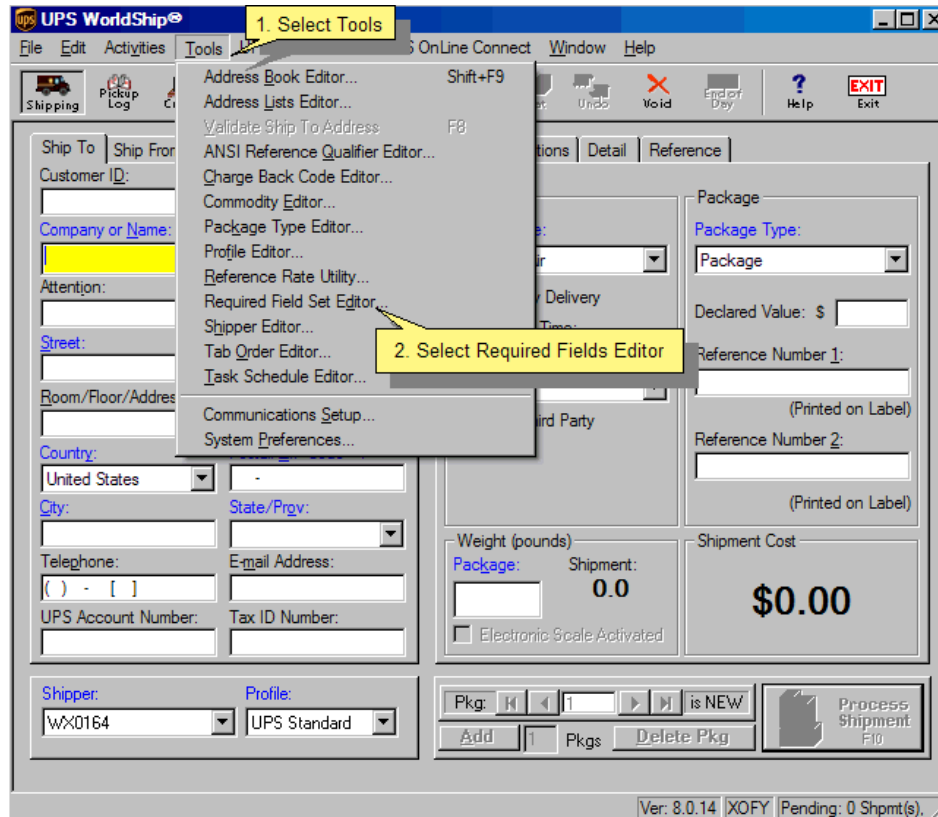
15.18.8 Step 8 Set the required fields in UPS WorldShip.

Select the **Tools, Required Field Set Editor**, as you will be verifying fields in the next screen.

15.18.9 Step 9 Required Field Set Editor.
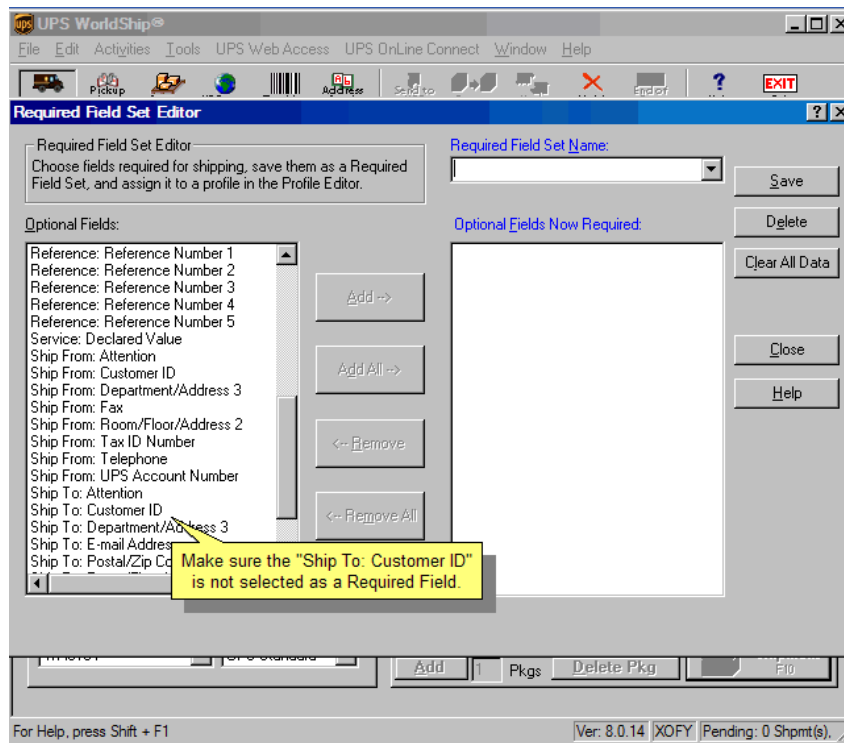
UPS WorldShip requires the 'Ship To Customer ID' field NOT listed in the '**Optional Fields Now Required**' list box on the right side of the screen.

Click the 'Save' button to save the changes and exit the Editor screen.

15.18.10 Step 10 UPS Set Up is Finished, Click 'Exit'.
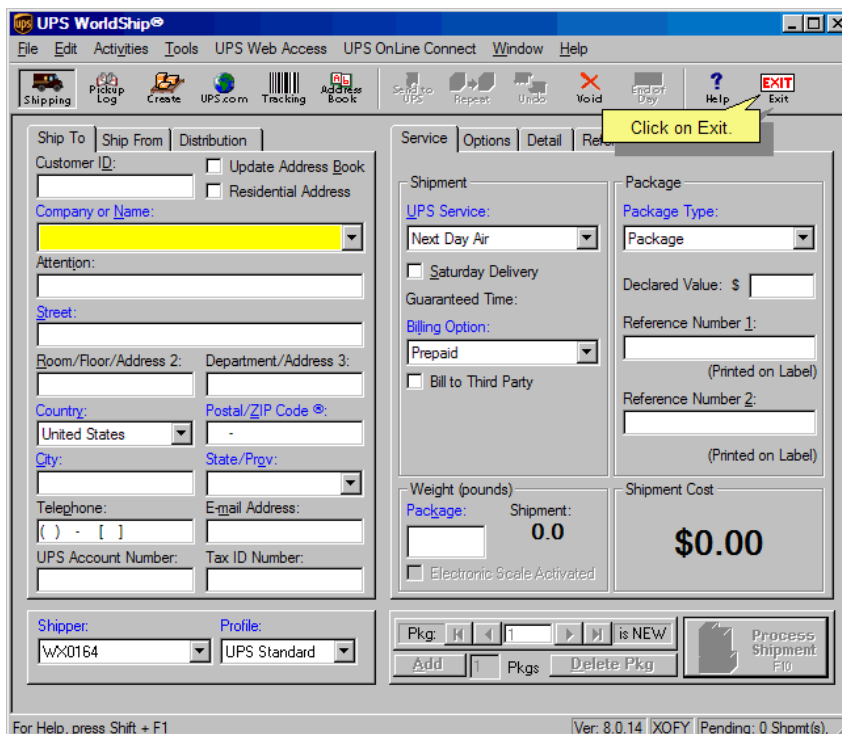
15.18.10 To add international UPS shipping methods to the 'Ship Via' Drop Down Box.

16.1 pc/MRP Optional Modules

Optional Modules

There are several optional modules available in pc/MRP. Most of these optional modules are testable in both the trial and full versions of pc/MRP. Below is a brief description of each optional module. For further information about each module, you can refer to the specific chapter for each optional module.

Optional Module Activation

Optional Modules can be activated by following the instructions below.

For users on the trial, simply select Configuration, Module Activation, and the desired module. Select 'Activate', and then select **Ten-Day** trial. Now from the drop down menu Optional you will see that applicable optional module activated. Modules activated while on pc/MRP's demo version do not expire. When the software is converted to a full version, they will simply be turned off until they are purchased.
Users that have a full version of pc/MRP can activate optional modules for ten (calendar) days by following the instructions above. After the 10 day trial period has expired, the modules will appear enabled (**8.70C** and above). To purchase an optional module and receive the activation code for that module contact Software Arts.

Once an optional module is activated, the optional module can be de-activated at any time by navigating to the **Configuration, Module Activation**, selecting the optional module, pressing the **De-Activate** button and re-entering the activation code.

Advanced Password Module

pc/MRP comes standard with one password. The optional Advanced Password Module allows administrators to define usernames, passwords, and individual rights per module for users of pc/MRP.

Infinite Bucket MRP Module (Scheduling)

pc/MRP comes standard with a one bucket MRP. The Single Bucket MRP does not schedule buy, issue, and make commands. The Optional Infinite Bucket MRP Module **schedules** buy, issue, and make commands according to due dates, lead times for assembly, and lead times from vendors.

Barcode Module

pc/MRP does not come standard with the ability to add Barcodes to reports or labels. When a customer purchases this module, they receive numerous barcode fonts as well a builder that guides the user through the process. Ask your sales representative for a current list of supports formats.

Engineering Change Notice (ECN) Module

This optional module allows users to keep track of ECNs.

Sales Analysis Module

This optional module has several reports that are not available through the standard reports found in pc/MRP.

Sales Quote Module

This optional module allows users to provide sales quotes to potential customers and convert these quotes over to real sales orders as desired.

Audit Trail Module

This optional module allows administrators to track all edits made in pc/MRP (Excluding Accounting). Once this module is activated all edits and deletes made will have a Name, Date, Time, and Edit made stamp.

Purchase Request Module

This optional module allows users to create external RFQs or internal purchase requests and convert them to real purchase orders as desired.

Serial/Lot Number Tracking Module

pc/MRP comes standard with the ability to track one serial or lot number per line item. The optional Serial/Lot Number Tracking Module allows users to track an infinite number of serial numbers per line item. Advanced Tracking and Composition Reports are available in Version **8.72B and above**.

Employee Time Tracking Module

This optional module allows users to create labor records per employee, sales order, or work order.

Alternate Currency Module

This optional module allows users to create sales orders and purchase orders in different currencies.

Inspection Module

This optional module allows users to define and enter inspection criteria, perform inspections, and run inspection reports.

Routing Module

This optional module allows users to have 25 Workstations in WIP.

Customer Bulk E-Mailer Module

This optional module utilizes the address book to allow users to send newsletters, advertisements, or other types of documents in bulk to specified address types. (Customers, Vendors, Employees)

QuickBooks Export Module

This optional module allows users routinely export AP, AR, inventory, and address data out of pc/MRP and import into QuickBooks.

Corporate Enterprise Reporting Module

The Corporate Enterprise Module allows companies to:

- Select one of three methods to have their parts list and BOMs automatically synchronized (including all indexes) across the world in real time.
- Switch from one division to another by selecting that division from the drop down menu.
- Print out consolidated financial reports for all divisions, business units, and the entire corporation. Currencies are automatically reconciled if pc/MRP's Alternate Currency Module is active.

User Task Manager & Tickler Module

The User Task Manager & Tickler Module allows companies to:

- Quickly enter a tickler and reminder date/time for notification.
- Enter detailed information about a task or project to track.

Electronic Data Exchange (EDI) Module Overview

The Electronic Data Exchange (EDI) Module allows companies to have electronic data exchange between you, your customers and vendors.

16.2 Advanced Password Module

16.2.1   Overview

pc/MRP's Advanced Password Module allows an infinite number of user name and password combinations. Each name and password combination can be assigned individual rights to each pc/MRP module. A user can have **N** No Access, **V** View only rights, **C** Create rights, **E** Edit rights, or **D** deletion rights to a module. pc/MRP encrypts the password database file.

An online slideshow is located here: http://www.pcmrp.com/mrp101/pw1.htm
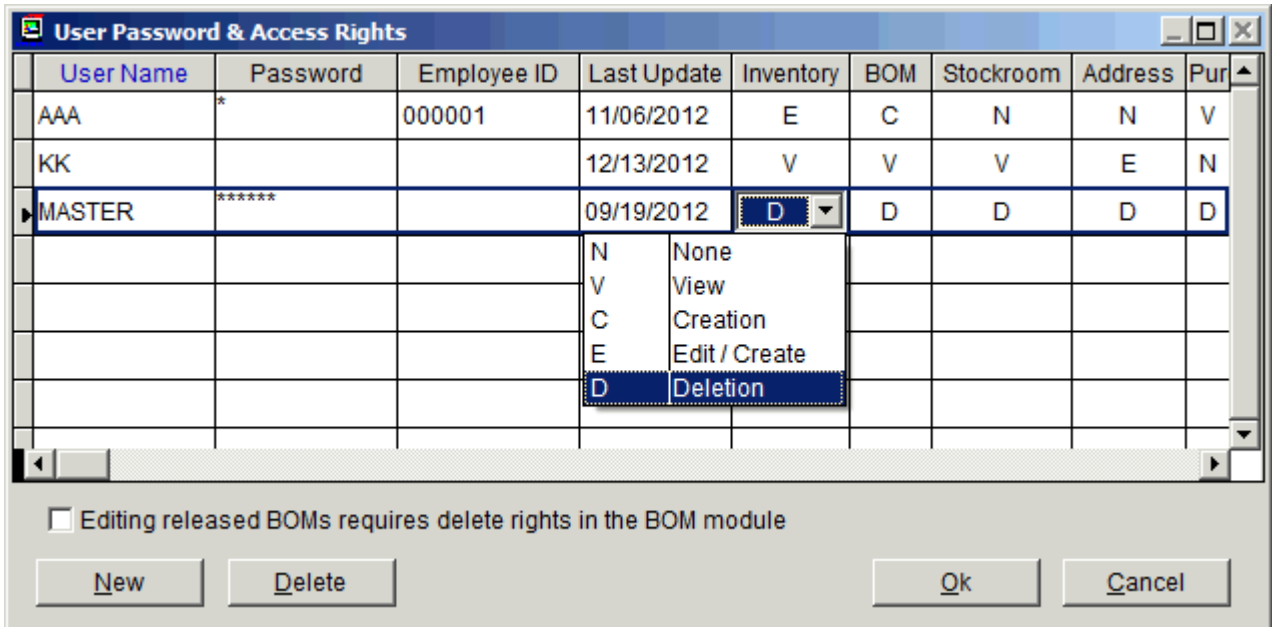
If users add a text file named **csthdr.flg** to the pcmrpw directory, the password module will allow both upper and lower case **e** and **v** to be entered. Using lower case letters will hide some of the costs fields in the inventory, stockroom and receiving modules. This feature is not supported and/or guaranteed.

Individual users have the ability to change their own passwords by selecting **Change Password** of the Current User. The user will be prompted to enter the current password, enter the new password, and confirm the new password.

To delete a user, select the user name and press the **Delete** button. The user's entry will turn red. Pressing the OK button will <u>remove</u> the marked user(s) and exit the Password module.

16.2.2   Installing the Advanced Password Module

To install PASSWORD, select Configuration, Module Activation, and then Password from the menu. Call Software Arts for the special activation number (Software Arts will invoice your company). Enter the special activation number when prompted. Exit pc/MRP and then re-enter pc/MRP using the name MASTER and the password MASTER. You might want to change the master password right away.

Please note that one of the passwords, named MASTER, has all access rights to all modules including the password module. You can change the name of MASTER; however, you should leave one password with access rights to all modules including the password module. This will allow the network supervisor to be able to change the passwords in the future if necessary.

16.2.3 Adding, Editing and Deleting within the Advanced Password Module

Go to pc/MRP's Main Menu and select the Advanced Password Module. Select New to enter a new user. You can **Create a New Record** with all rights initially as "N", or might select an existing user who's setting are similar to the user you are about to enter, and **Duplicate the Selected Record** for a starting point.
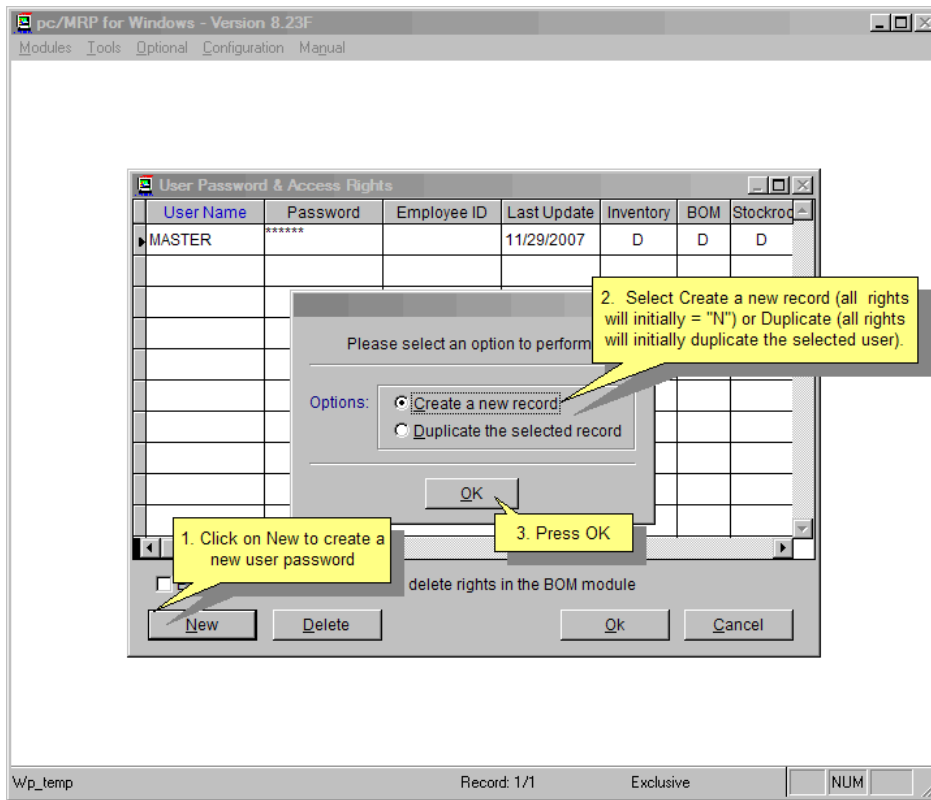
pc/MRP allows you to select what **Inventory Areas** will be hidden from a user. (**8.32 and above**.)
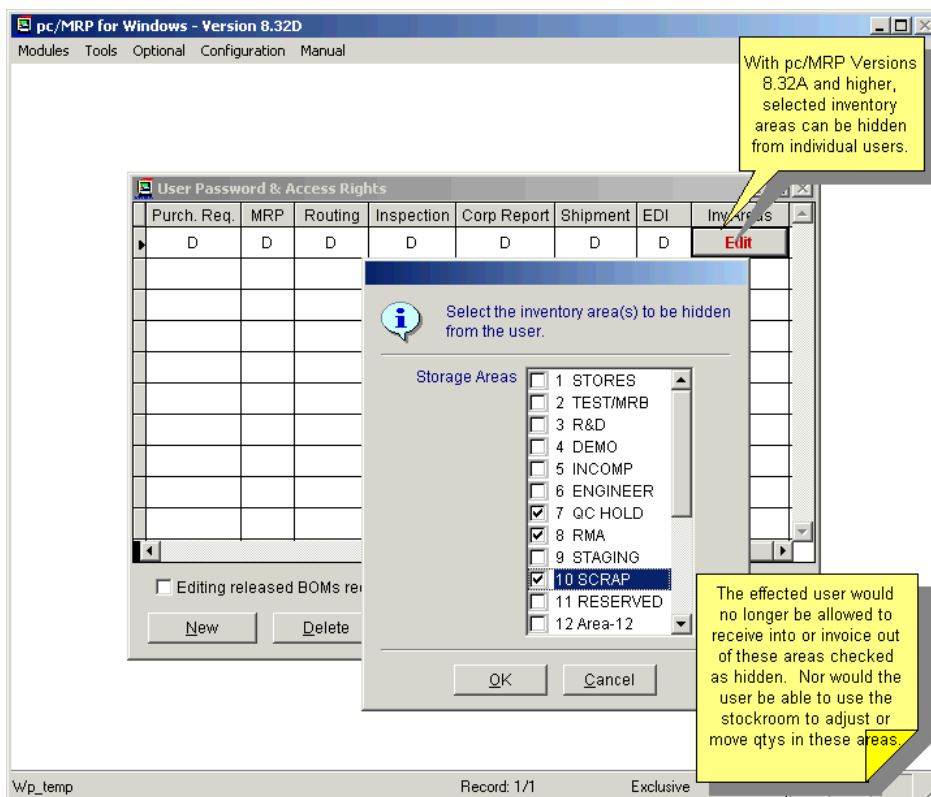
Checking the '**Editing released BOMs requires Delete rights in the BOM module**' checkbox this box will require a user editing a released BOM to have **D**elete rights to the BOM Module. Please see Section 12.1.8 for more information. (**8.11B and higher**.)

Note: If this box is checked, the BOM status can be set only to Preliminary or Released (not Blank). For newly created BOMs Preliminary will be default. Already existing BOMs with a Blank status will remain Blank. Once changed to either Preliminary or Released, the status can not be changed back to Blank. Only users with BOM Delete rights will be able to edit Released BOMs.

Note: The optional Infinite Bucket module has a checkbox to include demand for Sales/Works Orders for Preliminary BOMs. Unchecked, pc/MRP may under order. Checked, pc/MRP may order wrong parts.

16.2.4   Password Settings

pc/MRP supports Sarbanes-Oxley password rules (Optional, Password, Default Settings); (**8.23 and above**) see below:
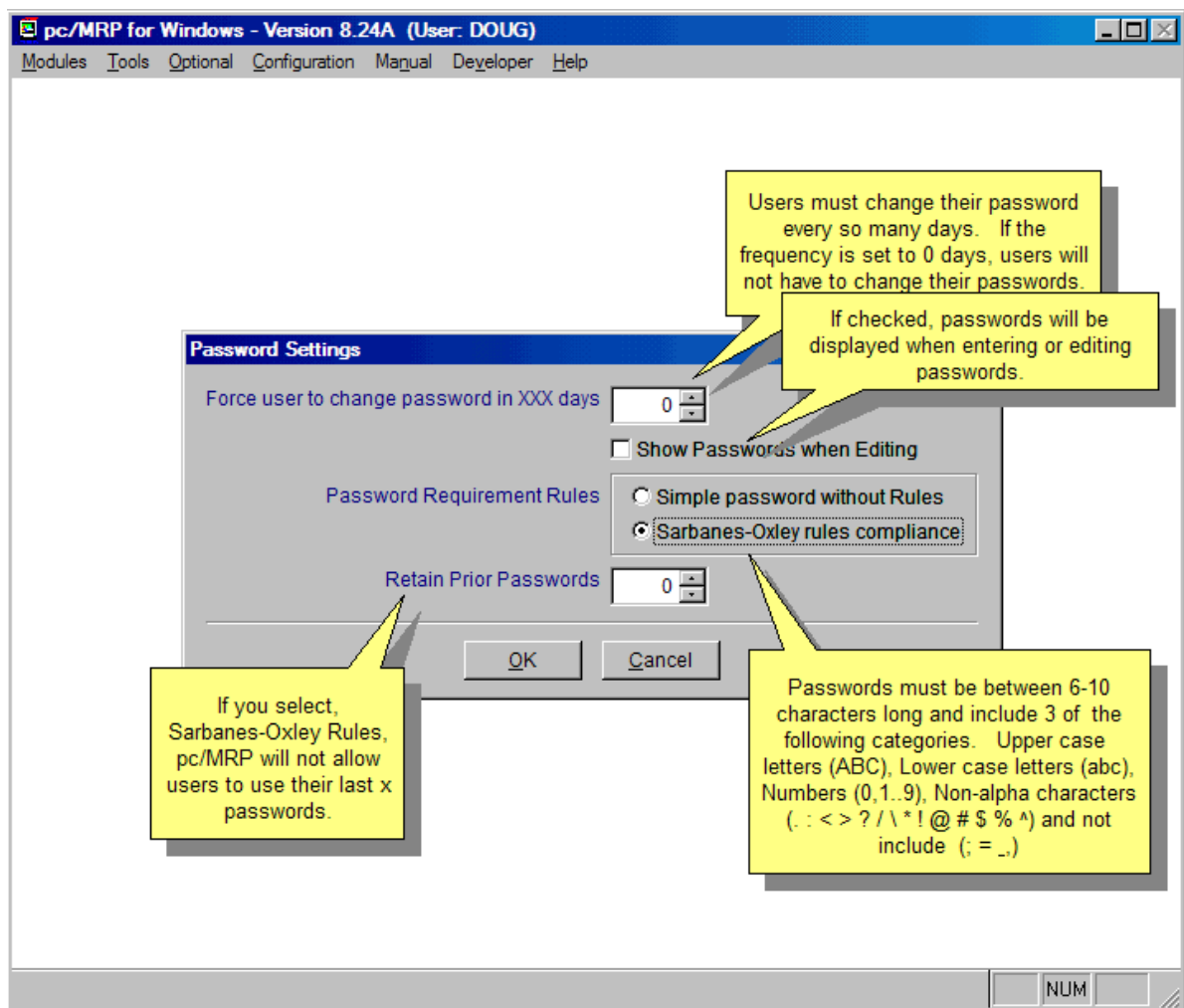
You can set up a password **refresh frequencies**. If the password refresh frequency is set to 1 or more days, users will be prompted to enter a new password when they exceed the number of days allowed or the lastupdate field is empty for the user.

You can set whether passwords will be **displayed or hidden** when entering passwords.

Action to be performed		Rights needed
Cost Roll-up (if set by Option 47)	**E**	Accounting
Edit an invoice or a receiver that has been posted or paid	**E**	Accounting
Credit Memos, New | Credit Memos, Attach		Accounting
Create an Independent credit memo and print a refund check		Accounting
Display general ledger transaction report	**V**	Accounting
Automatically update the GL when entering an invoice or receiver (if auto accounting is set on)	**E**	Accounting
Alternate Currency Module		Accounting
Employee tracking module, Time sheet module		Accounting
Convert purchase request to purchase order	**E**	Accounting, Purchase
Viewing, Creating or Editing BOMs needs the same or higher rights to the Inventory module		BOM module Inventory module
Edit released BOMs (if "Editing released BOMs requires Delete rights in the BOM module" was checked")	**D**	BOM module
Edit Configuration settings	**E**	Configuration menu
Set or remove Administrative Lockout	**D**	Configuration menu
Define schedules	**D**	Configuration menu
Task Manager System Wide Settings	**D**	Configuration menu
Physical Inventory: update OH qty and zero out team counts	**D**	Inventory
Access to the Command Line	**D**	Password
Inspection Module, Criteria Templates: Allow Exemptions, Admin only	**D**	Password
Routing Module: Allow Deletions/Editing of Fields, Admin only		Password
MRP: Automatically create purchase orders	**E**	Purchase
MRP, Push-Pull Report: Update PO dates and zero out cancelled POs	**E**	Purchase, MRP
Create credit memo from the Sales module (if set by Option 95)	**C**	Sales
Reindex a file	**D**	that module

16.3 Infinite Bucket MRP Module
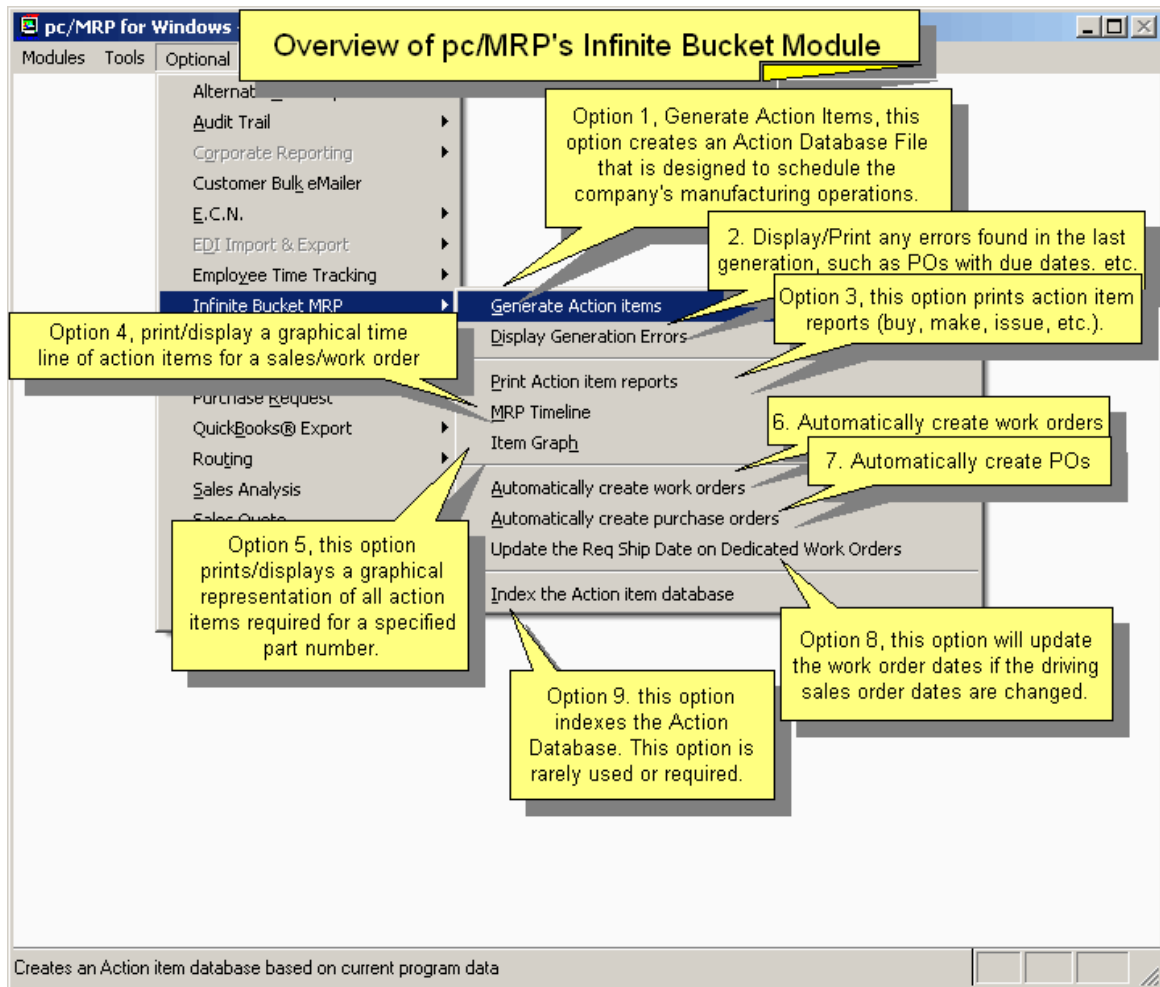
16.3.1 Overview

pc/MRP's Infinite Bucket MRP module generates an action.dbf file containing dated action items (buy, make, issue, etc.). Once the action.dbf file has been generated, the data can be used to print out various purchasing and manufacturing scheduling reports. All action items are pegged (contains the driving sales/work order number). An online slideshow is located here: http://www.pcmrp.com/mrp101/mrpgenerate1.htm

The MRP reports are only correct right after the MRP was generated. The longer the time between the MRP generations, the more outdated your reports will be. pc/MRP displays the date the MRP was last run (versions **8.73D** and above). to learn about how to schedule automatic MRP runs, see the pc/MRP Scheduled Tasks in Chapter 15.16 of this Manual.

pc/MRP's Infinite Bucket MRP module can be activated by the phone by contacting Software Arts at 408-226-7321 and obtaining the activation code number for this module. Click on the Configuration Option in pc/MRP's top menu bar, selection Module Activation, and enter the activation code number when prompted.

Using pc/MRP for Capacity Planning for Labor and Workstations (Machine Control)

To implement capacity planning for labor and workstations, you must associate inside labor parts with their respective workstations. In others words, you could have an inside labor part called "Wire Crimping Labor". Another inside labor part might be called "Wave Soldering Labor". Each inside labor part would have a unit of one hour and a cost for one hour of labor. Add these inside labor parts to your BOMs. For example, one specific cable assembly may require .05 hours of crimping labor. After you generate an MRP, print a weekly consolidated MRP Report. This report will display the number of labor hours required per week for each workstation.

16.3.2   Generating MRP Action Items

To generate MRP requirements, select "Optional" from pc/MRP's top menu bar. Select "Infinite Bucket MRP". Select "Generate MRP Action Items" as shown in the top window above. The second window, shown above will allow you to select the inventory areas (stores and area2-area20) to fill the requirements.

Note: If a file named "**MrpAllowWip.Flg**" exist in the pc/MRP directory, users can include WIP. (This file can be created with Note Pad.) (versions **8.16C and higher**)

Recommendations for companies that use the stock room's "I" type issue method to issue stock to manufacturing, and "L" type issues to cover breakage and items missing on the BOM: Do not include WIP. The items in WIP have already been issued to existing sales and work orders on the floor and do not need to be reissued. If you use the default (do not include WIP), pc/MRP will generate action items to fill shortages for sales and work orders that have already been issued to manufacturing. The BUY and ISSUE action item dates for shortages for sales/work orders that have been issued to the manufacturing floor will be time phased from the date the report was run and not based on when the sales order is due. The reason for this is to get the parts in as early as possible since the sales/work order is on the manufacturing floor being built.

Recommendations for companies that use the stock room's "L" type issue method instead of the "I" type, to issue stock to manufacturing: Select the "Include WIP" option. This is the only method that will work for those companies using the "L" type issues only. Selecting Include WIP has the drawback of creating issue action items for parts and assemblies that have already been issued. If you do "Include WIP", pc/MRP will generate action items to reissue sales and work orders that have already been issued to manufacturing.

You must also select the items that will drive the demand open sales, open work orders and/or open sales quotes. Sales quotes can be tempered using the probability field.

Work orders do not need to be created for sales orders as the stockroom can issue parts directly to sales orders.

If you do create work orders to fill existing sales orders, create work orders for sub-assemblies and check the work orders as consumable.   Make sure the work order's date required is prior to the sales order's date required. Check both Sales Orders and Work Orders to drive demand.

If work orders are meant to keep the plant busy and not fill existing sales orders, do not check the work orders as consumable.   Check both Sales Orders and Work Orders to drive demand.

If sales orders are checked as requiring dedicated work orders, pc/MRP will expect to find dedicated work orders for a all the sub-assemblies that go into that sales order. It will display an error list if the dedicated work orders are missing or have incorrect quantities.

If "Sale/WO with Preliminary BOM" is checked, pc/MRP will include SOs/WOs for Preliminary BOMs (as the top assembly) (according to whether the first and/or the second box is checked). (Blank is *not* Preliminary.)

In addition, you can generate your labor requirements, if you check the labor requirements box and you have labor entered into your BOMs.

When generating an MRP, pc/MRP proceeds as follows:
- Enters ONHAND records in the action and available dbf files.
- Enters PO records in the action and available dbf files.
- Allocates completed work and sales orders that have not shipped.
- Allocates parts below min from avail and enters BUY records if not available.
- Process all open sales orders, work orders and sales quotes in date required order creating BUY, ISSUE, MAKE, and SALE action items based on available quantities (after allocation), BOMs, and lead times.

When generating an MRP, pc/MRP will generate the following types of action records.
- SALE.....Existing open sales/work order for a part/assembly number
- ONHAND...Existing on hand quantity - minqty of a part/assembly number
- PO.......Existing open purchase order for a part number
- BUY......Computer generated buy requirement for a part number
- ISSUE....Computer generated stock issue requirement for a part/assembly number
- MAKE.....Computer generated make assembly/subassembly requirement for an assembly
- LABOR....Computer generated labor requirement generated after on hand quantity has been allocated

Note: If pc/MRP generates a "MAKE" action item for an assembly and the driving sales/work order is listed as "MINQTY", you should create a consumable work order for that assembly and rerun the MRP with the new work order(s). To see what will drive the BOM minimum quantity, enter 'MINQTY' in the selection box for SO/WO# when you select the All for a Sales/Work Order Number.

When generating a "BUY" action item, pc/MRP will use the standard order quantity (for part numbers) if the standard order quantity is greater than the quantity required. It will place the excess in the avail.dbf file to fill additional purchase requirements.

If you select Include Labor, when you generate your MRP, pc/MRP will generate LABOR action items once the onhand quantity and purchasing quantity of action items has been allocated. To see your total labor requirements, make sure the on hand quantity of labor action items in the partmaster is equal to 0.

Once the Infinite Bucket Module has finished generating the action items, it will update the MRP Available field for each part in the part master. The MRP Available field will contain the quantity available after allocation (onhand+POs−issues and sales action items). A negative quantity in this field indicates that the part needs to be purchased and BUY action items were generated. However, please note that the BUY action items may not equal the qty available as the BUY action items can be increased by the standard order qty. If the total quantity of the selected areas is negative, pc/MRP will consider the total quantity of the selected areas to be 0 when calculating the new quantity available. When pc/MRP re-calculates the quantity available field for assemblies and sub-assemblies it does not increase the quantity available for make action items. It simply takes the total quantity of the selected areas (it will use 0 if total quantity of the selected areas is <0) and subtracts the quantity of the SALE action items. It does not increase the available quantity from MAKE action items as these assemblies are consumed by higher-level assemblies reporting directly to a sales or work order. If it is a top-level assembly for a sales or work order, it does not increase the quantity available as the sales or work order is not available until it is returned from stock as finished assembly.

pc/MRP will assign the driving sales/work order to existing PO action items based on the earliest sales/work order that needs to allocate parts from that PO. pc/MRP does not carry over the related document number into the avail database file. As such, the Infinite Bucket reports may indicate that a sales order with an earlier due date requires this PO.

Sales Quotes with a date required less than the current date would not be used for the MRP run. pc/MRP will insert the sales quote into the error file notifying you that the MRP run did not use this sales quote.

pc/MRP version **8.16D and higher** will create a **MrpInProgress.Flg** file whenever an MRP is generated.   This file will keep others from using the Infinite Bucket Module while the flag file is in existence. The MrpInProgress.flg file is automatically deleted after the mrp generation is complete or the MrpInProgress file is over an hour old and a user tries to access the Infinite Bucket Module.

pc/MRP version **8.20F and higher** check for exclusive use of the action dbf file prior to allowing a person to generate an MRP.   If the person generating the MRP gets an error message indicating the action dbf file is in use, it means another person is printing or displaying an MRP report.   The person trying to generate an MRP must wait until the person generating an MRP report is finished.

pc/MRP version **8.20H and higher** checks to ensure that sales order line item qtys that have been assembled but not shipped are still available. If assemblies are missing, it adds the error message "Error, sales orders for part number xxx were assembled but not shipped. Please create a consumable work order for xxx units and re-generate the MRP."

With pc/MRP version **8.73L and higher** the MRP will go through Stockroom to find shortages. If a subassembly is preliminary and is listed as a shortage, it will not be included, and will be reported as excluded on the error list. When processing the open sales and work orders, is the sales or work order contains a preliminary assembly or top assembly, it will not be included, and will be reported as excluded on the error list.

16.3.3 Print/Display Action Item Reports

Selecting Print/Display Action Item Reports brings up the following screen:
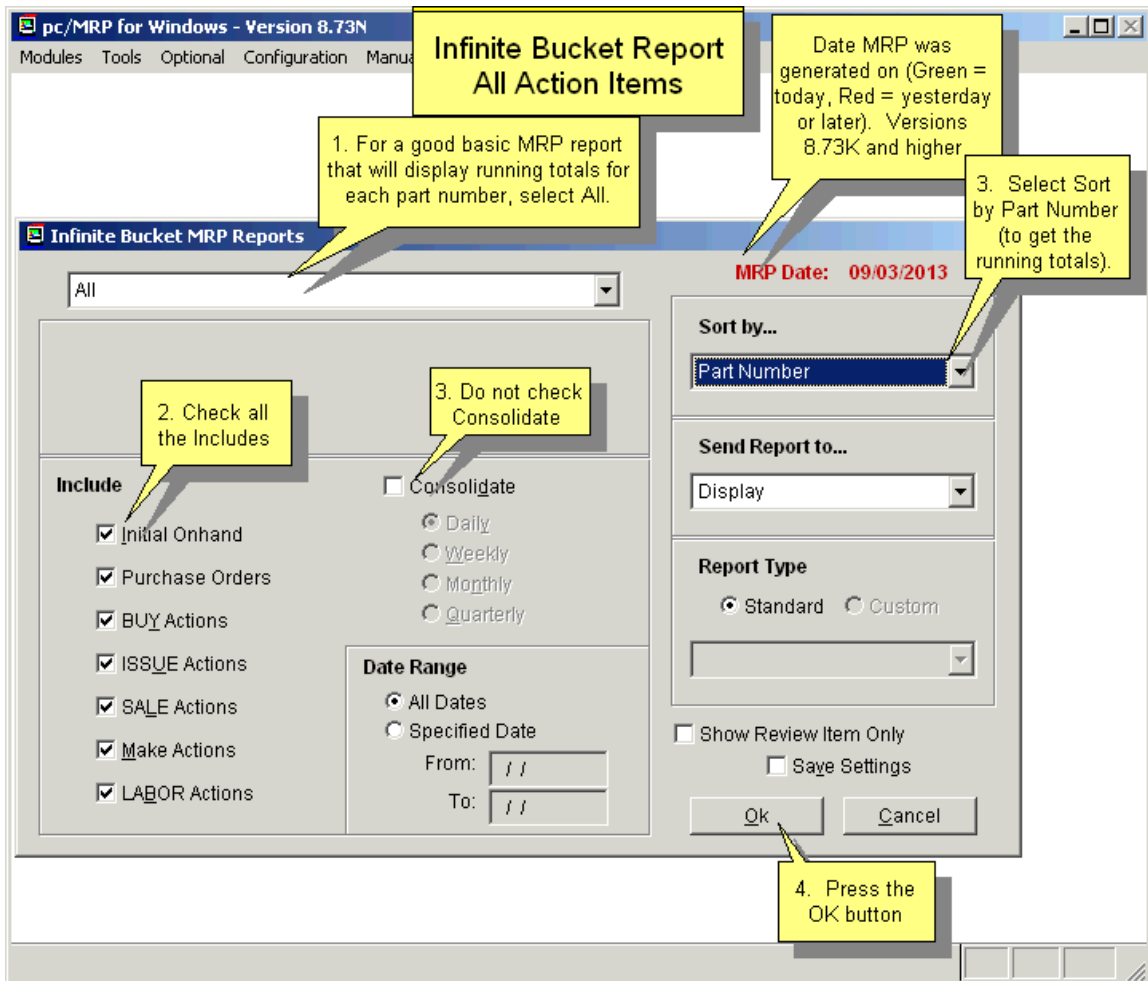
Note: When creating an action item report for a Sales Quote, select All for a Sales / Work Order Number. You must type in the quote number and the line item number starting with a Q as pc/MRP will only scroll for sales and work order numbers. For sales quote 000002 line item 0001 you would type in 000002 and Q001. pc/MRP will display all the action items for that sales quote line item number including buy action items.

Note: The date the MRP was last generated is displayed in green if the MRP was last generated on the current day. The date is displayed in red and bold, if the MRP is older than that. Each report displays this time stamp.

Note: Versions lower than **8.73** did not display the date the MRP was last generated.

16.3.3.1 Non-Consolidated Reports

Not checking the "Consolidation" check box will print/display all individual action items. The non-consolidated reports can provide daily lists or schedule of action items. This type of report can be used to see exactly what is going on for a particular part number or sales order. An example of a non-consolidated MRP report follows:

The non-consolidation report MRP (mrp2.frx) uses the action.dbf and includes the following columns:

- Action SALE, PO, ONHAND, BUY, ISSUE, MAKE (ActType)
- Driving Sales/WO (ActReldoc)
- Driving Sale/WO item # (ActRelIte)
- PO# , only used for PO action items (ActDoc)
- PO Item # only used for PO action items (ActItem)
- Vendor ID (ActVend)
- Part/Assy # (PartNo)
- Part/Assy Description (ActDescr)
- Action Quantity (ActQty)
- Running Total (only if all items are included and the following is true)
  - Running Part Total (all action items for a part number sorted by date)
  - Running Total (all action items or all for a part sorted by part number)
- Start Date (ActSDate) PO date, BUY 'place on date', or MAKE start date (back calculated from SO/WO date required minus assy, sub-assy, and component lead times)
- End Date (ActEDate) PO date required, BUY due date, MAKE finish date (back calculated from SO/WO due date minus assy and sub-assy lead times)
- Review (review)
  - Will contain a Y if the scheduled delivery date is less than the current date or the lead-time exceeds the scheduled delivery date.

- Will contain an S if it is a shortage on the mfg floor for a sales/work order that has already been issued.
- Action.Dbf Fields not included on the Mrp2.frx Report
  - Dedicated Sales Order Number (RelSoNo)
  - Dedicated Sales Order Item Number (RelItemNo)
  - Division (Division) inserted from partmaster
  - Top Assembly listed on the driving sales/work order number (TopAssy)
  - Parent Assembly (ParAssy) not used at this time.
  - (SourceIss), Not used at this time.

Software Arts recommends printing the following non-consolidated report after generating an MRP. Deselect the Consolidated Check Box, if checked. Select all action items to include, (Initial Onhand Quantity, Purchase Orders, BUY, ISSUE, SALE, Make, and LABOR) sorted by part number (sub-sorts by date). This provides a list of to do action items for each part number with a running onhand total since the part number sort is sub sorted by date.

If there is a question about a part number's action item quantities, run the following non-consolidated report. Deselect the Consolidated Check Box, if checked. Select "All for a part number" and include all action items (Initial Onhand Quantity, Purchase Orders, BUY, ISSUE, SALE, Make and LABOR) sorted by date. This provides a list of to do action items for that part number with a running onhand since the action items are sorted by date.

Running totals are incremented by ONHAND, PO, and BUY action items. Running totals are decremented by ISSUE and SALE action items. Running totals are NOT incremented for MAKE action items driven by a higher-level sales/work orders as these subassys go into the higher-level assemblies for the driving sales/work order and not into inventory. If a sales or work order is created for a MAKE action item, the running total will be increased as that item must go back into stock and will be issued to another sales or work order later.

pc/MRP marks **virtual makes** with **MAKE(V)**. This indicates this assembly is scheduled to be issued as parts when a higher level sales order or work order is issued. If you were to create its own work order (Optional, Infinite Bucket, Auto Create Work Orders), regenerate the MRP, and display this report again, it would have its own work order number and no longer be marked as virtual. However you will now have to issue and receive back this work order before you issue the higher level work or sales order. Virtual Makes allow manufacturing to work on the entire job concurrently. (This feature is available **Versions 8.72D** and higher.)

16.3.3.2 Consolidated Reports

Checking the "Consolidated" check box allows you to print out consolidated MRP reports. These reports will consolidate and sub-total the action items based on the consolidation period selected. As a result, the consolidated reports are shorter than the non-consolidated reports but they are not as detailed. If you wanted to create work orders for sub-assemblies, you could run a monthly consolidation report, create consumable work orders for every sub-assemblies make action item whose due date was the first of the month, and then regenerate your MRP. Please note, that it is not necessary to create a work order for every sub-assembly with pc/MRP. An example of a consolidation report follows:

pc/MRP IB-MRP Consolidated Example Report

The consolidated MRP report (mrp2cons.frx) uses the mrp2cons.dbf file and includes the columns shown above.

16.3.3.3 Excess Inventory Report
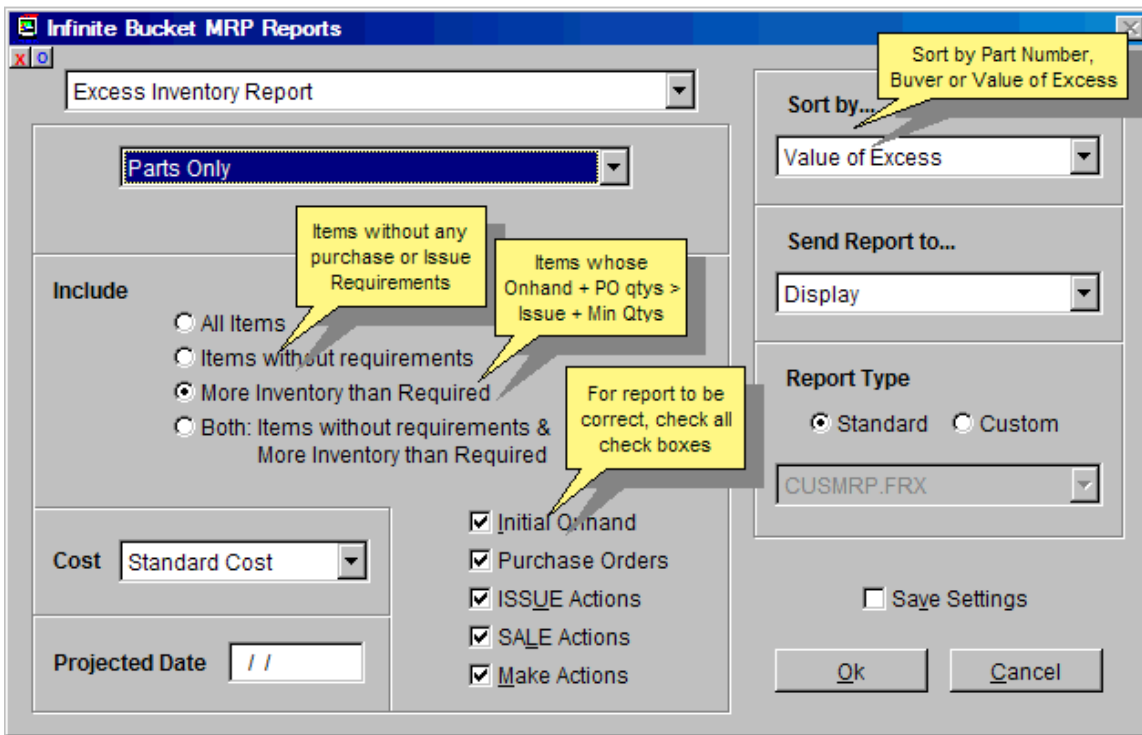
Selecting the Excess Inventory Options will print/display a report similar to the report shown below.

The above columns consist of the following action item quantities
- The onhand action item qty into onhand qty column
- The sum of the make and PO action item quantities into the make qty column
- The sum of the issue and sale action item quantities into the usage qty column
- The minimum qty into the minimum qty column
- The onhand + make - usage - min quantities into the excess qty column

This report uses action.dbf (parent) and partmast.dbf (child) to create an exectmp.dbf file. It then uses the exectmp.dbf file and the mrp2execs form to create the report. This report uses program code (and not report code) to total up the column quantities.

This report adds an additional issue transaction for make transaction types when the part number does not equal the top assembly number. This keeps subassemblies for sales and work order subassemblies from showing up as excess. The excess inventory report does not print/display parts or assemblies that are not in excess. Checking the include checkboxes to include initial onhand quantities, purchase orders, etc. will make sure these action items are included in the above quantity calculations.

When a Projected Date is entered, the excess inventory report displays any inventory that would not be used as of the Projected Date. This inventory may not be excess as there may be additional Issue/Buy/PO/Sale action requirements beyond the projected date.

pc/MRP will display items without excess inventory if you select, "Include All Items". The Excess Inventory for items without excess inventory will = $0.00.

16.3.3.4 Pre-Shortage Report

This report lists all Buy and PO action items including the push pull dates for the Purchase Order action items. This report (mrp2cbpp.frx) uses the action.dbf as the parent database file and purchase.dbf and mrppart are the child dbf files of the action.dbf file. The Issue action items will only be displayed if there is a problem with the issue (a capital "Y" in the review field).

16.3.3.5 Push Pull Report

The Infinite Bucket Push Pull Report lists each PO with its scheduled delivery date and pc/MRP's recommended delivery date. This report is available after an MRP generation and has the option to modify the PO date required as well as zero-out cancelled POs. This report (pushpull.frx) uses avail.dbf as the parent database with mrpso.dbf and mrppart.dbf as child database files. You must have PO & MRP "**Edit**" rights to enable the "Update PO Dates & Zero out Cancelled POs." **It is always advisable to produce a report first before updating the dates & quantities.**
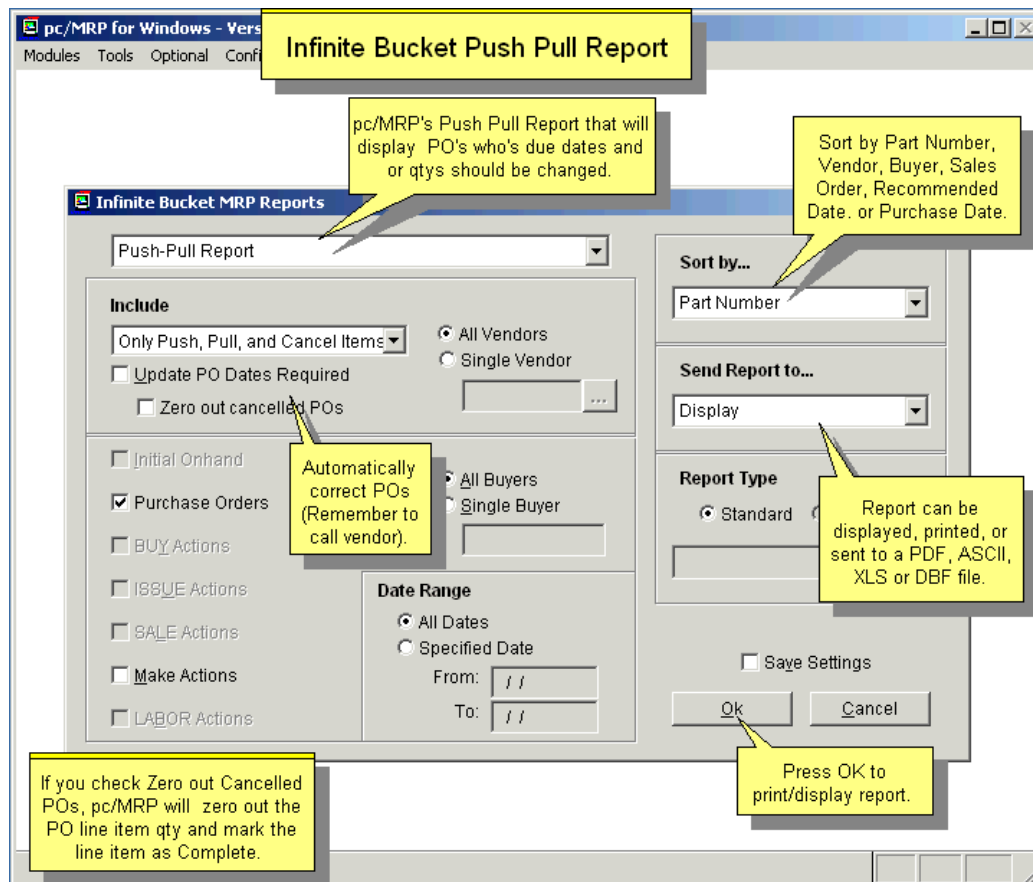
If you select to update the PO dates and quantities, please heed the warnings below.

When you check the "Update PO Dates Required" with or without the "Zero out cancelled POs", you will get the message below asking for verification. Also, it is not advisable to "Save Settings" with these settings set as this will automatically update all POs as needed every time it is run and you in-advertantly press YES!

User Confirmation is Required

Please be advised that your currently selected report options are configured such that they WILL alter your existing Purchase Orders by updating the Dates Required and/or Zeroing Out cancelled PO items.

Are you sure that you want to alter your Purchase Orders based on this report data?

Yes   No

pc/MRP Versions 8.64L, 8.70A, 8.71B and higher added the Driving Sales Order Date Required to help determine why a PO was assigned to a sales order. Sales/Work Orders with earlier due dates get the onhand qtys and POs with the earliest due dates. Later Sales/Work Orders get POs with later due dates and BUY Action Items.

16.3.3.6 Issued Shortage Report

pc/MRP's Issued Shortage Report lists all issued stockroom shortages. It uses the Action Item data base file, action.dbf. It sets both mrpstock and mrpso as children database files. When it locates a make action item for the top assembly of a sales/work order, it will insert a record into TempShrt.dbf for every stockroom part number issued to that sales/work order. The TempShrt.dbf record contains the sales order's mrpso.issuedtmf, mrpso.orqtyreq, mrpso.qtyassm fields and the stockroom's mrpstock.qtyissued, mrpstock.qtyreq fields. The routing dbf is a child of the TempShrt.dbf. The report MrpShrt2.frx will use the tempshrt.dbf and display all stock room shortage records where the qtyissued < qtyreq. This report must be run right after an MRP run and not days later as it captures the shortages on the day the MRP is run. If sufficient inventory exists to cover the MAKE action item for a sales order, the sales order will not appear on the report (SOs that have not been issued yet).

16.3.3.7 MRP Buy Report

The MRP Buy Report uses the action data base file with the partmast.dbf as the child file. It displays buy action items using the Mrp2Buy.frx report form. This report uses the average cost from the partmaster.

16.3.3.8 MRP Time Line

The MRP Time Line can be used to display or print a graphical representation of the MRP requirements.
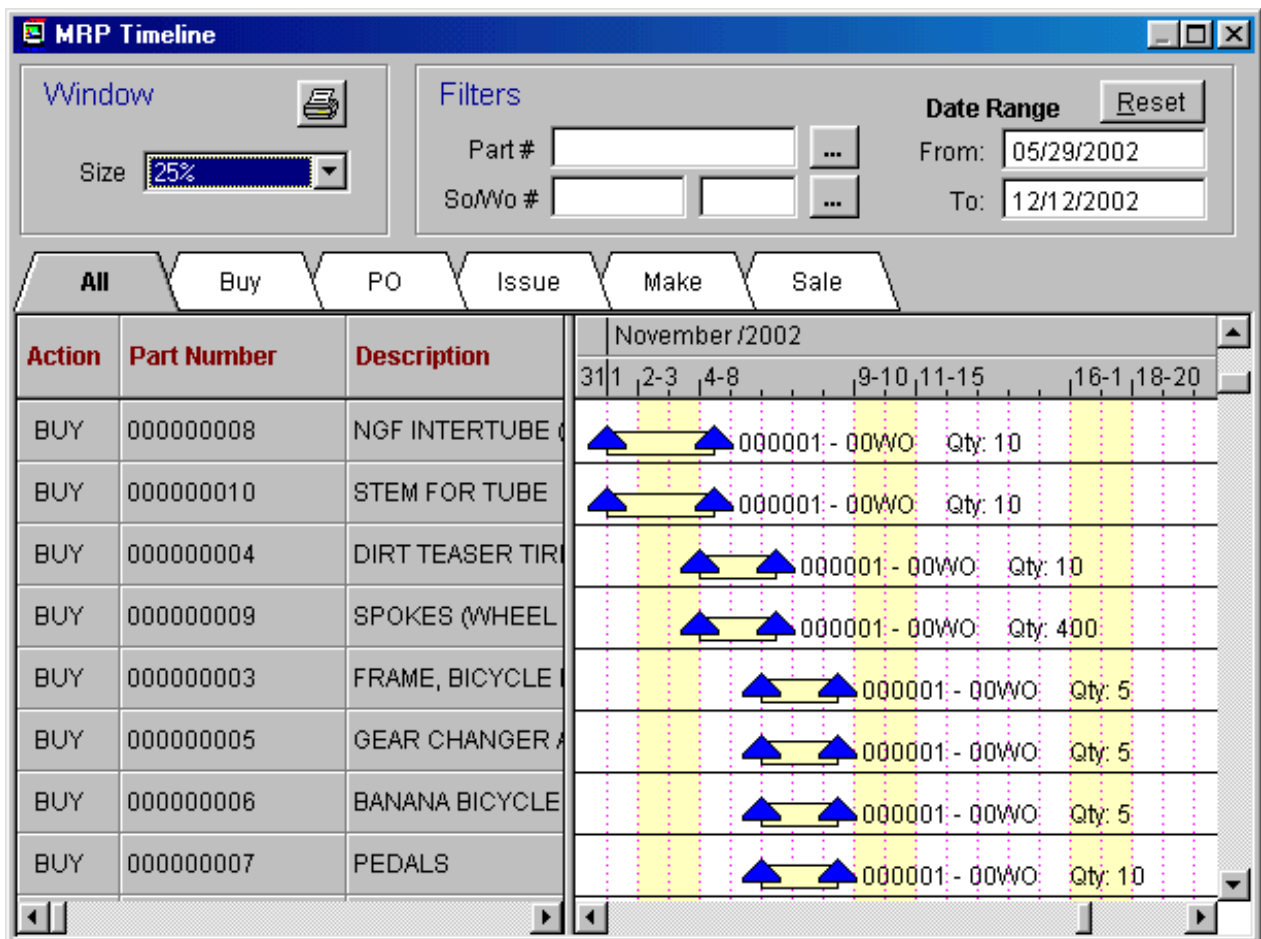
The MRP Time Line can display **All** actions, or just **Buy**s, open Purchase Orders (**PO**), **Issue**s, **Make**s, or **Sale**s. Actions can be further filtered by specific part numbers, sales or work order numbers, and specific date ranges.

16.3.3.9 MRP Item Graph

Choosing Item Graph from the menu will present a graph similar to the one show below.
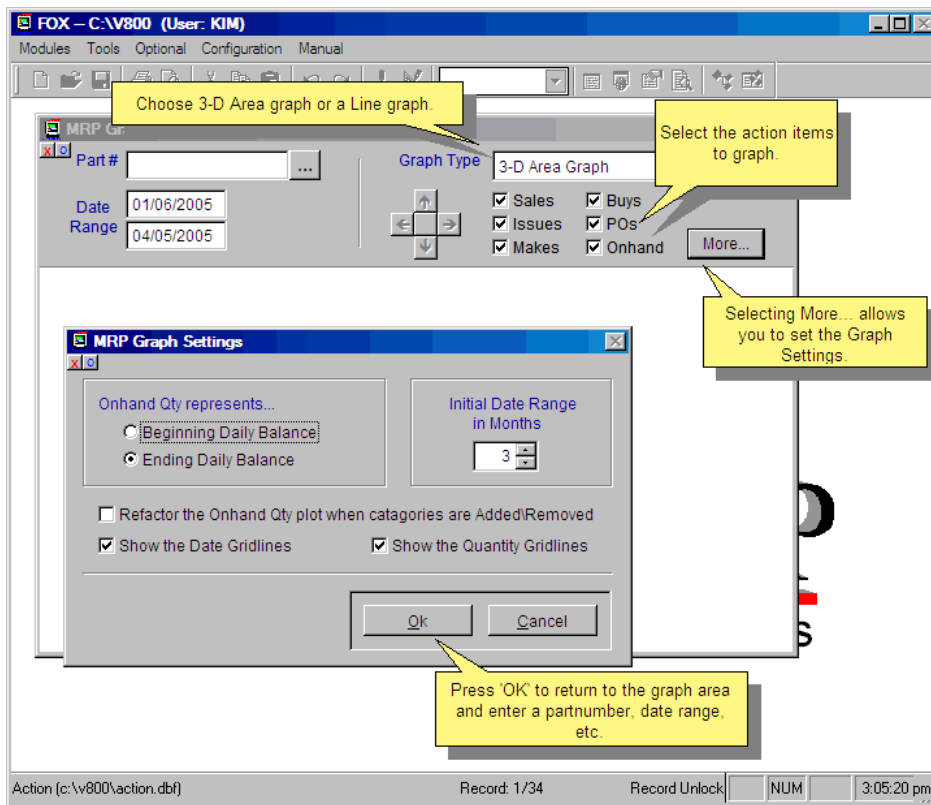
Now, as you set up your graph parameters, the graph appears.
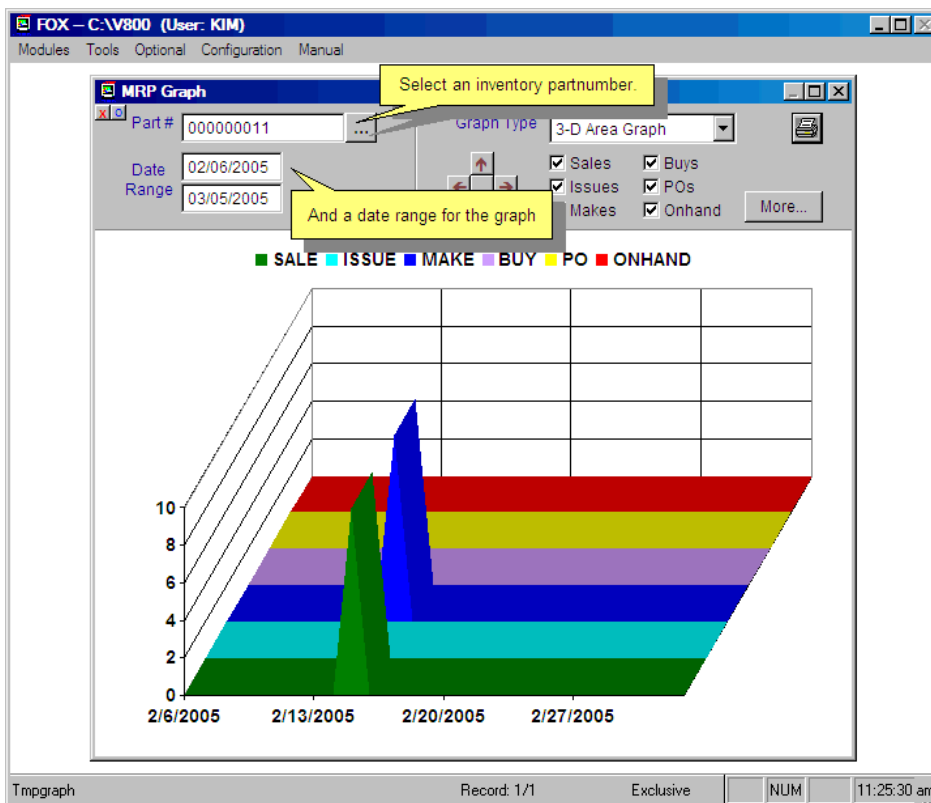
The print button in the upper right corner allows printing of the graph and / or data.

16.3.4   Automatically Create Work Orders

http://www.pcmrp.com/mrp101/mrpmenuautocreatewos.htm

Please note that you are 'micro-managing' your MRP when you select this option!

Infinite Bucker Auto Create Lower Level Work Orders Only

pc/MRP Versions 8.54L and higher contain the option to Automatically create work orders. Version 8.63D added the drop down list box to select Top Assys Only and All Assemblies.

Select Consolidation, None, by Day, Week or Month

Selecting Lower Level will display all lower level make action items that no work order has been created for (action.partno # sales.partno). pc/MRP Version's 8.54L - 8.63C use this method only.

Order Consolidation: Order per Requirement

Select Make Action Items For :

Lower Level Sub-Assemblies Only

Quantities for the sub-assemblies

Date Req for the sub-assemblies

	Driving Sales/Work	Assembly#	Description	Make Qty	Start Date	End Date	Show WO
☑	000102-0001	000000010	WHEEL ASSY	20.000	05/10/2012	05/13/2012	☐
☑	000104-0001*	000000010	WHEEL ASSY	40.000	06/29/2012	07/02/2012	

Check the work orders to be created.

Sales / Work Order requiring the work order for subassys.

Pressing the OK Button will create consumable work orders for the selected make action items. It will fill in the WoQty field in Action.Dbf to prevent pc/MRP from generating more work orders if this is run again prior to regenerating an MRP. When the MRP is regenerated it uses the new work orders and will not display makes for those work orders. The work order date required will be 1 day earlier than the make action Item's date required, If you selected to consolidate your work orders, the work order's date required will be the first day (Monday) of the week or the first day of the month.

Check Show WO if you wish to view the work orders first before they are created. This allows you to cancel some and save others.

Auto Select

Select None

* = The driving sales/work order requires dedicated work orders and not subject to consolidation nor will a work order be created for the top assembly. If the sales/work order is modified, you will have to edit the work orders.

Ok   Exit

Auto Select will allow you to select for All Records, All for a specified Sales/Work Order, or All for an Assembly

Makeactioncurs

Exclusive

Infinite Bucker Auto Create Top Level Work Orders Only

VFP - C:\V863 (User: DOUG)

Modules Tools Optional Configuration

Only display makes that must be started on or before a specified date.

Generate Work Orders For Make Actions Automatically

Order Consolidation: Order per Requirement   Date Range: Start on or Before a Given Date

Select Make Action Items For :   Date: 12/08/2012

Top Level Assemblies Only

	Driving Sales/Work	Assembly#	Description	Make Qty	Start Date	End Date	Show WO
☐	000101-0001	000000010	WHEEL ASSY	10.000	05/05/2012	05/08/2012	☐
☐	000102-0001	000000011	REAR WHEEL ASSY	10.000	05/13/2012	05/18/2012	☐

Note: pc/MRP does not offer to make a work order for the top level assy on sales order 104 as sales order 104 requires dedicated work orders

Selecting Top Level will display all top level make action items that no work order has been created for (action.partno =sales.partno). Available on pc/MRP Version's 8.63D and higher.

Auto Select

Select None

* = The driving sales/work order requires dedicated work orders and not subject to consolidation nor will a work order be created for the top assembly. If the sales/work order is modified, you will have to edit the work orders.

Ok   Exit

Makeactioncursor   Record: 1/2   Exclusive

VFP - C:\V863 (User: DO

Modules Tools Optional C

Infinite Bucket Auto Create Work Orders for Upper and Lower Level Assemblies

Selecting All Assemblies will display all make action items that no work order has been created for (action.partno # sales.partno). This is the only selection that will create work orders for Min Qtys

Generate Work Orders For Make Actions Automatically

Order Consolidation: Order per Requirement

Select Make Action Items For :   Date: 12/08/2012

All Assemblies

	Driving Sales/Work	Assembly#	Description	Make Qty	Start Date	End Date	Show WO
☑	000102-0001	000000010	WHEEL ASSY	20.000	05/10/2012	05/13/2012	☐
☑	000104-0001	000000010	WHEEL ASSY	40.000	06/29/2012	07/02/2012	☐
☑	000101-0	000000010	WHEEL ASSY	10.000	05/05/2012	05/08/2012	☐
☑	000102-	00000007	REAR WHEEL ASSY	10.000	05/13/2012	05/18/2012	☐

Make for a sub-assy of sales order 102. Will create a consumable work order

Make for a sub-assy of sales order 104 which requires dedicated work orders. No make for the top assy

Make for a top assy of sales order 101. Will create a consumable work order

Make for a top assy of sales order 102. Will create a consumable work order

Pressing OK will create 3 consumable work orders and 1 dedicated work order.

Auto Select

Select None

orders an ... dedicated work ... nor will a work order be created for the ... of the sales/work order is modified, you will have to edit the work orders.

Ok   Exit

Standard

VFP - C:\V863 (User: DOUG)

Modules Tools Optional Configur

Print Preview - WOLOG.FRX

Print Preview 100%

PAGENO.   1
04/08/2012 05:29:30 PM
USER: DOUG
Wolog.FRX

CREATED WORK ORDER REPO

Automatic Work Order Generation for Make Actions, Consolidated by Order per Requiremen

WO#	ITEM#	DATE REQUIRE	PART NUMBER	DESCRIPT	QTY REQUIRED	DRIVING MAKE
000105	00W0	06/29/12	000000010	WHEEL ASSY	40.000	***Make Act: Make Qty 40.000
000106	00W0	05/07/12	000000010	WHEEL ASSY	10.000	***Make Act: Make Qty 10.000
000107	00W0	05/11/12	000000010	WHEEL ASSY	20.000	***Make Act: Make Qty 20.000
000108	00W0	05/17/12	000000011	REAR WHEEL ASSY	10.000	***Make Act: Make Qty 10.000

The work order's date require is one day earlier than the Make action item's
ending date. If the work order's date require lands on Saturday or Sunday,
it will automatically move up to the previous week's Friday.

In addition, if the user selected the weekly or monthly consolidation option,
then the consolidated work order's date require will be Monday of the week
or the first day of the month for the work orders, respectively.

You must regenerate action items for MRP to take into the consideration of the
newly created work orders.

Salestmp   Record: EOF/4   Exclusive

> pc/MRP will display a Created Work Order Report. You should now regenerate your MRP to include the new work orders.

VFP - C:\V863 (User: DOUG)

Modules Tools Optional Configur

Infinite Bucket Auto Create
Work Orders

Generate Work Orders For Make Actions Automatically

Order Consolidation: Order per Requirement   **Date Range:** All Dates

Select Make Action Items For :
Lower Level Sub-Assemblies Only

	Driving Sales/Work	Assembly#	Description	Make Qty	Start Date	End Date	Show WO

> Re-running Auto Create Work Orders and regenerating an MRP and re-running Auto Create Work Orders will not display any new makes unless new sales orders have been entered.

Auto Select

Select None   Ok   Exit

Makeactioncursor   Record: None   Exclusive

If you checked the Show Work Orders Checkbox, the work orders will be displayed as shown.

Since we consolidated by month, pc/MRP created 1 work order due by the first day of the month. If we had consolidated by week it would be due by the first day of the week (Monday).

Press the Finished Button to create this work order

If you do not want to create this work order, Press the Cancel Button

pc/MRP will display a Created Work Order Report. Please note that you must now regenerate your MRP to take into account the new work orders.

Since we selected consolidate by month one work order was created for the same sub-assembly for 2 different sales orders.

16.3.5 Automatically Create POs
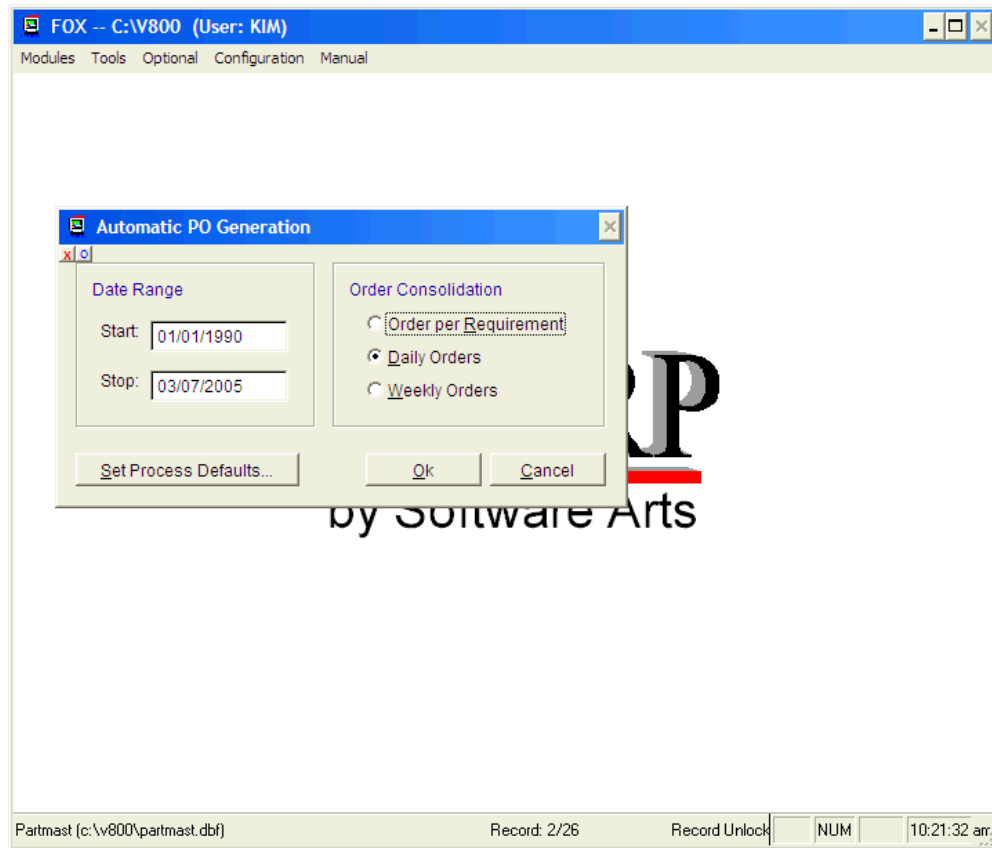
If the purchase buy requirements report looks good, selecting "**Automatically Create Purchase Orders**" will automatically generate the POs required to fill the buy requirements. Users can select a date range for generating POs. Selecting Order per requirement will generate a PO for every buy action item generated. Selecting "**Daily Orders**" will consolidate all POs for the same part number required for the same day into one PO line item. Selecting "**Weekly Orders**" will consolidate all POs for the same part number required for the week into one PO line item, etc.

Selecting "**Process Defaults**" will allow you to set the defaults for the above screen. When the "**Create POs**" function generates a PO, it puts a **Y** in the PO_MAKE field for that BUY action item in the action data base file. This allows you to use the date range function without worrying about creating duplicate POs. The function that automatically created purchase orders is limited to 100 line items. pc/MRP will create multiple purchase orders if the 100 limit is exceeded.

If a user does not have **Purchasing**, **Enter/Edit** rights, the "**Automatically Create Purchase Orders**" option will not be enabled for the user on their **Infinite Bucket** menu.

pc/MRP will insert the vendor's related document number field into the PO for that vendor.

pc/MRP will allow you to select VENDOR 1 or the vendor with the BEST PRICE for the quantity ordered. This option is NOT available for users having only 'View' options for the MRP module (if running **8.20H and above**).

16.3.6   Troubleshooting

16.3.6.1 Infinite Bucket reports appear to be wrong

If the quantities in the Infinite Bucket reports appear to be wrong, please do the following:

If any errors are reported after the MRP run was generated, correct the errors and re-generate the MRP. To view the errors found select **Display Generation Errors** from the Infinite Bucket menu.

If the quantities still seem wrong, select one of the part numbers involved and run a non-consolidated report. Include all action items for a specified part number sorted by ending date. This report will clarify where the quantities are coming from. Repeat this step for any other part numbers you wish to verify.

Note: The component part may not show as required if its parent assembly is on hand.

16.3.16.2 Error message: Allowed DO nesting level exceeded

While generating an Infinite Bucket MRP, you get the error message: **Allowed DO nesting level exceeded**. This means that you have a recursive BOM structure (a BOM that is calling itself). See Section 17.3.17.

16.3.6.3 A sales or work order does not display any action items

If a sales or work order does not display any action items (All Action Items for a Sales/Work Order)

- The sales/work order contains a preliminary BOM and **Include Preliminary BOMs** was not checked when the MRP was generated.
- The sales/work order was complete when the MRP was generated.
- Sales Order number is less than 6 characters in length. Update to pc/MRP versions 8.60AF or higher.

16.3.6.4 The action item report shows multiple 'Builds' and 'Sale's for an assembly for the same SO/WO number and line item.

Check the inventory module for duplicate part numbers by going to Modules, Inventory, Audit Inventory Data, and only check' Invalid Part Numbers'. **Do not** check 'Fix' at this time. Verify that for each duplicated part number, the first one is the one to keep. Then you can check the 'Fix' checkbox when you run the Audit Inventory Data again. You can now re-run the Create Action Items process again.

If not all the first partnumbers are the ones you wish to keep, please call Software Arts before you do anything!

16.3.6.5 Component parts not showing any demand.

pc/MRP shows demand only for parts & assemblies for which there are work / sales orders. The demand for component parts contained solely in assemblies is indicated in the "MRP Available" field of the "Qty \ Costs" tab of the Inventory Add/Edit form (negative values indicate buy actions). Run your MRP to update this number.

16.4 Bar Code Module

16.4.1 Overview

Software Arts offers an optional Bar Code Builder that accommodates numerous bar code styles and options and guides the user through the successful implementation in their custom Report Writer reports. Bar coding increases efficiency and inventory control accuracy.
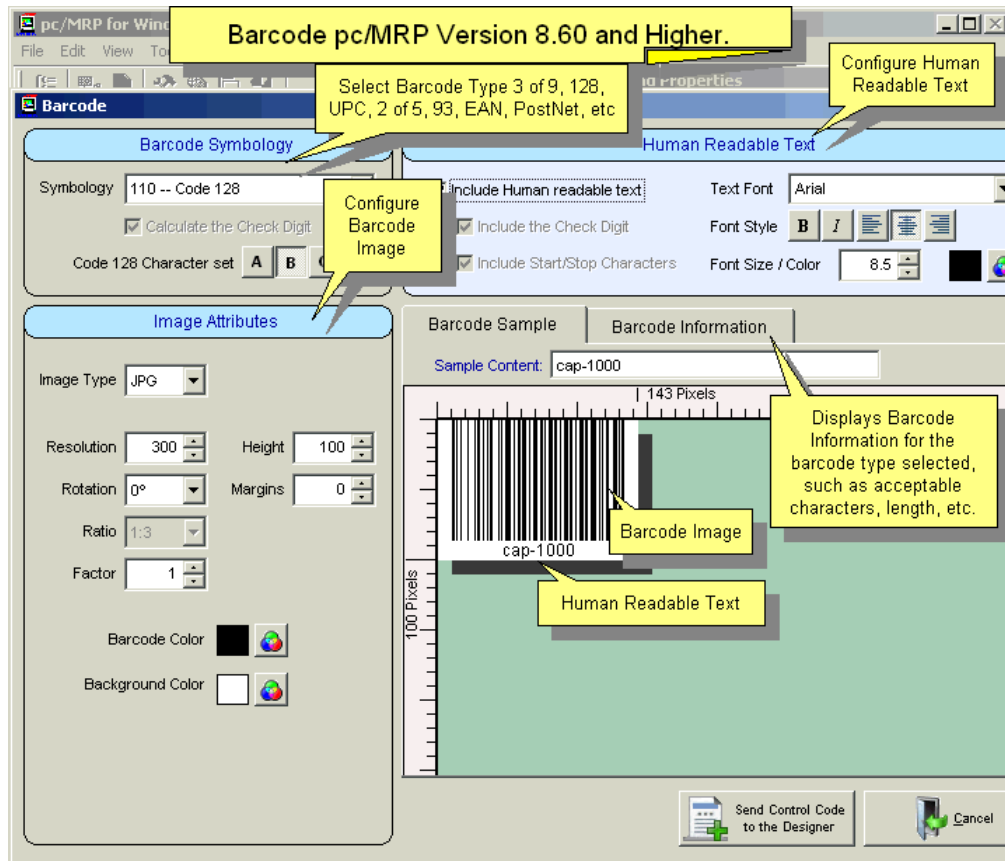
Activating and Installing Software Arts Bar Code Font Option

While in pc/MRP,
1. Go to Configuration, About pc/MRP
2. Press Ctrl-B
3. Enter your activation code.

The file C39BCF.exe will be installed in a pc/MRP Subdirectory named BarFonts. The next time you start pc/MRP, pc/MRP will automatically run the C39BCF.exe the purpose of which is install the bar code fonts on your local workstation.

Note:
If the fonts do not install, right click on the pc/MRP Shortcut on your desktop and select, Run as Administrator.

If the fonts still do not install, use Windows Explorer to locate the C39BCF.exe in your pcmrpw directory. Right click on the C39BCF.exe and select "Run As Administrator".

If the fonts still do not install, right click on the C39BCF.EXE, drag it to your desktop, select copy and then right click and run as administrator.

16.4.2 Modifying a Report or Label to Use Bar Codes

To modify a report or label, use pc/MRP's report generator, Configuration, Utilities & Settings, Option 24. Select Form or Label to modify. Select the report or label file name.

In the Report Writer, delete a few lines to make room for the new bar code object, following the illustration below. Then move the Substr line all the way down.
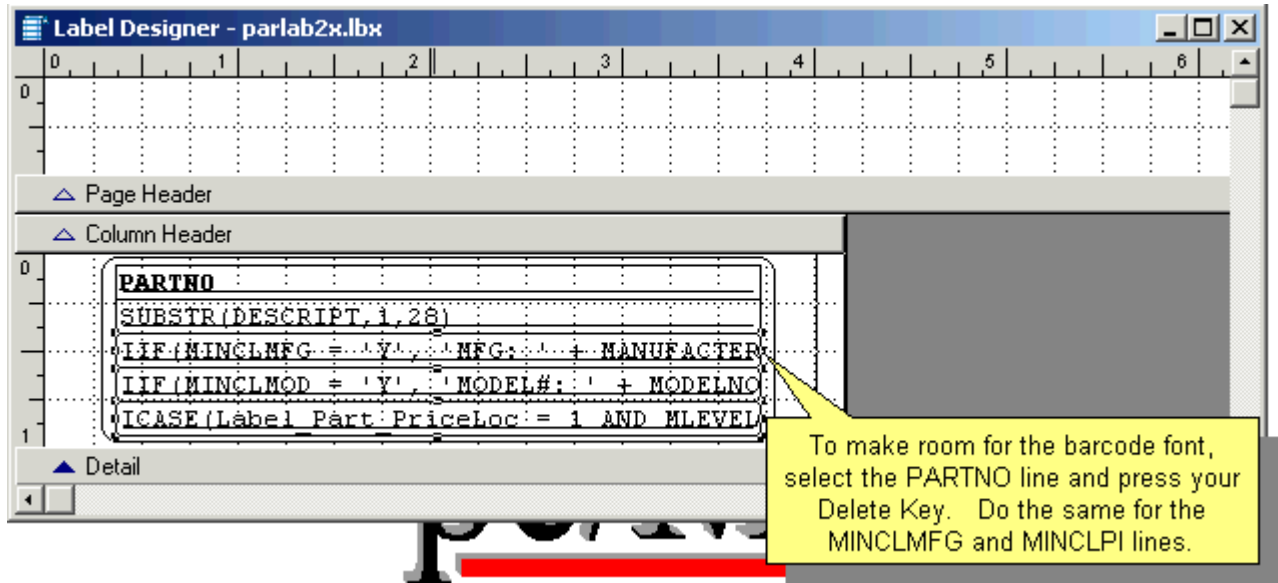
First click on the OLE button in the Report Controls Toolbar:
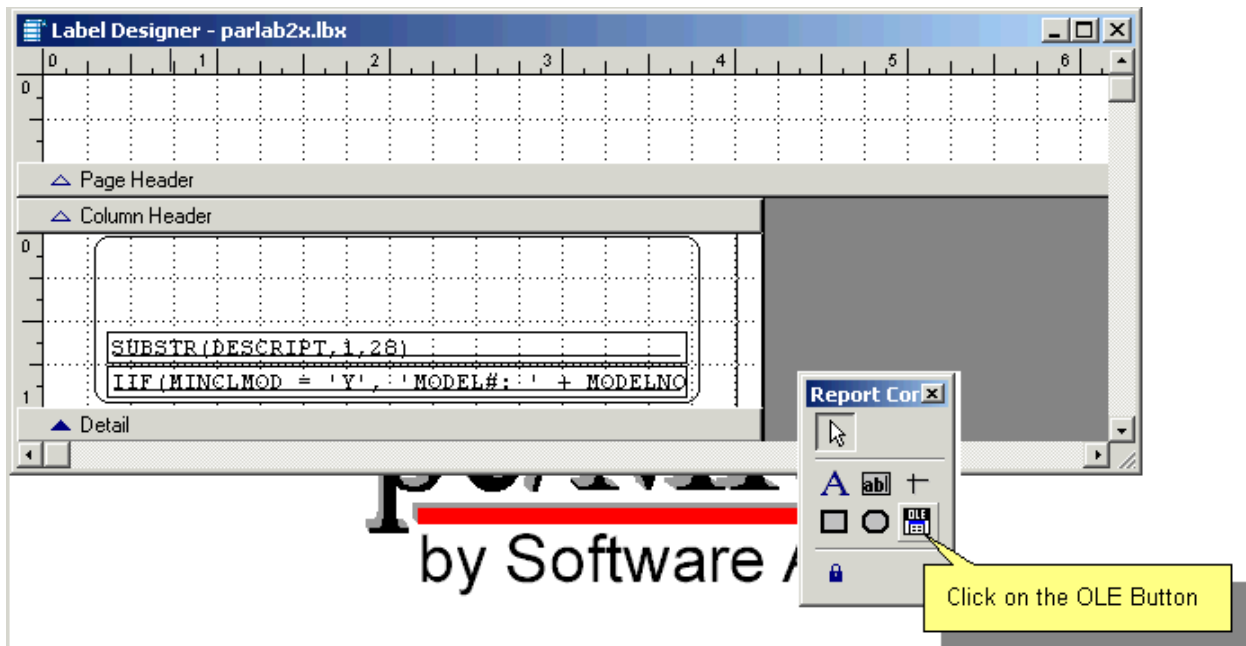
Then draw a box in the report area where the bar code image is to be displayed:
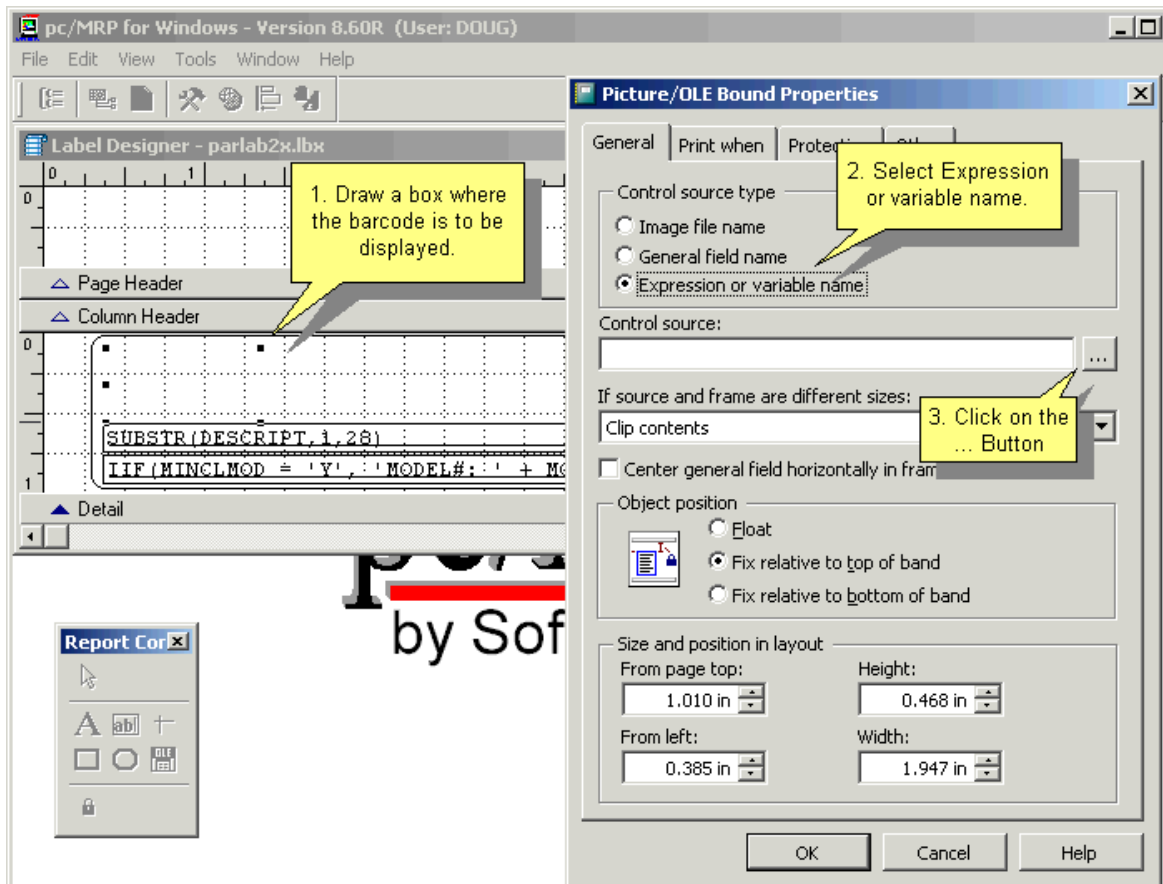
You will be presented with "Picture/OLE Bound Properties" dialog. Select "Expression or variable name" then click on the […] button. Select Yes, render a barcode image.
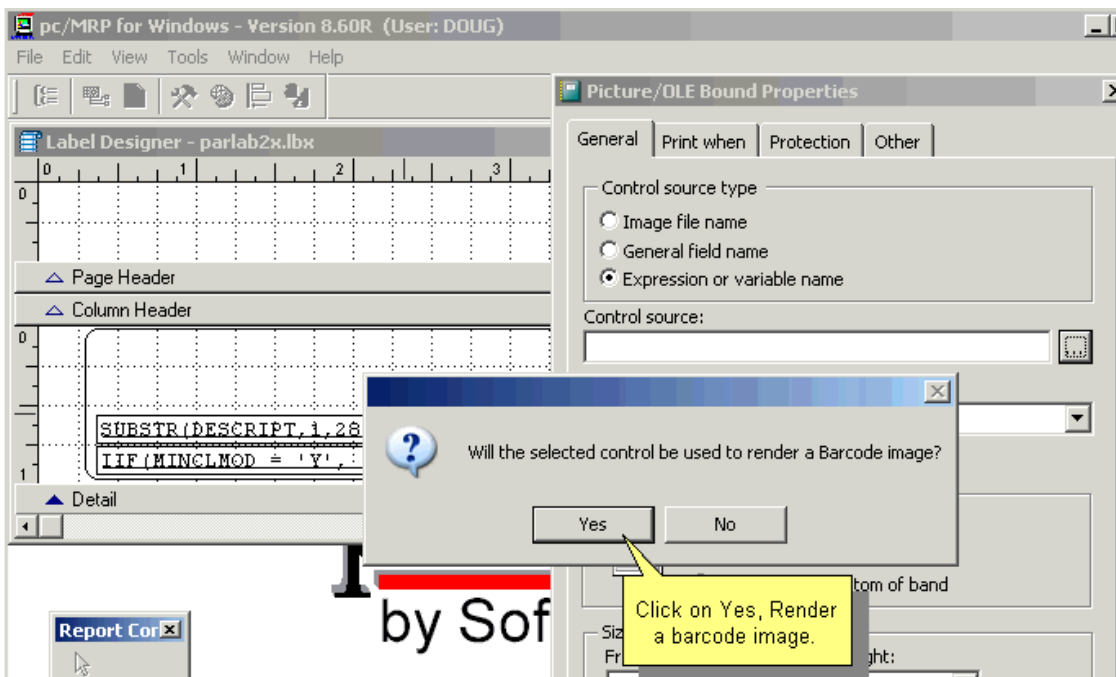
You will then be presented with the Bar Code Builder screen to guide you through the process of selecting the options needed to display your bar code.

First select your bar code type:
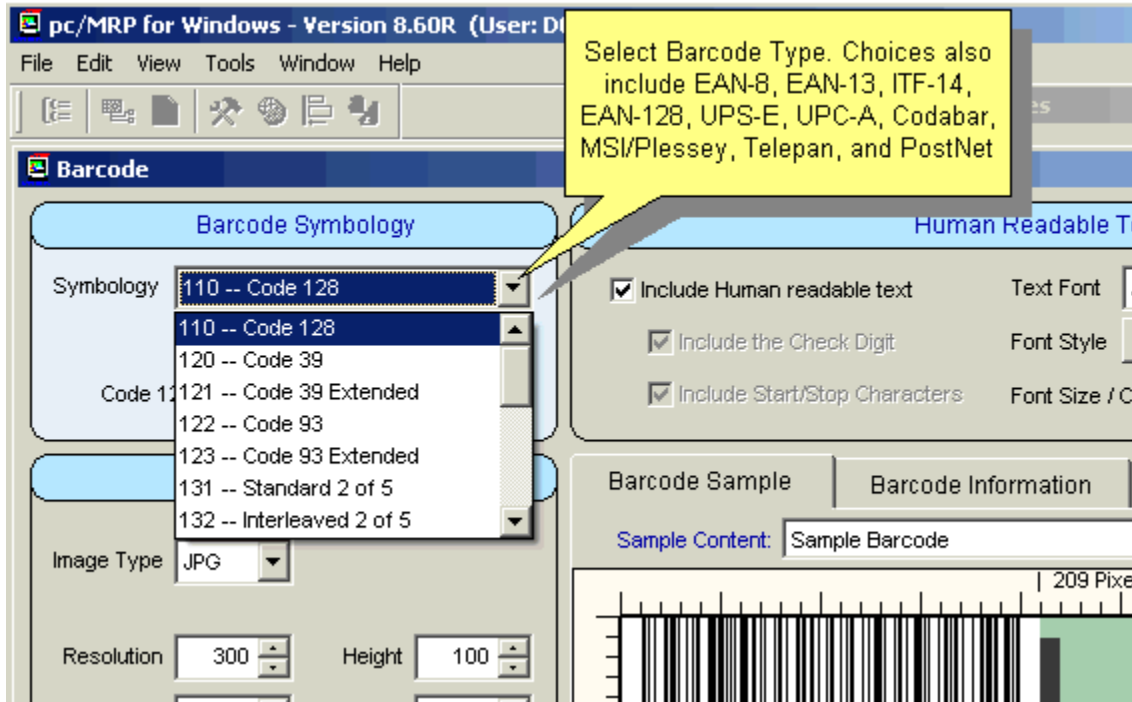
If appropriate, select the character set required:
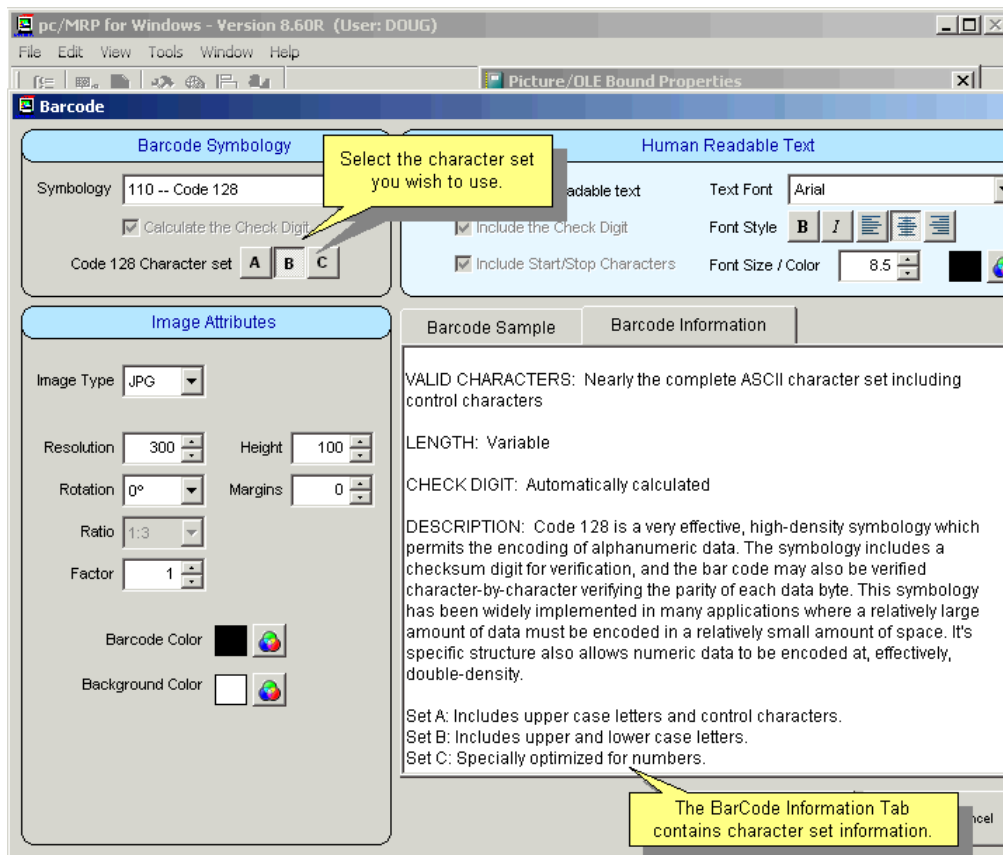
If your requirement specifies the bar code should also display human readable text, check the appropriate box:
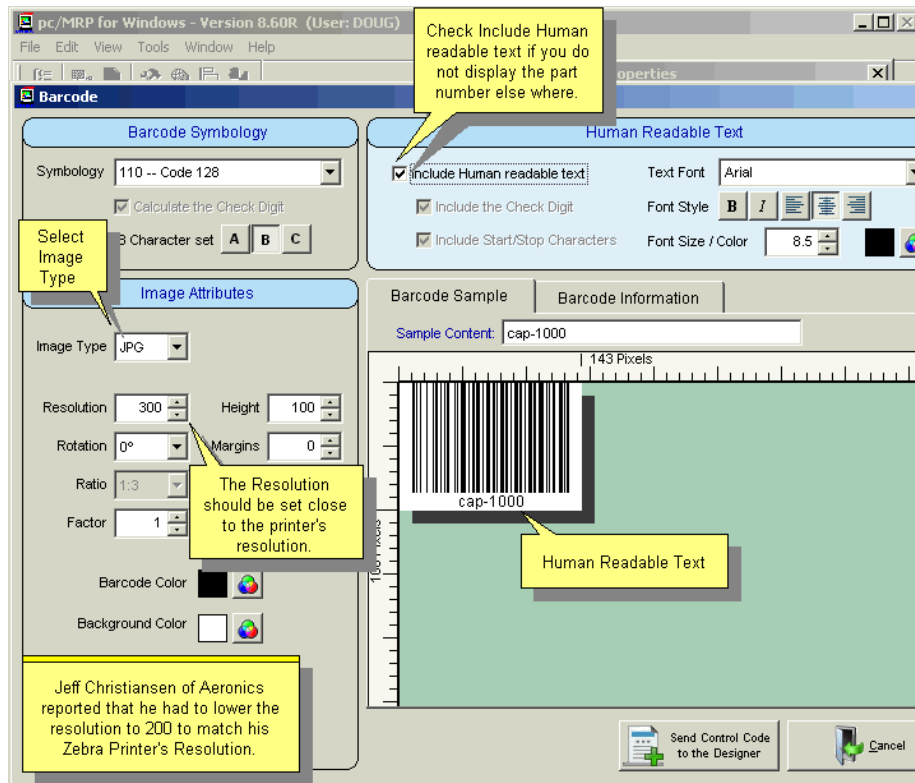
After the appropriate settings for your particular bar code application have been set, click the button at the bottom of the Bar Code Builder screen. This will close the Bar Code Builder application and return you to the Report Writer.

The "Control source" of the "Picture/OLE Bound Properties" dialog should now be filled with values set by the Bar Code Builder:
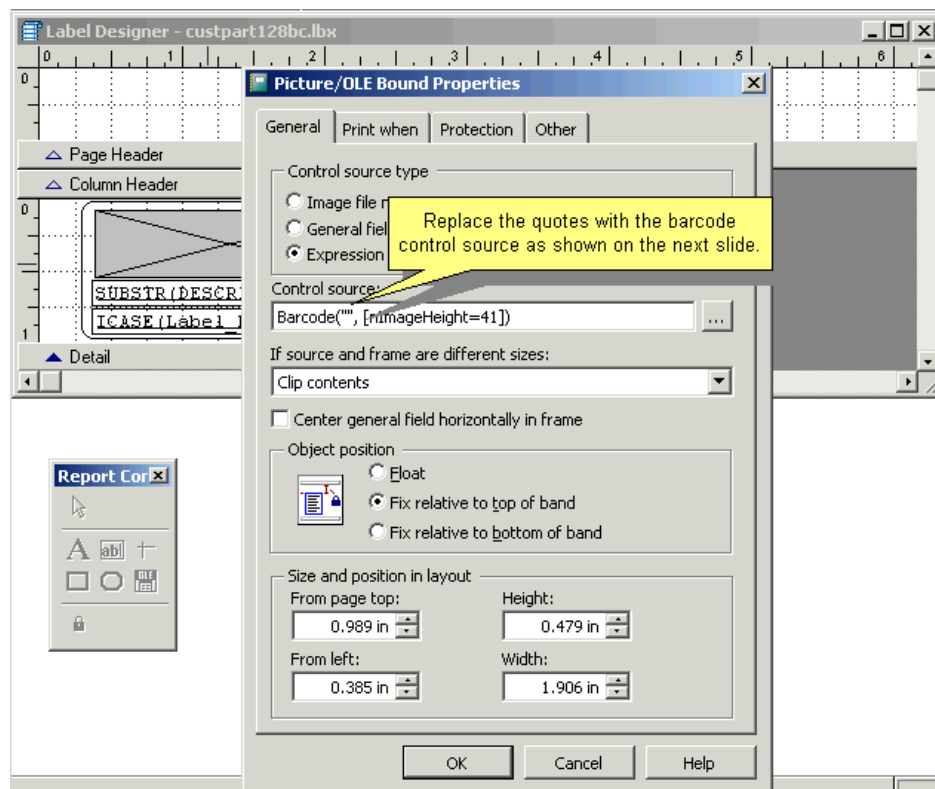
Replace the double-quotes in the "Control source" textbox with the name of the field that holds the data that is to be displayed as a bar code. This must to be a string value, Ex. TrimStr(Cost,2).
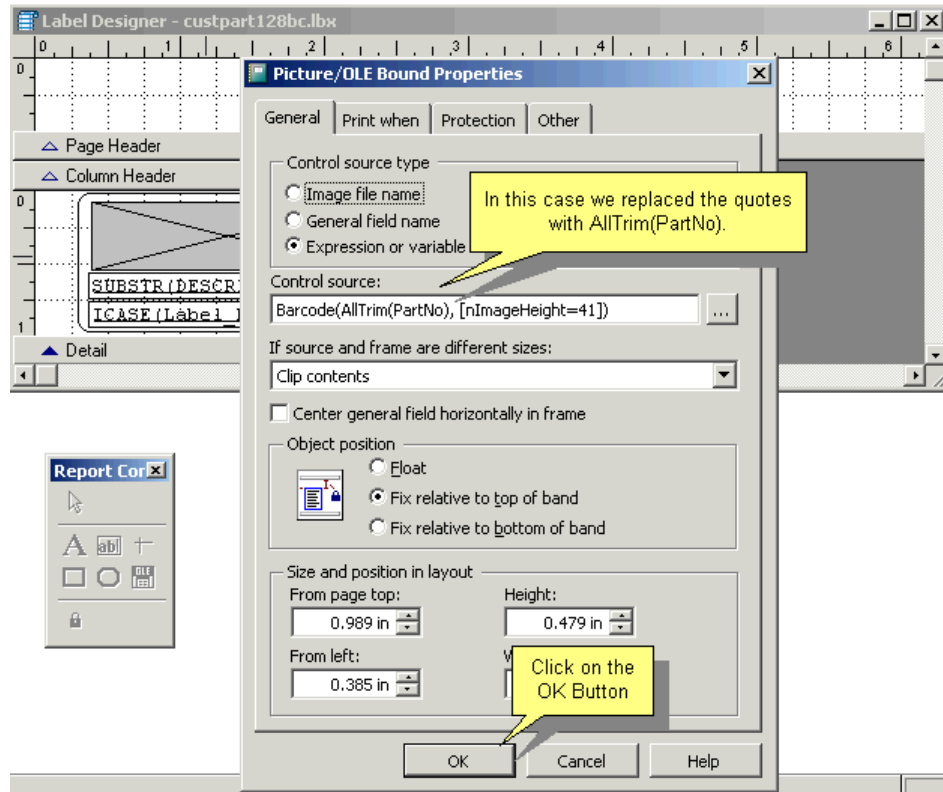
In the "If source and frame are different sizes" checkbox, select "Scale contents, retain shape". Then click the [OK] button to close the property sheet. Click on File\Save As… to save your modified report. Refer to the Manual to determine the expected custom file name prefix for your particular report/label file.
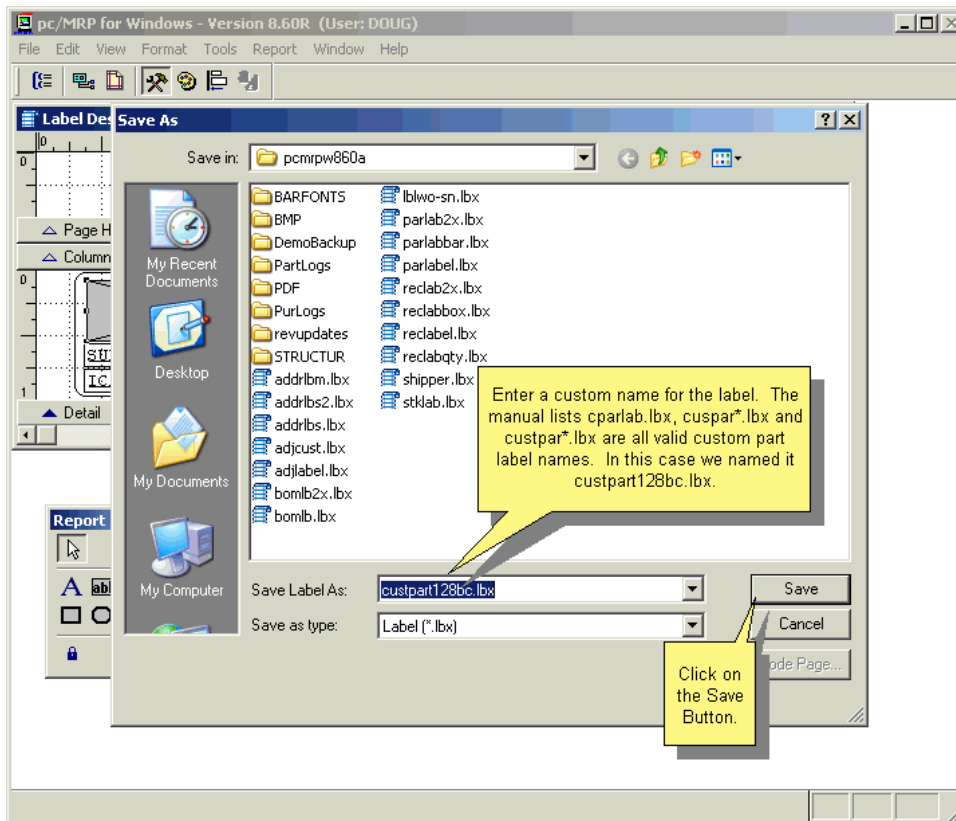
Close the Report Writer application. Run your particular report to view your work:
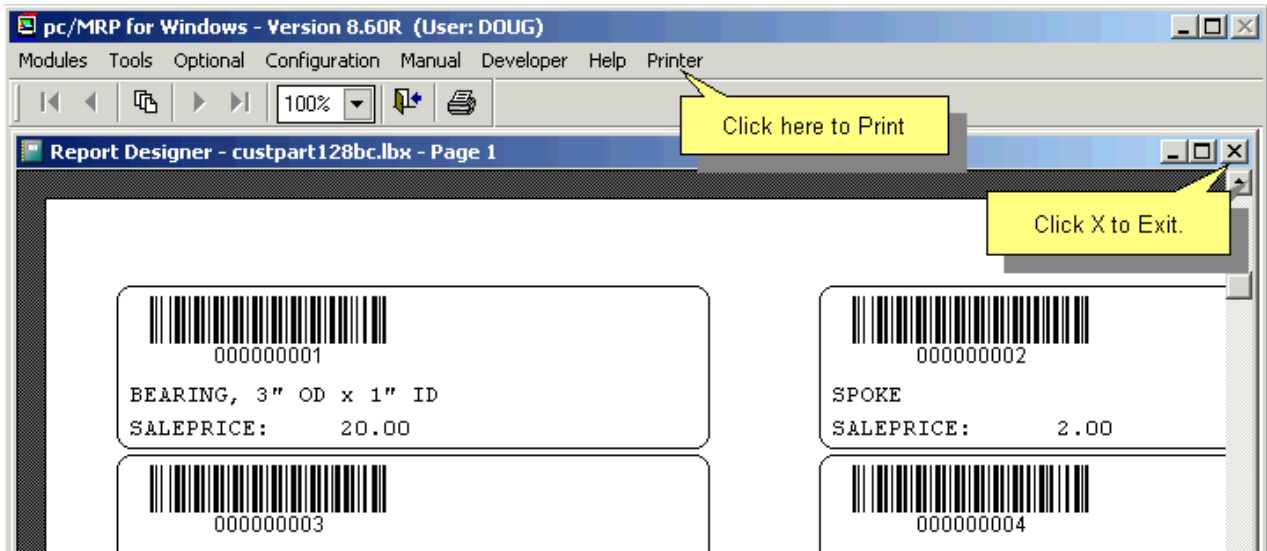
Note: If your barcode scanner fails to read the barcode, possible solutions are: the printer resolution doesn't match the label's resolution, or the barcode reader is set to read a minimum number of characters.

16.4.3   Scanners and Downloading Data

Wedge Type Bar Code Wands

pc/MRP will work out of the box with any wedge type bar code reader. A wedge type bar code reader is defined as a bar code reader that inserts itself in between the computer key board and the CPU unit (i.e. the keyboard plugs into the wedge bar code reader and the wedge is plugged into the computer's keyboard connector). The computer will then read any input from either the wand or the keyboard. The Unitech HT630 comes with a built-in program (Section 16.4.7 in this Manual)

Portable Bar Code Wands

Portable bar code wands can be used to take a physical inventory and then later download the part numbers and quantities from the portable bar code wand's docking station into pc/MRP's physical inventory program. The portable bar code wand must be programmed that it can download a comma delimited ASCII text file named physical.txt into the pcmrpw directory. The file must consist of part numbers and quantities separated by commas and line returns as shown below:

    000000001,47.00
    000000010,53.00
    890000000,40.00

The Percon 2000 can be programmed to provide such an output. However, you or one of your programmers must create the program. The Unitech HT630 comes with a built-in program. You could also use a simple inexpensive model like the Unitech MS 180.

Downloading data from a Unitech's HT630 Bar Code Scanner

Unitech's HT630 (800-861-8648) comes with a program for pc/MRP built in. To take an inventory with the HT630 follow the steps listed below:
1. Turn on the HT630
2. Press and hold 'CMD'
3. Select Option 2 for Terminal from the Menu
4. Select Option 2 again for Form caching
5. At Item:, scan the bar coded parts or bin boxes
6. At Qty:, scan or enter the quantities
7. After you are finished, press 'Esc' to exit.
8. Screen clears to operating mode

To download the physical inventory count follow the steps listed below:
1. Set the HT630 into its cradle attached to the PC or connect the cable directly to the serial port.
2. Go into Start, Programs, and run PTComm3

The following screen appears:

The program recognizes the Bar Code reader and displays the Form data file with the inventory data in the reader. Left-click on the file name and drag it to the directory structure you wish to save the file in. This can be a server directory or your computer. Remember where you saved the data file. After you release the mouse button, this screen appears to show that the transfer went OK.
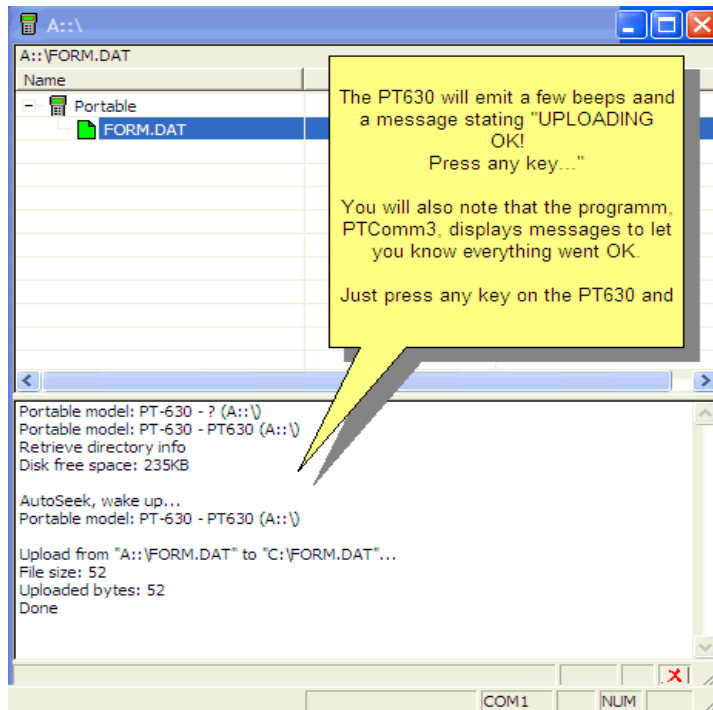
Import the downloaded data

To import the data with the Physical Inventory or Cycle Count by going to Modules, Inventory, Physical Inventory. For this example, choose Full Physical Inventory.

Select the area to receive the inventory counts and click OK.
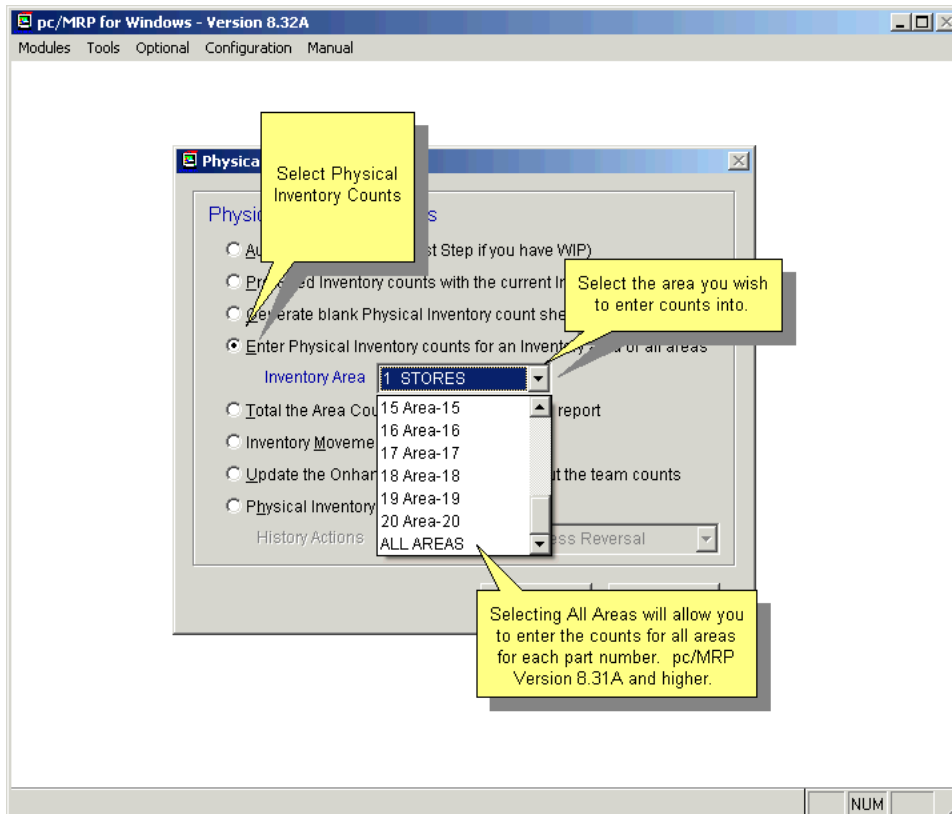
Select "Import" to get the inventory data from the data file you created. (If using the HT630, see Section 16.4.6) Then

1. Select the saved inventory data file
2. Choose to append or replace counts
3. Press 'OK'

Most times, you will be replacing the previous inventory counts. A situation to "Append" would be where there are multiple storage areas for a part within a single 'STORES' area.

You either get the message "The importation has completed. No errors were detected.", or you get a message that tells you how many "errors were detected during the import". Print out the report and fix the errors before continuing with more counts and areas. Correct any errors and re-process individually or in the next import.

You may now continue as described in Section 6.5 for Physical Inventory.

16.5 ECN Module

16.5.1 Engineering Change Notice Module Overview
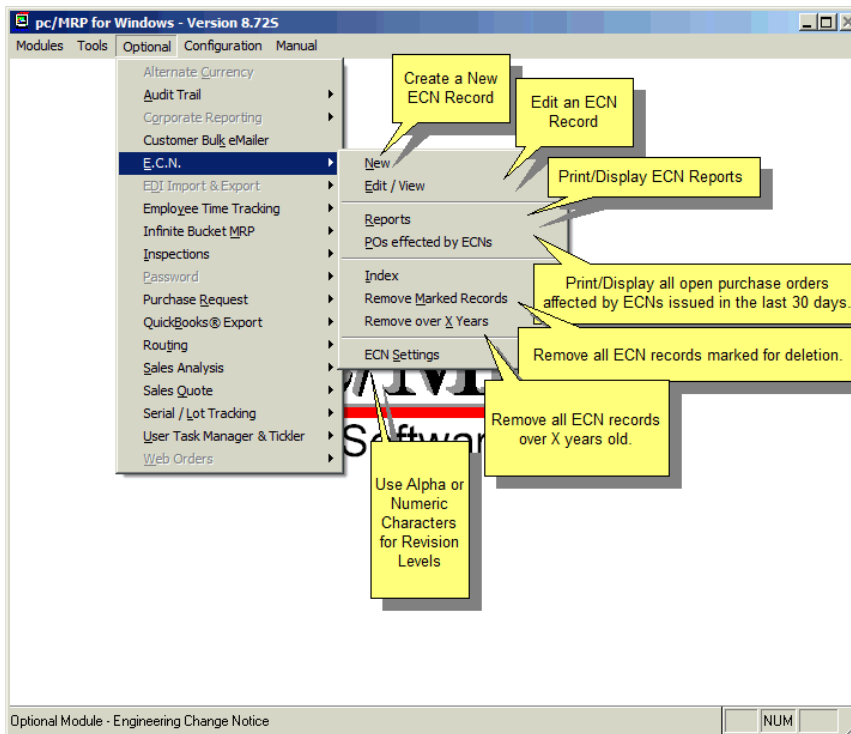
The Engineering Change Notice Module creates, edits, and prints out ECNs and ECN Reports. In addition, it will also print out ECN reports that notify purchasing of all open purchase orders that contain part numbers that are affected by ECNs issued in the last 30 days.

Call Software Arts (408-226-7321) to get your ECN activation code number. Then:
Select Configuration Menu, Module Activation, and ECN from the menu
Select activate ECN module
Enter the activation code number

16.5.2 New (Add an Engineering Change Notice)

Selection 1 allows you to enter an Engineering Change Notice. The next available **ECN NUMBER** is then provided. Press to accept the new ECN number or enter a new ECN number. **Note:** If you enter an alpha character into the ECN number field, pc/MRP will not be able to automatically increment the ECN number.

ECN will then ask: Does the part have a PART NUMBER? If the part or BOM modified does have a part number and has been previously entered into inventory, enter "Yes". This will open a scroll screen allowing users to select the desired part. If the part has not been previously entered into inventory, enter "No".

If you answered No, the ECN module will allow you to enter the part into inventory.
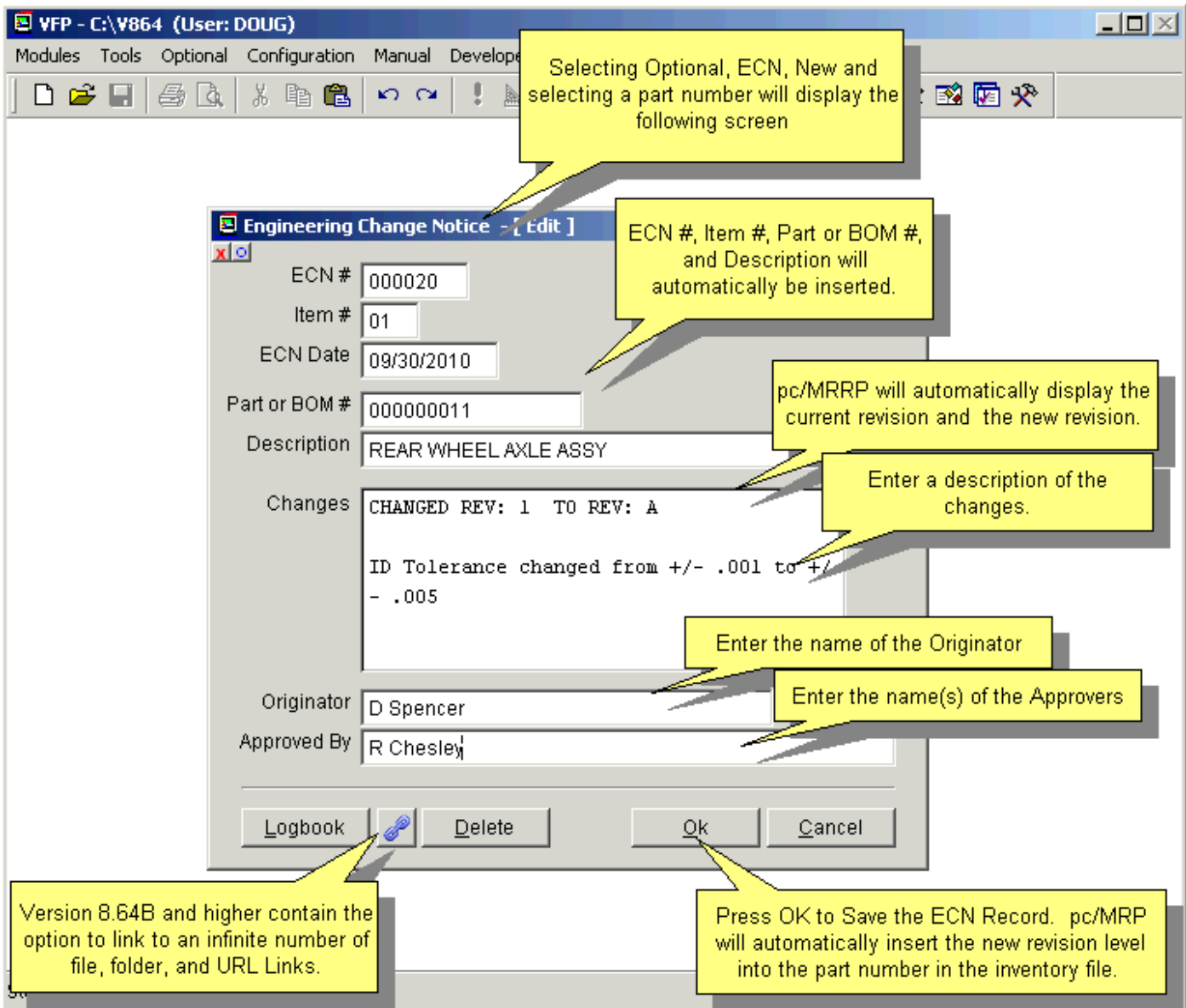
Once users have selected the desired inventory item the ECN data entry screen shown above will appear.

- The **ITEM #** allows a single ECN # to be entered that effects more than one part or BOM.
- The **ECN DATE** is the date the ECN goes into effect. Today's date will be automatically entered and can be overwritten.
- The **Part#** and **DESCRIPTION** of the part is entered from inventory automatically.
- Enter a description of the changes that were made to this part or BOM number into the **CHANGES** field.
- The **ORIGINATOR** field contains the name of the originator of the ECN.
- The **APPROVED BY** field contains the name(s) of the people who approved the ECN.

Once you have finished entering the ECN data for the effected part or BOM number, press the "OK" button to save the record. This will update the revision field for that part number in the inventory module. ECN will ask, "Do another line item (Y/N)?"Answer Yes, if another part or BOM number is affected by this ECN number

16.5.3 Edit/View (Delete, Undelete) an Engineering Change Notice

This option allows users to scroll, edit, delete, undelete or run queries against ECN records.

Selecting an **Indexed Search** allows users to search on indexed fields. This allows pc/MRP to find the information much faster. To perform an **Indexed Search** select the:

1. **Indexed Search** tab
2. Desired **Sort Order**, ECN Number, Part Number, Date
3. Enter the applicable data in the **Begin Scrolling At**: field
4. Select the desired Action, **View** or **Edit**
5. Press **Search**

pc/MRP will automatically scroll to the desired record or the nearest match. Select the correct record by scrolling and press **Ok** to proceed to the edit screen for that record.

Selecting to run a **Queried Search** allows users to build, run, save, and load queries for the ECN table. For further details see Chapter 15.14.

Once the record has been marked for deletion you must return to the menu and select **REMOVE MARKED RECORDS.** Deleting an ECN will not reverse its effect.

16.5.4 Reports (Print/Display Engineering Change Notices)

Allows you to print out or display Engineering Change Notices. Your options are as follows:

- ALL ENGINEERING CHANGE NOTICES
- A SPECIFIED ENGINEERING CHANGE NOTICE
- ALL ENGINEERING CHANGE NOTICES FOR A SPECIFIED PART/BOM NUMBER
- ALL ENGINEERING CHANGE NOTICES FOR A SPECIFIED TOP ASSMEBLY NUMBER
- ALL ENGINEERING CHANGE NOTICES FOR A SPECIFIED ORIGINATOR

Any of the above may be sorted by: ECN NUMBER, PART NUMBER, DATE

Any of the above may be listed for a specified date range, or for all records.

Sample report:

The ECN Report would be displayed as shown in this screen shot.

16.5.5 ECN Settings

Selecting ECN Settings will display the following screen. Alpha characters as shown below will set the ECN Module to roll the revision levels from A to ZZZ.

If this text box is blank, pc/MRP would blank out the Revision Level when an ECN is created for a part number.

ECN Settings

Configure the settings below to affect ECN functionality.

Revision Characters ABCDEFGHIJKLMNOPQRSTUVWXYZ

OK   Cancel

Press OK to accept the Revision Characters

If the Revision Characters contain 0123456789, the ECN Module will roll the revision levels from 001 to 999

If you were to enter 0123456789ABCDEFGHIJKLMNOPQRSTUVWXYZ as valid revision characters, pc/MRP would increment 001 would incr to 002, 999 would incr to 99A

If you do not have the ECN Module, the Revision Number Field in the inventory module will be free form. Users can enter whatever they want into the 3 character Revision Field

16.5.6 Purchase Orders Affected By ECNs

This feature will allow you to print out or display all open purchase orders affected by ECNs issued in the last 30 days.

16.5.7 Index (see 15.14.3)

16.5.8 Remove Marked Records (see 15.14.4)

16.5.9 Remove Over X Years (see 15.14.5)

16.6 Sales Analysis Module

16.6.1 Overview

Sales Analysis will perform the following five functions:

The Book to Bill Reports can analyze sales by territory and customer. Bookings and Billings for each customer and territory are reported for the month specified complete with a YTD % of goal figure.

The Consolidated BOM Reports will consolidate parts within various levels of a BOM and print each part number once with its consolidated quantity. Multiple BOMs can be consolidated and printed out in spreadsheet fashion to analyze the purchasing requirements and costs for each part required to fabricate the multiple BOMs analyzed.

The **Cost of Sales Report** will generate a cost of sales report sorted on Part number and subtotaled on product codes. The report can be displayed, sent to a printer or to a disk as an ASCII or DBF file. You can select the starting date and ending dates to be analyzed.

The Estimated Usage and Min Qty Reports will calculate, print out and replace the estimated usage and minimum quantities based on invoice history. Safety stock can be set by percentage or by number of weeks of safety stock you wish to maintain. The reports provide an option to print out all trace calculations allowing the user to track the basis for all stocking levels. Individual parts whose minimum quantity level should not be changed regardless of estimated usage could be maintained by entering "SAV" into that part's CATINDEX field.

The Sales Trend Reports can be used to spot sales trends. Sales data can be subtotaled in up to four user defined time periods. In addition, the report can be subtotaled by part number, vendor, or customer. Sorting options include by Part Number, Vendor, $ amount, or Quantity.

Activating the Sales Analysis Module

To activate the Sales Analysis module, call Software Arts (408-226-7321) to get your Sales Analysis activation code number.

Inventory Fields Used by the Sales Analysis Module

MinQty(minqty) (5 per week x 2 weeks = 10). Set by hand or auto set with Sales Analysis. Min weeks of inventory will allow entry of the desired number of weeks of safety stock to be used when recalculating the MinQty. **Weeks Onhand** will be updated at the end of the first pass. The new value will be based on the inventory available divided by the ave weekly usage. The calculation settings screen has a "Consider components already consumed by built assemblies to be available" check box that will "deconstruct" all inventories assys into their components for the purpose of calculating the weeks onhand.
WeeksOnhand = MinMax(WeeksOfInv/Usage,0,999)

16.6.2 Book to Bill

The Book to Bill report can be generated to analyze sales by territory and customer. The report can include all customers, customers with sales, or customers with no sales. The report can be displayed, sent to a printer or to a disk as an ASCII or DBF file. The report can be generated for any month and year desired. Bookings and Billings for the month selected are sorted and subtotaled by territory and customer including the YTD % of goal. The report uses the quota field in pc/MRP's Address Book to determine the % of goal.

16.6.3 Consolidated BOM Reports

Selecting Consolidated BOM Reports will allow you to print/display Consolidated BOMs. Enter S or M for a single or multiple consolidated BOM printout or display.   Enter the consolidated BOM number(s) and quantity(s).   Choose the Costed or Uncosted report format.

If you select costed, choose between average or standard cost. If you select standard cost, the price/quantity fields in inventory will be used to select the correct unit price according to the consolidated total quantity for each part number.

If you select a single consolidated report to be printed out, you will be prompted to include a 9 month PO history report for each part number. Please note: the Total Cost in a Costed Single Consolidated Report is 0 if the there are enough parts on hand and on order to cover the total quantity required. The Total Cost will equal: *unit cost * (qtyreq - onhand - onorder) if qtyreq > onhand + onorder*.

SINGLE CONSOLIDATED COSTED DISPLAY FORMAT:

```
PART NUMBER     DESCRIPTION              TOTAL QTY   TOTAL COST
000000001       BEARING 3"                      60        30.00
000000002       SPOKES                          90       180.00
000000004       HUB SS                          40        20.00

                                         TOTAL COST      230.00
```

SINGLE CONSOLIDATED UNCOSTED DISPLAY FORMAT:

```
  PART NUMBER     DESCRIPTION              TOTAL QTY
  000000001       BEARING 3"                      60
  000000002       SPOKES                          90
  000000004       HUB SS                          40
```

SINGLE CONSOLIDATED COSTED PRINTOUT FORMAT:

```
PART NUMBER   MODEL NUMBER    DESCRIPTION      MANUFACTURER    QTY REQ     COST
000000001     B30304          BEARING 3"       GENIS CORP        60.00    30.00
              EII444444                        STANFORE INC.
000000002     SS 95495        SPOKES           ALLBRIGHT         90.00   180.00
              SS 95495                         BRETTE  MFG
              40R-E-A                          MANES INC
000000004     RR - 89         HUB SS           FENWAY MFG        40.00    20.00
                                                        TOTAL COST       230.00
```

SINGLE CONSOLIDATED UNCOSTED PRINTOUT FORMAT:

```
PART NUMBER   MODEL NUMBER     DESCRIPTION       MANUFACTURER    QTY REQ
000000001     B30304           BEARING 3"        GENIS CORP        60.00
              EII444444                          STANFORE INC.
000000002     SS 95495         SPOKES            ALLBRIGHT         90.00
              SS 95495                           BRETTE  MFG
              40R-E-A                            MANES INC
000000004     RR - 89          HUB SS            FENWAY MFG        40.00
```

SINGLE CONSOLIDATED COSTED W PO HISTORY FORMAT:

```
PART NUMBER   DESCRIPTION   LOCATE    ONORDER    ONHAND   QTY REQ   STATUS   TOTAL COST
000000001     BEARING 3"    1A2          0.00      0.00     60.00   -60.00        0.00
              PO NUM VENDOR ID   PO DATE   ORDER QTY   QTY RECVD   UNIT COST
              000103 VMARS       06/06/93    400.00      400.00      0.5000
000000002     SPOKES        3A4        180.00      0.00     90.00     OK          0.00
              PO NUM VENDOR ID   PO DATE   ORDER QTY   QTY RECVD   UNIT COST
              000505 SDI009      07/06/93    200.00      200.00      0.5000
000000004     HUB SS        R5B1        50.00     50.00     40.00     OK          0.00
                                                        TOTAL COST      30.00
```

MULTIPLE CONSOLIDATED PRINTOUT FORMAT:

```
BOM QTY       2 EA    2 EA    2 EA   2 EA    2 EA
              ASSY #  ASSY #  ASSY # ASSY #  ASSY # TOTAL PRICE BREAK   TOTAL    ONORDER
ONHAND
PART #  DESC 000010  000015  000034 000235 003310   QTY   UNIT COST    COST      QTY
QTY
00001 WHEEL    2       5       30     20      3      60         .50    30.00       5        5
00002 SPOKES  40      10       10     20     10      90        2.00   180.00       0       10
00004 HUB SS   5       5       10     10     10      40         .50    20.00      23       10

                                              TOTAL COST         230.00
                                              TOTAL PER UNIT COST 115.00
```

Notes:
The maximum number of BOMs that can be consolidated in one report is 10. The price break costs are automatically entered from the inventory price break table. BOM quantities can be different for each BOM. Select Column headings by Description if your assembly number exceeds 10 characters in length. Selecting "Description columns" prints the first 10 characters of each Assembly Description. If you select "Assy Number columns" and your part numbers are larger than 10 characters, the total width of the columns could exceed the width of the page.

16.6.4 Cost of Sales Report

Selecting Cost of Sales will allow you to generate a cost of sales report sorted by Part number and subtotaled on product codes. The report can include all parts, parts with sales, or parts with no sales. The report can be displayed, sent to a printer or to disk as an ASCII or DBF file. You can select the starting date and ending date (first and last date of the month in question) and the starting and ending date of the year in question. The cost comes from the PO_Cost field in the invoice database table.

Sample Cost of Sales Report:

```
ACUDYNE, INC
DATE XX-XX-XX
                    COST OF SALES FROM XX/XX/XX TO XX/XX/XX

BOM/PART #      UNITS  TOTAL SALES$ TOTAL COSTS $  % MARGIN  YTDUNITS  YTDSALES  YTDCOSTS  %
MARGIN
---------------------------------------------------------------------------------------------
----
PRODUCT CODE TF-
TF-C            14       490.00        49.00       10.00    XX.XX     XXXX.XX   XXXXXX.XX
XX.XX
TF-CW           10       550.00        39.00        7.09    XX.XX     XXXX.XX   XXXXXX.XX
XX.XX
TF-HC            5       200.00        25.00       12.50    XX.XX     XXXX.XX   XXXXXX.XX
XX.XX

SUB-TOTAL       29      1240.00       223.00        9.71    XX.XX     XXXX.XX   XXXXXX.XX
XX.XX

PRODUCT CODE SA-
SA-2             8       360.00        45.00      XXX.XX     XX.XX     XXXX.XX   XXXXXX.XX
XX.XX
SUB-TOTAL        8       360.00        45.00      XXX.XX     XX.XX     XXXX.XX   XXXXXX.XX
XX.XX


TOTAL           37      1600.00       158.00      XXX.XX     XX.XX     XXXX.XX   XXXXXX.XX
XX.XX
```

16.6.5   Estimated Usage And Min Qty Reports

See slide show at : http://www.pcmrp.com/mrp101/autocalcestuseoverview.htm

(selection 'I')

This option will automatically calculate and fill every part's usage and minimum quantity fields based on:
   Invoices and their related BOMs or Stockroom and Invoice Issues

Select the method to set minimum quantities: (Invoices and Related BOMs Only)
- Parts only, infinite levels deep (sets minimum quantities for parts that are listed on an invoice and parts required for the assemblies listed in the invoices included in the time period) **Recommended default.**
- Top level parts and assemblies only (sets minimum quantities for parts and assemblies directly listed on invoices included in the time period)
- First level parts and sub assemblies only (sets minimum quantities for sub-assemblies and parts one level down from the main assemblies listed on the invoices in the time period)

Select the method to set the safety stock:
- Percentage of the minimum quantity amount.   If you enter 1.10 the new min quantities will keep your stock at 10% when the new stock arrives. Entering 1.20 will keep your stock at 20% when the new stock arrives. Entering 1.00 will allow the stock to run out just as the new stock arrives. Entering 0.00 will zero out your minimum quantities
- Number of Wks of stock left when new stock arrives   If you enter 1 the new min quantities keep your stock at 1 week's worth of safety stock when the new stock arrives.   Entering 2 will keep your stock at 2 weeks worth of safety stock when the new stock arrives. Entering 0 will allow the stock to run out just as the new stock arrives.

Select the time period to be studied
- The date range can be set by the user.

If you have certain part numbers or assemblies whose min quantities you do not want changed regardless of usage figures, check he "**Lock the Minimum Qty**" checkbox in inventory. (For **version 8.62 and older**, enter "SAV" into that part or assemblies CATINDEX field in inventory. The upgrade to 8.63 automatically carries over these settings.)

Users can set the "**Minimum weeks of Inventory**" on the Inventory screen. If greater than 0, the Sales Analysis Program will use this value for Number of weeks of Safety Stock instead of the default Number of Weeks of Safety stock on the Estimated Usage screen.

Weeks Onhand:

If you leave the "**Update Min Qty Values in Inventory**" checkbox unchecked, pc/MRP will not update the minimum quantity values in the inventory module. This checkbox is available in the Stockroom and Invoice modules only.

The Estimated Usage Option uses estuse.prg, estuse.scx, makecons.frx and estusew.frx.

Sample Estimated Usage Calculation Report:

```
Replacing new usage fields with 0
Filtering invoices for the specified time period
Totaling quantities from invoices using the parts only method


P/B ITEM BOM/PART NUMBER          INVOICE   QTY USED   NEW USAGE
PART 001 00000001                 000001    24.0000      24.00
PART 002 00000002                 000001   960.0000     960.00


P/B ITEM BOM/PART NUMBER          INVOICE   QTY USED   NEW USAGE
PART 001 00000001                 000002    24.0000      48.00


P/B ITEM BOM/PART NUMBER          INVOICE   QTY USED   NEW USAGE
PART 002 00000003                 000003    48.0000      48.00
 PART 001 00000001                000003    48.0000      96.00
 PART 002 00000002                000003  1920.0000    2880.00


Dividing all usage quantities by 25.71 weeks

Replacing usage with new usage figures (units/wk)

PART NUMBER      DESCRIPTION    NEW USAGE  OLD USAGE   CHANGE

000000001        BEARING 3" ID       4          4        0
000000002        SPOKES 10"        112        102       10
000000003        SPINDLE ALLOY       2          5      - 3


   Replacing min quantities with new min qtys + safety factor for usage > 0
           min qty = (usage x ldtime) + (usage x safety)'

        min qty = units   usage = units/wk   ldtime = wks'
        safety factor = 1 wks


PARTNUMBER DESCRIPT    NEW EST USAGE  LTIME  ONHANDQTY  WIPQTY  NEW MINQTY  OLD MINQTY  CHANGE

000000001  BEARING 3" ID        4      1       100      50         8           8          0
000000002  SPOKES 10" X .125  112      2       200      60       336         306         30
000000003  SPINDLE ALLOY        2      1        40      30         4           6         -2
```

16.6.6 Sales Trends

Selecting Sales Trends will allow you to generate a sales trend report sorted on Part number, Vendor, Qty, or $ Amount. If you select Vendor as your sort and a wide carriage print out, the report is subtotaled by vendor. The report can include all parts, parts with sales, or parts with no sales. The report can be displayed, sent to a printer or to a disk as an ASCII or DBF file. You can select up to three different time periods you wish to compare (month 1, 2, 3, total, or qtr 1,2,3,4 or yr 1, 2, 3, total).

Sample Sales Trend Report:

```
Page No. 1                Period 1 = 09/01/92 to 09/30/92   Period 2 = 10/01/92 to
                            10/31/92  Period 3 = 11/01/92 to 11/18/92

                                      SALES ANALYSIS

PARTNO     DESCRIPT    QTY PER1  QTY PER2  QTY PER3  TOTAL QTY AMT PER1  AMT PER2  AMT PER3 TOTAL
AMOUNT

000000001  BEARING 3"       5        10        30        45    50.00     99.90     297.00
446.90
000000002  SPOKES 10"       0         1         0         1     0.00      1.50       0.00
1.50
000000003  SPINDLE ST       0         1         0         1     0.00     38.50       0.00
38.50
000000010  WHEEL BASE       0         0        20        20     0.00      0.00       0.00
0.00
                                                           67    50.00    139.90     297.00
486.90
```

To Print/Display the Work Order Usage Report you would to select Optional, Sales Analysis, Sales Trend, Sort on Division + Part Number, All Work Orders and enter the starting and ending date for all work orders entered in that date range.   The resulting report (componentusage.frx) consists of two parts.   The first part of the report would list all the top assemblies for the work orders entered in the specified date range and the total quantity assembled for each top assembly.   The second part of the report would consist of all the parts and their total quantities issued from the stockroom to manufacturing for those work orders. For Battery Tech only, the second part of the report will also include invoice component items that were sold during that time period.

If you selected "All for a specified division", the second list would contain only parts issued that belong to that division.   For example, if you were to edit that part you would see its division field would contain the same division you specified.

16.6.7 Sales Analysis with the optional Infinite Bucket module

THIRD METHOD Selecting Optional, Infinite Bucket, and Generate Action Items, will use sales, work orders, and quotes scheduled to be issued during the upcoming time period and their related BOMs to update the min and usage qtys for every part number

Infinte Bucket MRP Generation Criteria

Data to be considered by the MRP generation process

Inventory in Areas...
- ☑ STORES
- ☐ TEST/MRB
- ☐ R&D
- ☐ DEMO
- ☐ INCOMP
- ☐ ENGINEER
- ☐ QC HOLD
- ☐ RMA
- ☐ STAGING
- ☐ SCRAP

Select All   Clear

Demand From...
- ☑ Open Sales Orders
- ☑ Open Work Orders
- ☐ Open Quotes (Forecast)
- ☐ On Hold Sale/WO Line Items
- ☑ Sale/WO with Preliminary BOM

Select...
- ⊙ Primary Vendor
- ○ Vendor with best price

Dema...
- ☐ Ins...
- ☑ Minimum Qty Stocking Levels
  - ☑ Recalculate Min Stocking Levels
  - Calculation Settings...

Ok

1. Check Minimum Qty Stocking Levels

2. Optional, checking this and setting your time period to far out could lower your Min Qtys.

3. Optional, click on this if you wish to set or edit how the minimum quantities are calculated.

4. Press the OK Button to generate MRP action items. If Recalculate Min Stocking Levels is checked, pc/MRP will perform a double pass. The first pass will recalculate the estimated usage and reset the Min Qtys. The second pass will generate the action item schedule.

Selecting Optional, Infinite Bucket, Generate Action Items, and Recalculate Min Stocking Levels Issues will calculate Min Qtys based on sales and work orders to be manufactured in the future.

2. Check this to factor in lead time when calculating Min Qty = (Usage x LeadTime) + (Usage x Safety). Unchecking this leaves you with Min Qty = Usage x Safety

1b. Enter number of weeks of safety stock when new stock arrives*. If set to 0, new stock will arrive just as the existing stock runs out (just in time). If set to 1, new stock will arrive with 1 week of safety stock onhand.

1a. If selected and set to 1.1 your new stock would arrive with 10% of the Min Qty left onhand.

Data to

- ○ a Percentage of the minimum quantity amount   1.00
- ⊙ Number of Weeks of safety stock left when new stock arrives   1
- ☑ Also reserve additional stock to cover the vendor Lead Time period

3. Set the time period to be studied. Caution, setting this too far out could lower your Min Qtys

Analysis Period
8   ○ Days   ⊙ Weeks   ○ Months

Include   ⊙ Parts Only   ○ All Items
- ☑ Sales Order demand
- ☑ Work Order demand
- ☐ Sales Quote demand

- ☐ ENG...
- ☐ QC H...
- ☐ RMA
- ☐ STAGI...
- ☐ SCRA...

Select All

☐ Consider components already consumed by built assemblies to be during the "Weeks Onhand" calculation

5. Select orders to drive Usage and Min Qtys

4. Select Parts Only as this insures there is no over ordering of parts. If you include assys, the MRP Reports create buy action items for assys that are short.

Checking this will increase the Weeks Onhand Calculation as it takes into account parts in unallocated sub-assemblies.

* This is the default number of weeks of safety stock for all parts except those part numbers that contain their own safety stock number of weeks set.

OK   Ca...

6. Click OK

This option was created for Electro-Optics Technology as per their spec for pc/MRP Versions 8.62A and higher.

Inventory Screen with the Sales Analysis and Infinite Bucket Module Activated

16.7 Sales Quote Module

16.7.1 Quote Module Overview

The Sales Quote Module creates, edits, and prints out sales quotes. In addition it will also convert sales quotes to sales orders and print out a tickler quote report for all open quotes exactly 30, 60, and 90 days old. Please see Chapter 9, Sales Orders, for more detail.

16.7.2 Activating the Quote Module

To activate the module, select Configuration, Module Activation, and then Sales Quote from the menu, and enter the activation number obtained from Software Arts.

16.7.3 Sales Quote Probabilities

A % probability can be assigned to each line item of a Sales Quote. This probability is the likelihood of this line item becoming a real sales order. Through the use of the Infinite Bucket module Sales Quotes can then be added for planning and parts from these sales orders will be required according the % probability.

16.7.4 Print/Email Sales Quotes

The Sales Quote report engine is exactly the same as the sales order report engine. After you have selected the criteria for your report, you also have the opportunity to print, display, and fax or send the actual quote to e-mail, or an HTML document to attach the quote to an e-mail. Through the use of programs like WINFAX users can also directly fax from pc/MRP.

Note:
If you send an e-mail directly from pc/MRP, we use MS Outlook. The e-mail address in MS Outlook will automatically be populated from the e-mail entry in the pc/MRP Address Book. If you create an HTML document, you can save this document and attach it to an e-mail created in your existing e-mail program.

16.7.5 Convert Sales Quotes to Sales Orders

Users can scroll the Sales Quote table to select a sales quote, then select the line items the new Sales Order will include. The remaining line items can be left open for later conversion or can be closed at this point, by checking the "Close All Items" check box. If there is an invalid part numbers in the Sales Quote, pc/MRP will offer to convert this part to an "NA" part number, or to exclude it from the list of items to convert.

16.8 Audit Trail Module
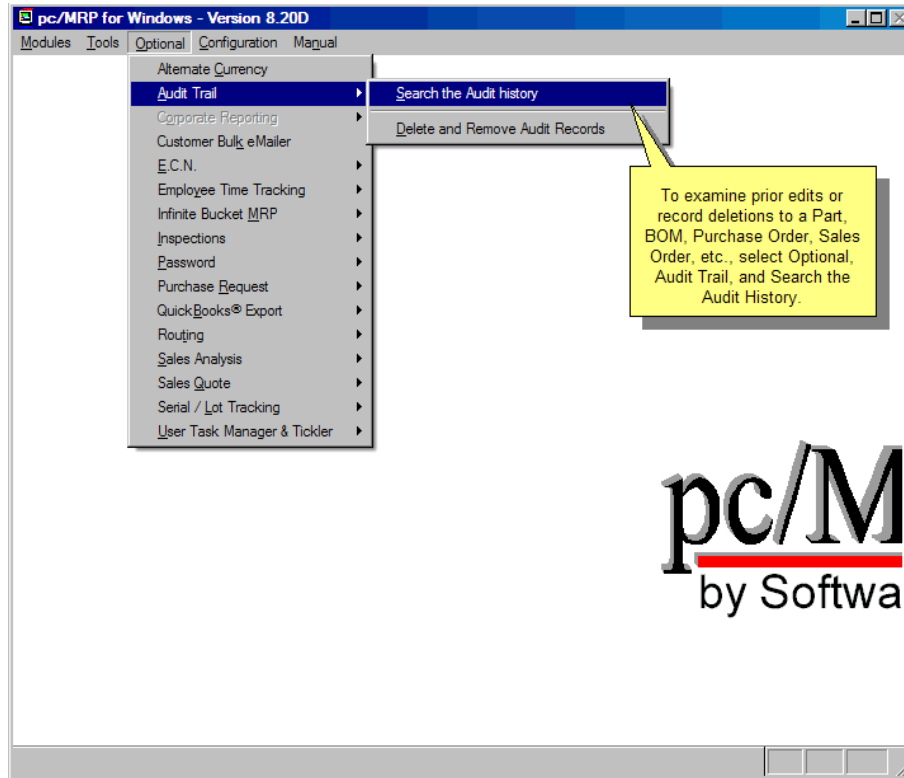
16.8.1 Audit Trail Overview

The Audit Trail Module provides a means of tracing edit changes made in any of the pc/MRP modules with the exception of accounting. Whenever a change to a record occurs during an editing session, the Audit Trail module will record the Date, Database, Time, User, and Field Name as well as the Record & Item numbers, Part/BOM number, or Address ID number. A flexible search feature allows retrieval of the recorded change based upon a variety of criteria.

An online slideshow is located here: http://www.pcmrp.com/mrp101/trailsearch.htm

16.8.2 Module Activation

The Audit Trail Module is an optional module.   To activate the Audit Trail Module, select Configuration, Module Activation, and then Audit Trail from the menu. To initiate this module:

- Select Ten Day Trial
        OR
- Call Software Arts (408-226-7321) to purchase this optional module, obtain your activation number and select Full Activation

Note: The Audit Trail will not contain records of changes that happened before the module has been activated. (Otherwise pc/MRP would accumulate a large amount of data, without the users being able to periodically delete it, see Section 16.8.5 below)

16.8.3. Searching Audit History for any or all edits or deletions

To view prior edits and deletions made to Part, BOM, Purchase Orders, etc., Select Optional, Audit Trail, Search Audit History and the Audit Trail Screen shown below will be displayed. A search can be conducted which returns as much or as little information as the user requires. Selecting all databases while leaving all other criteria blank, would return every change that has been made everywhere.
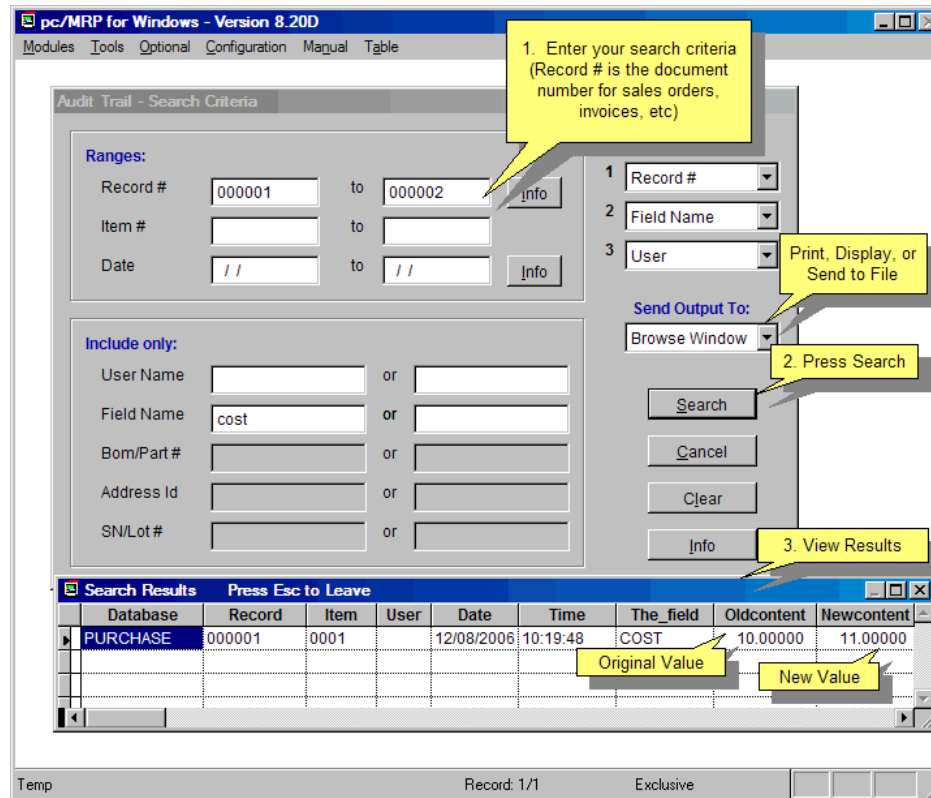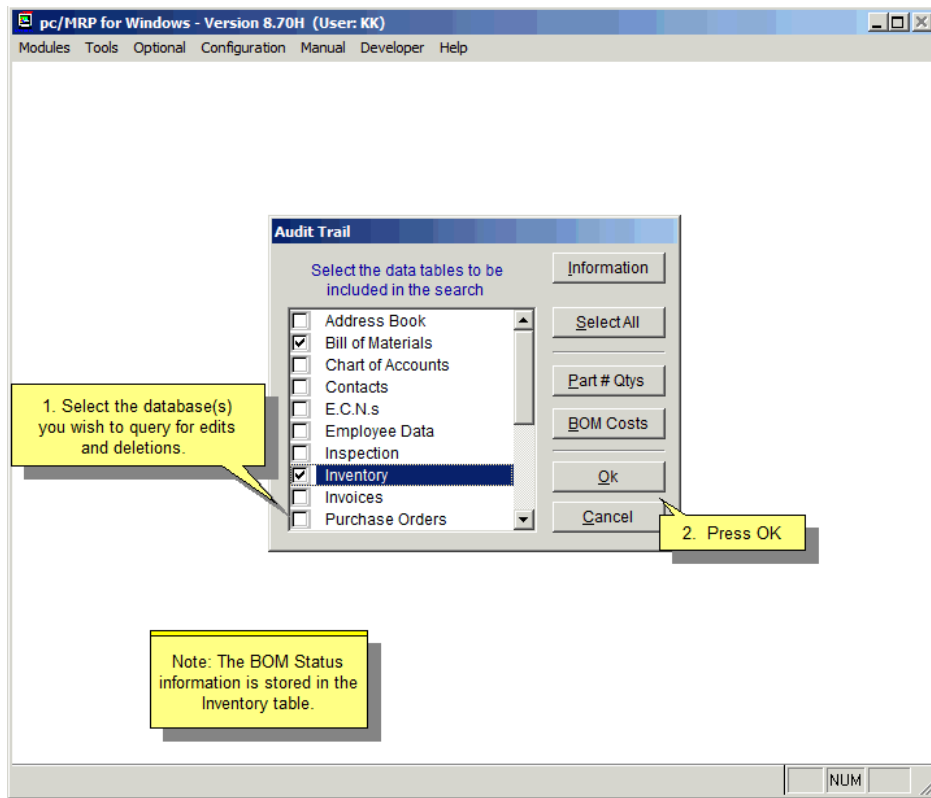
16.8.4. Searching Audit History for changes in Onhand or WIP Quantities, and Cost Roll-ups

To find edits or deletions to receiver, invoice and stockroom records that could have affected stockroom and WIP quantities, click on the Part # Quantities Button as shown below. Please recall that editing the quantities on stockroom transactions does not change the quantities in the inventory file (these will have to be edited manually). Editing the quantities on receivers or invoices will change the quantities in the inventory file, as long as the receiver's date is after the date of the last physical inventory for that part.

Whenever a receiver, invoice, or stockroom quantity is edited or deleted, the partno field in the trail.dbf file is filled with the partnumber. This is the only time the partno field is filled in with the partnumber. The 'Part Number Quantities' report keys on the partnumber field.
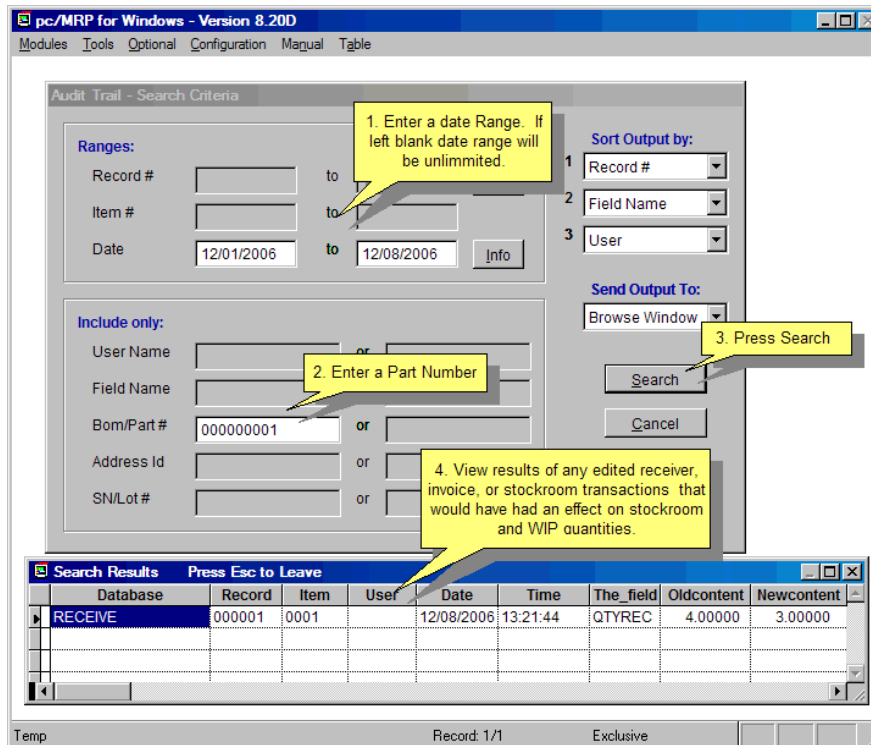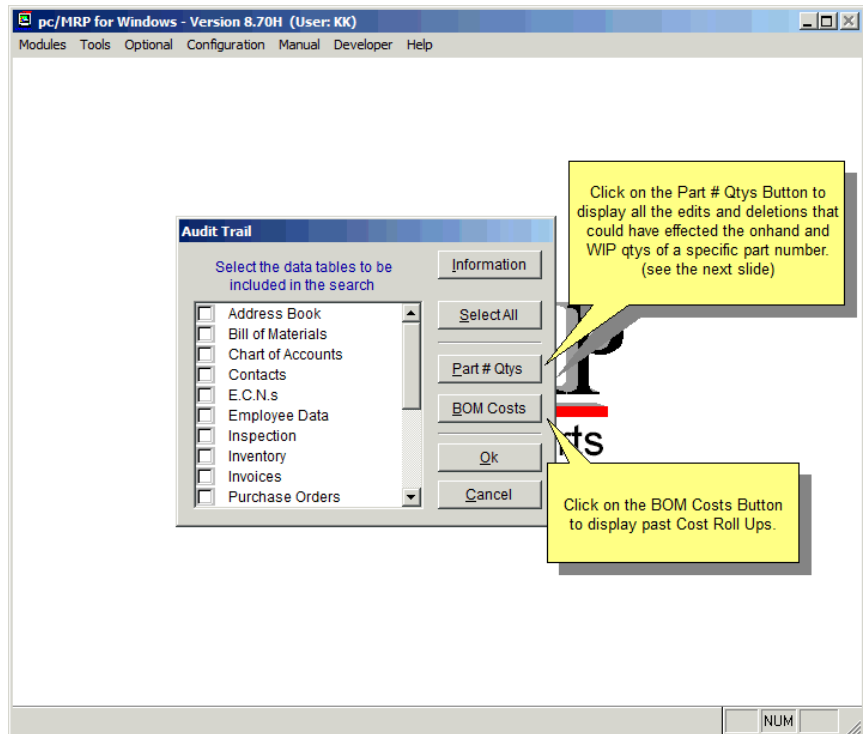
16.8.5 Deleting Audit Trail Records

Because the Audit Trail module makes a record of each change made, it tends to grow very rapidly. It, therefore, becomes necessary to remove obsolete records on a regular basis. How often these records are removed would vary depending upon your situation and the nature of your business.

To delete Audit Trail records, you should first ensure that a backup is made for archival purposes. Then, press the "DELETE" button at the Audit trail opening screen. You will be asked to enter a number representing the number of day's worth of records that you want to <u>retain</u>. All others will be deleted. The default is 90 days, but you may enter anything from 30 days to 9999 days.

16.9 Purchase Request (RFQ) Module
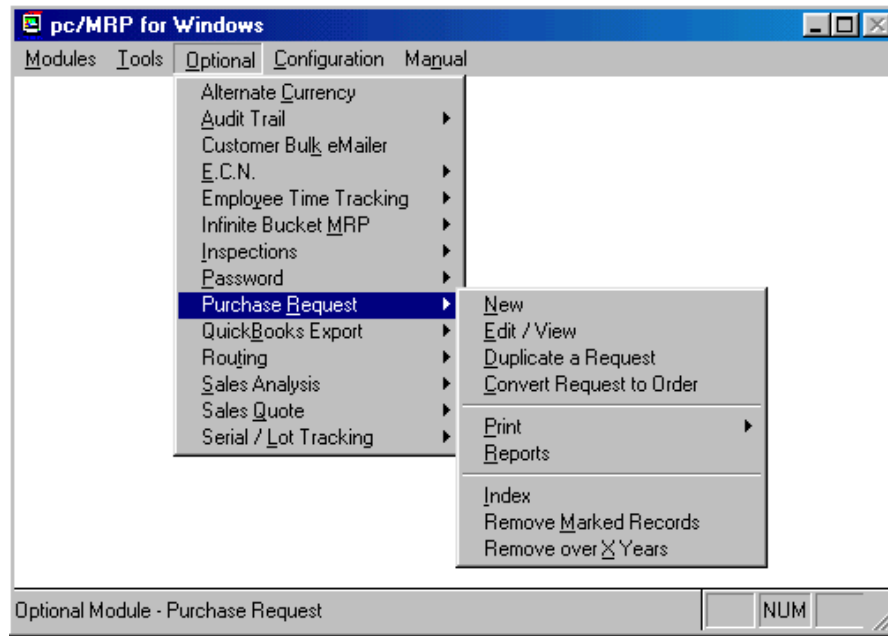
16.9.1 Purchase Request Module Overview

The Purchase Request Module creates, edits, and prints out Purchase Requests. It can also be printed out as a **Request for Quote** to request pricing information from a vendor. The Purchase Request can easily be converted into a Purchase Order by selecting the Request items to be included in the conversion. Please see Chapter 7, Purchase Orders, for more detail.

16.9.2 Activating the Purchase Request Module

To activate the module, select Configuration, Module Activation, Purchase Request from the menu, and enter the activation number obtained from Software Arts, Inc.

16.9.3 Creating and Editing a Purchase Request

The process of Creating and Editing a Purchase Request is the same as Creating and Editing a Purchase Order. Refer to Section 7.1 of this Manual for a detailed explanation of the process.

16.9.4 Converting a Purchase Request to a Purchase Order

Selecting "Convert Request to Order" will open a dialog window where the user may select the items of the Purchase Request that are to be converted into a Purchase Order. Multiple items can be selected by holding down the [CTRL] key on the keyboard while clicking on the items with the mouse. Only those items selected will be converted. After the PO is generated, those items selected will be flagged as "Complete" on the Purchase Request. If the "Close all items" check box is selected, the Purchase Request items not selected for conversion will also be flagged as "Complete." If there is an invalid part numbers in the Purchase Request, pc/MRP will offer to convert this part to an "NA" part number, or to exclude it from the list of items to convert.

If the Advanced Password Module is activated, a person must have Enter/Edit or Deletion rights to the PO Module AND Enter/Edit or Deletion rights to the Accounting Module.

16.9.5 Print/Email Purchase Quotes

The Purchase Quote report engine is the same as the purchase order report engine. After you have selected the criteria for your report, you also have the opportunity to print, display, fax, or send the actual quote via e-mail, using a PDA or HTML document to attach the purchase quote to an e-mail. Using programs like WINFAX users can also directly fax from pc/MRP.

Note: If you send an e-mail directly from pc/MRP, we use MS Outlook. The e-mail address in MS Outlook will automatically be populated from the e-mail entry in the pc/MRP Address Book and the PDF of HTML file will be attached. If you create a PDF or HTML document, you can save this document and attach it to an e-mail created in your existing e-mail program.

Option 83 allows the user to add, edit or delete Terms and Conditions for Purchase Orders.   Terms that are checked as default terms are included in all new purchase orders.   When a user is creating a purchase order he can press the Options Button to select Terms and Conditions other than the default Terms and Conditions.

When a purchase request/quote is created in the request.dbf file it will store the default terms in its termcond memo field.   If the termcond field is not empty the terms and conditions sheet will print out right after the purchase request/quote prints out. This is the same for a PO with the exception that a PO's Terms and Condition Field can be manually edited by pressing the Options button on the PO Data Entry Screen. Creating 2 files named Requestb.ef and PoQuob_Ship.ef will prevent the T&C page print out. The files should contain PCTERMCONDIDLIST = "" after the ~IN~ clause.

The standard Terms and Conditions form is stored as TC.FRX. If you need to customize this form (for example change Font or Font Size), save the modified form as CTC.FRX. pc/MRP will automatically print the custom Terms and Conditions form, if it exists in the PCMRPW folder (**8.73 and above**).

16.10 Serial/Lot Number Module

16.10.1 Overview, Settings

An online slideshow is located here: http://www.pcmrp.com/mrp101/snlotoverview.htm
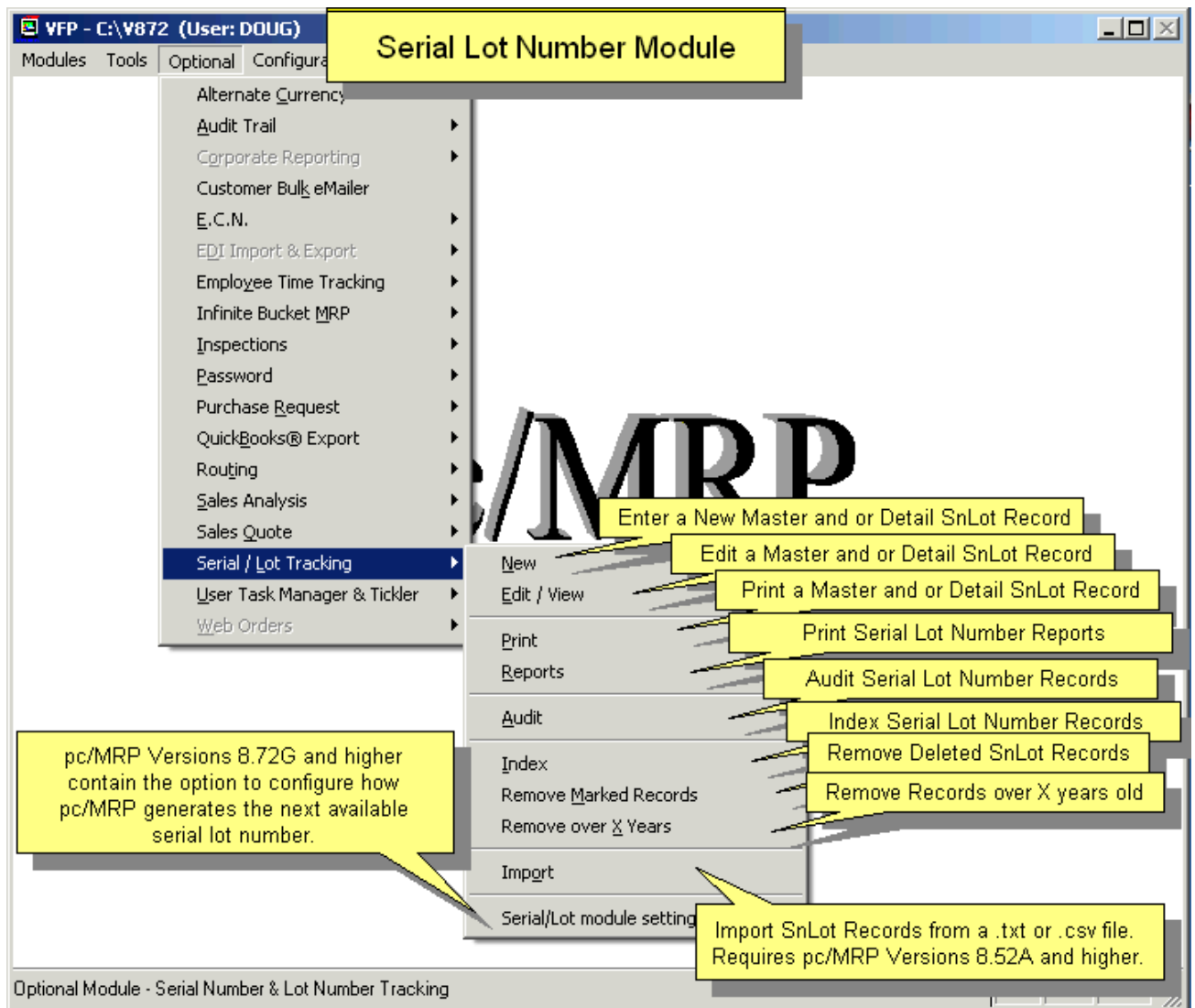
If you have the Optional Serial/Lot Number module and the **Serialized Item** (serialitem) check box is checked on the MISC tab of the part's Inventory screen, pc/MRP will display a window allowing you to enter or pick serial numbers when receiving, issuing, receiving back from MFG, or invoicing for this part number.

pc/MRP's optional Serial/Lot Number module will store current on hand quantities of each serial/lot number in its snlot.dbf file. It also keeps records of all transactions adjusting the serial/lot number quantities in its snlotdet.dbf file. Entering invoices (this module refers to these transactions as I type transactions), or issuing parts to manufacturing (S type transactions), will decrease the on hand quantity of the serial/lot number. Entering receivers (R type transactions), receive back completed assemblies (M type transactions) or entering new serial lot numbers (initial, J type transactions) will increase the on hand quantity of the serial/lot number.

The master snlot.dbf contains one record for every serial or lot number along with its current on hand quantity. The detail snlotdet.dbf contains one record for every transaction that would affect the on hand quantity of a serial or lot number.   The file structure for these two databases can be printed/displayed using Settings and Utilities, Option 39.

Default Settings

Sn/Lot Number Generation Type: Users can configure how pc/MRP generates the next available serial number. Option 1: All serial/lot numbers will be unique, regardless of part number. Option 2: Serial/lot numbers will only be unique for each part number. This is the default setting, and this is the setting for versions **below 8.72G**.

16.10.2   Manual Entry (for Existing Inventory)

You would follow this method when <u>starting out</u> with the optional Serial/Lot Number module. You would have to enter serial/lot data for your <u>existing parts in inventory</u>. After the initial entries, you will use receivers and invoices to update your serial/lot data, along with updating the inventory quantities of those serialized parts and assemblies.

You can use this option to create serial/lot numbers on the fly. The Enter Serial/Lot Number option will prompt, "Enter a Master record only, Detail record only, or Both". If you wish to create a record in the master data base file, and no initial quantity, select Master record only. If you wish to enter a transaction record, select Detail only. A master record contains the total on hand quantity for that serial/lot number. A transaction record contains the transaction record adjusting the on hand quantity of that serial number.

If you wish to enter a serial number and initial quantity for a part or assembly, select 'Both Master and Detail'. pc/MRP will create a record of that part and serial number in the master file making it available for invoicing or issuing. It will also create a detail record of how and when this serial number was created.

Entering both a master record and a detail transaction record will prompt for the part number and then display the next available serial/lot number. pc/MRP will automatically create the next available 15-character serial/lot number or users can type in their own serial/lot number. However, if users choose to enter alphanumeric characters pc/MRP will no longer be able to automatically generate the next available serial/lot number. Users consequently would be required to manually enter unique serial/lot numbers.

If you were to enter historical Serial/Lot records: You would first enter a manual record by selecting Optional, Serial/Lot Tracking, New, and Both Master & Detail; enter the serial number and a qty of 1 (or invoice qty). Repeat for each serial number. This will create both a Master and Detail record putting the serial number in stock. To create a historical Invoice record, select Optional, Serial/Lot Tracking, New, and Detail Only. Enter the same serial# and a qty of 1 (or invoice qty), Document Type of 'Invoice', and enter the invoice# in the Related Document field. Now you must edit the Master record for the serial number to a quantity of 0. Repeat for each historical serial number.

When this record is entered, pc/MRP will create a master record consisting of the Lot/Serial No, Partno, and Quantity. It will also create a detail record consisting of the fields shown below:

The **Part Number** field (partno) contains the part number of the for that serial/lot number.

The **Serial/Lot Number** field (snlotno) contains your serial or lot number.

The **Quantity** field (detqty) contains the quantity issued, invoiced, adjusted, or received.

The **Revision** field (revision) contains the revision level of that part number when the serial/lot number was received or created.

The **Correction Factor** was created for Inhale Therapeutics. It was designed to automatically adjust stock room BOM issue quantities based on concentration of serialized lot numbers. Unless you are Inhale Therapeutics, leave the correction factor setting at 0. If a chemical were 90% pure, you would enter 10 as the correction factor. If a chemical were 95% pure, you would enter 5 as the correction factor. If you were issuing a lot number to manufacturing that has a correction factor, you would issue the corrected amount instead of the exact amount required by the BOM. The corrected amount would appear at the bottom of the issue screen.
The formula used when issuing compounds to manufacturing is as follows:

$$Sn\operatorname{Re}t = Sn\operatorname{Re}t + Sn\operatorname{Re}t\left(-1 * \left(QtyToIssue - \left(QtyToIssue / \left(1 - CorrectionFactor / 100\right)\right)\right)\right)$$

With this formula, if a BOM required 100 lb of a compound, but the compound was 90% pure (CorrectionFactor = 10%), an extra 11.111 lb will be issued. The "SaRet +" is in the formula in case the compound is from multiple lots with different correction factors. If you wish to have correction factors taken into account when printing out generic pick lists from the BOM module, call Software Arts, Inc. to create a special flag file.

The **Document Number** field contains the related document number for this detail record. It would contain the receiver number if this record were created when this serial/lot number was received. It would contain the sales order number if this record were created when this serial/lot number was issued to MFG. It would contain the invoice number if this record were created when this serial/lot number was invoiced. It would be blank if this record were created manually.

The **Doc Type** field (doctype) contains the document type; J type in this case indicates an adjusting entry. Other Doc Types include, I for Invoice, R for Receiver, M for Receive back completed assemblies from manufacturing, and S for an issued to manufacturing stock transaction.

The **Cust/Vendor** field (sncv) contains the customer/vendor's ID code.

The **Date** field contains the date of the transaction.

The **Vendor Lot Number** field (vendlotno) contains the vendor's serial/lot number, which may or may not be the same as your serial/lot number.

The **Expiration Date** field (expirdate) contains the date when this serial/lotnumber is set to expire. Leave this field blank if there is no expiration date.

The **Documentation Link** contains the location and name of any document related to this serial or lot number. For example, the serial or lot number certification document could be stored here.

16.10.2.1 Importing Serial/Lot numbers from a .TXT or .CSV file.

pc/MRP Versions 8.52A and higher contain the option to import serial lot numbers into pc/MRP. Users must have Enter/Edit/Delete Rights to the Serial Lot Number Module to use this option. The txt file must consist of part number, serial lot number, and serial lot number quantity followed by a carriage return for every serial number you wish to import.

Imports txt file containing Part Number, Serial Lot Number, SnLot Qty

1. Press the Find Button to locate the txt file containing the part numbers, serial lot numbers, and lot number qty.

2. Checking the Replace Serial Lot Number Qty will instruct pc/MRP to replace the qty in the serial lot number master file if the lot number part number combination already exists in the master serial lot number file and the import qty is different from the current qty pc/MRP will create an adjusting snlot detail record for Import Qty - Current Qty.

3. Press OK to import the serial lot numbers.

The Import Serial Lot Numbers Option is available on pc/MRP Versions 8.52A and higher.

Note: The .TXT or .CSV file should not have a header row of column names.

16.10.3 Receiving Parts
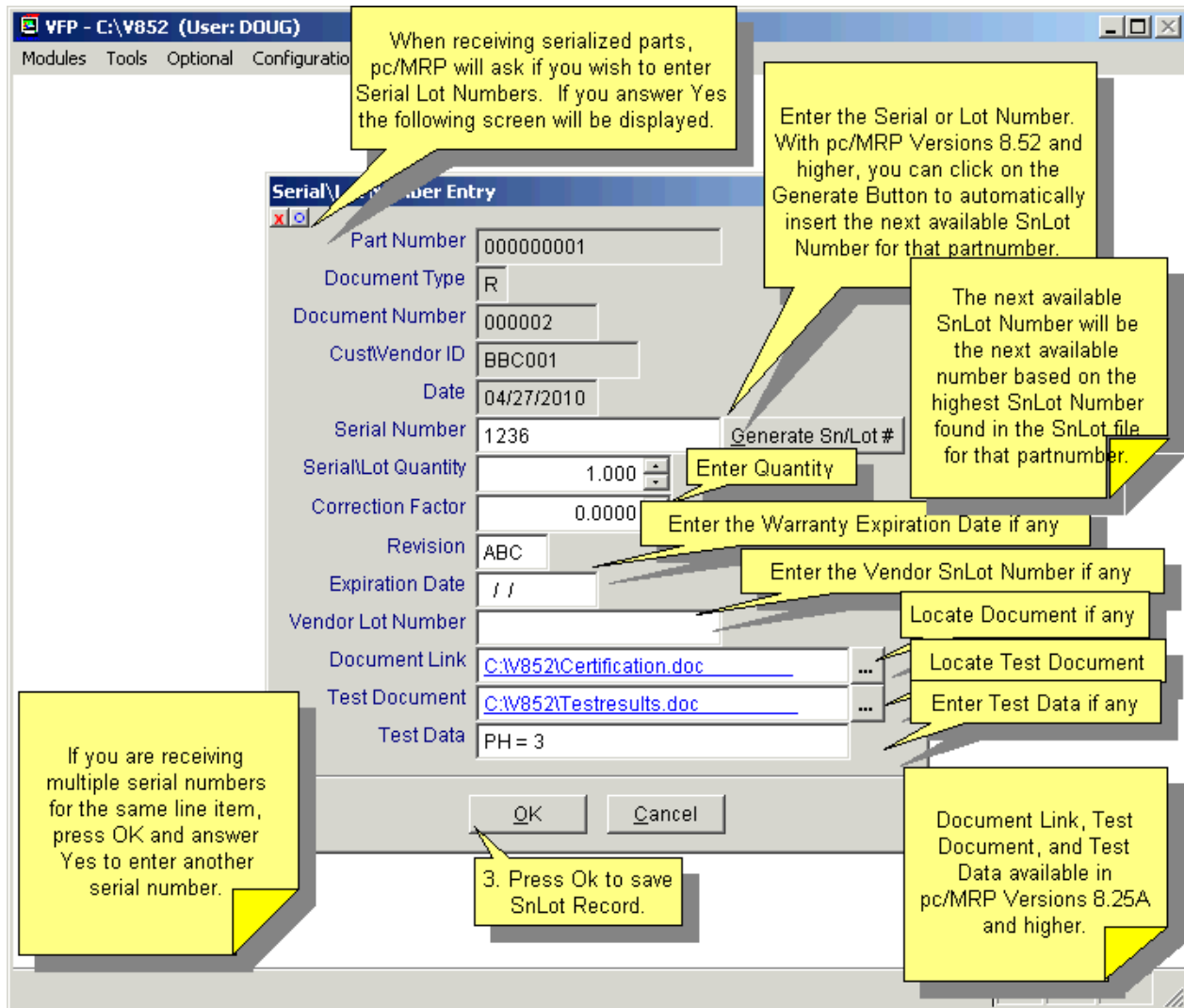
After entering a receiver, pc/MRP will prompt, "Enter a serial lot number for this part number". If you answer "Y", the screen above will be displayed.

The part number, document type (R for receiver), document number (receiver number), **vendor id** number, date received, and revision level will be inserted automatically. If you are recording lot numbers, enter your lot number, the quantity in the lot, the vendor's lot number, and the expiration date (if any). If you are recording serial numbers, enter your serial number, the quantity as 1, vendor's serial number, and expiration date (if any). If there is more than one lot or serial number, press ok and answer "**Y**" to enter additional serial or lot numbers. This will create a serial lot number detail record in the snlotdet.dbf with the vendor's id code in the **SNCV** field, **R** (receiver) in the **DOCTYPE** field, and the receiver number in the **DOCNO** field.

Printing out Receivers with Serial Numbers.

The receiver can be set to include Serial Numbers as shown on the screen below:

16.10.4 Issuing Parts to Manufacturing

When issuing parts from the stockroom to manufacturing for a sales order, you will be asked if you wish to record serial numbers. If you answer "Yes", a screen displaying the serial/lot numbers available for that part number will allow you to select the serial/lot numbers of the part(s) you are issuing.

Select the serial/lot number and enter the quantity required. Select Manual, to manually enter serial numbers that do not presently exist in pc/MRP. If a serial/lot number is selected that is past its expiration date pc/MRP will display a warning and allow you to deselect or use that serial lot number. This will create a serial lot number detail record in the snlotdet.dbf with the customer's ID code in the sncv field, S (for Stockroom) in the doctype field, and the sales order number in the docno field. Select Skip, to not issue any serial numbers. If you were issuing a lot number to manufacturing that has a correction factor, you would issue the corrected amount instead of the exact amount required by the BOM. The corrected amount would appear at the bottom of the issue screen. The code for the above screen and correction formula is located in prsndscr.prg. The corrected amount is: (Required qty - Total corrected qty issued)/ (1-(The correction factor/100)).

After issuing parts to manufacturing, pc/MRP will offer to include serial lot number Test Data and/or Test Document File Name on the Stock Issue Report. (**8.25 and higher**)
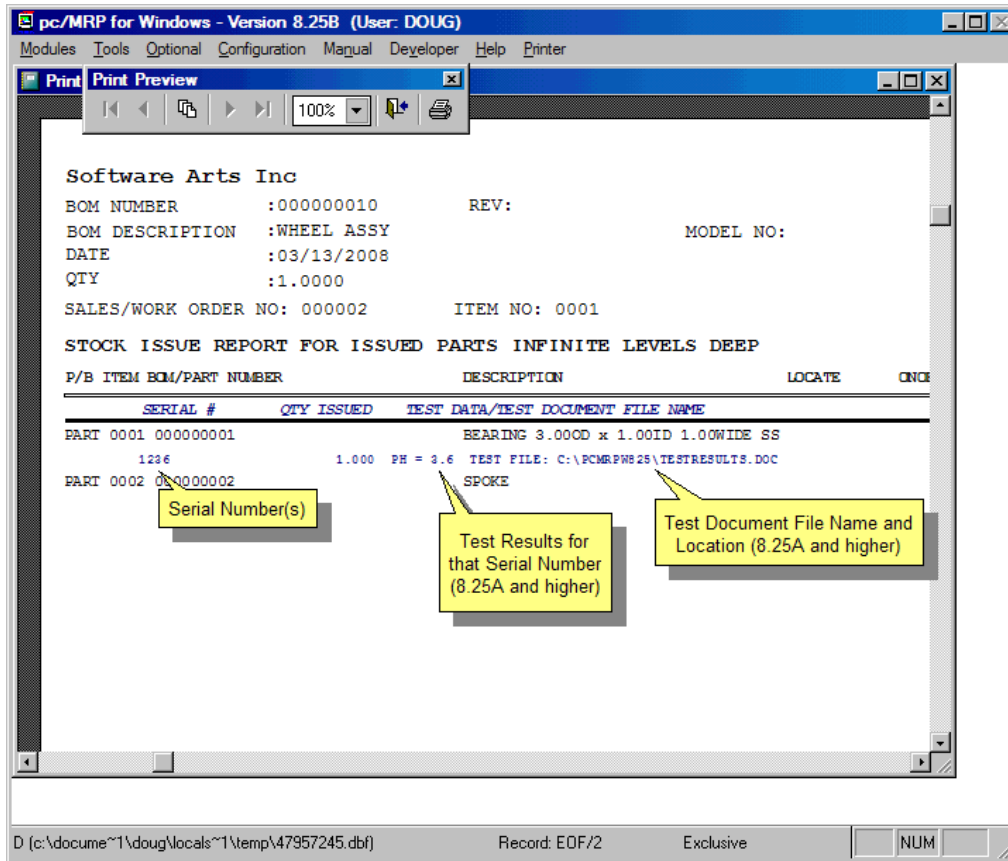
16.10.5 Receiving Back Completed Assemblies from Manufacturing

After receiving back completed assemblies from manufacturing, pc/MRP will prompt, "Enter a serial lot number for this part number". If you answer "Y", the following screen will be displayed.
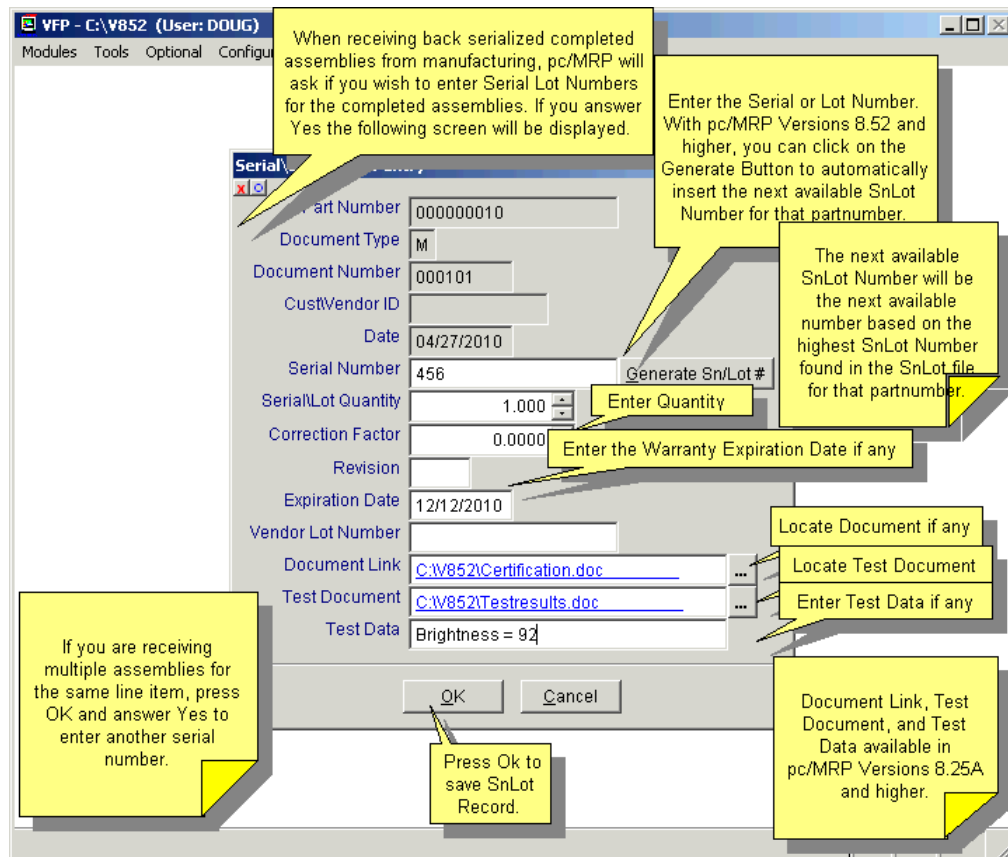
16.10.6 Invoicing

When invoicing parts marked as serialized (in the inventory module), you will be asked if you wish to record serial numbers. If you answer "Yes", a screen displaying the serial/lot numbers available for that part number will allow you to invoice the part(s) by serial/lot numbers.
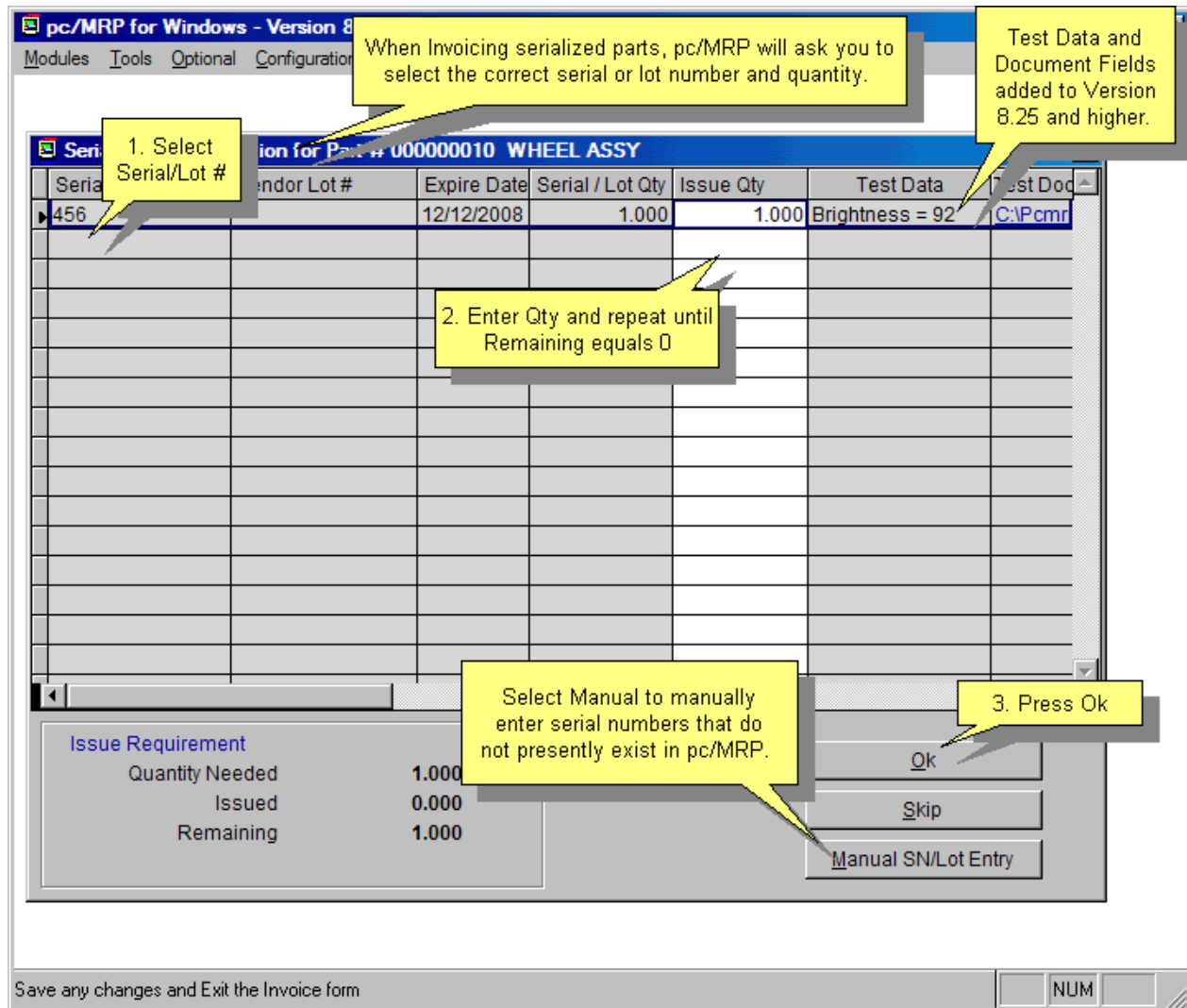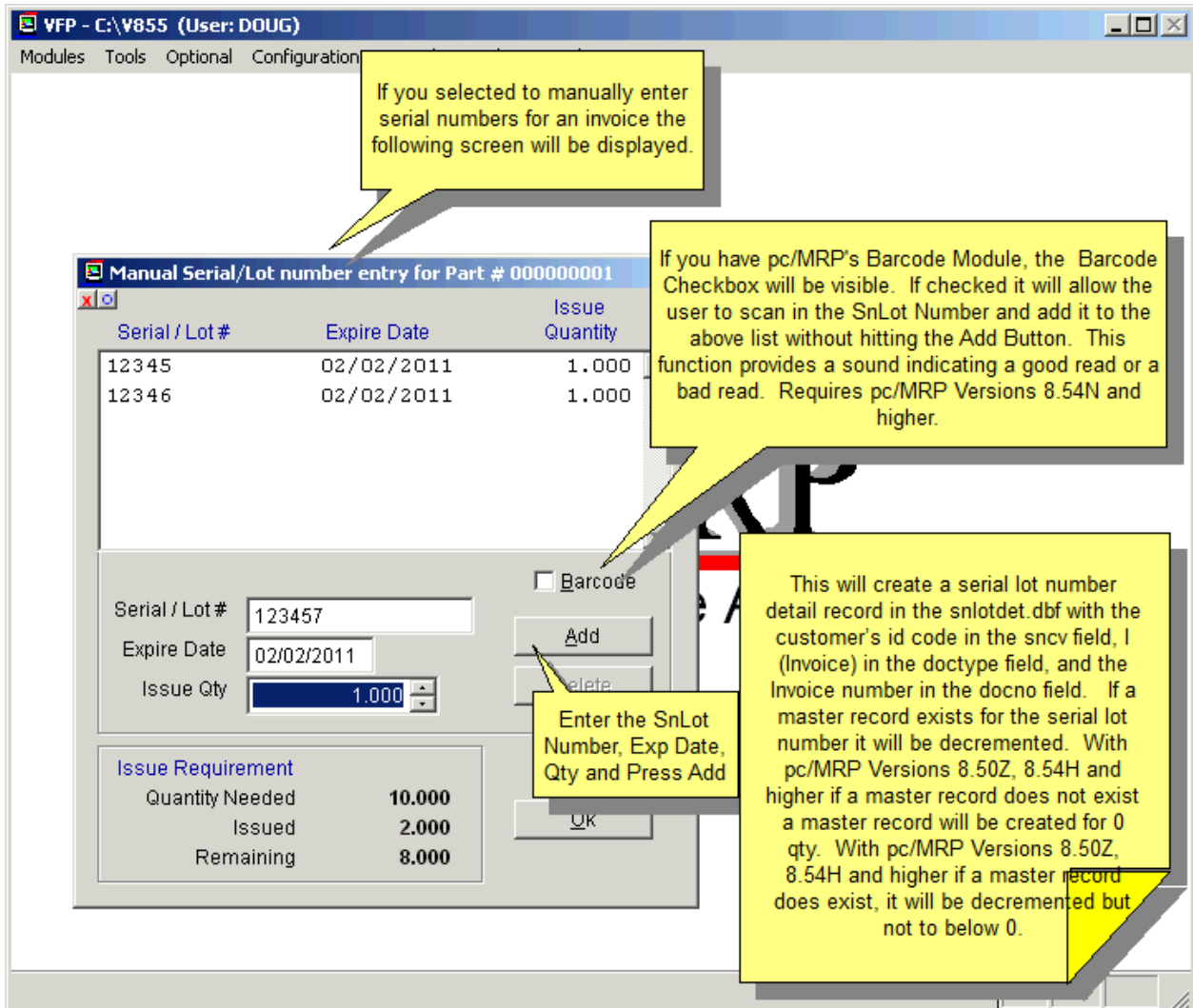
Select the serial/lot number and enter the quantity required. If a serial/lot number is selected that is past its expiration date pc/MRP will display a warning and allow you to deselect or use that serial lot number.

Select **Skip** to not issue any serial numbers if you do not have any available serial number for this part, and need to enter them manually.

Manually entering serial/lot numbers when invoicing.

Select **Manual** to manually enter serial numbers that do not presently exist in pc/MRP.

This will create a serial lot number detail record in the snlotdet.dbf with the customer's id code in the **sncv** field, I (Invoice) in the **doctype** field, and the Invoice number in the **docno** field.   If a master record exists for the serial lot number it will be decremented.

If a master record does not exist a master record will be created for 0 qty. Iif a master record does exist, it will be decremented but not to below 0. (**8.50Z, 8.54H and higher**)

Printing out Invoices with Serial Numbers.

An invoice can be set to include Serial Numbers as shown on the screen below:

pc/MRP will print out all serial lot numbers issued to this sales order and all serial lot numbers created when entering this invoice in the invoice's comment field provided:

Option 22 in the configuration settings and utilities menu is not set to automatically insert the inventory memo field into the invoice.

Option 55 in the configuration settings and utilities menu has been set to import "Invoiced items only" or "Invoiced items and sub-components".

16.10.7   Printing Labels

Select Modules, Inventory, Labels, Label Type of 'Parts'.
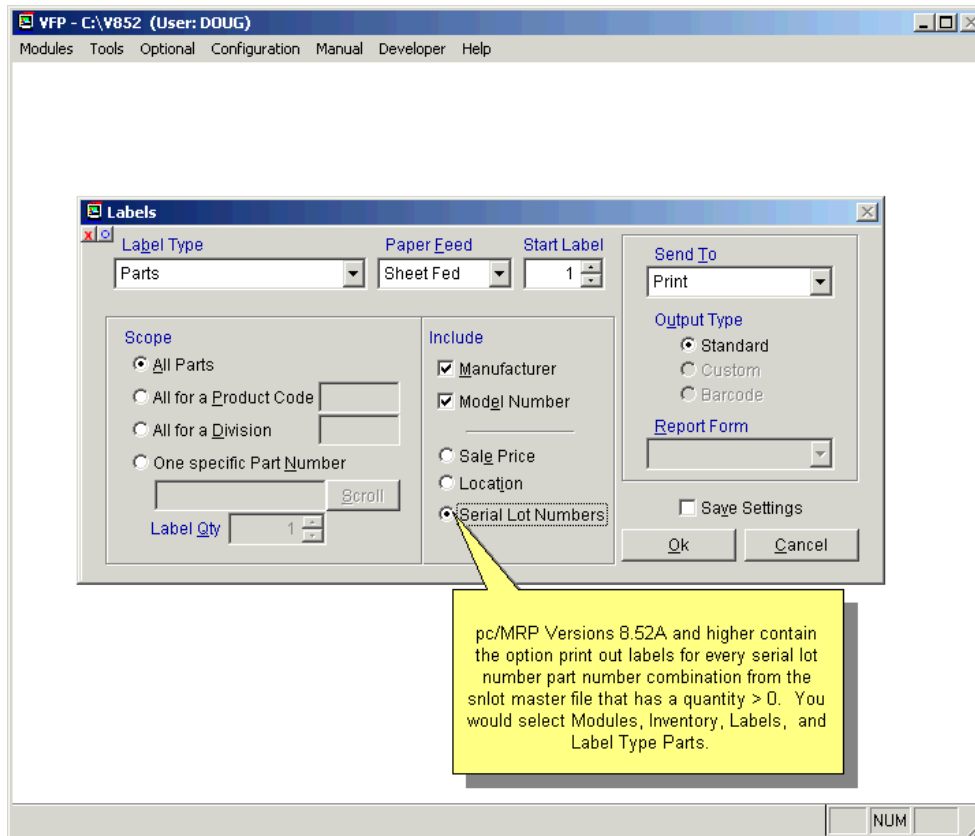
16.10.8   Edit, View, Scroll, and Query Serial/Lot Tracking Records

This option allows users to scroll, edit, delete, undelete, or run queries against Serial/Lot Tracking records.

Selecting an **Indexed Search** allows users to search on indexed fields. This allows pc/MRP to find the information much faster. To perform an Indexed Search:
select the Indexed Search tab
Select the desired **Sort Order:** Lot/Serial Number, Part Number, Customer/Vendor #, Document #, and Vendor Lot Number
Enter the applicable data in the **Begin Scrolling At:** field
Select the desired Action: **View** or **Edit**
Press **Search**

pc/MRP will automatically scroll to the desired record or the nearest match. Select the correct record by scrolling and press Ok to proceed to the edit screen for that record.

Selecting to run a Queried Search allows users to build, run, save, and load queries for the Serial/Lot Tracking tables. For further details, see Chapter 15.14.

Every field within the Serial/Lot Tracking tables is editable. Users must understand several key things before editing Serial/Lot Tracking data.

Note: If the quantity field is edited in a Serial/Lot Tracking record, inventory quantities are not automatically changed. Users would have to also manually change the inventory quantity if applicable.

16.10.9   Reports

16.10.9.1 Master and Detail Reports

The are two types of basic SN/Lot number reports in pc/MRP's optional Serial Lot Number module, Master Reports (keeps total quantity on hand for each serial/lot number) and Detail Reports (prints/displays transactions that adjusted the on hand quantity of the serial/lot number on hand quantity).

The Detail Reports list the sn/lot#, part#, document # (sales order, receiver, etc), document date, customer/vendor, id, document, quantity, and type of activity (R = receiver, S = stockroom issue, M = receive back completed assembly from manufacturing, I = invoice, J = SN/L # manual adjusting and or and initial entries).

Selecting Optional, Serial Lot Number, Reports, Detail Report, All Serial Lot # records for a Serial Lot Number Record, will provide a Serial Lot Number Report as shown below.

16.10.9.2 Advanced Serial/Lot Number Reports (available version 8.72B and above)
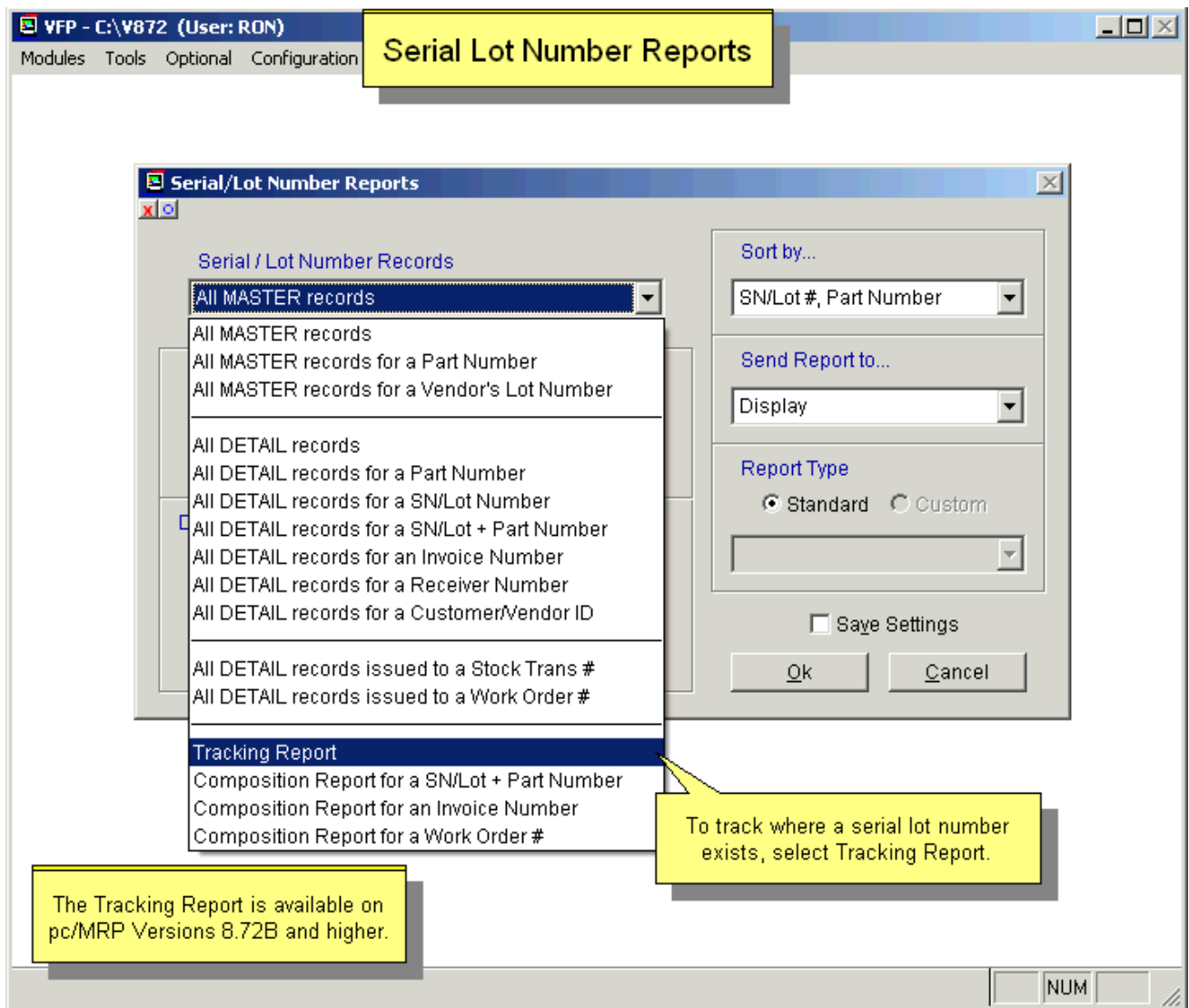
To track where a serial lot number exist (in Inventory, in WIP, or invoiced and sent to your Customer), select the **Tracking Report**.

To see what serial/lot numbers went into a finished assembly, select a **Composition Report** for a SN/Lot # + Part Number combination, for an Invoice, or for a Work Order.

Tracking Report

The first screen shows the "Serial/Lot Number Reports" dialog:

- **Serial / Lot Number Records:** Tracking Report
- **Sort by...:** SN/Lot #, Part Number
- **SN/Lot Number:** RLN-101002
- **Part Number:** CHEM0001
- **Send Report to...:** Display
- **Date Range:** All Records; From: 10/12/2012 To: 11/12/2012; Expiration Date; Document Date To: 10/12/2012
- Save Settings / Ok / Cancel

Callouts:
- Select Display, Print, Excel, ACII, PDF, or DBF
- Scroll and select the Serial or Lot Number and Part Number combination.
- Press the OK Key

Print Preview - SNTRACK.FRX

Inventory

Type	Serial/Lot #	Part #	Part Description	Quantity
Inventory	B1-011-01	BIKE0001	Bycycle - Grand Touring	6.000
Inventory	B1-016-06	BIKE0001	Bycycle - Grand Touring	4.000
Inventory	B2-012-02	BIKE0002	Bycycle	
Inventory	B2-017-07	BIKE0002	Bycycle	
Inventory	B3-013-03	BIKE0003	Bicycle	
Inventory	B3-018-08	BIKE0003	Bicycle	
Inventory	B4-014-04	BIKE0004	Bicycle	
Inventory	B4-019-09	BIKE0004	Bicycle -	
Inventory	R1-045-03	RUBB0001	Rubber Pellets - Mix 1	10.000
Inventory	RLN-101002	CHEM0001	Raw Chemical	5905.000
Inventory	S1-029-04	SEAT0001	Bicycle Seat	10.000
Inventory	T1-099-009	TIRE0001	Tire - 24"	10.000
Inventory	W1-031-06	WHEE0001	Wheel - 24"	10.000
Inventory	W3-035-10	WHEE0003	Wheel - 24" Plated	20.000
Inventory	W3-036-11	WHEE0003	Wheel - 24" Plated	10.000

WIP

Type	Serial/Lot #	Part #	Part Description	Work Order #
WIP	R1-043-01	RUBB0001	Rubber Pellets - Mix 1	000029-00WO
WIP	R1-043-01	RUBB0001	Rubber	
WIP	R1-043-01	RUBB0001	Rubber	
WIP	R1-043-01	RUBB0001	Rubber	
WIP	RLN-101002	CHEM0001	Raw Chemical	
WIP	RLN-101002	CHEM0001	Raw Chemical	
WIP	S1-026-01	SEAT0001	Bicycle S	
WIP	T1-037-01	TIRE0001	Tire - 2	000031-00WO
WIP	T1-037-01	TIRE0001	Tire - 2	000032-00WO
WIP	T1-037-01	TIRE0001	Tire - 2	
WIP	W1-027-02	WHEE0001	Wheel -	
WIP	W1-027-02	WHEE0001	Wheel -	
WIP	W1-027-02	WHEE0001	Wheel -	

Invoice

Type	Serial/Lot #	Part #	Part Description	Invoice #
Invoice	B1-011-01	BIKE0001	Bycycle - Grand Touring	000001-0001

Callouts:
- The lot number for the raw chemical itself along with assys and subassys that contain the chemical from that lot number that is in your inventory is listed in this section.
- The lot number for the raw chemical itself along with assys and subassys that contain the chemical from that lot number that is on your mfg floor is listed in this section.
- The lot number for the raw chemical itself along with assys and subassys that contain the chemical from that lot number that is at your customers is listed in this section.

Reportdata   Record: EOF/41   Exclusive   NUM

Composition Report

16.10.10   Audit Serial/Lot Numbers

The purpose of Serial Lot Number Audit report is to compare the quantities of the part numbers and serial/lot numbers based on the serial/lot number detail database file, the serial/lot number master database file, and the inventory file. The format of the report is displayed below:

With the above information in hand, you could use the stockroom module to adjust the inventory on hand quantities to match the quantities in the Serial/Lot Module Master file. You could also enter adjusting transactions into the detail file to match the Master Serial/Lot quantities.

The Audit Serial Number option creates a temporary database file containing a record for every part and the quantity found in the master serial/lot database file. It then goes through each serial/lot number detail record and decreases the detail quantity field for each "I" (Invoice) or "S" (Stockroom) issue record and it will add the quantity for all other types of transactions. A negative adjustment record will decrease the detail quantity field. It then sets a one-to-one relationship into the inventory report to print out the standard (auditsn.frx) or custom (cauditsn.frx) report. The quantity in the inventory column is the sum of the quantity in stores (onhand), and area2 through area20 (area2qty-area20qty).

16.11 Employee Time Tracking Module

16.11.1 Overview
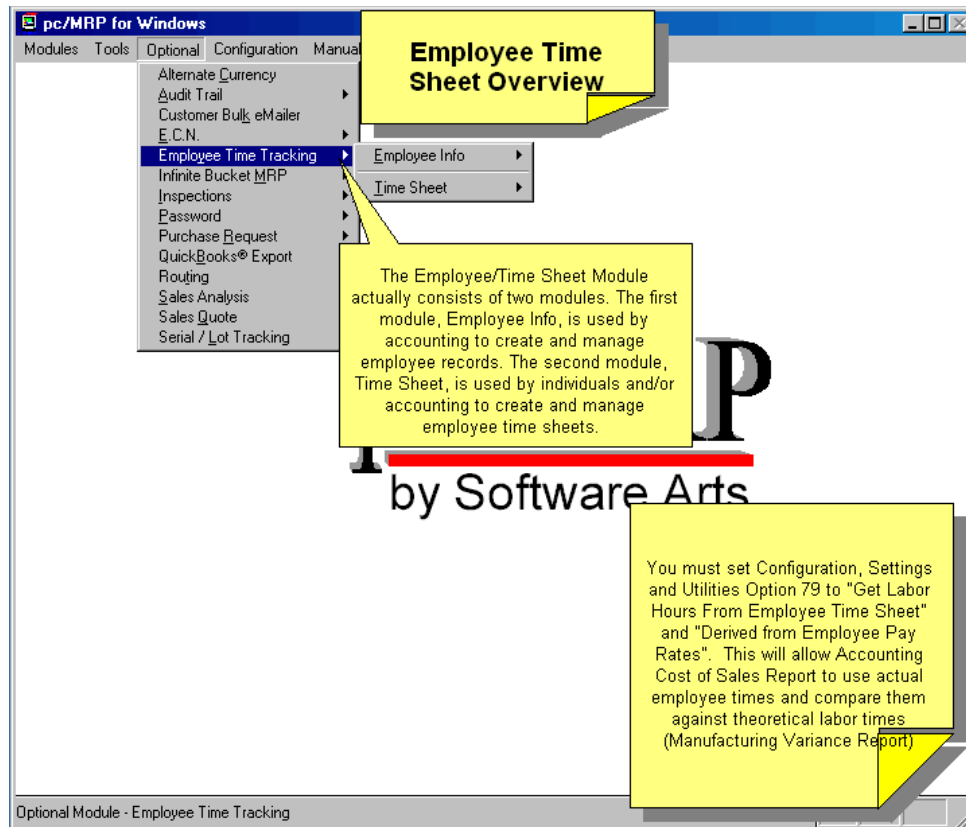
The Employee Time Tracking Module shown above actually consists of two modules. The first module, Employee Info, is used by accounting to create and manage employee records. The second module, Time Sheet, is used by individuals and/or accounting to create and manage employee time sheets.
An online slideshow is located here: http://www.pcmrp.com/mrp101/emptimeoverview.htm

Configuration, Settings and Utilities, Option 79 has to be set to "Get Labor Hours from Employee Time Sheet" and "Derived from Employee Pay Rates". This will allow Accounting Cost of Sales Report to use actual employee times and compare them against theoretical labor times (Manufacturing Variance Report).

16.11.2 Employee Information Module
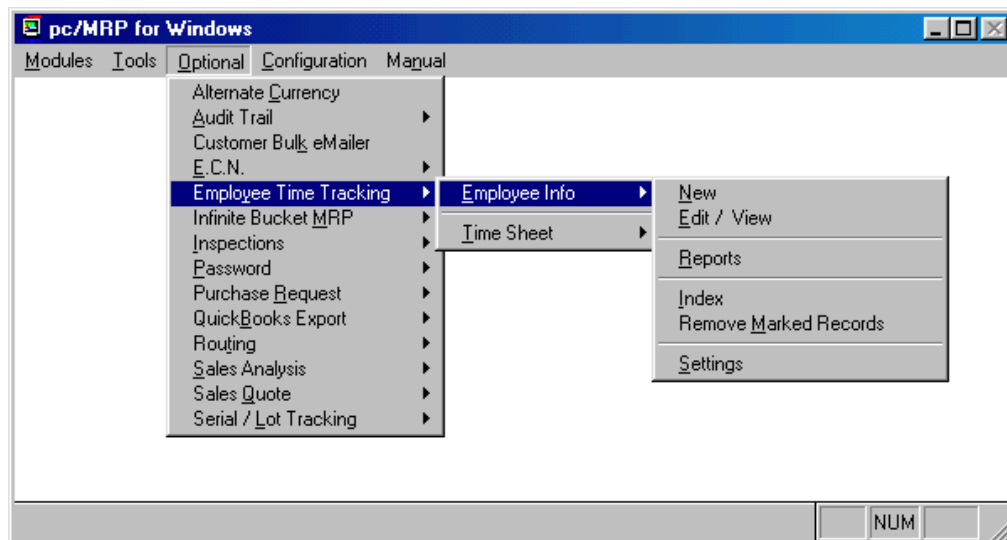
The Employee Information Module shown above allows users with accounting rights to create new employee records, edit/view employee records, print out/display employee reports, index the employee data base file, remove employee records marked for deletion and create custom fields (settings) for employee records. If pc/MRP's optional password module has been activated, only users with accounting rights will be allowed into the Employee Information Module.

16.11.2.1 Enter a New Employee Record

Selecting Optional, Employee Time Tracking, Employee Information, and New will allow users with accounting enter/edit and higher rights in the password module to enter new employee records as shown below.

The top row of fields contains the primary key fields for an employee record. The **Employee ID** field is automatically filled with the next available employee number whenever a new employee record is created. The Employee ID field is a six-character field filled with leading zeros that can only be edited during the initial entry. If the Employee ID field were to become corrupt, call Software Arts for instructions on repairing the data in this field.

The **General Tab** fields contain address, phone and job information. Six user-defined fields can be renamed using the Settings option in the Employee Menu. In the example below, we have named the first user defined field, "Health Plan", which would be used to store the name of the health plan the user selected. The comment field can store an unlimited amount of information pertaining to the employee.

The **Pay Tab** screen contains fields for Pay Period, Payroll Chart of Account Numbers, Pay Description, and Pay Rates to be used for deductions and additions on that employee's payroll checks. It is important for you to enter every employee's General Hourly Rate if you would like pc/MRP to track labor cost. The ellipsis button to the right of GL Chart of Account # text boxes allow the user to browse and select a payroll chart of account number from pc/MRP's Chart of Accounts data base file.

The **Tax Tab** screen contains fields for federal, state, and local allowances (number of exemptions declared on the employee's W4 form) and any extra withholding requested per pay period.

The **Vacation/Sick Time Tab** screen contains fields for accrued and used hours for vacation and sick time.

16.11.2.2 Edit/View (Scroll/Delete/Undelete Employee Information)

This option allows users to scroll, edit, delete, undelete or run queries against Employee Information records.

Selecting an **Indexed Search** allows users to search on indexed fields. This allows pc/MRP to find the information much faster. To perform an **Indexed Search**:

- Select the **Indexed Search** tab
- Desired **Sort Order,** Employee Number and Name
- Enter the applicable data in the **Begin Scrolling At:** field
- Select the desired action: **View** or **Edit**
- Press **Search**

pc/MRP will automatically scroll to the desired record or the nearest match. Select the correct record by scrolling and press **Ok** to proceed to the edit screen for that record.
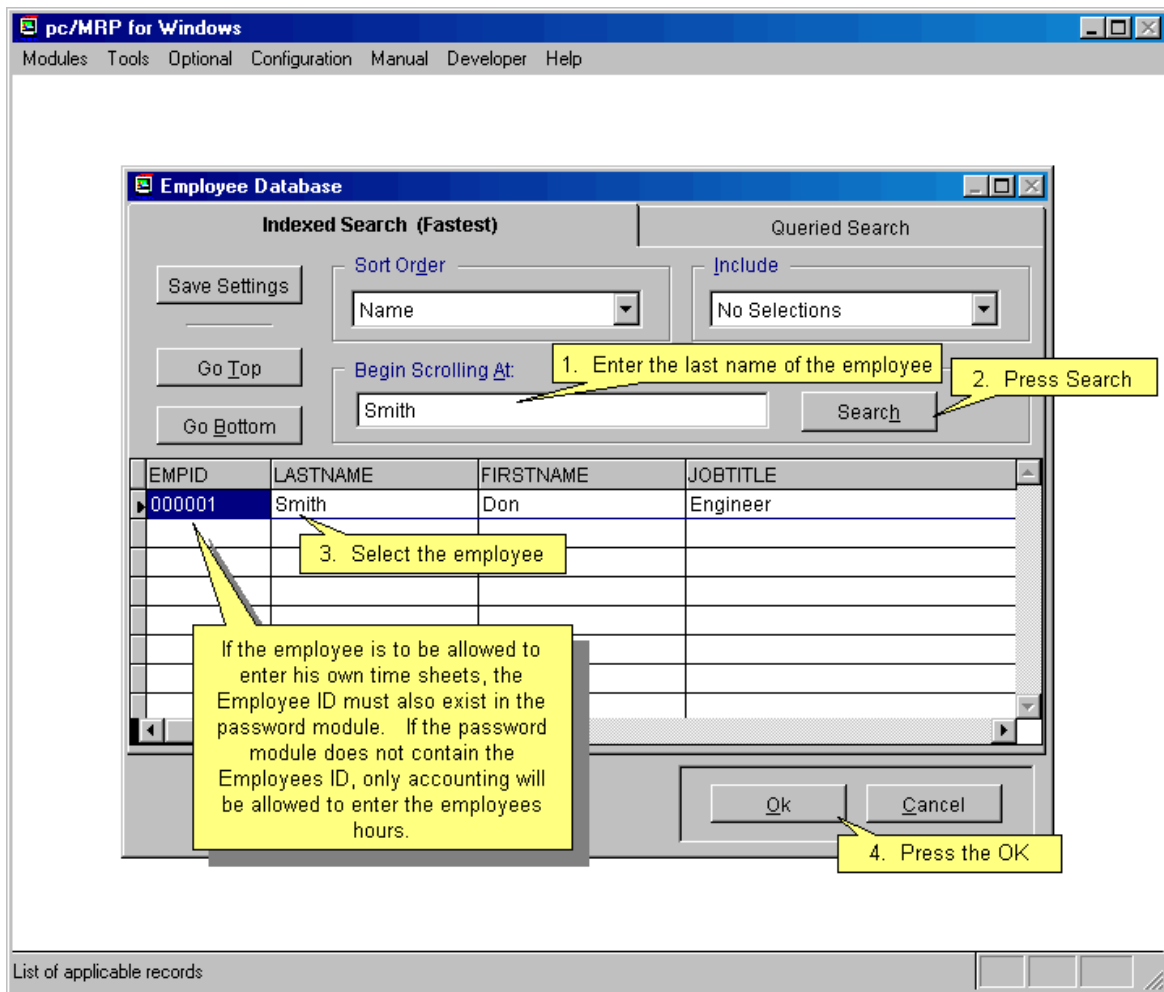
Selecting to run a **Queried Search** allows users to build, run, save, and load queries for the Employee Information table. For further details, see Chapter 15.14.

16.11.2.3 Print/Display Employee Records

Selecting **Reports** from the employee menu will allow you to print out the following reports:

- All Employee List (emplog.frx, employee.dbf)
- An Employee Profile (empfrm.frx, employee.dbf)

The report can be sent to Display, Print, PDF File, ASCII Text file, Excel file, DBF file, HTML file.

16.11.2.4 Employee Records Settings

Selecting Settings from the employee menu will allow you to name 1-6 user-defined fields in the employee data entry screen.

16.11.2.5 Employee Module Technical Information

- Formset: Employee.scx
- Free Table: Employee.dbf
- Indexes File: Employee.cdx
- Tags:
  - BYEMPID=UPPER(EMPID)
  - BYNAME=UPPER(LASTNAME + FIRSTNAME)
  - BYHIRDT=DTOS(HIRED)

16.11.3 Time Sheet Module

The Time Sheet Module allows qualified users to enter, edit and print out employee time sheet records. If the password module is active, only users with accounting rights are allowed into the Time Sheet Module. In addition, an employee is allowed to enter a time sheet record for himself, provided his employee ID number has been entered into the password module. The employee will need to use the same ID number when entering a time sheet record for themselves.

Note: Employees with accounting rights can enter employee times for any employee.

16.11.3.1 Enter/Edit/Delete Time Sheet Record

Clicking on the **New/Edit/Delete** button will bring up the Employee Scroll Screen. After you have selected the employee, pc/MRP will display the Time Sheet Scroll Screen shown below. The **Display** radio buttons allow the user to control which Time Sheet Records for the selected employee will be displayed. The user can then select the time sheet record he or she wishes to edit or delete. The **One Day** radio button and the current date are this screen's default settings.

If the employee is allowed to enter his own time sheets, the Employer ID must also exist in the Password Module. If the Password Module does not contain the employee's ID, only Accounting will be allowed to enter the employee's hours.

The Display radio buttons allow the user to control which time sheet records for the selected employee will be displayed. The user can then select the time sheet record that he or she wishes to edit or delete.

16.11.3.2 Enter a New Time Sheet Record

To enter a new time sheet record for a specified day, click on the **New** button. The new time sheet data entry screen shown below will pop up.
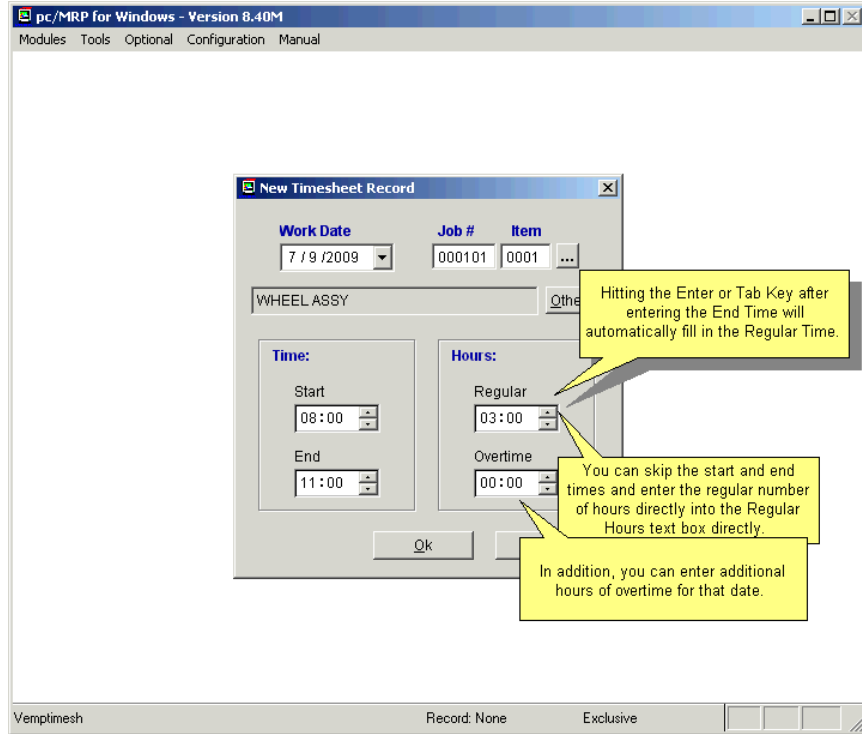
Select the **Work Date** that the job was worked on. If you click on the down arrow in the Work Date drop down list box, a calendar will be displayed allowing you to select any date available. The **Job#** and **Item** represent the pc/MRP sales/work order and item number. The sales/work order number can be looked up via the ellipsis button to the right of the Job # Item text boxes. The 'Other' text field shows the description of the line item selected.
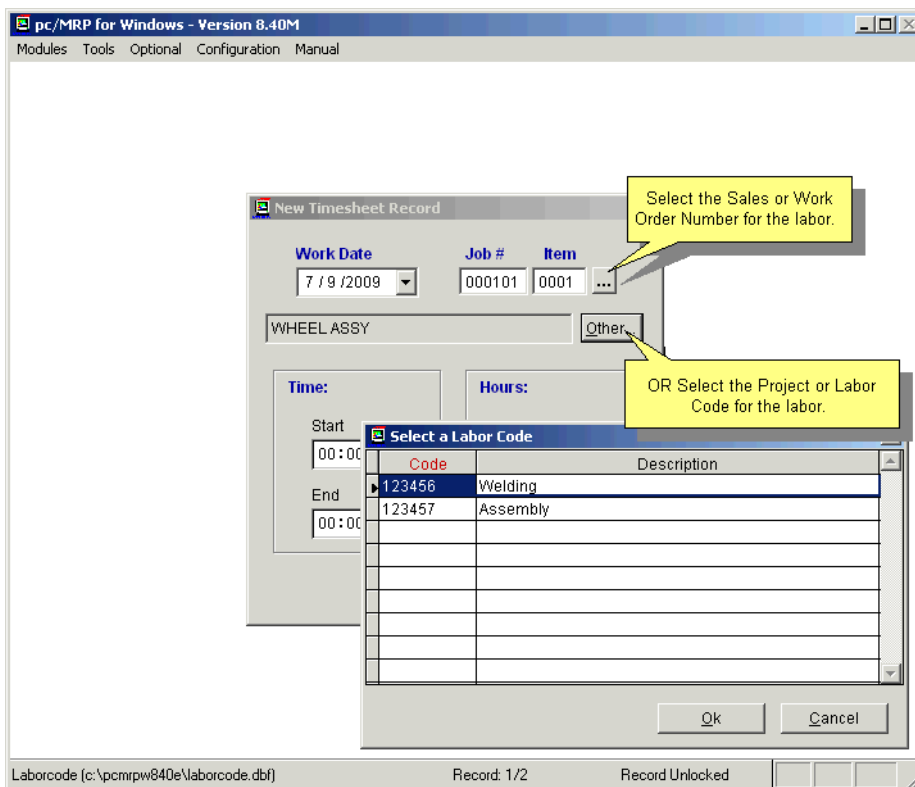
Clicking on the 'Other' button, allows you to replace the work/sales order with a list of predefined labor codes previously defined via the menu option for TIME SHEET, DEFAULT SETTINGS as shown in 16.11.2.12.

You can enter the **Start Time** and **End Time** with your keyboard and/or by clicking on the spinners with your mouse. The start and end times represent a 24 hour clock, i.e. 16:00 would represent 4:00 PM. pc/MRP will automatically insert the total number of hours into the **Regular Hours** text box based on the start and end times. You can skip the start and end times, and enter the regular number of hours directly into the Regular Hours text box directly (you must do this if the work day or shift spans two calendar days). In addition, you can enter additional hours of overtime for that date.

Pressing the **Ok** button will bring you back to the Time Sheet Screen.
You must click on the **Save/Exit** button to save the time sheet record.

16.11.3.3 Edit a Time Sheet Record

To edit a time sheet record, select the time sheet record you wish to edit from the scrollable browse window on the screen shown above and click on the **Edit** button.

16.11.3.4 Delete a Time Sheet Record

To delete a time sheet record, select the time sheet record you wish to delete from the scrollable browse window on the screen shown above and click on the **Delete** button.

16.11.3.5 Print/Display Time Sheet Reports

Selecting **Report** from the time sheet menu will allow you to print out the following reports:

- All Time Sheets (emptimesh.frx, emptimesh.dbf)
- All Time Sheets for an employee(emptimesh.frx, emptimesh.dbf)
- All Time Sheets for a sales or work order (emptimesh.frx, emptimesh.dbf)
- All Labor Costs (emptimesh.frx, emptimecost.dbf)
- All Labor Costs for an employee (emptimecost.frx, emptimesh.dbf)
- All Labor Costs for a sales or work order (emptimecost.frx, emptimesh.dbf)
- Labor Hour and Material Cost for open sales/work orders issued to manufacturing (emplabor_cost.frx, sales.dbf)

You can select the **Sort** for any of the above reports:
- Date
- Employee Number
- Sales/Work Order Number

You can select All Records, or Enter a Date Range.

All custom reports listed in the drop down custom employee report list box must use the following naming convention, custim*.frx.

16.11.3.6 Cost of Sales Report on Invoices with Component Costs from the Stockroom and Labor Costs from the Time Sheets.

This report (costsald.frx) totals the actual inventory and labor costs for sales and work orders. The invoice.dbf file provides the selling price and the parent file for both the emptimesh.dbf and stockrta.dbf.

16.11.3.7 Time Sheet Module Technical Information

Overtime pay rate factor is used to calculate the average labor cost in the stockroom module.
Re-log into the Employee Time Sheet. This option allows users to enter time sheet in a sharing console environment.

- Formset: Emptimesh.scx
- View: Vemptimesh
- Data base: MRPVIEWS.DBC
- Buffering Method: Table buffered
- Table Update Method: Uses formset's Commitchange() method
- Free Tables:Employee.dbf, EmpTimeSh.dbf
- Indexes File: Emptimesh.cdx
- Tags:
  - BYENOTIM=UPPER(EMPID+DTOS(ENTRYDATE)+STARTTIME)
  - BYDATETIM=UPPER(DTOS(ENTRYDATE)+STARTTIME)
  - BYSONOTIM=UPPER(SONO+ITEMNO)
  - BYPRIMEKEY=UPPER(PRIMEKEY)
  - BYENO=UPPER(EMPID)
  - BYDOCNO=UPPER(DOCNO)

16.11.3.8 Time Sheet Module Default Settings

- Hourly Rate Factor – allows you to enter the over-time hourly rate multiplier.
- Set-up for validating Job and Line Item number.
- Re-login of Employee Time Sheet module to enter data.
- Enter/Edit/Delete Other Labor Codes.

16.12 Alternate Currency Module

16.12.1 Overview. Create Currencies, Update Rates.
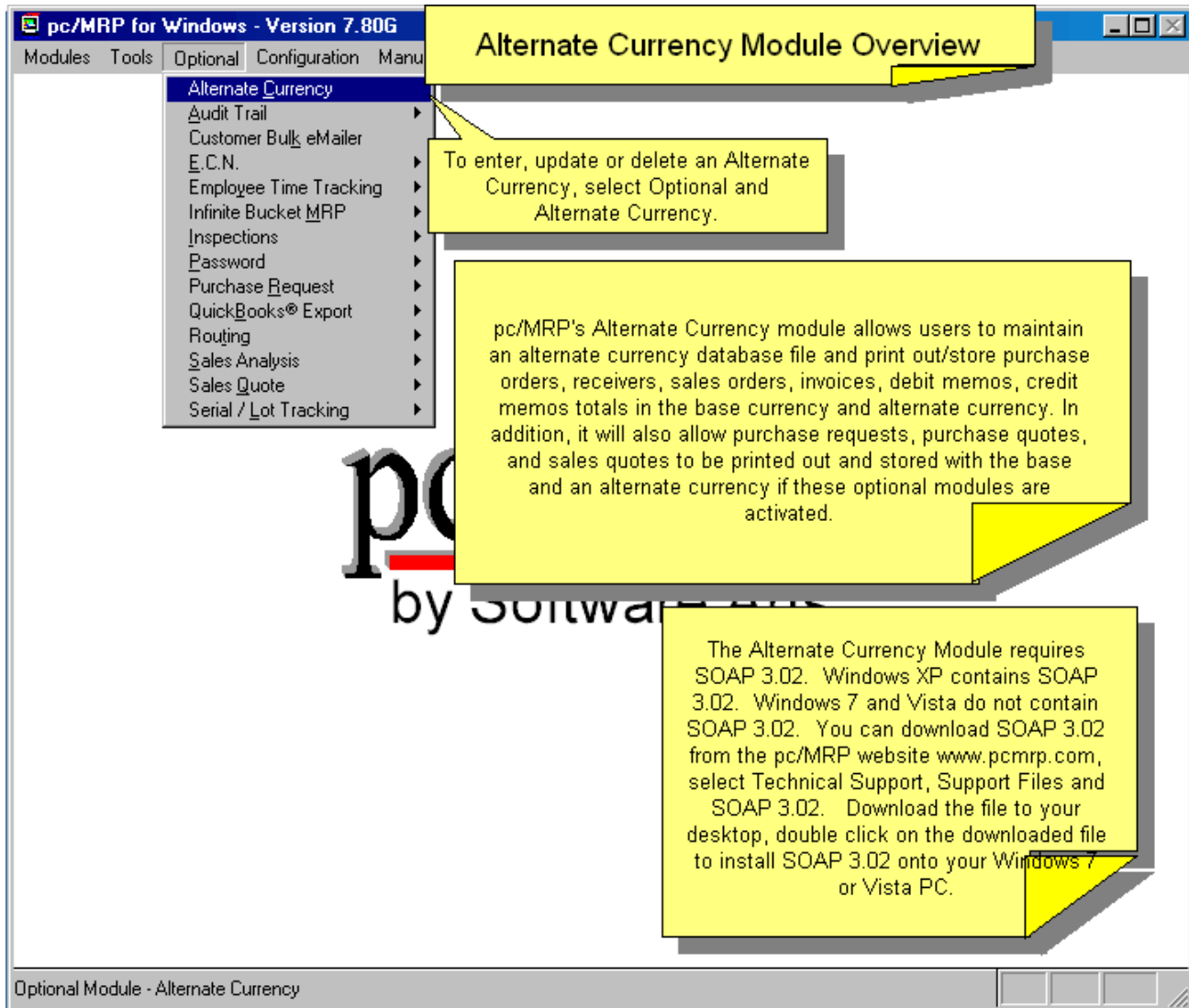
pc/MRP's Alternate Currency module allows users to maintain an alternate currency database file and print out/store purchase orders, receivers, sales orders, invoices, debit memos, credit memos totals in the base currency and alternate currency. In addition, it will also allow Purchase Requests, Purchase Quotes, and sales quotes to be printed out and stored with the base currency and an alternate currency if these optional modules are activated. The Alternate Currency module uses Microsoft SOAP. Vista and Windows 7 do not include SOAP. You can download SOAP from our website, www.pcmrp.com. Select Technical Support, Support Files, and scroll down to the bottom of the page to "Microsoft SOAP Toolkit".

An online slideshow is located here: http://www.pcmrp.com/mrp101/altcurselectoptional.htm

Activating pc/MRP's Alternate Currency Module

pc/MRP's Alternate Currency module can be activated by the phone by contacting Software Arts at 408-226-7321 and obtaining the activation code number for this module. Once you have obtained the activation code number, click on the Configuration Option in pc/MRP's top menu bar, selection Module Activation, and enter the activation code number when prompted.

Entering, Editing, Deleting Alternate Currencies

The alternate currency rate is the amount of alternate currency required to purchase one unit of your base currency. For example, if your base currency is U.S. dollars and it takes 1.25 Canadian dollars to purchase one U.S. dollar, the alternate currency rate for Canadian dollars would be 1.2500.

Please note that if you have the Optional Password module, only users with rights to pc/MRP's Accounting module will be able to access the Optional Alternate Currency module.

Selection of **Alternate Currency** from the **Optional** menu will present the dialog box shown below. This window allows the creation of new currency exchange rates, the alteration of existing currency exchange rates or the deletion of currencies that are no longer needed.

The currency list will display all the currencies along with the current exchange rate and the new exchange rate (if the user just updated the rate).

Creating/Entering a new Currency Rate
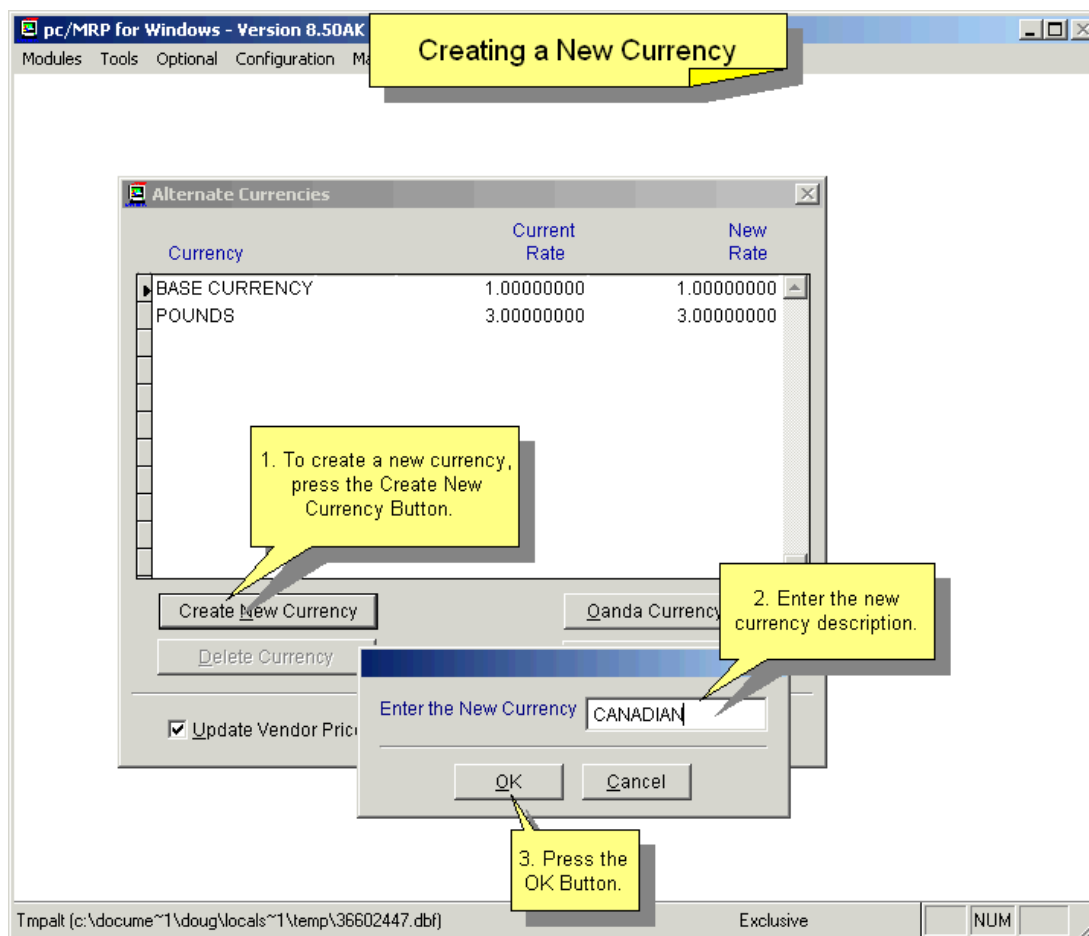
A new currency can be added to the database by pressing the **Create New Currency** button.

Updating/Deleting an Alternate Currency Rate

The vendor price fields will be updated for each part in the inventory that is set to track the costs based on the vendor's currency instead of the base currency. The vendor price fields will not be updated if the **Update Vendor Prices** box in the alternate currency module is un-checked. (Logically there are only a few reasons why this check box would not be checked. Under most circumstances you will want the prices updated, thus you will want the **Update Vendor Prices** checked.)

The highlighted currency can be deleted from the database by pressing the **Delete Currency** button. The user will be asked to confirm that deletion of the currency is desired.

16.12.2   Using Alternate Currencies

Adding an Alternate Currency to a PO, Invoice, etc.

An alternate currency can be added to (and edited on) purchase orders, sales orders, invoices, etc. by selecting the desired currency from the **Document Currency** list box located on the respective data entry screen. Once an alternate currency has been added to a document, the total amount due will print out in your base currency as well as the alternate currency. See screen below:

Note:
The 'Sale Price' field will not allow an entry greater than 7 digits to the left of the decimal point. In some cases, when using the Alternate Currency module, more digits are needed. An example would be using JPN as Document Currency.

To solve this challenge:

1. Set the Document Currency as 'JPN' (as an example)
2. Set the line item 'Display' to 'Base Currency'
3. Convert the JPN value into base currency and use that value in the sale price field
4. Continue with the rest of the document
5. Save the document

The document will print accurately providing that the Alternate Currency field in the document is modified to handle the larger value.

Alternate Currency and the Inventory

The Alternate currency drop down list box on the first page of the inventory screen allows you to display the costs in the currency selected. The costs being displayed are based on the alternate currency rate * cost stored in the base currency.

The purchase price screen contains two drop down alternate currency list boxes (**Displayed Currency** and **Vendor Currency**).
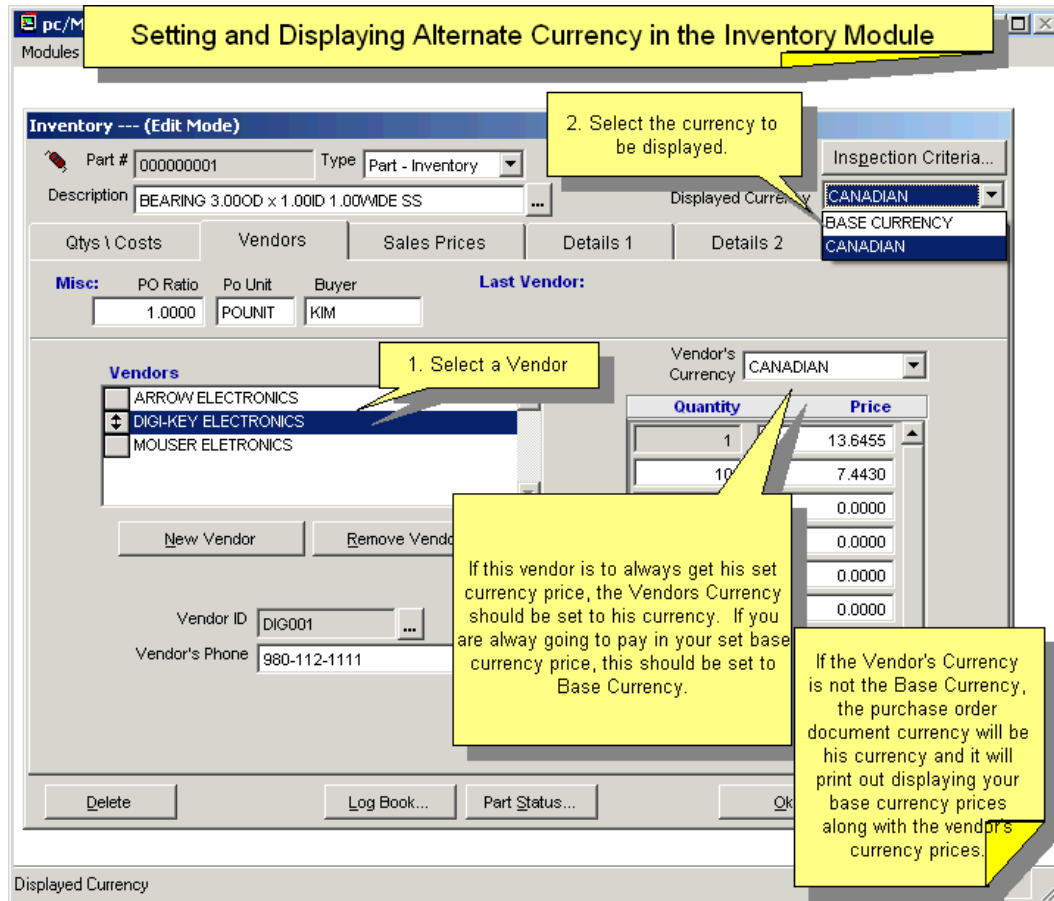
The "Displayed Currency" drop down list box controls what currency **all** of the vendor prices are displayed in. The **Displayed Currency** list box will default to the currency currently being displayed on the main inventory screen.

The "Vendor Currency" list boxes store the currency the price is based on for each vendor. This allows you to change an alternate currency's rate and if you check the **Update Prices** check box, pc/MRP will go into the inventory and adjust your base currency costs of all items whose price is based on the alternate currency (your base currency price will be adjusted but the alternate currency price will remain the same).

Example 1 - If a vendor from another country keeps his price the same but the currency rate changes and you select update costs/prices when recording the change, the alternate currency price will not change. However, the base currency price will change for all parts based on that currency.

Example 2 - If a vendor from another country changes his price and the price of the part is based on his currency, you would edit the part number, select purchase prices, (the vendor currency should be set to his currency), set display currency to his currency and change the price. When you set the displayed price to your base currency, your new price in your currency will be displayed.

Example 3 - If you have vendors submitting bids based on different alternate currencies, setting displayed currency to the base currency will show the equivalent prices in your base currency.

Printing Alternate Currency Checks

When you are in Accounting, Print Checks or re-printing old checks, the following screen allows you to select the currency in which to print the check.

Changing Alternate Currency Rate on Existing Documents

Changing the Currency Rate on Existing Documents

Sales Order --- (Edit Mode - Multiple Item)

SO/WO # 000004   Change # 0
Order Date 05/30/2012   Sales Type Order Entry

Document Currency
YEN
BASE CURRENCY
CANADIAN $
FRANCS
HK DOLLARS
POUNDS
RUBELS
YEN

Customer   Billing / Shipping   Delivery   Item Info

☐ Root Address Lookup
Customer Nakano Technologies
Address Hiro Nakano
Street 12-1, Higashikotari
Obata-shi
City Tokyo
State / Zip 589-6547
Country Japan
Phone # 86-532-8325-7977
e-Mail hnakano@nakanotech.com

Account # NAK001
Addr Type CUS
Terms Net 30
Credit Card [None]
Customer PO# 12695
Contact

Back
Next
Items/Notes
Links
Add Item
Clone
akdown
elete
otions
book...
ate Part
Address
ished
Cancel

If you recently updated the Alternate Currency Rate and want a previously entered document (ex. Sales Order) to reflect the change, select Modules, Sales Order, Edit / View, and select that Sales Order. Change the Document Currency back to Base Currency, then again to the desired Alternate Currency. This will "refresh" the Currency Rate.

Item Part Number Rev Description
0001 TOP TEST ASSY Top Assembly
Quantity Unit Sale Price Tax % Freight
1000.000 2319.000012 0.000 0.00
Displayed Currency YEN
Comments

Tax Type Out Of State
☐ Confirmed / /

Currency in which the Sales Order is to be billed.   NUM

Difference between Document Currency and Displayed Currency

16.13 Inspection Module
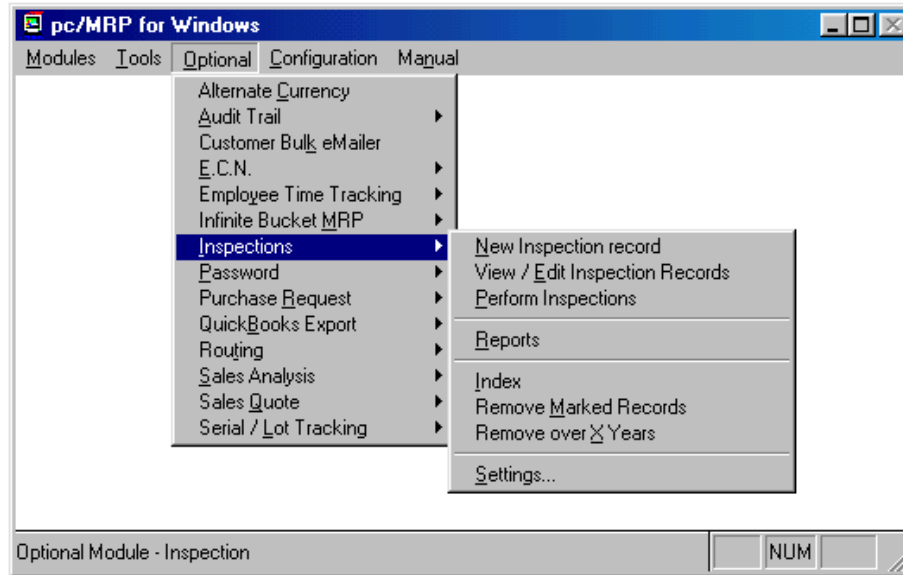
16.13.1 Overview
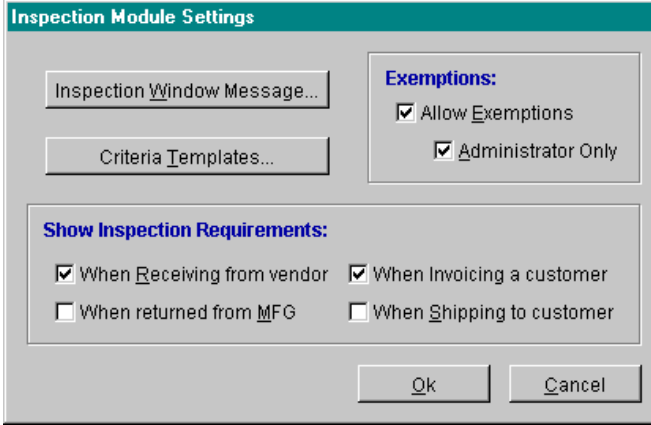
pc/MRP's Inspection Module allows users to:

- Create global inspection requirements applying to all inspection records by selecting the **Settings** option.
- Use pc/MRP's Inventory module to create inspection requirements for specific part numbers and assemblies by editing the part number and clicking on the Inspection Criteria button. You can specify when an inspection record will be created and displayed (received, manufactured, invoiced, or shipped) and what criteria will be used to inspect it.
- Manually enter a new inspection record by selecting the **New Inspection Record** option. Normally you would not use this function, as the inventory module will allow you to automatically enter a new inspection record when you receive, manufacture, invoice, and or ship a specific part or assembly as specified in the above paragraph.
- View, edit, and print inspection records (regardless of status) by selecting the **View/Edit Inspection Records** option.
- View, edit, and print open inspection records (inspection records whose status was left at Not Inspected) by selecting the **Perform Inspections** option.
- Print and or display inspection reports by selecting the **Reports** option.

An online slideshow is located here: http://www.pcmrp.com/mrp101/inspectionoverviewselectinspections.htm
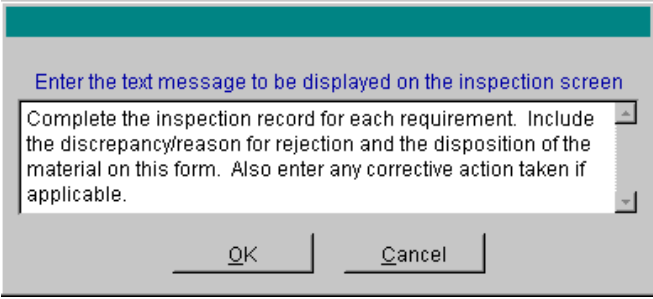
16.13.2   Defining Global Settings and Criteria

Inspection criteria and settings can be defined globally and for each individual part. By selecting **Optional, Inspection**, and **Settings** users can access the inspection settings. The Inspection Module Settings window is listed below. This window allows users to input a standard inspection message (**Inspection Window Message...**), create standard inspection criteria through the **Criteria Templates**, allow **Exemptions**, and define when inspections can be performed.

16.13.2.1 Inspection Window Message...

As each part is inspected, the **Inspection Form** screen will be used to allow them to perform the inspection. Part of the **Inspection Form** screen is a section for default instructions applicable for every inspection. The **Inspection Window Message...** allows users to define this default list of instructions.

16.13.2.2 Criteria Templates

Inspection Criteria can be entered per inventory part or defined within the Inspection Settings using the **Criteria Templates**
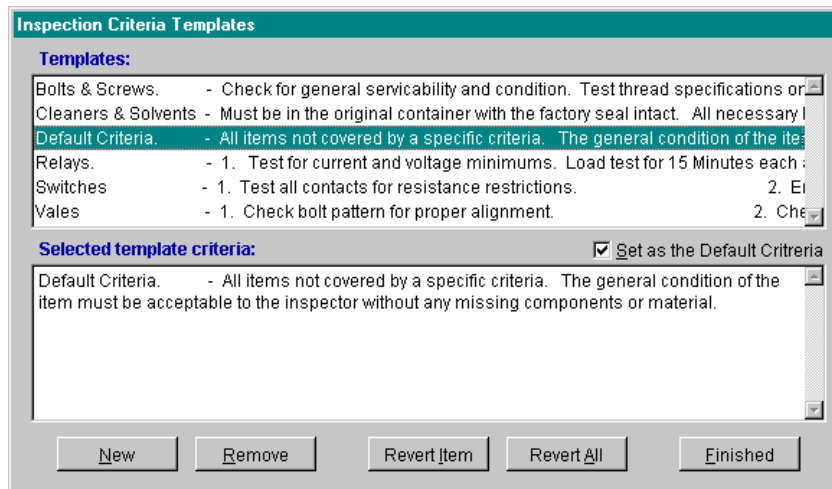
The **Criteria Templates** screen allows users to create, edit, and remove inspection criteria from the templates. To enter a new template, select the **New** button. To remove an existing entry select **Remove**. To edit an existing entry select the desired template from the top **Templates** window then edit as needed in the bottom **Selected template criteria** window. To undo and edits created while the **Inspection Criteria Templates** window is open select either the specific criteria and **Revert Item** or **Revert All**. To set a specific criteria as the default criteria, select the **Set as Default Criteria** check box. When finished with any Criteria Template modification(s) select **Finished**.

16.13.2.3 Exemptions:

Users can allow **Exemptions** to be entered as a valid part status by selecting the **Allow Exemptions** check box. The **Allow Exemptions** can be further protected by checking the **Administrator Only**. With this check box selected, only users with **D** rights in the Password Module will be allowed to mark the inspection as exempt.

16.13.2.4 Show Inspection Requirements

For each part/assy that needs to be inspected at one point (receiving, invoicing, etc.), select Inventory, Edit, and click on the Inspection Criteria button. Check all the stages of the manufacturing process, where the part/assy needs to be inspected. (Ex. "When receiving from vendor".)

There are two methods that will allow users to perform an inspection of parts/assys that were marked as needing inspection by the above method.

1. If you want the user (person doing the receiving, invoicing, etc.) to perform the inspection:

Select Optional, Inspections, Settings. Check as many of the "Show Inspection Requirement Screen" checkboxes as you wish. When (for example) "When receiving from vendor" is checked, and you are receiving parts that were checked as needing inspection when receiving, the inspection screen will pop up to perform the inspection while actually receiving. If the user chooses not to perform the inspection, the inspection requirement will be added to the Inspection List for the Inspector to perform at a later time.

2. If you want only an inspector to perform inspections:

Do not check the check boxes in the Settings. Then, whenever the item is received, an inspection record is created that can be performed by an inspector at a later time. The inspector will select Optional, Inspections and Perform Inspections, and create a list of parts they wish to inspect.

16.13.3   Defining Settings per Inventory Item.

Once the Inspection module has been activated a new button, the **Inspection Criteria...** button, will be present on each inventory entry screen. This button will open the **Part Inspection Criteria** screen. This screen allows users to enter **Inspection Criteria** and **Create Inspection Requirements**.

16.13.3.1 Defining Inspection Criteria per Inventory Item.

Inspection Criteria can be entered using three different methods. The first method is via a criteria template, where users can select from the **Default** or **Template** list (both created within the Inspection Module settings). The second method allows users to create a **Custom** requirement. This is created here within the **Part Inspection Criteria** screen. Finally, users can also link an **External File** to pc/MRP containing the inspection criteria. (File types like DOC, XLS, and PDF...) The **Templates** element of the **Part Inspection Criteria** screen lists all of the available criteria templates. The **Selected Template Criteria** element of the **Part Inspection Criteria** screen contains the actual full list of inspection criteria for that specific template.

Inspection Criteria Set-up

Default and **Template** Setup - instruction on how to set up the default template and template criteria is discussed above in Section 16.13.2 **Defining Inspection Global Settings and Criteria**. To select the **Default** template or from the **Template** list simply select the desired radio button and template from the template list.

External File - to utilize an external file, simply select the **External File** radio button. This will add a **Find File** button on the bottom left of the **Part Inspection Criteria** screen. Press the **Find File** button and select to open the desired file.
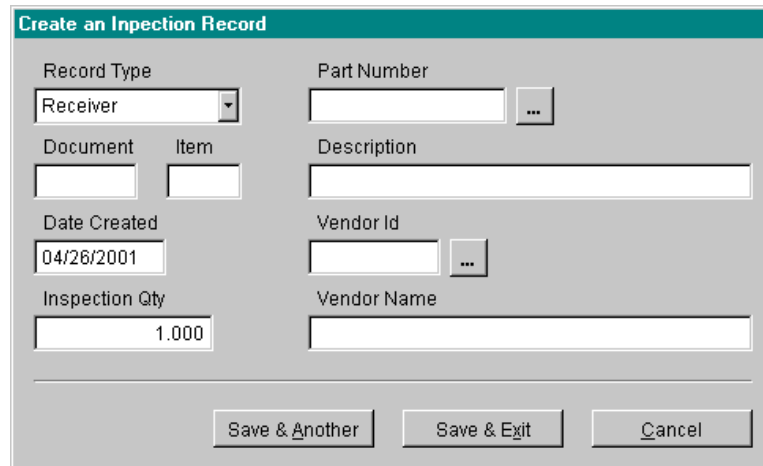
Custom - to define custom criteria press the **Custom** radio button. This will allow users to enter custom criteria into the **Selected Template Criteria** element of the **Part Inspection Criteria** screen. To use a template or the default setting as a true template and then alter the template to be more specific for this part simply select the **Default** or **Template** radio button then press the **Custom** radio button. This will automatically import the inspection criteria into the **Selected Template Criteria** element of the **Part Inspection Criteria** screen. Users can then edit the inspection criteria as needed.

16.13.3.2 Creating Inspection Requirements per Inventory Item.

Inspection requirements can be created per inventory part manually or at up to five different stages of use: when receiving parts from a vendor, when returning from manufacturing, when invoicing, when shipping to a customer, and when transferring parts between areas.

To create an inspection requirement at one of these stages for a specific part, while within the **Part Inspection Criteria** screen for that part, select the applicable **Create Inspection Requirement** check box. When that action is performed, an inspection requirement will be made.

To manually create a requirement select **Optional, Inspections,** and, **New Inspection Record.** The following screen will be created.
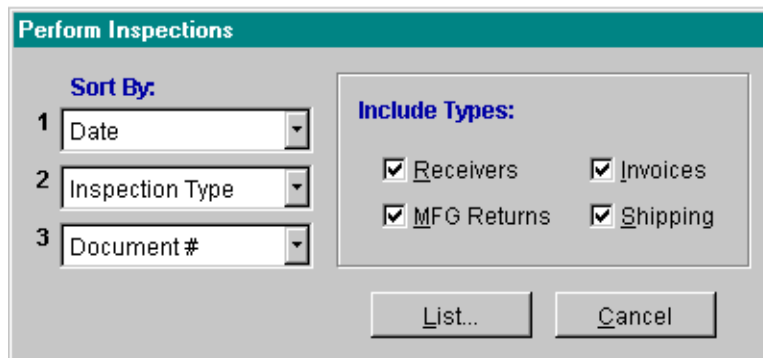
The **Create an Inspection Record** screen allows users to select a file type, enter a representative document and item number, search for the part, search for a vendor, and, enter a quantity. This will create an inspection requirement to be inspected at a later date. To enter another requirement select **Save & Another**.

16.13.4   Performing an Inspection, Reports

When the inspector selects **Perform Inspections** from the Inspection module menu the following screen will be created. This screen allows the inspector to select the desired grouping of inspections to perform.

By pressing **List,** a list of all currently pending inspections will be created.

This is the same screen, that users are presented with, when they perform inspections at ex. Invoicing, as described in the first method in Section 16.13.2.4.

Users can then choose to **Inspect** the items or print the inspection requirements. If users choose to print inspection requirements, the following screen will be created. This screen allows users to print all pending Inspections by using the **Requirement List** radio button or individual **Inspection Requirements** using that radio button. User can further specify individual selected requirements or all requirements.

If users select **Inspect...** the **Inspection Form** will be created. This is where the actual inspection takes place.

The part number, record type, document number description, and vendor information will automatically be populated. To view the inspection criteria for this individual part select **Inspection Criteria...** Enter the date, inspector, and status of this record, and quantities that were accepted and/or rejected. Furthermore, users can enter **Discrepancies** and **Corrective Actions** by selecting the applicable tab and typing in the provided comments area. When the inspection is complete, press **OK**.

Inspection Reports

There are two inspection reports that can be run, **All Inspections** and **Inventory Inspection List**. Both report types can be sent to a variety of different display types and users can create custom Inspection reports.

- **All Inspections** allow users to select from three different tabs to further parse the data. Under the **Include** tab several different records types, status, and text comments can be chosen. The **Limit** tab allows users to select a specific part, vendor, inspector, or record number. The **Date Range** allows users to select a specific date range for when either the inspection requirement was created or when the inspection was performed.
- **Inventory Inspection List** allows users to print a report that will list all parts with inspection requirements. The tabs can also be used in this report to further specify specific groupings of parts.

16.14 Routing Module

16.14.1 Overview
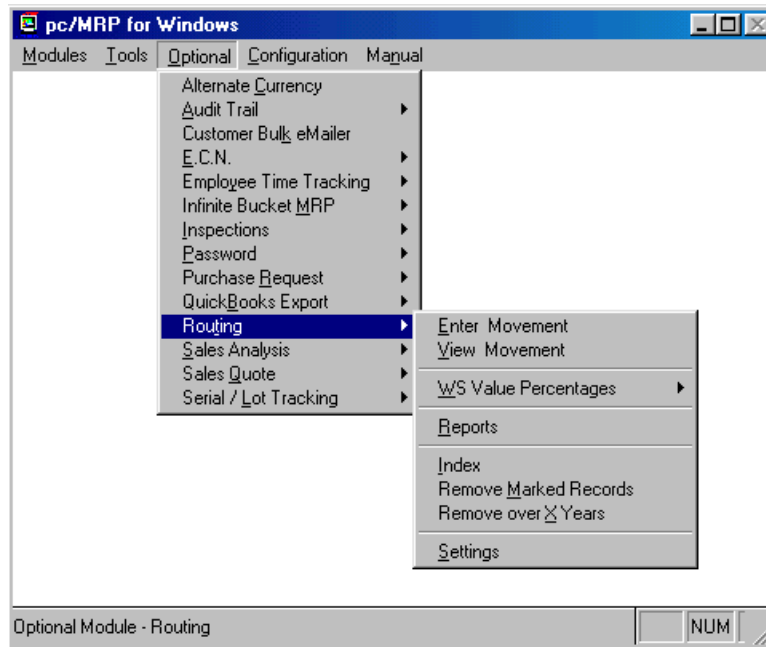
pc/MRP's Routing Module allows you to create routing records. You can then move and track work orders and sales orders through the factory floor from work station to work station.

To activate the module, select Configuration, Module Activation, Routing from the menu, and enter a special configuration number obtained from Software Arts.

Setting up the Routing Module
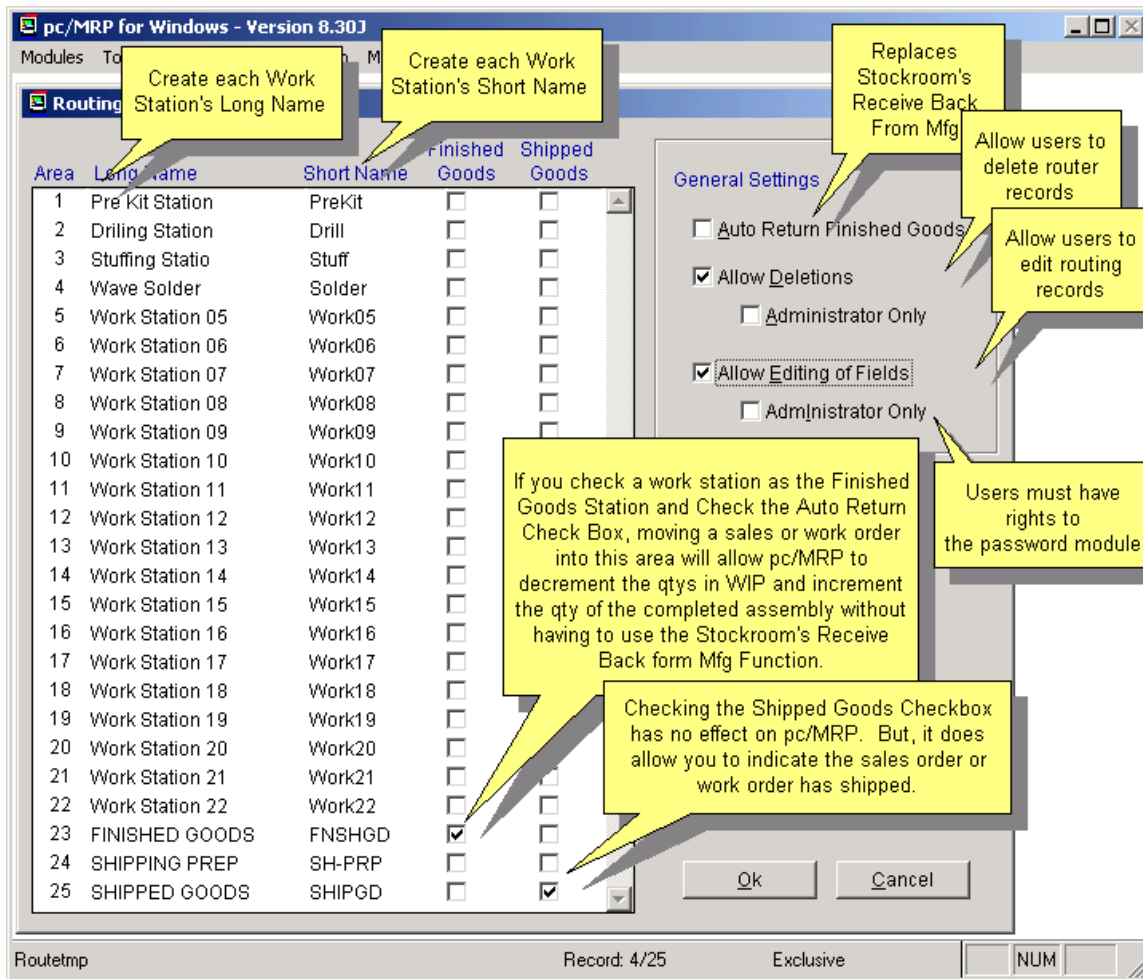
Selecting "Settings" will open the "Router Module Settings Screen" shown above. This screen allows you to setup your routing module as follows:

- Select each area and enter a long name and a short name for each workstation on your factory floor. For example, you could enter Milling Station as the long name and Mill as the short name for area 06. The short name is used for report headings.
- If you select one of your areas as the finished goods area and you check the "Auto Return Finished Goods" check box, pc/MRP will automatically initiate the stock rooms "R, Returned completed assemblies from manufacturing back into finished goods stock". Checking this box will disable the stock room module from running an "R" type transaction, as only one module can be responsible for this function.
- One area can be set as "Shipped Goods Area". This area stores the quantity finished and returned to stock but not shipped to the customer yet. Whenever finished goods are shipped, you can decrement the quantity in this area using the router's "Enter Movement" option. The shipped Goods Area allows the user to see how many items are ready for shipment. It does not provide any external functions such as the Finished Goods area which can initiate the stockroom's R (receive back finished assemblies) transaction.
- Check the "Allow Deletions" checkbox if you wish to allow users to delete router records. Actually, this will zero out the quantities in the router record for that sales/work order. If you check the "Administrator Only" check box, only users with rights to the password module will be allowed to delete (zero out) routing records.
- Checking the "Allow Editing of Fields" will allow users to edit routing record header fields containing sales/work order information. If you check the "Administrator Only" check box, only users with rights to the password module will be allowed to edit the routing record header fields.

16.14.2 Routing Records and Movements

(See the slideshow here: http://www.pcmrp.com/mrp101/routingsettingsmenu.htm)

Whenever a sales or work order is issued to manufacturing using the stockroom's "I" type "Issue to manufacturing" option, a routing record for that sales/work order is created. The quantity at area 1 is the same as the quantity issued and the quantity on the sales order.
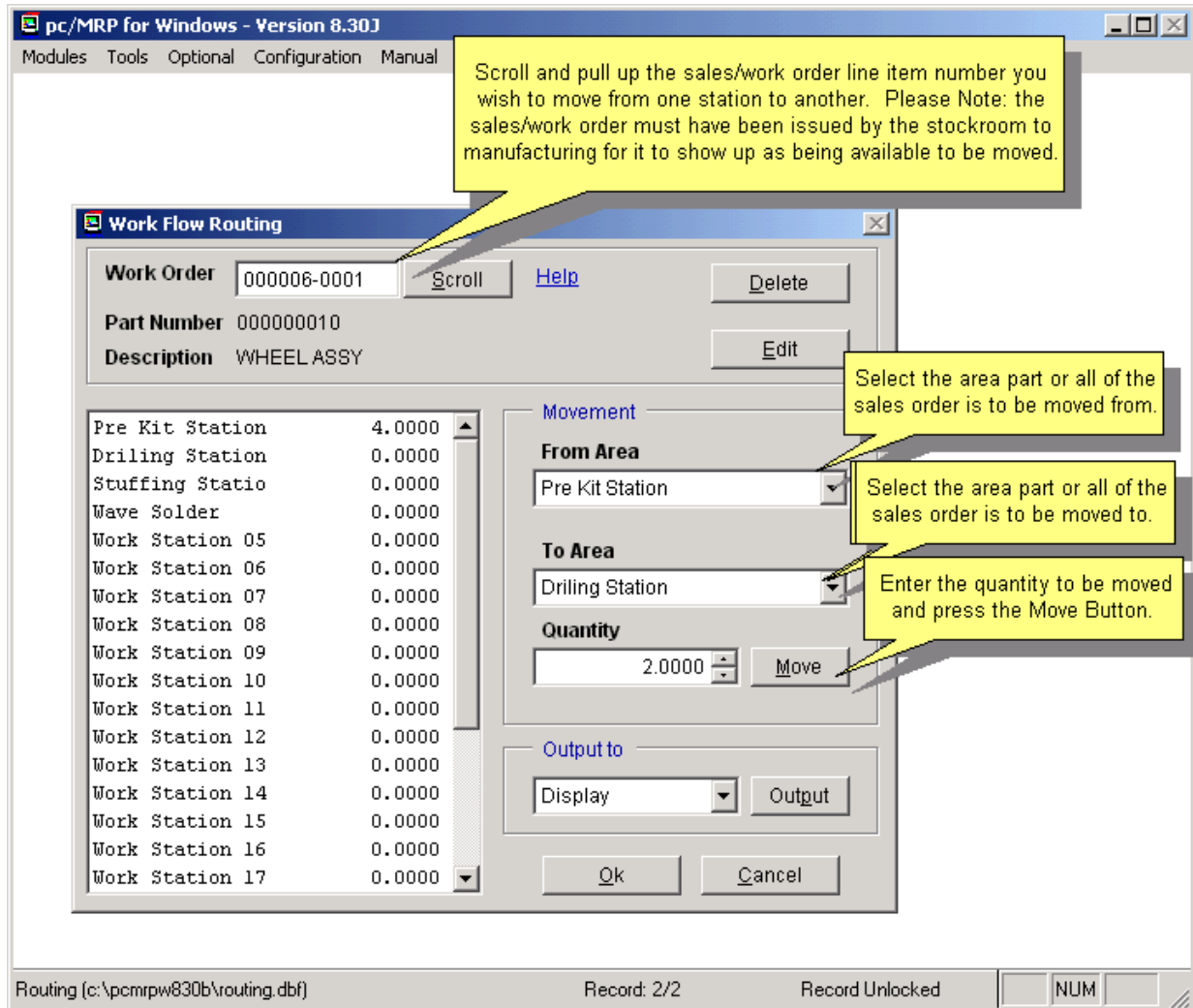
You can display a routing record for a sales/work order by selecting the "Enter Movement" option on the routing menu. Enter or "Scroll" for the sales/work order you wish to display. The "Enter Movement" screen provides the following options:

- The "Delete" button will zero out all area quantities in that sales/work order routing record.
- The "Edit" button will display additional sales/work order information for that routing record.
- The "From Area" drop down list box, "To Area" drop down list box, "Quantity" spinner, and "Move" button can be used to move a quantity of that sales/work order from one area to another area.
- The "Output" controls can be used to display, print, or send a copy of the routing record to an ASCII, Excel, or DBF file.
- The "OK" button will save your changes.
- The "Cancel" button will not save your changes.

16.14.3 Work Station Value Percentages

Selecting Optional, Routing, and WS Value Percentages brings up the following screen:
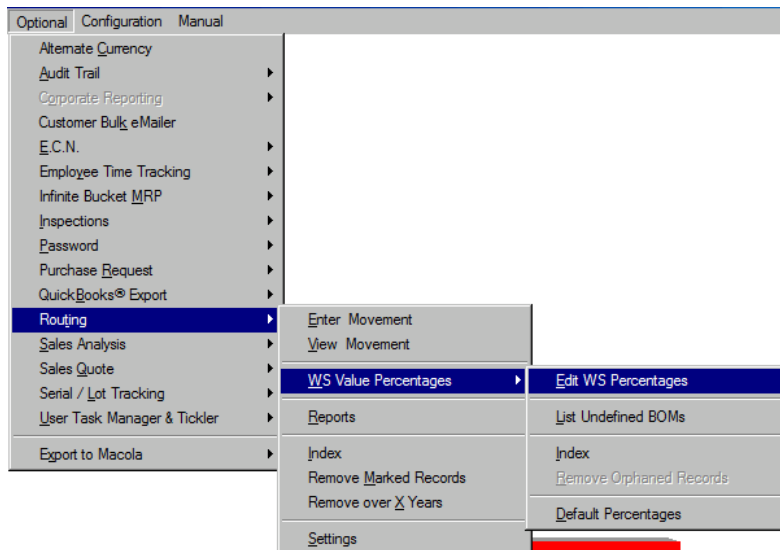
Selecting **Edit WS Percentages** and then choosing an assembly, will allow you to enter the percentage of the cost of the assembly at each routing stage. See Report Type 'Value' defined in Section 16.14.7.

Percentages entered reflect the value of costs and labor of the assembly up to and including a routing stage. The final stage will always be 100%. See screen shot below.
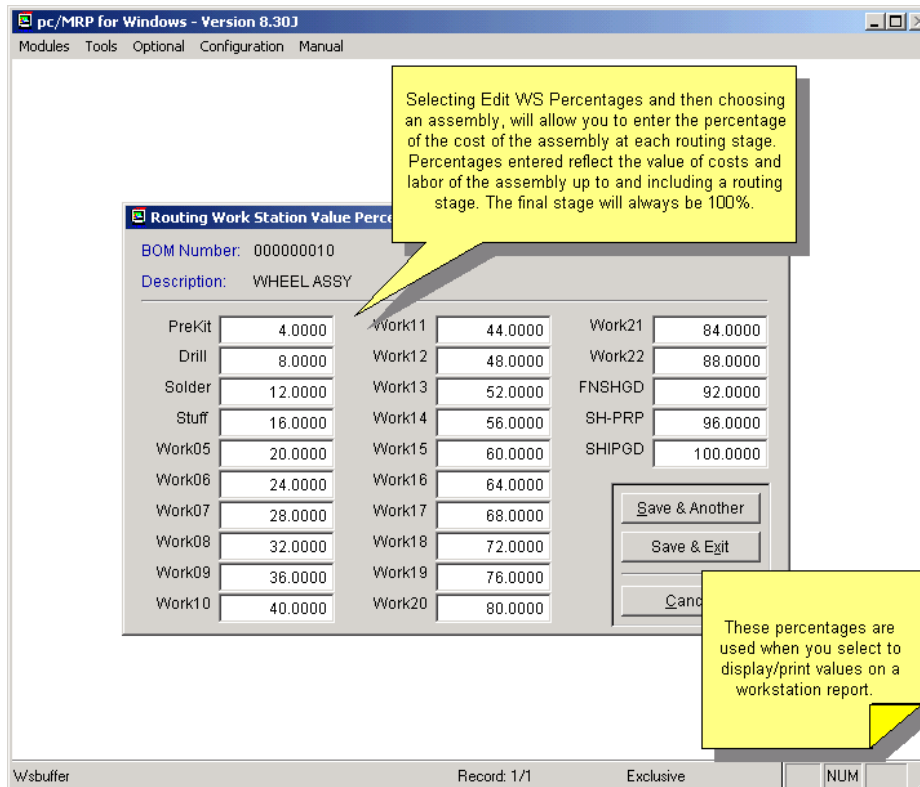
Selecting **List Undefined BOMs** will generate a listing (genericp.frx) of all BOMs that do not have a WS Percentage record and will use the default percentage record set up via the Default Percentages menu option.

Selecting **Default percentages** allows you to set global percentage defaults if you do not wish to enter specific percentages for a BOM. See Report Type 'Value' defined in Section 16.14.7

16.14.4 Reports

Selecting Optional, Routing, and Reports brings up the following screen:
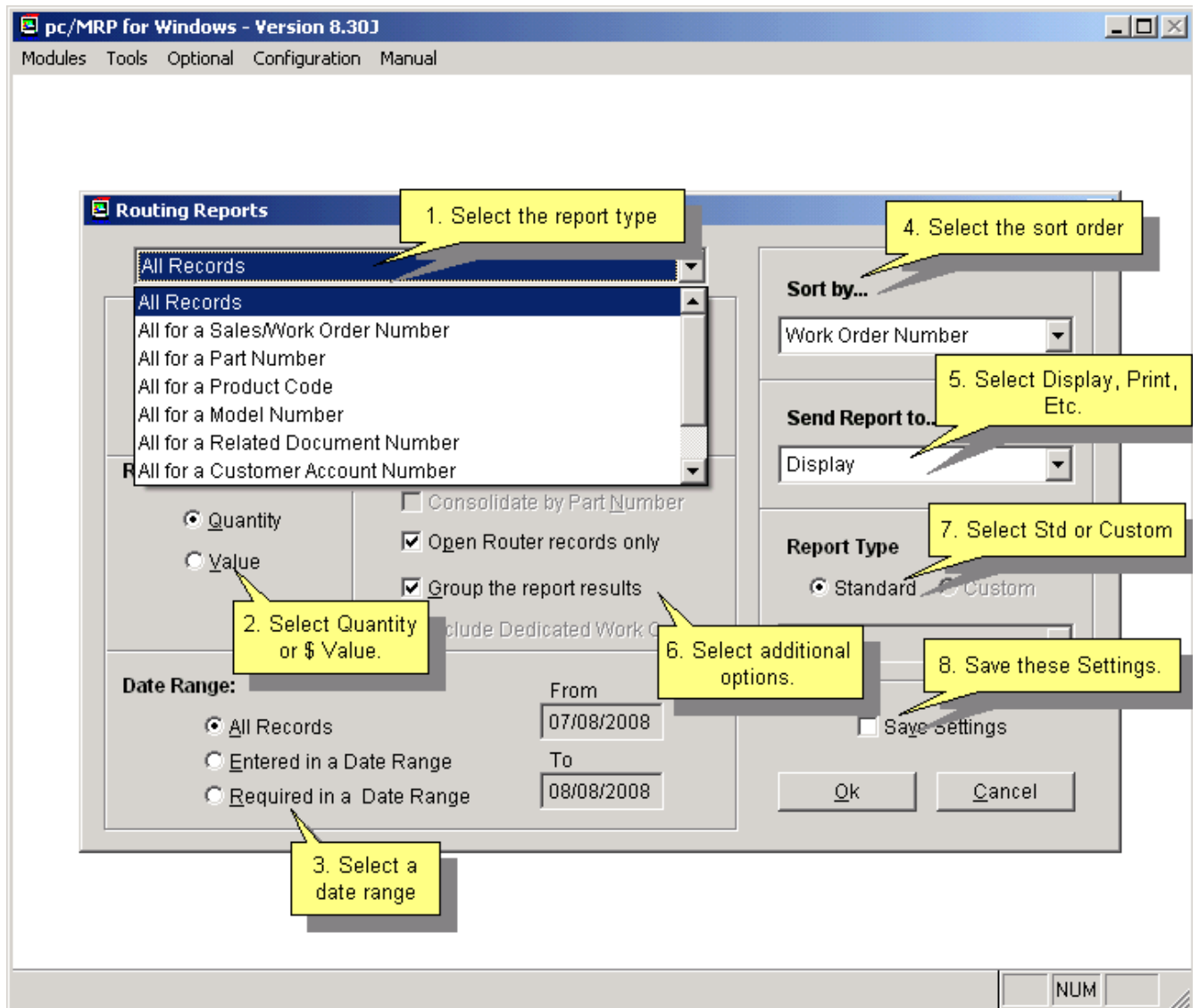
The following reports are available in the routing module:
- All Records
- All for a Sales Order
- All for a Part Number
- All for a Product Code
- All for a Model Number
- All for a Related Document #
- All for a Customer Account #
- All for a Customer PO #
- All for a Salesman

Report Type
- Quantity
- Value – the outstanding value of the report is the sum of all the values which is calculated by the station's quantity * the assembly's standard cost * % value set in the WS Value Percentage menu option.

The reports can be parsed by a Date Range:
- All records
- Entered On a Date Range
- Required On a Date Range

Reports can also include or be grouped by:
- Open Router Records Only
- Group the Report Results by Work Order

Sorted By:
- Work Order Number
- Part Number
- Description
- Model Number
- Related Document #
- Customer Account ID
- Customer PO Number
- Salesman
- Start Date
- Date Required

The report output options include:
- Displayed
- Printed
- Wide carriage print out
- ASCII TXT to disk
- XLS to disk
- DBF (DB-III or VFP DB-III) to disk

The report utilizes the **Routing.DBF** and format options include:
Standard format **route.FRX**
Custom format **custrtr*.frx** and **cusrtr*.frx** (see custom report Section 15.4.1 for more details)

16.15 Customer Bulk E-mailer

16.15.1 Overview

The Customer Bulk E-mailer module allows customers to utilize the pc/MRP Address Book to send e-mails to customers or vendors via **MS Outlook**. (MS Outlook **ONLY**) The Customer Bulk E-Mailer allows users to **send individual e-mails** from the pc/MRP Address Book or **build a list** based on address types to send an e-mail in bulk. When choosing to send e-mails in bulk, users can define the **message content**, **message subject**, **file attachments**, and the **number of e-mails** to send at one time. The Customer Bulk E-Mailer also allows users to keep track of which e-mails have been **sent**, which e-mails are **bad**, and offers a variety of **reporting** options.
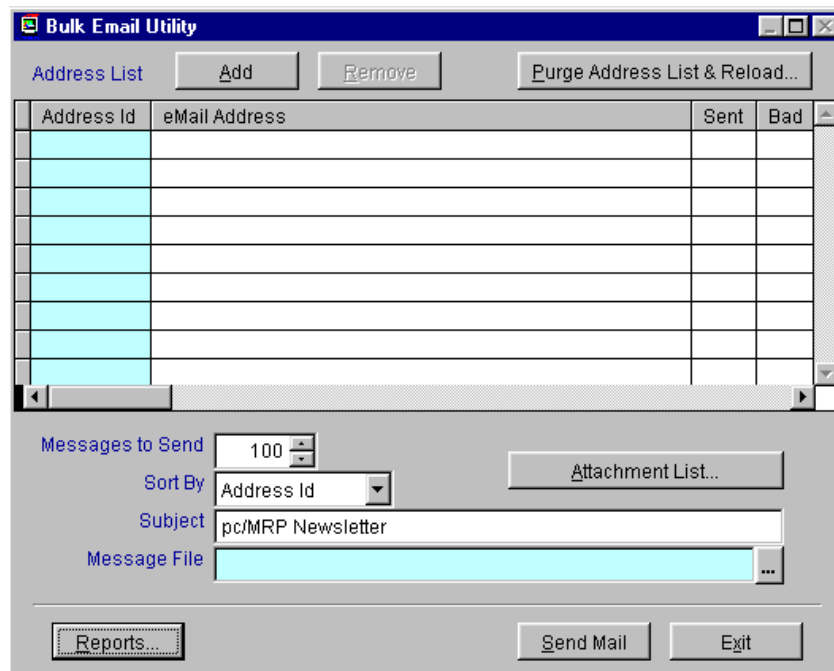
Select Configuration from the pc/MRP menu, Module Activation, Customer Bulk E-mailer, Activate, and select the radio button for either a Ten Day Trial or call Software Arts for the full activation number and enter the activation number.

Activating the Customer Bulk E-mailer will allow users to now access the module through the drop down menu Optional.

16.15.2 Building an Address List to be E-mailed

To build a list of e-mail addresses from within the Customer Bulk E-mailer module select the **Purge Address List & Reload** button from the Bulk E-mail Utility screen.

This button will warn users they are about to rebuild the entire list. If the list is rebuilt, the existing list with existing bad and sent history will be removed. (Be sure to run a report if you wish to keep the history of the previous e-mail list).
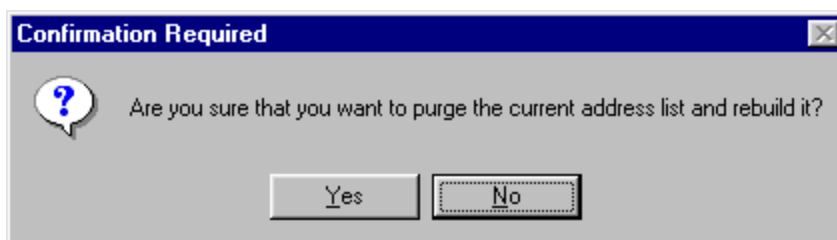
Select the **Yes** button to build a new list. The following Address Type Selection screen will pop up.
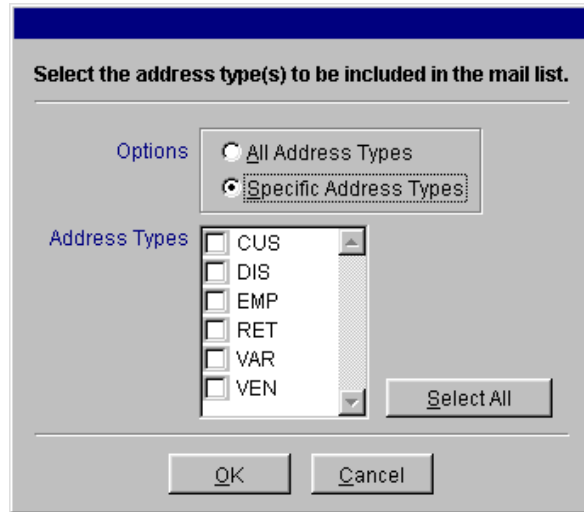
From this screen, users can select **All Address Types** or **Specific Address Types** to be included in the bulk list. (Address Types are defined through Option 52 in the settings and utilities and are set per address entry in the Address Book via the **Addr Type** drop down menu.)

If you wish to automatically create a list, simply select the desired address type or all addresses, and press the OK button.

If you wish to just purge the existing list and select individual addresses, select Specific Address Types and do not check any of the Address Types checkboxes. The existing list will simply be purged.

Upon pressing OK, users will be returned to the Bulk E-mail Utility screen and the list will be created according to the specifications entered.

16.15.3 Viewing and Editing the Bulk E-mail List

Once the address list has been created, users can further define the list by editing entries and pressing the **Add** and **Remove** buttons. To edit an individual e-mail address simply use the mouse to scroll to and click on the **E-mail Address** field. From there the address can be edited accordingly.

To **remove** an entire address from the list select the address entry, and press the **Remove** button.

To add an additional address press the **Add** button and manually add the e-mail.

16.15.4 Building the e-mail to be sent

The Customer Bulk E-Mailer module allows customers to define the e-mail subject, attach files to the e-mail, and embed a file into the e-mail. To define the subject of the e-mail, enter the subject into the **Subject** field. The **Attachment List** is simply a list of files that can be of any type (.pdf, .doc, .mpeg…). Files listed in the **Attachment List** will be attached to the e-mail. Files linked through the **Message File** option will be embedded in the email.

To set File Attachments press the **Attachment List** button.

Email Attachments

```
..\..\erp survey.ppt
..\..\faq_about software arts.doc
```

Add   Remove   OK   Cancel
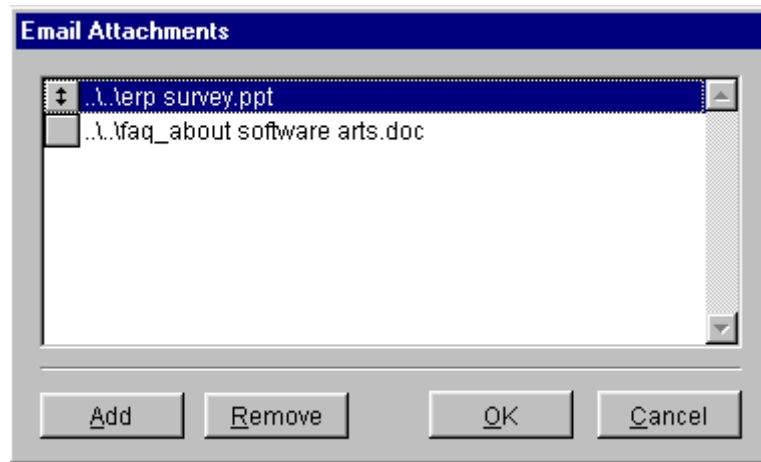
From within the E-mail Attachments screen users can **Add** and **Remove** attachments as needed. Once you finish creating the attachment list, press OK.

To embed a file into the e-mail, press the **Message File** ellipsis button (…) and define the path to where the file exists. If a user chooses to embed a **text** file there are no special instructions. However if a user chooses to embed a file that contains **pictures** there are a few issues that need to be addressed when choosing to embed a file.

To view an embedded document via e-mail that contains pictures the recipient must be able to view HTML documents within their e-mail program. Some e-mails programs do not allow this. Outlook, Outlook Express, and Netscape do allow this but recipients might have to change their settings to view the attached document correctly.

Users can use any Word document and save it as an **OTF** file type. If users are using **MS Outlook 2000** or higher, the file must be saved as an **HTML** document.

16.15.5 Sending the E-mails

To send the e-mails press the **Send Mail** button. When this button is pressed pc/MRP will automatically send the list of e-mails to your **Outbox** within MS Outlook.

If an error is generated during this process, Outlook may be unable to find the attached files or read the embedded file. Double-check the attached file paths and make sure you are using the correct file type for that version of Outlook.

Once the e-mails are sent, the **Sent** checkbox will automatically be checked. If the e-mail is returned, check the **Bad** checkbox to help with reporting.

16.15.6 Customer Bulk E-mailer Reports

By pressing the Reports button, users can print and display reports based on the current e-mail list.
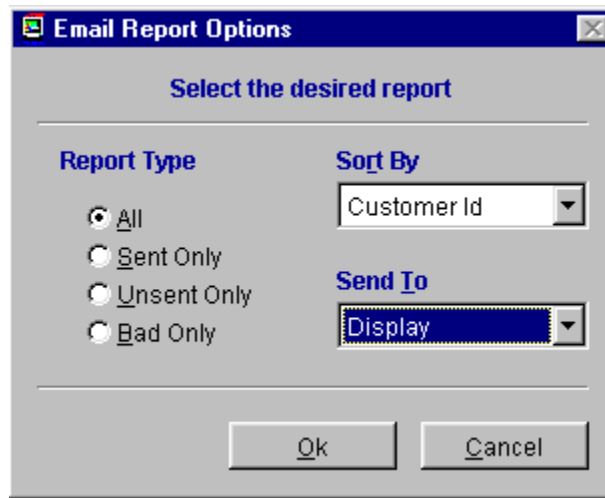
16.15.7 Sending an Individual E-mail from the Address Book

Once the Customer Bulk E-mailer program is activated within each address entry next to the e-mail field, users can press the picture of the letter to send an e-mail with that specific e-mail address.
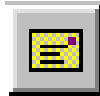
16.16 QuickBooks API Export Module
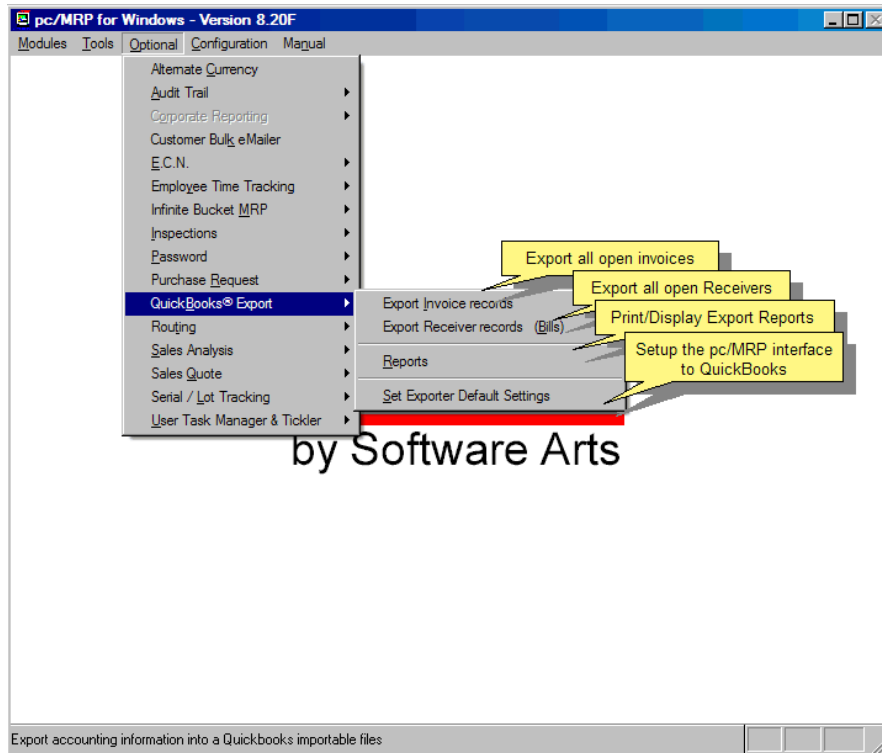
16.16.1 Overview

pc/MRP's **QuickBooks API Export Module** exports invoice and receiver (bill) data directly into all U.S. versions of QuickBooks 2003 and higher, Pro and higher. This module allows pc/MRP and QuickBooks to be used together eliminating the need for double entry of invoices and receivers into both systems. pc/MRP is used to enter parts, multilevel BOMs, sales orders, purchase orders, receivers, stockroom transactions, invoices, and generate material requirement planning reports. Customers would export all open invoices(AR) and receivers (AP) to QuickBooks on a daily basis. QuickBooks is used to pay bills, make deposits, and generate financial reports.

As the menu above shows you, the following options are provided:
- You can export invoice records and all related customers and part numbers on a daily basis.
- You can export receiver records and all related customers and part numbers on a daily basis.

You can use the report option to print or display the invoices and or receivers that would be exported prior to exporting the data. In addition, the Reports option allows you to print or display the receivers that would not be included (receivers that the accountant has not inserted the vendor invoice number into).

Please note the following version improvements:
- pc/MRP version 8.14B and higher allow a Cost of Goods Sold Accounts to be selected for the default gross wage and or default overhead expense accounts.
- pc/MRP Versions 8.15A and higher are much faster than previous versions when clicking on the QuickBooks Tab. pc/MRP now populates the drop down chart of accounts lists from its own QbAccountsDbf.dbf instead of populating the chart of accounts lists from QuickBooks. pc/MRP creates a fresh copy of QbAccountsDbf.dbf and QbPartsDbf.dbf whenever invoices or receivers are exported.
- pc/MRP version 8.17A Chart of Account Fields were increased from 99 to 159 characters.
- pc/MRP version 8.20W added the option to assign liability accounts to parts.
- pc/MRP version 8.20AB will detect new installations of QB 2008
- pc/MRP version 8.23B allows users to use periodic accounting methods.
- pc/MRP version 8.23D added the option to import QB BOMs.

- pc/MRP version 8.25C added the option to remove the '**V'** from invoices by adding a "Remove_V_for_InvoiceNumber.flg" file to the pcmrpw directory.
- pc/MRP version 8.30D now displays "Phone Number exceeds 21 characters instead of error 1429.
- pc/MRP version 8.30D no longer makes journal entries billable.
- pc/MRP 8.30F allows QuickBooks 'Other Charge' part type to be imported as Inside Labor.

Before you can export invoice and receiver data to QuickBooks you must follow the setup instructions (steps 16.16.2.1 through 16.16.2.17) using the Set Exporter Default Settings option.   Once the initial setup steps have been followed, the daily or weekly export from pc/MRP to QuickBooks only takes a few minutes.

16.16.2   Setup Instructions

Before you can export invoice and receiver data to QuickBooks you must follow the setup instructions (steps 1 through 17) using the Set Exporter Default Settings option.   Once the initial setup steps have been followed, the daily or weekly export from pc/MRP to QuickBooks only takes a few minutes.

Step 1 Backup your current copy of pc/MRP and QuickBooks

If you are presently using QuickBooks for accounting, make a backup of your QuickBooks data by selecting File and Backup from within QuickBooks.

If you are presently using pc/MRP, make a backup of your pc/MRP directory by copying the pcmrpw directory to a USB drive or other back-up medium after everyone has logged off pc/MRP.
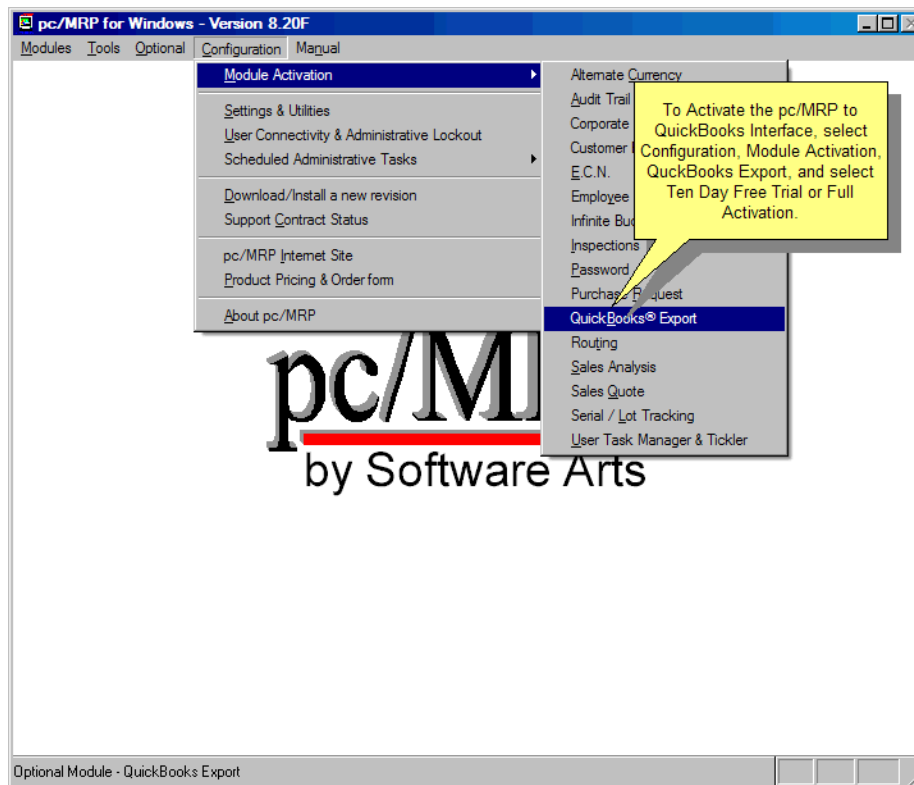
Step 2 Activate QuickBooks Export Module

Select Configuration from the pc/MRP menu, Module Activation, QuickBooks Export, Activate, select the radio button for either a Ten Day Trial or call Software Arts for the full activation number, and enter the activation number.

Activating the QuickBooks Export module will add an additional tab to the pc/MRP Inventory screen.   This tab contains the following fields:

- QuickBooks Inventory Id   (this field will contain the pc/MRP part number)
- QuickBooks Cost of Goods Sold Account   (this field will be blank)
- QuickBooks Income Account   (this field will be blank)
- QuickBooks Asset/Expense Account   (this field will be blank)

In addition, activating the QuickBooks Export module will add a QuickBooks tab to the pc/MRP Address Book screen.   This tab contains the following fields:

- Customer ID field   (will contain company name + " - Cust - " + the Address ID)
- Vendor ID field.   (will contain company name + " - Vend - " + the Address ID)

For now, leave the part numbers and addresses as they are and move on to step 3.

Step 3. Set-up/Check pc/MRP Settings

(see slideshow here: http://www.pcmrp.com/mrp101/qboverview.htm)

From within pc/MRP, select Configuration, Settings & Utilities. pc/MRP's settings must be changed as follows:

- pc/MRP will allow either **Perpetual** or **Periodic** accounting method for **Option 10**. (**8.23B and higher**)
    - With **Perpetual** accounting, which Software Arts, Inc. recommends, you debit Inventory when you receive inventory into stores.
- With **Periodic** accounting, you debit an expense account when receiving inventory into stores month.
- If you have not set the size of your part numbers, select **Option 28** to set your maximum part number size. pc/MRP part number size may be set from 6 to 15 characters. If QuickBooks already contains your part numbers and you plan to import your part numbers from QuickBooks into pc/MRP, set the part number size to 15 characters.
- Set **Option 35** to use average or standard cost for cost of sales. pc/MRP will retrieve the current average or standard cost to export to QuickBooks. pc/MRP includes component, labor, and overhead costs when exporting costs of sales for Bills of Materials. If you do not want to see wages included in your COGS account, do not add labor items to your Bills of Materials.
- Set **Option 50** to configure the cost averaging formula. We recommend including all areas even WIP.
- Set **Option 45**, Stockroom Defaults, and **Option 59**, Cost Roll-Up Defaults to use Average or Standard cost.
- Use **Option 52** and make sure your list of terms matches the Term Names in QuickBooks item list. If this is a term not listed in QuickBooks, you must enter the term in pc/MRP and edit the Net Due field, etc.
- Set **Option 60** to establish your labor overhead rate (%). If you do not want to see overhead included in your COGS account, leave the labor overhead rate set at 0
- Set **Option 70**, Setting freight as % of cost to off.

For more detailed information regarding the various settings listed above, refer to Section 15.1 of the pc/MRP Manual.

Step 4. Set-up/Check QuickBooks Settings
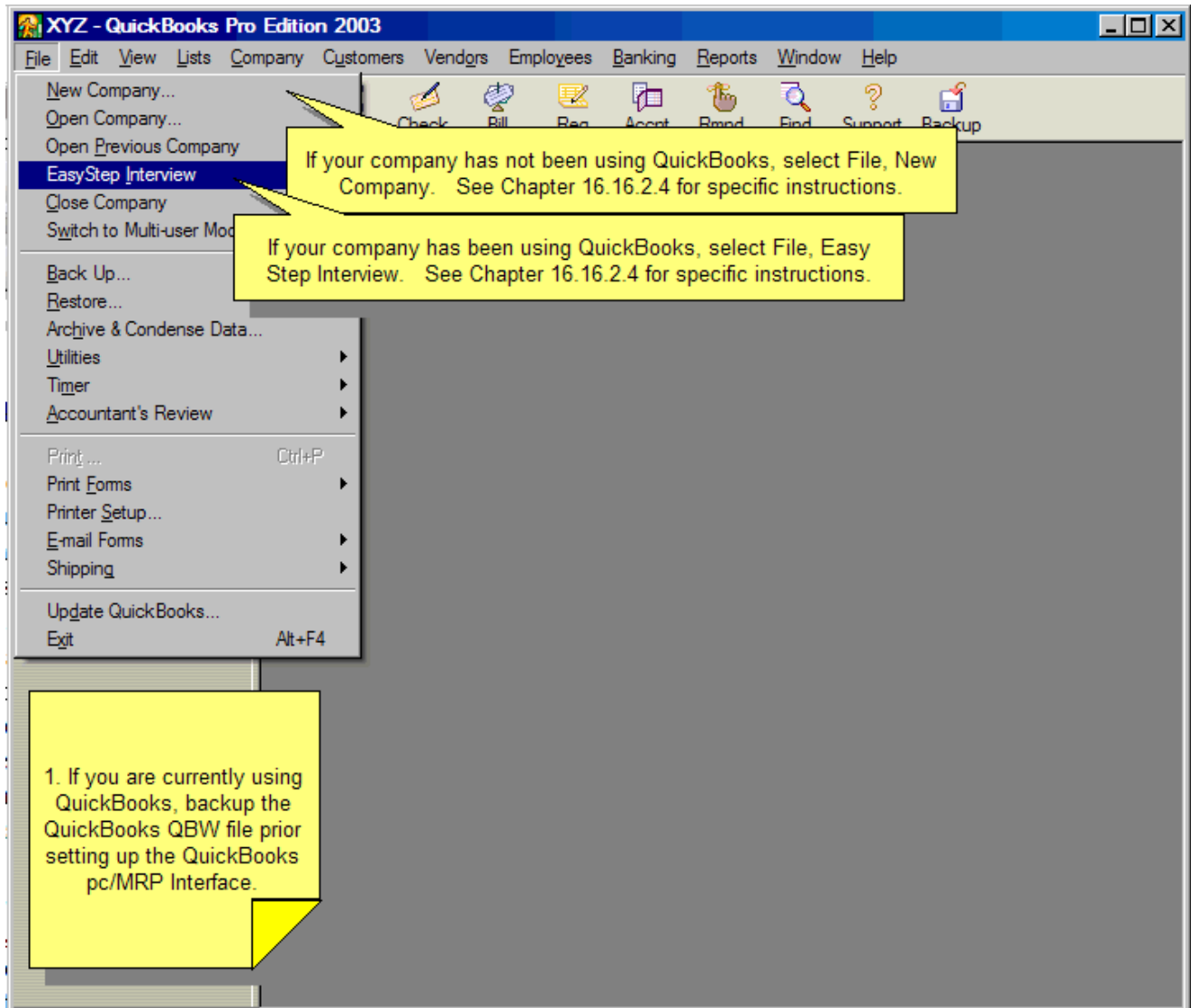
If your company has not been using QuickBooks follow steps 1-22 listed below:

1. Start QuickBooks (a copy of QuickBooks must reside on this computer)
2. Select "File" and "New Company".
3. Click on the Next button 7 times.
4. Enter your company's name and address.
5. Enter your company's Tax ID # and start of fiscal year.
6. Pick the income tax form that your company uses (Corporation, Sole Proprietor, etc.).
7. Select a business type (usually pc/MRP customers select Manufacturing).
8. Enter your company name. Keep the QBW extension and click "Save."
9. Select "No" when prompted to have QuickBooks automatically create your chart of accounts.
10. Enter the number of QuickBooks users and continue to step 11.

If your company has been using QuickBooks, follow the steps 11-22 listed below:

11. Select File, Easy Step Interview, Preferences
12. Click Next, to get to the Inventory screen. Select Yes, to maintain inventory.
13. Select Yes on "Do you want to turn on the inventory features". You need the Inventory Option to show up under the Activity so that you can import the pc/MRP receivers as Bill type.
14. Select, "Yes", if your company collects sales tax.

15. If you select Yes on collecting sales tax, on the next screen you will get two options shown below:
    - I collect single tax rate paid to a single tax agency.
    - I collect multiple tax rates OR have multiple tax agencies.
      If you choose to collect single tax rate paid to a single tax agency, you would need to fill out the tax name, tax description, tax rate, and tax agency on the next screen.
16. Select "Product" for the invoice format on the next screen.
17. Select "No" for sales order tracking (pc/MRP will contain all future sales orders)
18. Select, "Yes", if you wish to use the QuickBooks Payroll and time tracking features.
19. Select, "No" for written or verbal estimates for customers. Use the pc/MRP Sales Quote module to provide quotes for customers as all of the costing and sales prices exist in pc/MRP.
20. Select "Yes," if you wish to use classes for divisions and or departments.
21. Select "Enter the bills first and then enter the payment later."
22. You may now choose to leave the Easy Set-up Interview.

Step 5. Locate your default QuickBooks Company

(see slideshow here: http://www.pcmrp.com/mrp101/qbexportoverview.htm)
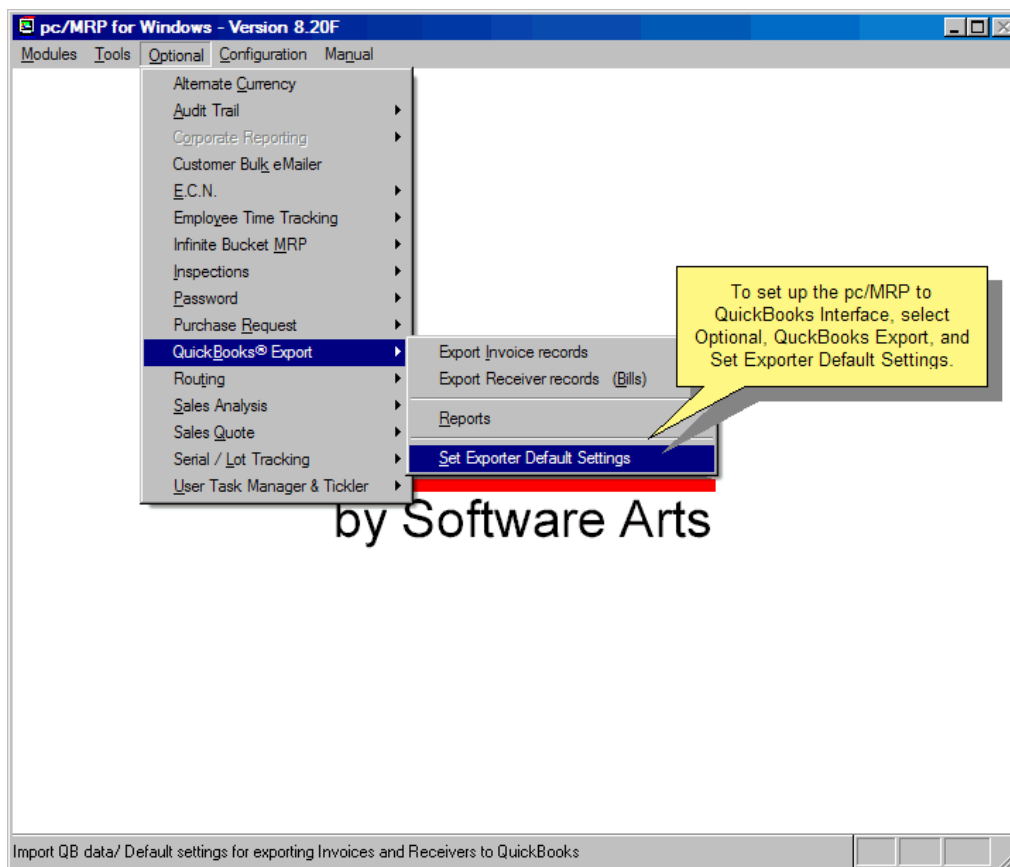
Select Options from the pc/MRP main menu, select QuickBooks Export and Set Default Settings to display the Export to QuickBooks Default Settings Screen shown below.
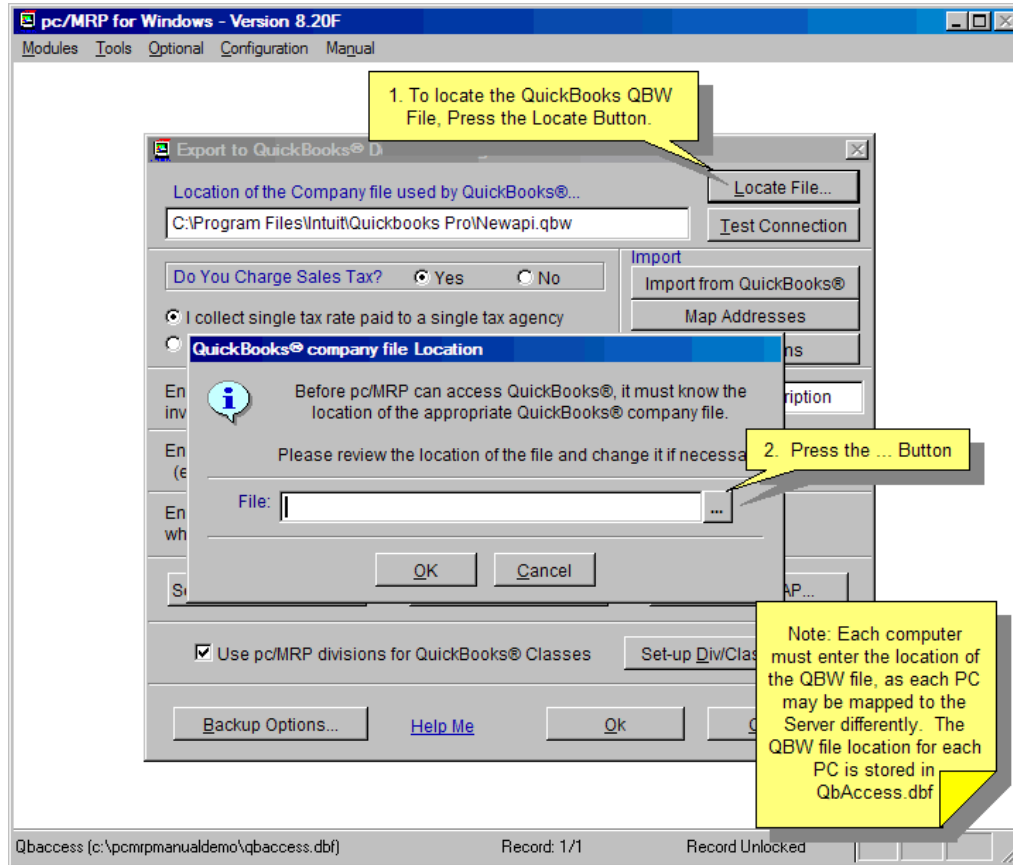
Click the "Locate" button to locate your company's existing QuickBooks .qbw file or your company's new QuickBooks .qbw file that you created in step 4.

Step 6. Test the service connection from pc/MRP to QuickBooks

Follow the steps listed below to fully connect pc/MRP to QuickBooks.
1. Open the copy of QuickBooks that resides on your computer.
2. Open your company's .QBW file (File and Open)
3. Make sure no other users are using that QBW file.
4. Set your local copy of QuickBooks to Single User mode by selecting "File" and "Switch to Single User Mode" within QuickBooks.
5. Make sure you are logged on as the Administrator by selecting "Company" and "Setup Users" from within QuickBooks
6. Now press the "Test Connection" button from within pc/MRP to establish and verify pc/MRP's service connection to QuickBooks.
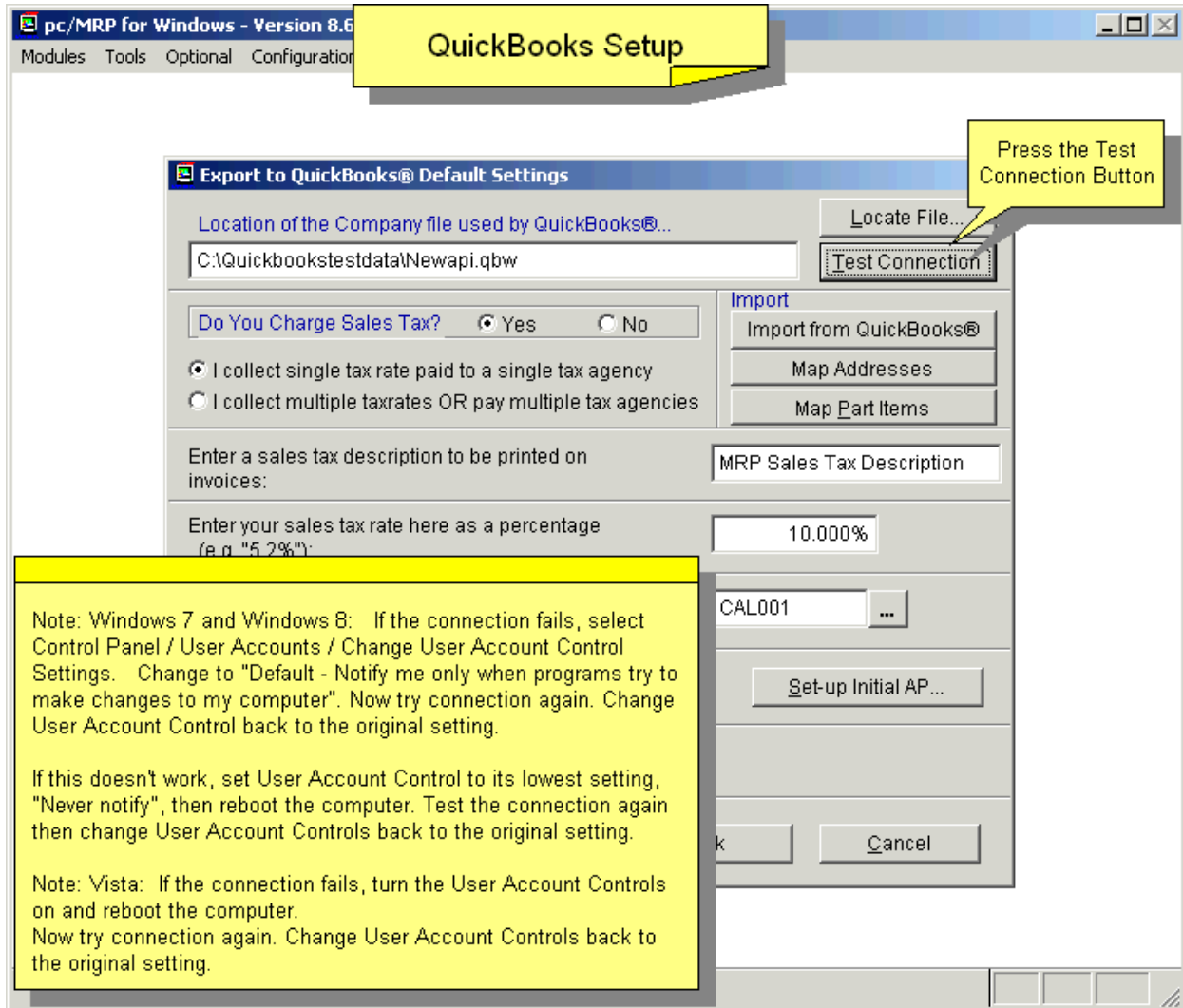
Minimize your pc/MRP window.

Note: Windows 7 and Windows 8: If the connection fails, select Control Panel / User Accounts / Change User Account Control Settings. Change to "Default – Notify me only when programs try to make changes to my computer". Now try connection again. Change User Account Control back to the original setting.

If this doesn't work, set User Account Control to its lowest setting, "Never notify", then reboot the computer. Test the connection again then change User Account Controls back to the original setting.

Note: Vista: If the connection fails, turn the User Account Controls on and reboot the computer.
Now try connection again. Change User Account Controls back to the original setting.

Step 7. Configure QuickBooks to allow pc/MRP to log in automatically

Restore your QuickBooks window
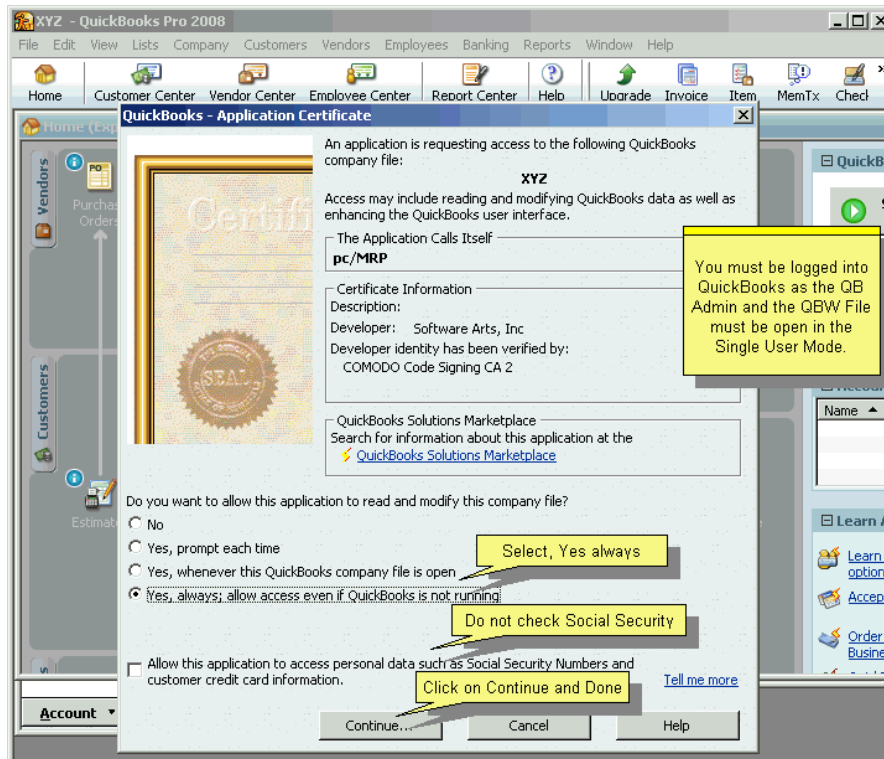
Under "Do you want to allow this application to read and modify this company file?" select "Yes, always". *__The 'Allow the application to access Social Security Numbers and …" checkbox should NOT be checked!__* Click on Continue and Done.

In the above instructions, pc/MRP will log in as the QuickBooks Administrator. **If you are running a multi-user copy of QuickBooks, you may want pc/MRP to log in under its own user name, as QuickBooks will not allow pc/MRP to log in, if the administrator is already logged into QuickBooks.**   To force pc/MRP to log in under its own user name follow the instructions listed below.

If you are using QuickBooks 2003 – 2005:
Go into QuickBooks and select Company, Set up Users, Press Cancel (no need to change the administrator's name and password), and Add User. Enter **PcmrpProgram** as the User Name. Enter a Password and click Next. Select All areas of QuickBooks.   Now that a new user has been added to QuickBooks, return to the screen shown above and click the Properties Button.   Make sure the Allow this application to login automatically check box is checked and select PcmrpProgram from the Login Drop Down List Box.

If you are using QuickBooks 2006 and higher:
It appears that pc/MRP must register as the Administrator and not under another name.

Step 8. Import QuickBooks Item List into pc/MRP
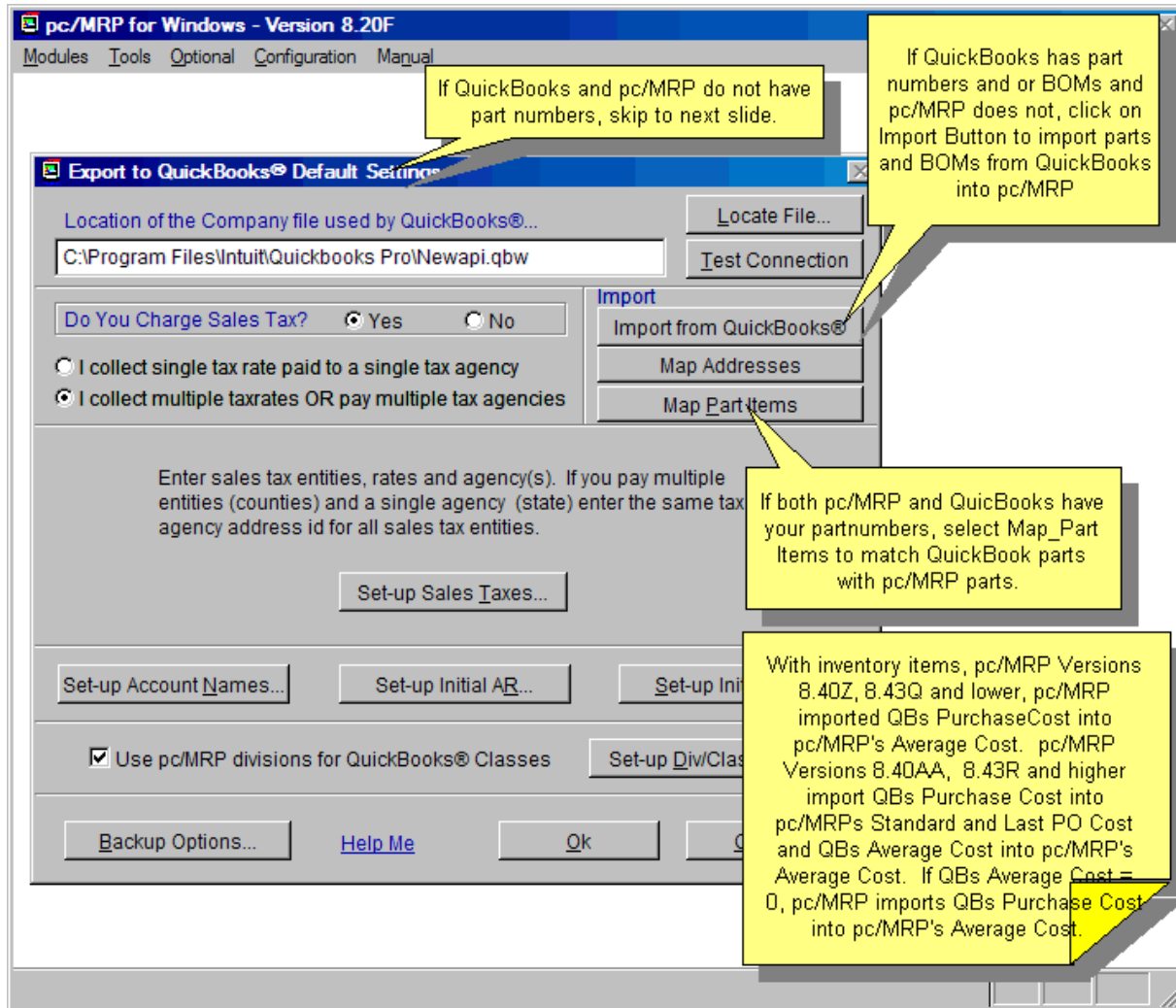
If QuickBooks does not have your parts list, you are done with this step. pc/MRP will automatically export part(s) the first time they are included on an invoice or receiver exported from pc/MRP to QuickBooks.

If Quick Books has your parts list and pc/MRP does not, import the QuickBooks Items into pc/MRP by clicking on the Import Parts button shown above as per the following instructions:

1. Make sure pc/MRP's part number size is set to 15 characters
2. Please note that items classified as "Other", "Discount", "Tax", and "Inactive" types will not be imported.
3. Edit each item in QuickBooks such that no item's "Item Name/Number" field contains a name/number greater than 15 characters. pc/MRP imports the "Item Name/Number" field into pc/MRP's part number field. pc/MRP imports the Parent Item plus a ":" plus the "Item Name/Number" field into pc/MRP's "Inventory ID" field (QbPartID).
4. Start up pc/MRP, select Optional, select QuickBooks, select Set Default Settings, and click on the Import QuickBooks Parts button as shown above.
   - Each part's pc/MRP part number field will be populated by its QuickBooks name field.
   - Each part's pc/MRP QB_PartID field will be populated by its QuickBooks FullName field ; '(MRP)' is not added at this time.
   - Each part's pc/MRP Income Account Field will be populated by the account in its QuickBooks Income Account Name Field. If the Income Account Name Field is empty, pc/MRP will use the account in the QuickBooks Account Name Field.

- Each part's pc/MRP Asset/Expense Account Field will be populated by the account in its QuickBooks Asset Account Name Field. If the Asset Account Name Field is empty, pc/MRP will use the account in the QuickBooks Account Name Field.
- If the item being imported is a service item and pc/MRP detects an account in its QuickBooks Expense Account Name Field or its Account Name Field, pc/MRP will import it as an outside labor item (since it can be purchased). Otherwise, pc/MRP will import the item as an inside labor item (a service item that can be sold).

If both QuickBooks and pc/MRP have your part numbers, follow the directions below.
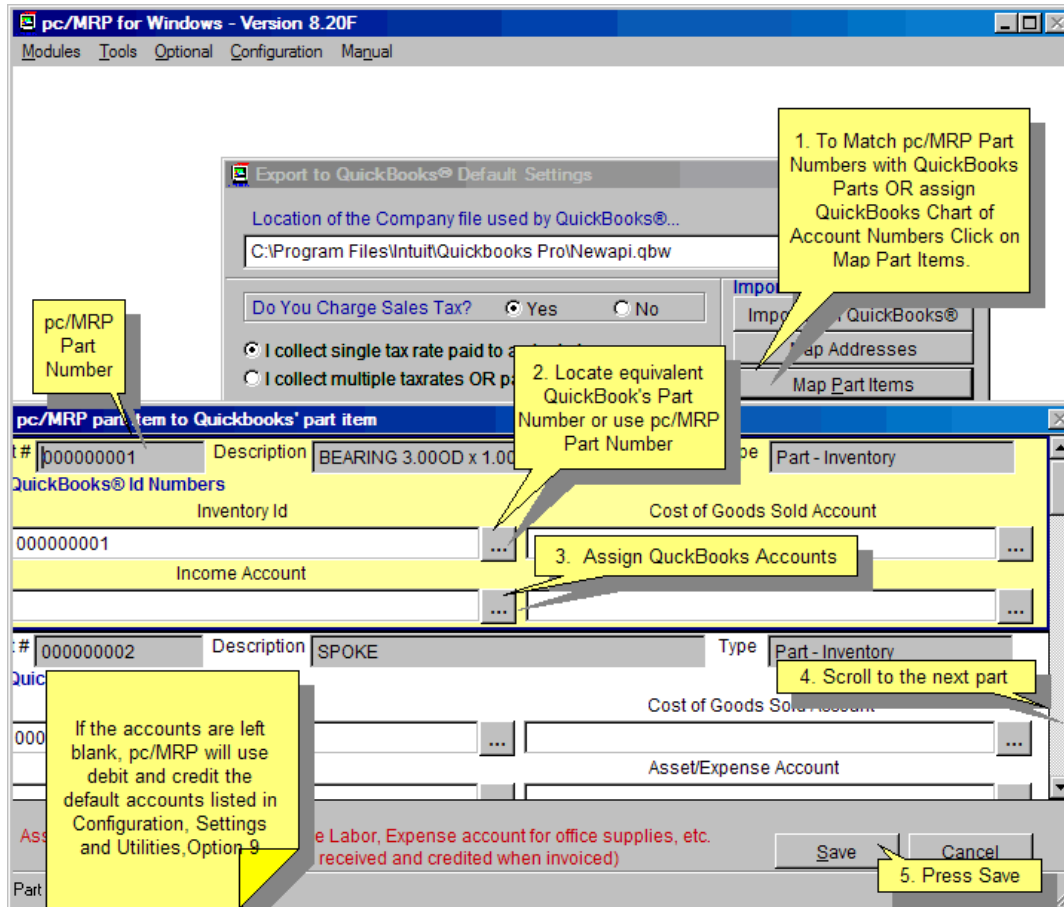
Whenever an invoice or receiver is exported to QuickBooks, pc/MRP will see if QuickBooks has the part listed on the receiver or invoice. pc/MRP compares the part name in the Inventory ID Field with the part's Name Field in QuickBooks. If QuickBooks does not have the part, pc/MRP will export the part to QuickBooks as a non inventory part. If QuickBooks has the part as an inventory part, pc/MRP will attach the suffix (MRP) to the part name and export it to QuickBooks as a non inventory part.

Since pc/MRP automatically inserts the part number into the QuickBooks Inventory ID Field and QuickBooks really has no part number (it has a part name), one strategy could be to just let pc/MRP automatically insert the new part number into QuickBooks whenever an invoice or receiver containing that part number is exported. In other words you would not need to do anything.

Since past versions of QuickBooks had item limits (14,700 for pro and 29,000 for enterprise), some accountants have preferred to put the same generic part number in the Inventory ID Field for every part number. This strategy will prevent QuickBooks from loading up on its item limit. You could implement this strategy by using the Map Part Items as shown below and inserting the same generic QB Inventory Id for every pc/MRP part number.

Another strategy would be to click on the Map Part Items Button and match the pc/MRP part numbers with the QuickBooks' Part Numbers as shown in the screen above.

In the future, enter new part numbers into pc/MRP only. pc/MRP will export the part numbers to QuickBooks as necessary as "non inventory parts."

Additional Notes on pc/MRP's Inventory ID (QBPartId) Field:

pc/MRP automatically populates the QBPartID Field with pc/MRP's part number when:

- Importing part numbers form another file using Settings and Utilities Option 40.
- Entering a new part number (even if QuickBooks Option has not been activated).

Step 9. Set-up/Check your Component and Assembly Costs in pc/MRP
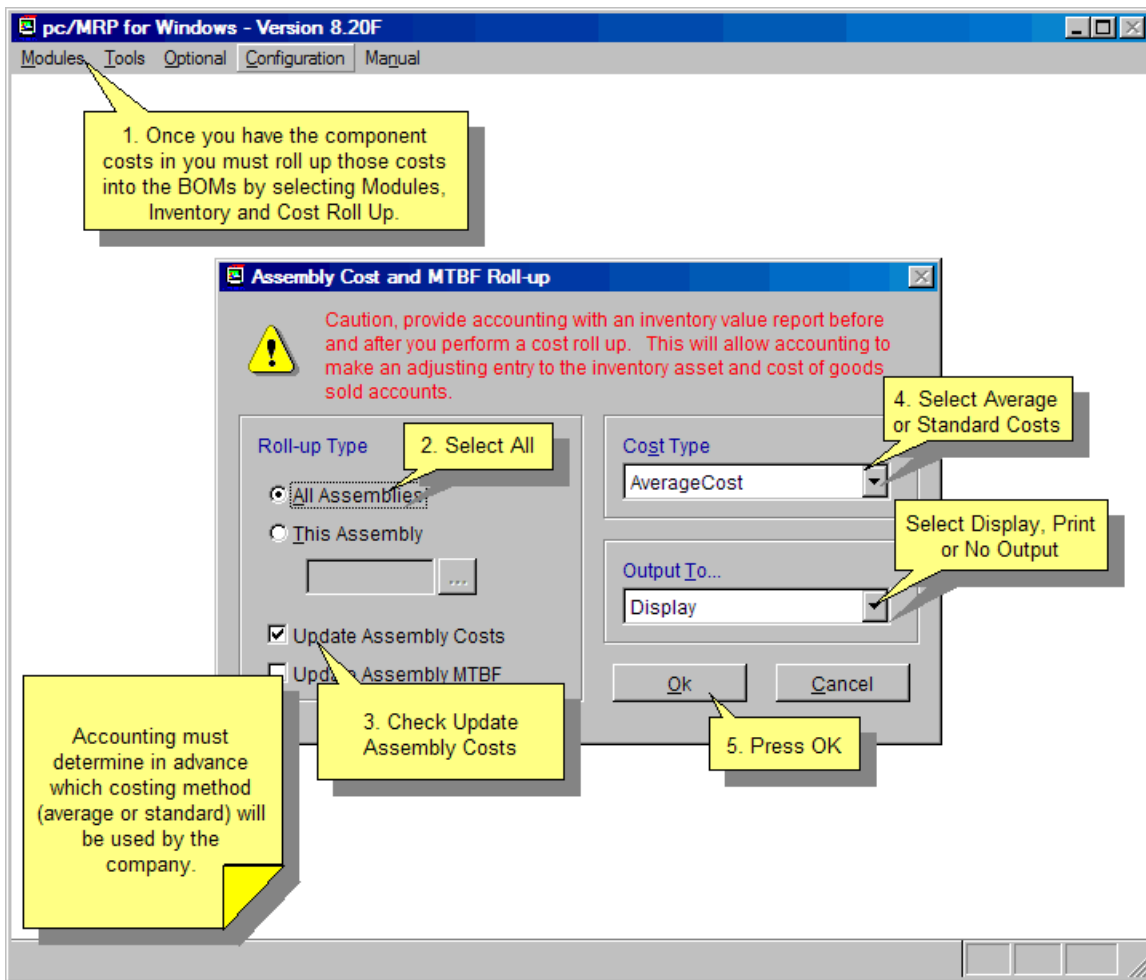
Since pc/MRP will be importing costs into QuickBooks, follow the instructions below.
- If you standardized on average costs, make sure all component part numbers in pc/MRP contain an average unit cost.
- If you standardized on standard costs, make sure all component part numbers in pc/MRP contain a standard unit cost.
- Make sure all Bills of Materials contain the latest totals by **performing a cost-roll-up** for all Bills of Materials based on average or standard costs (Select Modules, Inventory, and Cost Roll Up).

Step 10. Import QuickBooks Address List into pc/MRP
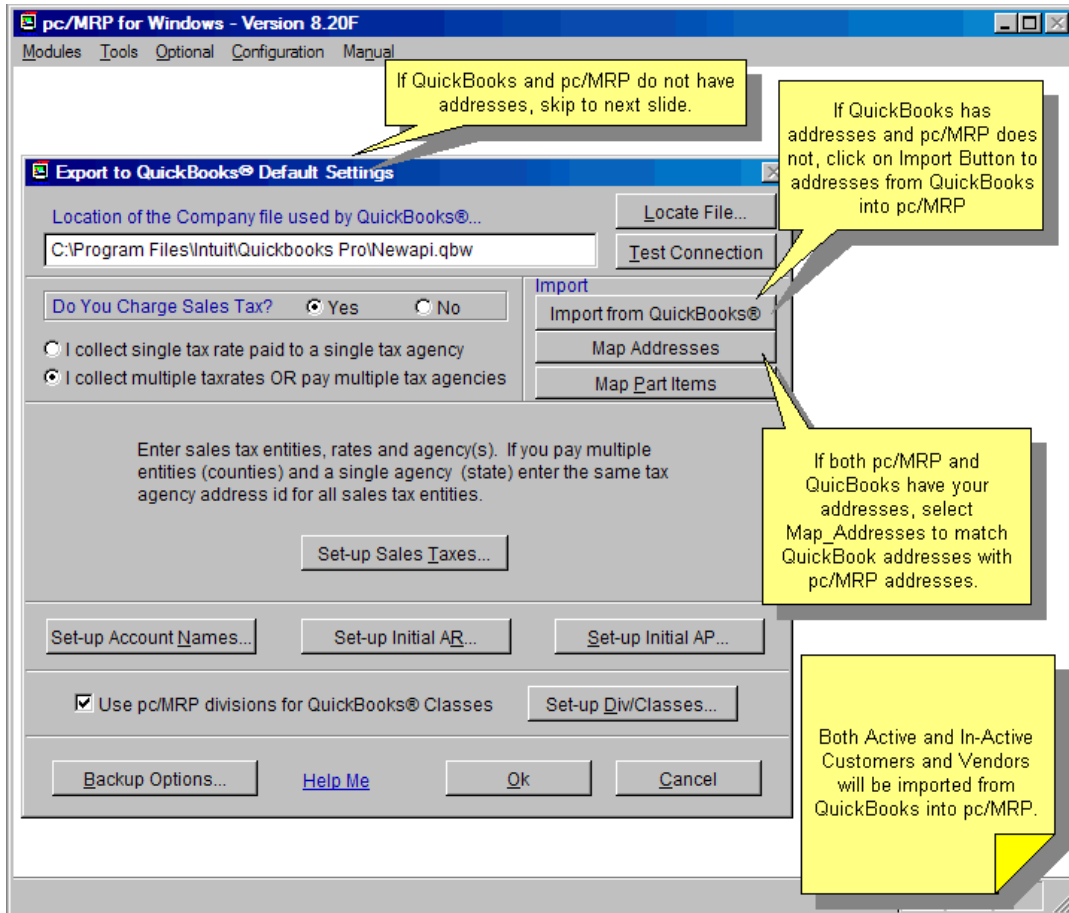
If QuickBooks doesn't have your addresses, you are done with this step, pc/MRP will automatically export the customer and vendor addresses the first time they are included on an invoice or receiver exported from pc/MRP to QuickBooks.

If QuickBooks has your addresses and pc/MRP does not, import the QuickBooks Address List into pc/MRP by clicking on the Import from QuickBooks Button as shown above.

If both QuickBooks and pc/MRP have your customer and vendor addresses, you must match the QuickBooks addresses with the equivalent pc/MRP addresses as shown on the screen below.
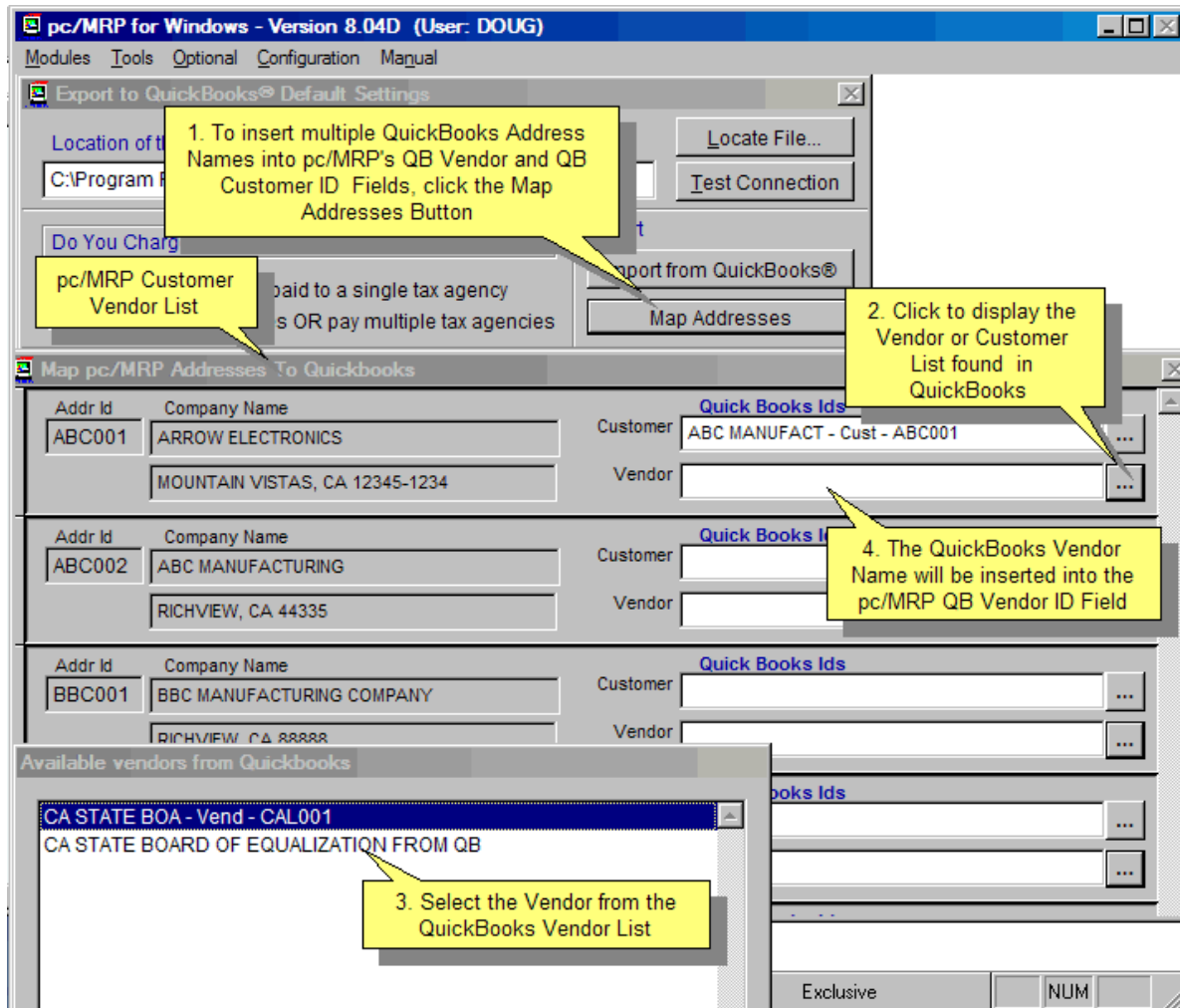
In the future, enter new customer and vendor addresses into pc/MRP only; pc/MRP will export the addresses to QuickBooks as necessary.

Step 11. Setup Sales Taxes

<u>If you collect sales tax for a single tax entity</u>, skip to step 12
<u>If you collect sales tax for multiple tax entities</u> (counties or states), skip to step 13
<u>If you do not collect sales tax</u>, follow the instructions below:
Restore your pc/MRP window
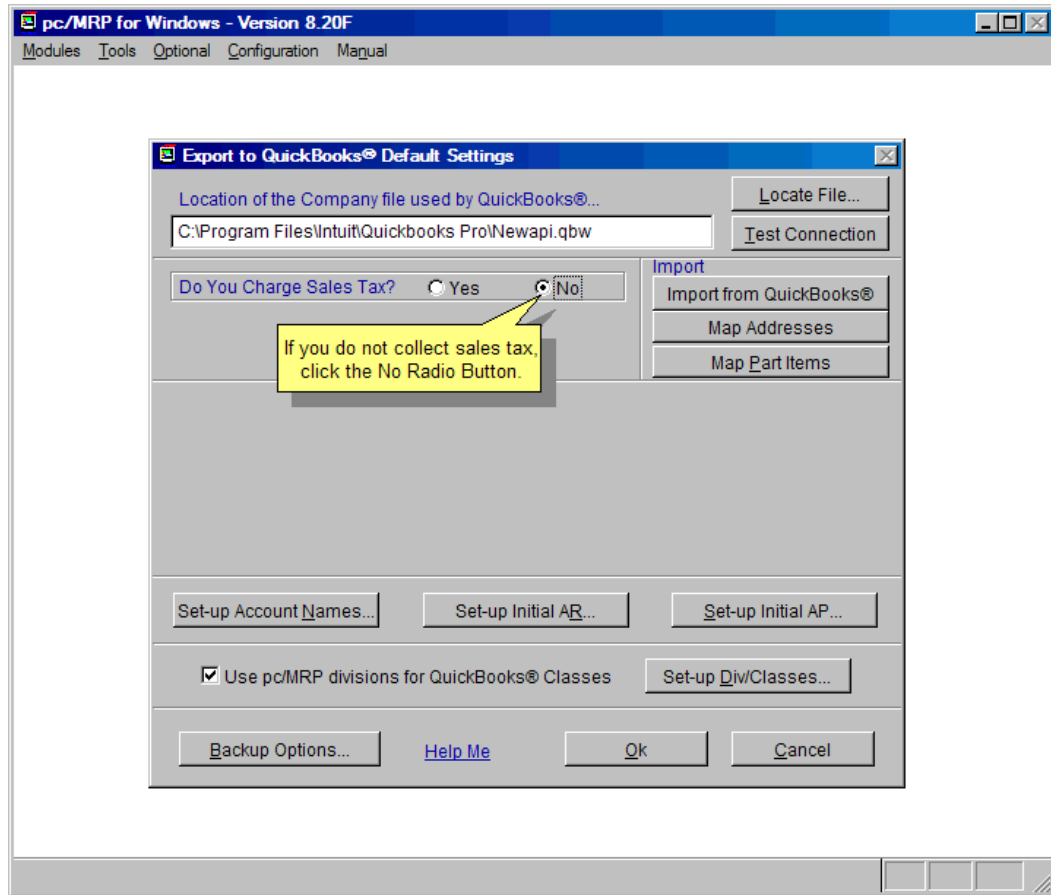
Click on the No radio button.

You are done with sales tax; skip to step 14.

Step 12. Setup Sales Taxes (sales taxes are collected for a single tax entity)

Restore your pc/MRP window
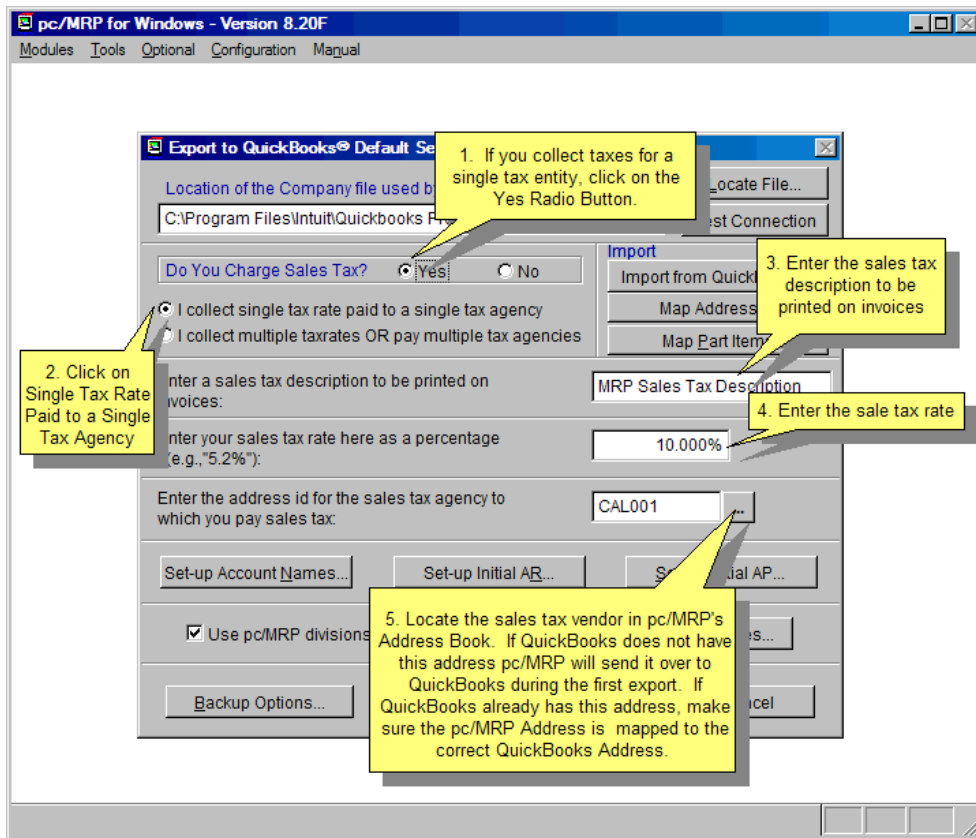
Click on the Yes "Do you Charge Sales Tax" radio button.

Click on the "Single tax entity" radio button

The Export to QuickBooks Default Settings Screen will change as shown below allowing you to fill in the:
- sales tax description that will appear on invoices
- sales tax rate
- address id for your sales tax vendor (state agency that collects sales tax).

Be sure to scroll and pull up the sales tax agency from the pc/MRP address book by clicking on the ellipsis (…) button to the right of the sales tax agency address id field. The address id should contain the address of the sales tax agency

You are done with sales tax; skip to step 14.

Step 13. Setup Sales Taxes (sales taxes are collected for multiple tax entities)

If you **collect multiple tax rates or pay multiple sales tax agencies**, enter the sale tax agencies and their respective addresses into the address book within pc/MRP. Then, return to the QuickBooks Default Settings screen, click the Multiple Tax Rate radio button, and press the Set-up Sales Taxes button.
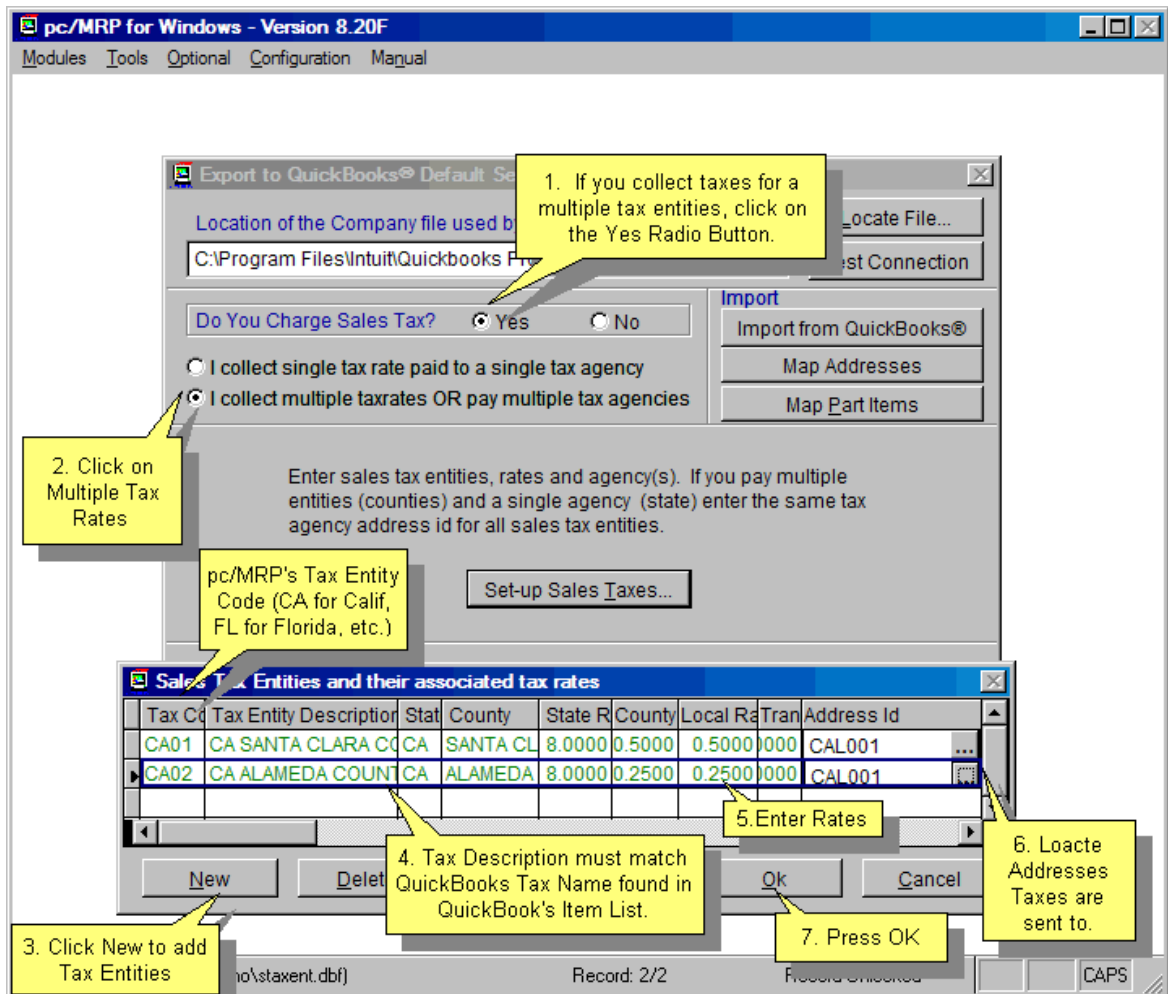
Pressing the **Set-up Sales Taxes** button will allow the sales tax entity screen shown below to pop up. Enter a tax code and description for each sales tax entity. Enter the state, county, state sales tax rate, county sales tax rate, local sales tax rate (if any), transit authority sales tax rate (if any) and the pc/MRP address ID. The address ID can be located by clicking the ellipsis button and selecting the correct address from the scroll window that appears.

Please note that the Tax Entity Description should be worded such that it makes sense on an invoice. Instead of "CA ALAMEDA COUNTY", it should read "Sales Tax, Alameda County". If you pay sales taxes to more than one state, it should read "Sales Tax, Alameda County CA".

Also note that when an invoice is exported to QuickBooks, pc/MRP checks to see if QuickBooks has a Sales Tax Item with the same name as pc/MRP's Tax Code. If QuickBooks does not have a Sales Tax Item Name that matches pc/MRP's Tax Code, pc/MRP inserts a new Sales Tax Item Name with the Tax Code as the Sales Tax Item Name in QuickBooks. This means that if you already have a Sales Tax Item in QuickBooks, you can change the Sales Tax Item Name to match pc/MRP's Tax Code if you do not want to end up with two different Sales Tax Item Names for the same Sales Tax Entity.

Step 14. Enter 11 base chart of accounts into QuickBooks

If you have already established a chart of accounts in QuickBooks and your copy of QuickBooks has equivalent accounts for the 11 accounts shown below, move on to the next step.

If your copy of QuickBooks does not contain a chart of accounts or is missing one or more of the accounts shown below, you must create the accounts shown below.   To add these accounts to your QuickBooks chart of accounts, start QuickBooks, select "Accounts", and "New".

The account types must match the account types shown below.

Base Account	Account Type
Accounts Receivable	Accounts Receivable
Business Income	Income
Inventory Asset	Other Current Asset
Sales Tax Liability	Other Current Liability
Cost of Goods Sold	Cost of Goods Sold
Freight Income	Income
Sales Discount	Income
Overhead Expense	Other Expense
Gross Wage Expense	Expense
Accounts Payable	Accounts Payable
Freight Expense	Expense
Operating Expenses	Expense

After entering these accounts into QuickBooks, the next step (step 13), will require you to enter these accounts into pc/MRP as your default base chart of accounts for QuickBooks.   If a part being invoiced or received does not contain its own asset, income, or COGS account, pc/MRP will debit and credit the default accounts listed above.

Step 15. Enter the QuickBooks default chart of accounts into pc/MRP
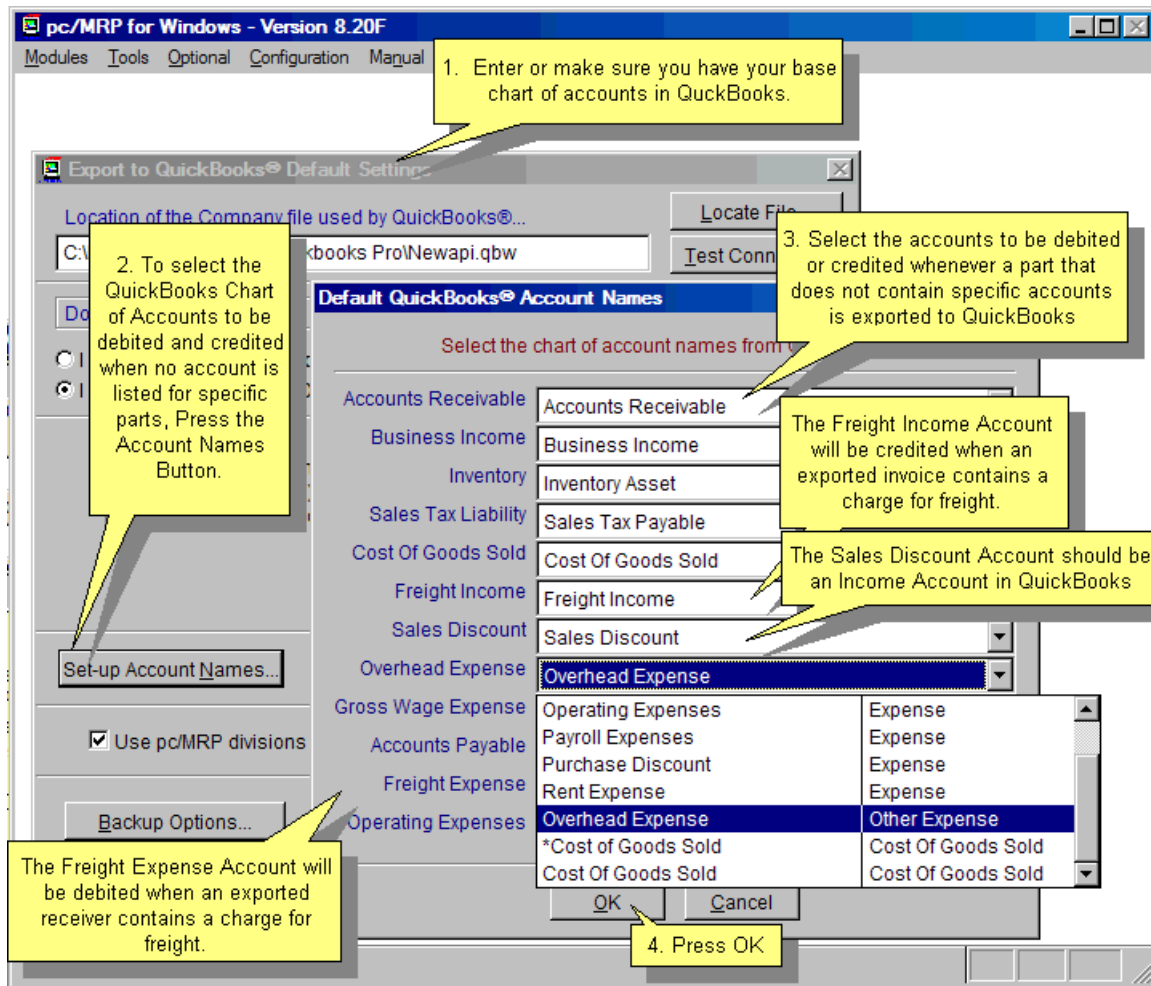
Select "Options", "QuickBooks", "Set QuickBooks Exporter Default Settings" and press the "Set-up Default Account Numbers" button to display the screen shown below.   pc/MRP will display a drop down list of all legal account and account types that could be used for that particular account.

pc/MRP will automatically debit and credit the above QuickBooks accounts (provided the part being invoiced or received does not contain its own account numbers) when you export invoices and receivers into QuickBooks. An account must be selected for each account category.

Step 16. Enter unique chart of accounts numbers into pc/MRP partnumbers

If you do not wish to enter unique chart of account numbers for individual pc/MRP part numbers skip this step.

If you wish to assign unique chart of account numbers to one or more pc/MRP part numbers follow the steps below.

To give a part or assembly number a unique account number, start pc/MRP, select Modules, select Inventory, select Edit, select the part number, select the QuickBooks tab, select the Asset, COGS, and or Income account numbers you wish to associate with this part number.
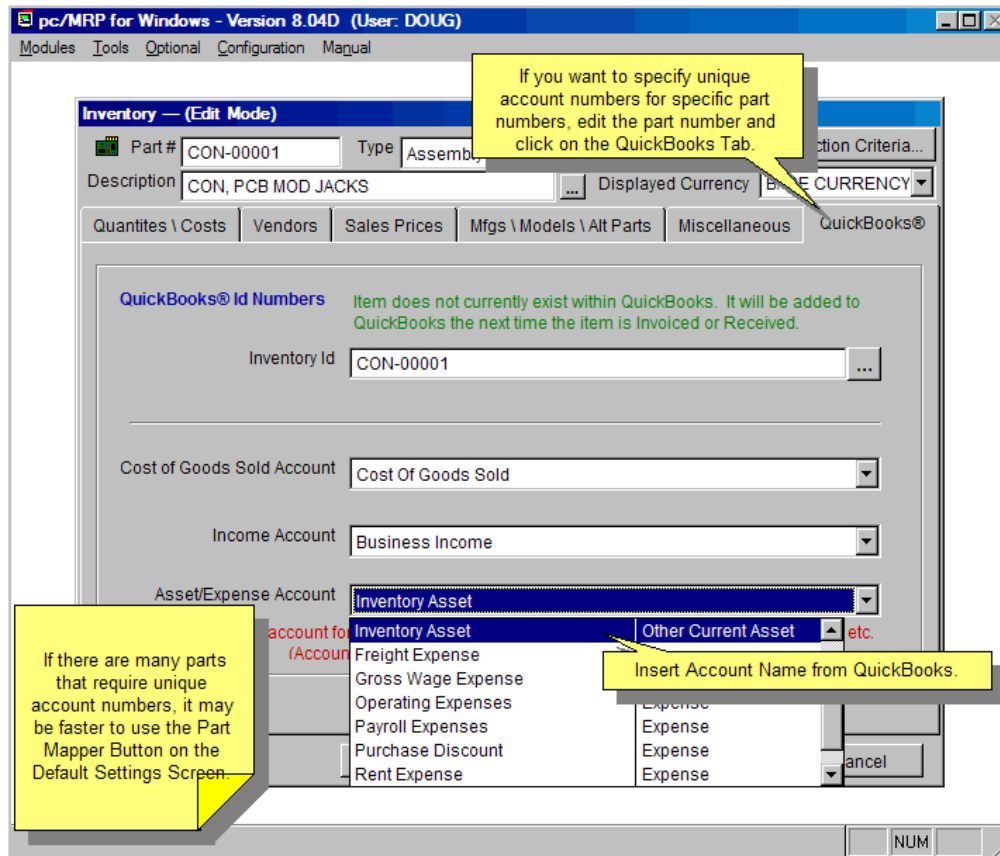
The drop down list boxes contain valid QuickBooks account numbers. Please note that these account numbers must exist in QuickBooks prior to running this option.

If the part is a component part that you sell or it goes into an assembly that you sell, select an asset account in the Asset/Expense Account Field. If it is not for resale, such as an office supply or shop supply, select an expense account.

If the part is an outside labor part and it has been added to a BOM, select an inventory asset account for the Asset/Expense Account Field. If the outside labor part has not been added to a BOM, select an expense or COGs account for the Asset/Expense Account Field.

If there are many parts that require unique account numbers, it may be faster to use the Part Mapper Button on the Default Settings Screen.

Clicking on the QuickBooks Tab is much faster than in the early versions of pc/MRP. This is because pc/MRP now populates the drop down chart of accounts lists from its own QbAccountsDbf.dbf instead of populating the chart of accounts lists from QuickBooks. pc/MRP creates a fresh copy of QbAccountsDbf.dbf if it needs the file and the file does not exist. It also creates a fresh copy of this file whenever invoices ore receivers are exported to QuickBooks.

Step 17. Set-up Divisions and Corresponding Classes in QuickBooks

If you do not use divisions and/or departments, uncheck the Use Divisions for QuickBooks Classes Checkbox. You are done with this step; continue to step 18. If you do decide to use divisions and/or departments in the future, you can always add divisions later.
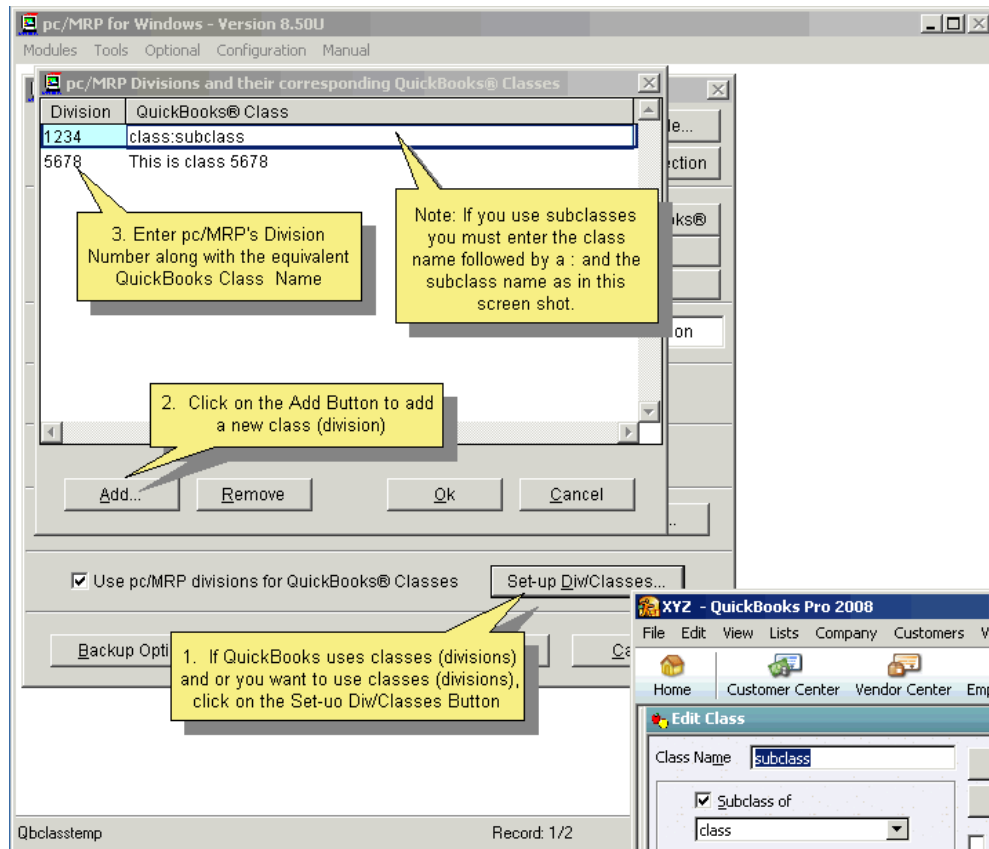
If you do use divisions and/or departments, go to the QuickBooks Default Settings screen, check the Use Divisions for QuickBooks Classes checkbox and click the Set-up Divisions Check Button to enter divisions/classes.

pc/MRP uses a 4-character division field for divisions and departments. The first two characters are reserved for divisions and the second two characters are reserved for department. QuickBooks uses a much larger class field for divisions and/or departments. If you already have classes in QuickBooks, the description for the class must match the description you are using in QuickBooks or QuickBooks will enter it as a new class.

pc/MRP invoice and receiver line items have a field for division. When the invoices and receivers are exported to QuickBooks, the pc/MRP export routine will scan through all the invoices and receivers being exported and validate the division fields as follows:

If the div field in the invoice or receiver is not empty and the use div checkbox is checked
    Case the Division is not found in the above pc/MRP table (Qbclass)
        Write an error message and do not export the invoices or receivers
    Case the Class is not found in QuickBooks (QbClasses)
        Insert the class into QuickBooks

Step 18. Run Set-up AR (Mark all invoices paid before the transfer date as complete)

If there are no invoices in pc/MRP and you have been entering invoices into QuickBooks, continue to step 21.

If you are starting out for the first time with both pc/MRP and QuickBooks, continue to step 21.

If you have entered invoices into pc/MRP and have been closing them when they are paid, run this step as a double check on your AR. It will also open up any invoice with a partial payment so that the entire invoice will be exported over to QuickBooks (without the payment).

If you have entered invoices into pc/MRP and have not been closing them when they were paid and are just starting with QuickBooks, run this step to close all invoices that have been paid.

If you have entered invoices into both pc/MRP and QuickBooks and have not closed your pc/MRP invoices, run this step to close all open pc/MRP invoices that already exist in QuickBooks. If QuickBooks has all the open invoices as of the transfer date, run this step to close all invoices in pc/MRP.

Press the Set-up Initial AR button from within the QuickBooks Default Settings screen to display the Invoice Closer screen shown below.

This screen does not export invoices to QuickBooks. It allows you to set up the invoices (AR) for the initial export into QuickBooks.

The AR total is equal to the amount due - amount paid
$(((SalePrice*QtyShip*(1-(Discount/100))*(1+(TaxR/100.0000))+Freight)-AmtPaid)$ for the following invoice line items and credit memos:

- All open invoices and credit memos.
- If one or more line items in an invoice/credit memo are marked as open, all the line items and associated credit memos are temporarily marked as open and are included in the AR total.

Scroll the invoices and check the **complete** check box for all paid invoices and credit memos until the AR with Credit Memo Total is correct. If you check an invoice as complete, the entire invoice will be marked as complete by inserting a capital Y into the complete field of every line item for that invoice. This reduces the AR amount by the entire amount of the invoice (unless the amount due - amount paid equals 0). Invoices marked as complete will never be exported to QuickBooks.

Pressing the Cancel button will leave the invoices unchanged. The invoice complete and posted fields will remain as they were prior to entering this screen.

Pressing the OK button will not export the invoices. Pressing the OK button will change the invoice complete fields as per the changes you made with the closer. All invoices that are not marked as complete and have a batch number of 0 will be exported in the next step.

Step 19. Set Backup Options

Click on the Backup Options button. If you are using QuickBooks 2006 and higher, uncheck this checkbox as QuickBooks 2006 will not allow pc/MRP to make QBW file backups. You must perform the QBW file backup from within QuickBooks prior to exporting. If you are using QuickBooks 2003 – 2005, check the 'Perform Automatic Backup' option checkbox and set the number of QBW file backups to keep.
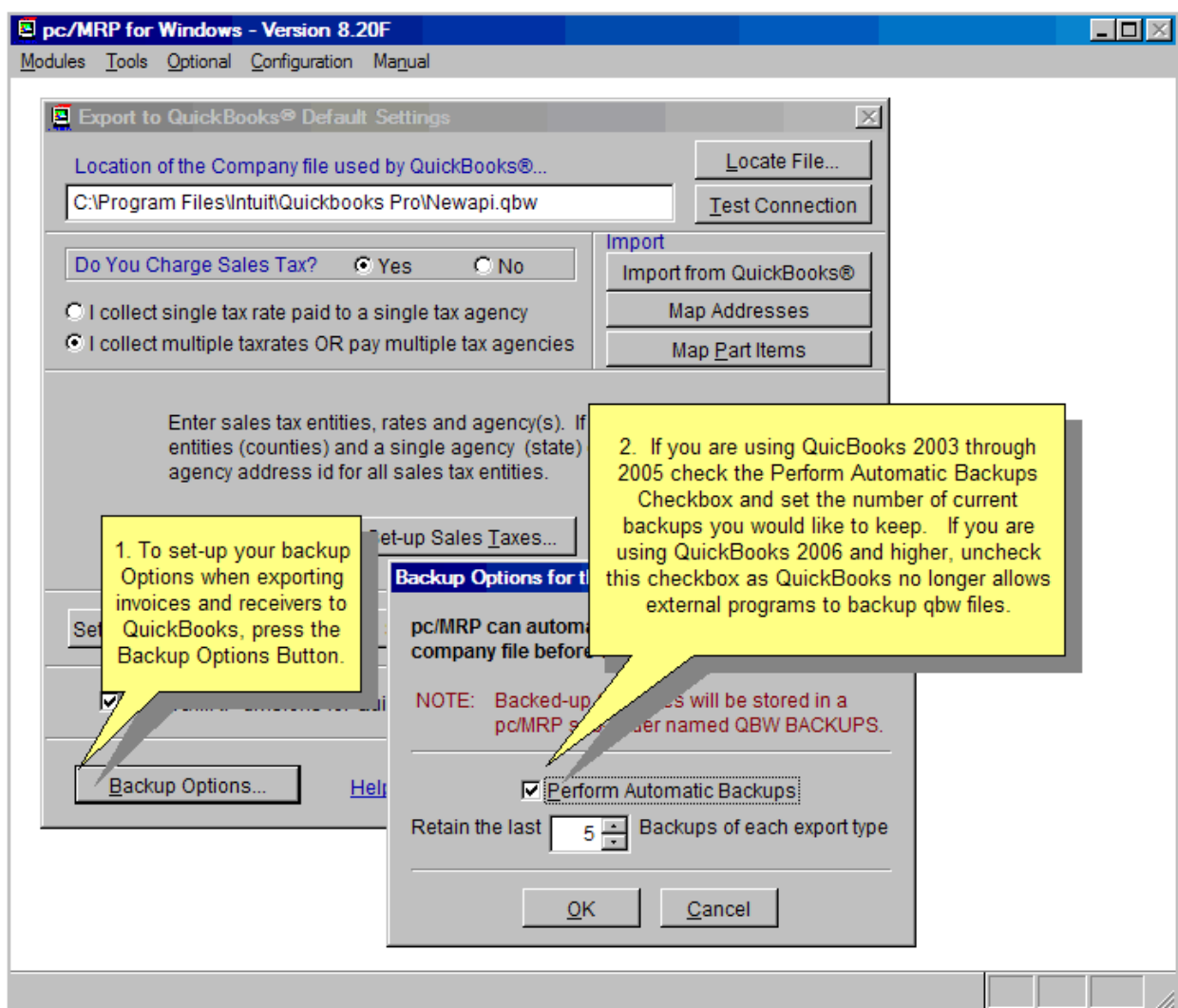
Step 20. Export pc/MRP Open Invoices (AR)
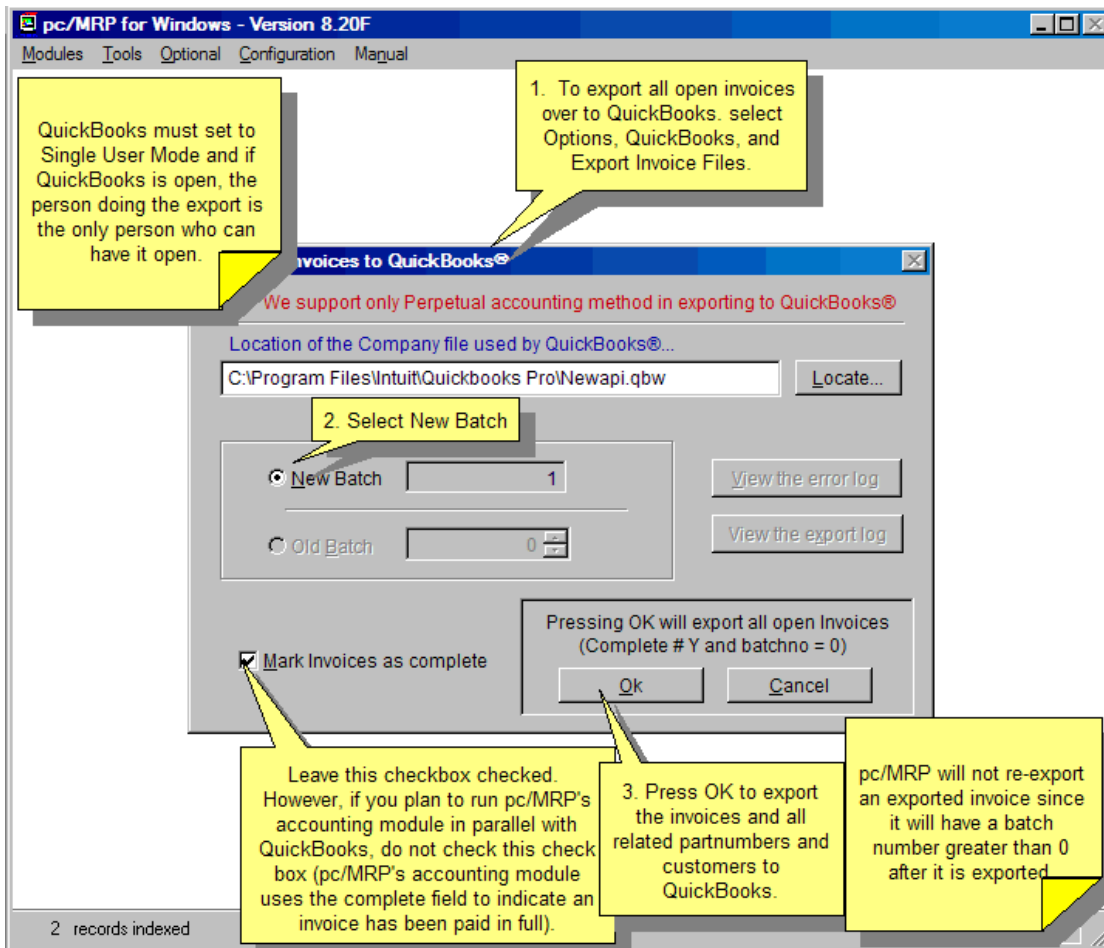
To export all open invoices, sales tax entities, divisions/classes, related part numbers, related vendors, and customers that are not in QuickBooks from pc/MRP, start pc/MRP, select Options, QuickBooks Export, and Export Invoice Files.

Press OK to export all open pc/MRP invoices. pc/MRP will only export invoices where the batch number is equal to 0 (zero) and the invoice is not complete (complete $\neq$ Y).   Partial payments and credit memos will not be exported.   Once pc/MRP has completed the export, it will insert the batch number into the pc/MRP invoices that were exported and any open credit memos to prevent them from being exported again. To re-export a batch you would select Old Batch instead of New Batch.

If any of the invoices exported contained partial payments or credit memos, pc/MRP will display a warning message asking you to open up the export log. Within the export log, scroll to the bottom of the file for a list of partial payments and credit memos. Print this list out by selecting File and Print, as you will need this list on the next step. Enter the credit memos and partial payments by hand into QuickBooks. The total amount displayed on the Export Log Report is a sum of the following calculation:

Round(SalePrice*QtyShip*(1-(Discount/100))*(1+(TaxR/100.00))+Freight, 2)

If you get an exceeded credit limit in pc/MRP error message, temporarily raise the customer's credit limit in pc/MRP and export again. If the error message indicates the customer's credit limit was exceeded from QuickBooks, temporarily raise the credit limit in QuickBooks and export again.

In the future:
    Use pc/MRP to enter all invoices and export them to QuickBooks once a day or once a week.
    Use QuickBooks to enter all credit memos and invoice payments.

Step 21. Run Set-up AP (Mark all receivers paid before the transfer date as complete)

If there are no receivers in pc/MRP and you have been entering receivers into QuickBooks, do not run this step and continue to step 23.

If you are starting out for the first time with both pc/MRP and QuickBooks, do not run this step and continue to step 23.

If you have entered receivers into pc/MRP and have been closing them when they are paid, run this step as a double check on your AP. It will also open up any receiver with a partial payment so the entire receiver will be exported over to QuickBooks.

If you have entered receivers into pc/MRP and have not been closing them when they were paid, and are just starting with QuickBooks, run this step to close all receivers that have been paid.

If you have entered receivers into both pc/MRP and QuickBooks and not closing your pc/MRP receivers, run this step to close all open pc/MRP receivers that already exist in QuickBooks. If QuickBooks has all the open receivers as of the transfer date, run this step to close all receivers in pc/MRP.

Pressing the Set-up Initial AP button on the QuickBooks Default Settings screen from within pc/MRP will display the Receiver Closer screen shown below.

This screen allows you to set-up the initial export of open (unpaid) receivers with vendor invoice number into QuickBooks. Only receivers that are not marked complete and have a vendor invoice number will be exported and included in the AP w Debit Memos Total. This screen will display the first vendor invoice number it finds in a receiver. If you enter a vendor invoice number into a receiver or it already has a vendor invoice number, every line item on that receiver will be populated with that vendor invoice number when you press the OK button.

This screen does not export the open receivers into QuickBooks. It allows you to set up the receivers for the initial export into QuickBooks.

Clicking on the Set-up AP button scans each receiver to determine the AP total and displays the above AP screen. The AP total is equal to the amount due - amount paid for the following receiver line items and debit memos:

- All open receivers and debit memos with vendor invoice numbers.
- If one or more line items in a receiver /debit memos are marked as open, all the line items and associated debit memos are temporarily marked as open and are included in the AP total. They will be returned to original state after the export if you did not specify that exported receivers be marked as complete, (if amount paid - amount due >= 0 replace complete with "Y")

Scroll the receivers and check the **complete** check box for all paid receivers and debit memos and add the vendor invoice number to all receivers that you wish to export, until the AP with Debit Memo Total is correct.

If you check a receiver as complete, the entire receiver will be marked as complete by inserting a capital Y into the complete field of every line item on that receiver. This reduces the AP amount by the entire amount of the receiver (unless the amount due - amount paid equals 0). Receivers marked as complete will never be exported to QuickBooks.

Pressing the Cancel button will leave the receivers unchanged. The receiver complete and posted fields will remain as they were prior to entering this screen.

Pressing the OK button will not export the receivers. Pressing the OK button will temporarily change the receiver complete fields as per the changes you made with the closer. Once the receivers have been exported in the next step, if the "Marked Receivers as complete checkbox is checked, pc/MRP will enter a "Y" into the complete field of all receivers and debit memos associated with the export.

Step 22. Export pc/MRP Open Receivers (AP)
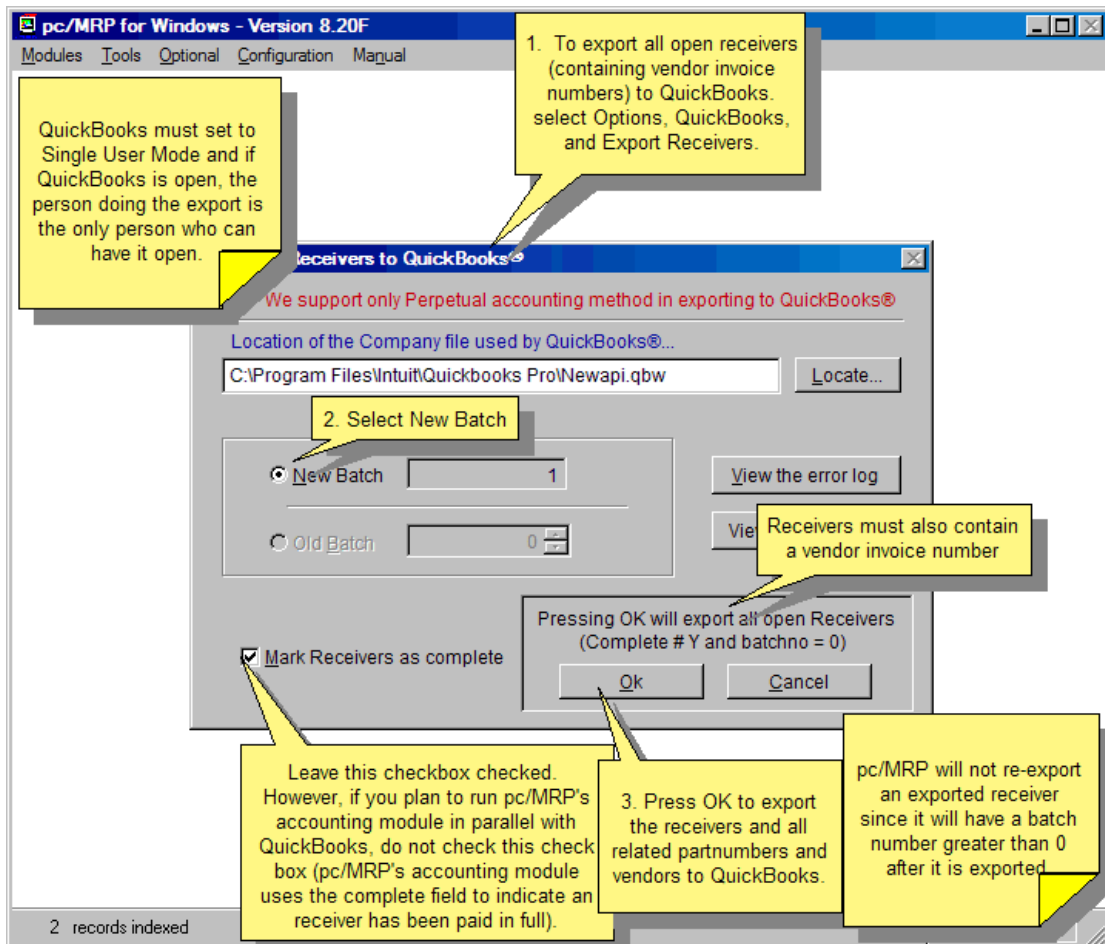
To export all open receivers, sales tax entities, divisions/classes, related part numbers, and related vendors that are not in QuickBooks, start pc/MRP, select Options, QuickBooks Export, and Export Receiver Files.

Select New Batch. If you wish to mark every receiver exported as complete, check the "Mark Receivers as complete" checkbox. If you have been running the pc/MRP accounting module and wish to continue to run in parallel with QuickBooks, do not check this check box (pc/MRP accounting uses the complete field to indicate a receiver has been paid in full).

Press OK, to export all open pc/MRP receivers. Only receivers that have a batch number of 0 (zero), are not complete (complete ≠ Y), and have a vendor invoice number in at least one line items will be exported. Debit memos and partial payments will not be exported...

Once the export has been completed, pc/MRP will insert the batch number into the receivers that were exported and any open debit memos to prevent them from being exported again. To re-export a batch you would select Old Batch instead of New Batch.

If any open receivers or debit memos were detected, pc/MRP will display a warning message asking you to open up the export log and scroll to the bottom of the file for a list of partial payments and debit memos. Print this list out by selecting File and Print, as you will need this list on the next step. Enter the debit memos and partial payments by hand into QuickBooks. The total amount displayed on the Export Log Report is a sum of the following calculation:

$$\text{Round}(\text{Cost}*\text{QtyRec}*(1-(\text{Discount}/100))*(1+(\text{TaxR}/100.00))+\text{Freight}, 2)$$

pc/MRP receiver numbers will have a suffix of R and will be listed in QuickBooks Memo column. Vendor invoice numbers appear under QuickBooks Number column.

In the future:
- Use pc/MRP to enter all receivers, add vendor invoice number to the first line item of the receiver, and export them to QuickBooks once a day.
- Use QuickBooks to enter all vendor payments and debit memos.

Step 23. Enter the Remaining Chart of Accounts and Balances into QuickBooks
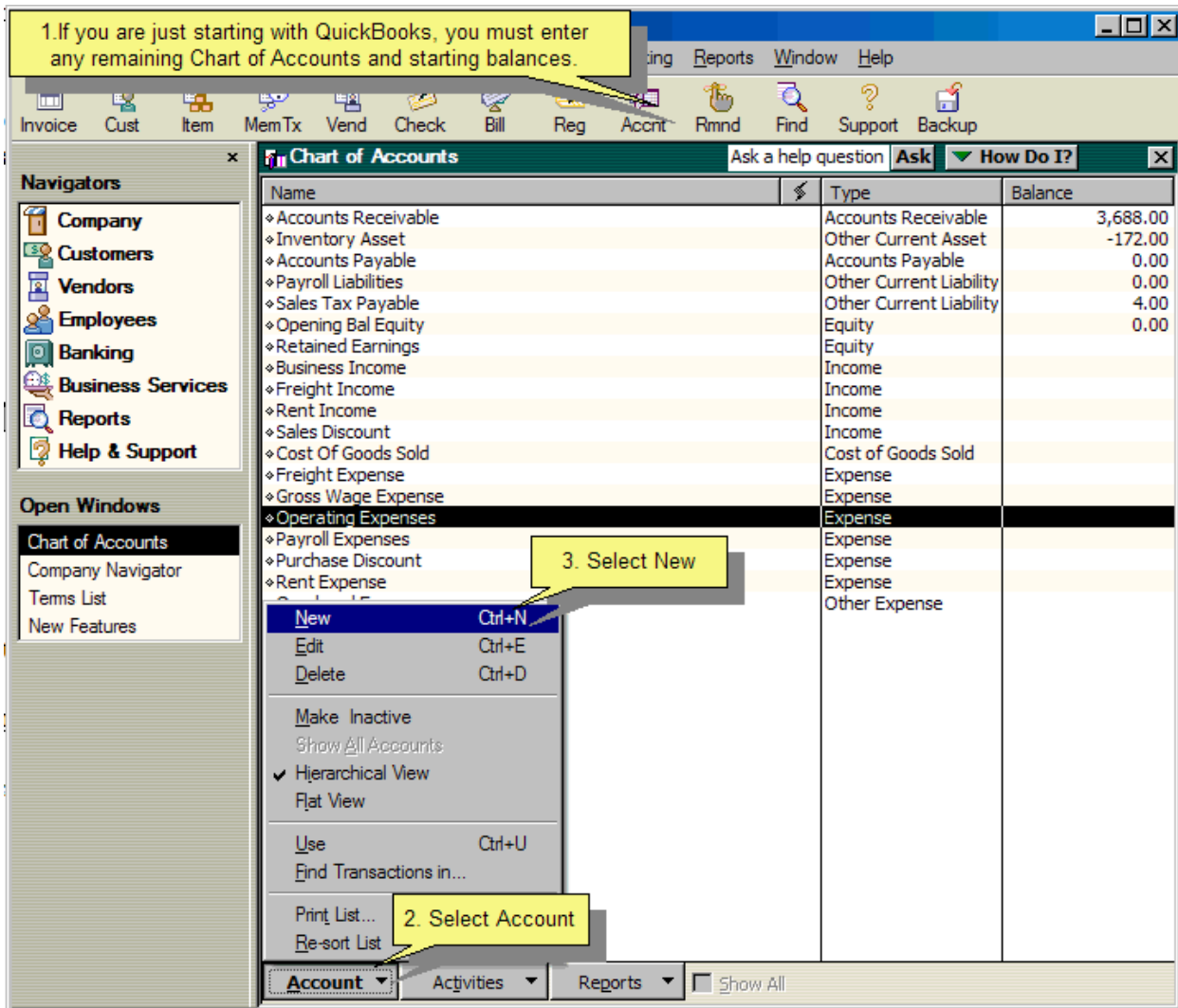
If you have been running QuickBooks prior to this implementation, you can skip this step.

If are just starting with QuickBooks you must enter the remaining chart of accounts and their balances into QuickBooks as of the day of the initial transfer.

16.16.3   Exporting Invoices to QB on a Daily Basis

Once you have completed the initial implementation steps (1 - 23), you can export invoices from pc/MRP into QuickBooks on a daily basis. Before exporting, make a backup of the pc/MRP database files and your QuickBooks .qbw file as per Step 1.   To export, from within pc/MRP, select Optional, QuickBooks Export, and Export Invoice.
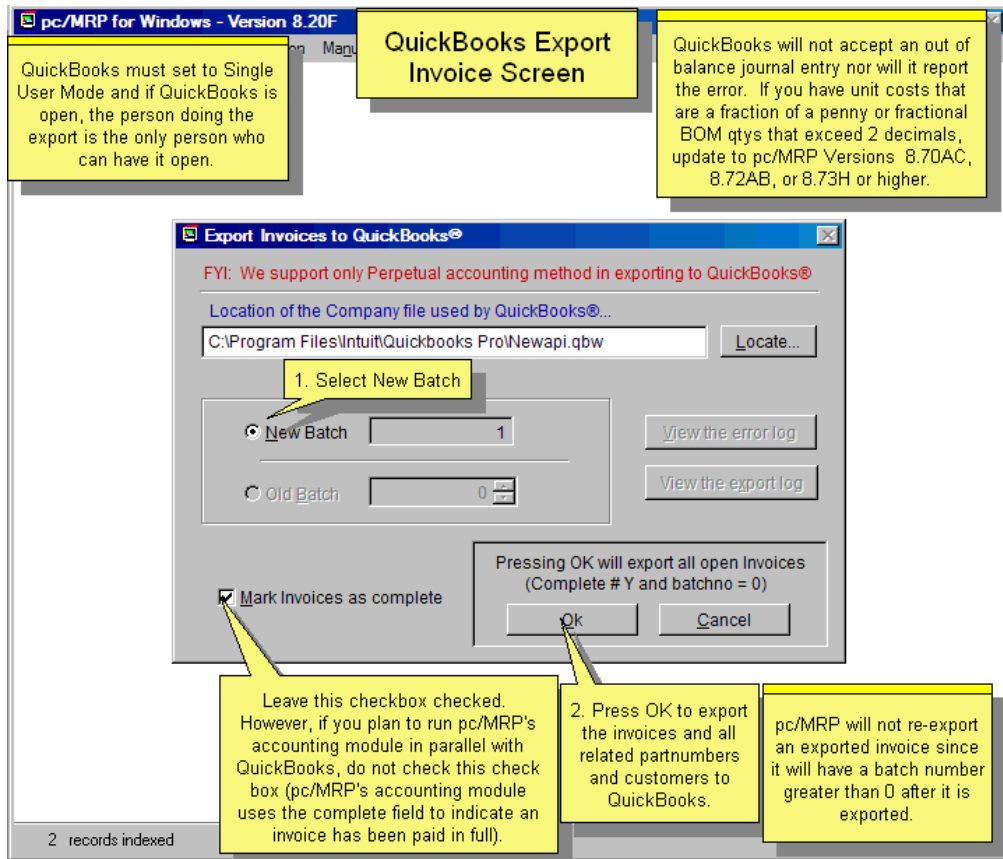
Select New Batch. If you wish to mark every invoice exported as complete, check the "Mark Invoices as complete" checkbox. If you have been running the pc/MRP accounting module and wish to continue to run in parallel with QuickBooks, do not check this check box (pc/MRP accounting uses the complete field to indicate an invoice has been paid in full). If you do run in parallel, you must export invoices before you receive payment for them.

Press OK to export all open pc/MRP invoices. pc/MRP will only export invoices where the batch number is equal to 0 (zero) and the invoice is not complete (complete ≠ Y). Credit memos and partial payments will not be exported.

pc/MRP invoice numbers will have a prefix of V and will be listed in QuickBooks Number column.   The V prefix is intended to help identify invoices imported from pc/MRP.

Note: If a flag file, 'remove_v_for_invoicenumber.flg' is present, the 'V" will **not** be prefixed to the invoice number.

The export will insert all customers, part numbers, classes, account numbers, etc related to the exported invoices into QuickBooks, if QuickBooks does not contain those items.   If QuickBooks contains those items, the export will not update the items.

Component and assembly part numbers will be exported as non-inventory parts (parts classified as inventory parts make strange COGS entries when imported with receivers)

pc/MRP Part numbers marked as Labor will be exported as Service part numbers.

If a part exists in QuickBooks as an inventory part, the first time it is included in an invoice or receiver, pc/MRP will add that part back into QuickBooks as a non-inventory with a suffix of "(MRP)" and its inventory asset account appearing in the part's expense account field.

If you get an exceeded credit limit in pc/MRP error message, temporarily raise the customer's credit limit in pc/MRP and export again. If the error message indicates the customer's credit limit was exceeded from QuickBooks, temporarily raise the credit limit in QuickBooks and export again.

To re-export a batch you would select Old Batch instead of New Batch. If you select this option, pc/MRP will export all invoices in that batch that QuickBooks does not have on the basis of invoice number.

The following paragraphs describe how pc/MRP exports various invoiced item types

Inside Labor/Service Items
Inside Labor/Service Items can be sold but not purchased
The Income account field must contain a QuickBooks income account
Use an income account for services provided to your customers (such as field maintenance)
When Invoiced:
If the item does not exist in QuickBooks
pc/MRP will export the item with its income account to QuickBooks
If the income account is empty, pc/MRP will use the default income account
If the item does exist in QuickBooks
pc/MRP will check the account type in QuickBooks is an income account
The default AR account found in pc/MRP will be debited
The item's income account found in QuickBooks will be credited*
If the discount does not equal $0.00
The default Sales Discount account will be credited for the amount of the tax
If the freight does not equal $0.00
The default Freight Income account will be credited
The default Sales Tax Liability account will be credited

Non-Inventory Items
A Non Inventory Item can be purchased and sold
The Asset/Expense account field must contain a QuickBooks expense account
The Income account field must contain a QuickBooks income account
Use an expense account for supplies (office and shop)
Use an income account for income
When Invoiced:
If item does not exist in QuickBooks
pc/MRP will export the item with its income and expense accounts to QuickBooks
If the part number of the invoice being exported is NA
Pc/MRP will use the default operating expense account
Else
pc/MRP will create an error message if the asset/expense account is empty
If the income account is empty, pc/MRP will use the default income account
If item does exist in QuickBooks
pc/MRP will check the account type in QuickBooks is an income account
The default AR account found in pc/MRP will be debited
The item's income account found in QuickBooks will be credited*
If the discount does not equal $0.00
The default Sales Discount account will be credited for the amount of the tax
If the freight does not equal $0.00
The default Freight Income account will be credited
The default Sales Tax Liability account will be credited

Inventory Part and Assembly Items

A Part and Assembly Item can be purchased and sold

The Asset/Expense account field should be filled with a QuickBooks inventory asset account

The COGs account field should be filled with a QuickBooks COGs account

The Income account field should be filled with a QuickBooks Income Account

If any of the above fields are not filled out pc/MRP will use its default QB accounts

When Invoiced:

If the item does not exist in QuickBooks

    pc/MRP will export the item with its expense and income accounts to QuickBooks

    If the accounts are empty, pc/MRP will use the default Inventory and income accounts

If item does exist in QuickBooks

    pc/MRP will check that the expense account exists and is active in QuickBooks

    pc/MRP will check that the income account exists and is active in QuickBooks

The default AR account found in pc/MRP will be debited

The item's income account found in QuickBooks will be credited*

If the discount does not equal $0.00

    The default Sales Discount account will be credited for the tax

If the freight does not equal $0.00

    The default Freight Income account will be credited

The default Sales Tax Liability account will be credited

If the item's COGs (comp+outlabor+inlabor+ovrhd) amount is greater than $0.00

    The item's COGs acct or default COGs acct will be debited for that amount

If the item's component amount is greater than $0.00

    The item's asset/exp acct or default Inventory acct will be credited for that amt

If the item is inside labor amount is greater than $0.00

    The default gross wage account will be credited for that amount

If the item's overhead amount is greater than $0.00

    The default overhead account will be credited for that amount

* It is important to note, that once QuickBooks has the part, it will credit the income account found in QuickBooks. Therefore, if you wanted to change the account to be credited when an item is invoiced or received and that part exists in QuickBooks, you would change the income account in QuickBooks instead of the income account in pc/MRP.

16.16.4 Exporting Receivers to QB on a Daily Basis

Once you have completed the initial implementation steps (1 - 23), you can export receivers from pc/MRP into QuickBooks on a daily basis. Accounting should receive a copy of each receiver and packing list from the receiving dock. When the vendor invoices arrive, accounting must edit the receivers and add the vendor invoice numbers, so that the new receivers with vendor invoice numbers and batch number 0 will be included in the next export. Before exporting, make a backup of the pc/MRP database files and your QuickBooks company .qbw file as per Step 1. From within pc/MRP select Optional, QuickBooks Export, and Export Receiver files.
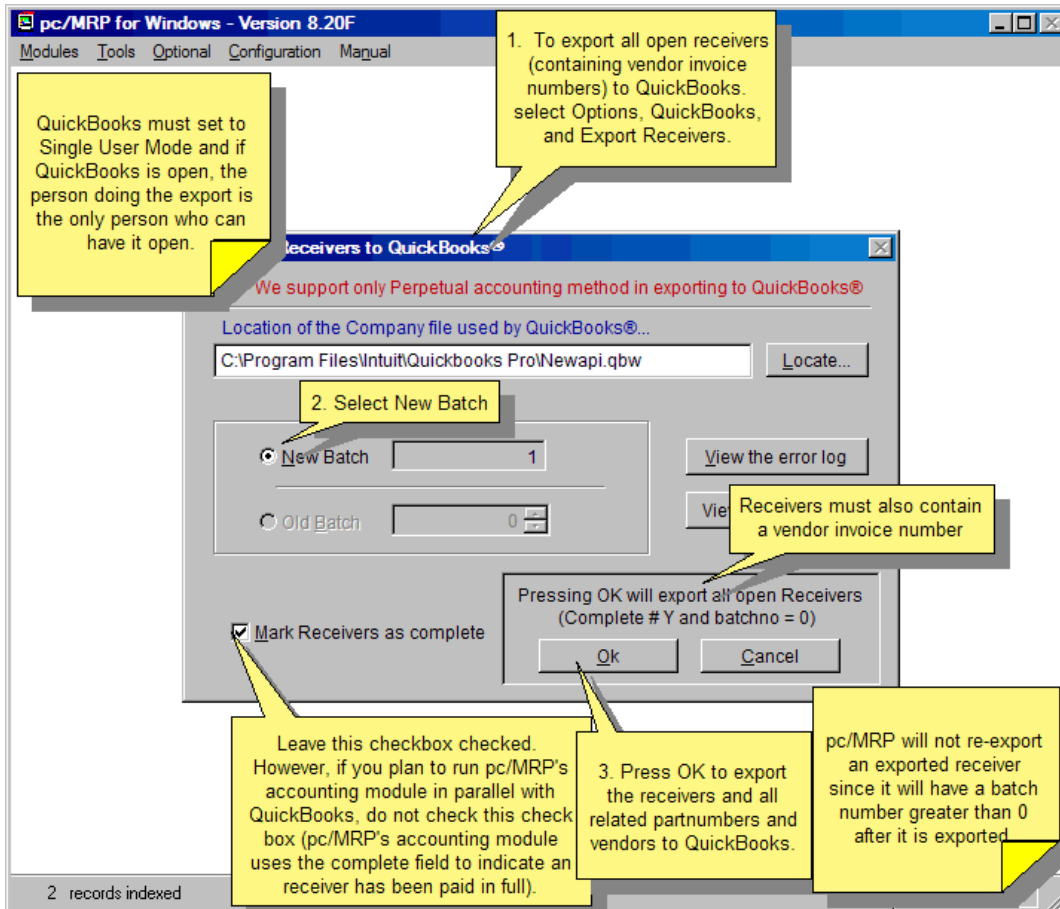
Select New Batch. If you wish to mark every receiver exported as complete, check the "Mark Receivers as complete" checkbox. If you have been running the pc/MRP accounting module and wish to continue to run in parallel with QuickBooks, do not check this check box (pc/MRP accounting uses the complete field to indicate a receiver has been paid in full). If you do run in parallel you must export receivers before you receive payment for them.

Press OK, to export all open pc/MRP receivers. Only receivers that have a batch number of 0 (zero), are not complete (complete ≠ Y) and have a vendor invoice number in at least one line item will be exported. Debit memos and partial payments will not be exported.

Receivers that have a batch number of 0, are not marked complete, and do not have a vendor invoice number in them will be listed as receivers to be exported in a future batch.

pc/MRP receiver numbers will have a prefix of R an will be listed in QuickBooks Memo column. Vendor invoice numbers appear under QuickBooks Number column.

The export will insert all vendors, part numbers, classes, account numbers, etc related to the exported receivers into QuickBooks, if QuickBooks does not contain those items. If QuickBooks contains those items, the export will not update the items.

Component and assembly part numbers will be exported as non-inventory parts (parts classified as inventory parts make strange COGS entries when imported with receivers)
pc/MRP Part numbers marked as Labor will be exported as Service part numbers.

If a part exists in QuickBooks as an inventory part, the first time it is included in an invoice or receiver, pc/MRP will add that part back into QuickBooks as a non-inventory with a suffix of "(MRP)" and its inventory asset account appearing in the part's expense account field.

To re-export a batch you would select Old Batch instead of New Batch. If you select this option, pc/MRP would re-export the receivers that QuickBooks does not have on the basis of vendor name and vendor invoice number.

The following paragraphs describe how pc/MRP exports various received item types:

Outside Labor/Service Items
    Outside Labor/Service Items can be purchased but not sold
    The Asset/Expense account field must be filled in with a QB asset, COGs, or expense account
    Use an inventory asset account for outside labor that is included in your BOMs
    Use a COGs account for outside labor that is not included in your BOMs
    Use an expense account for outside labor not related to BOMs (IT services, etc.)
    Use an equity account for services rendered by an owner of the company
    When Received
    If item does not exist in QuickBooks
        pc/MRP will create an error message if the asset/expense account is empty
        If not empty, pc/MRP will export the item with its asset/expense account
            pc/MRP will use the default operating expense account
    If the item does exist in QuickBooks
        pc/MRP will check the account type in QuickBooks is an asset or expense account
    The item's expense account found in QuickBooks will be debited*
    The default AP account found in pc/MRP will be credited
    If the freight does not equal $0.00
        The default Freight Expense account found in pcmrp will be credited

Non-Inventory Items
    A Non Inventory Item can be purchased and sold
    The Asset/Expense account field must contain a QuickBooks expense account
    The Income account field must contain a QuickBooks income account
    Use an expense account for supplies (office and shop)
    Use an income account for income
    When Received
    If the item does not exist in QuickBooks
        pc/MRP will export the item with its income and expense accounts to QuickBooks
        If the part number of the receiver being exported is NA
            pc/MRP will use the default operating expense account
        If the part number of the receiver being exported is not NA
            pc/MRP will create an error message if the asset/expense account is empty
    If the item does exist in QuickBooks
        pc/MRP will check the account type in QuickBooks is an expense account
    The item's expense account found in QuickBooks will be debited*
    The default AP account found in pc/MRP will be credited
    If the freight does not equal $0.00
        The default Freight Expense account found in pcmrp will be credited

Inventory Part and Assembly Items
> A Part and Assembly Item can be purchased and sold
> The Asset/Expense account field should be filled with a QuickBooks inventory asset account
> The COGs account field should be filled with a QuickBooks COGs account
> The Income account field should be filled with a QuickBooks Income Account
> If any of the above fields are not filled out pc/MRP will use its default QB accounts
> When Received
> If the item does not exist in QuickBooks
> > pc/MRP will export the item with its expense and income accounts to QuickBooks
> > If the accounts are empty, pc/MRP will use the default Inventory and income accounts
> If the item does exist in QuickBooks
> > pc/MRP will check that the expense account in QuickBooks is an asset account
> The item's expense account found in QuickBooks will be debited*
> The default AP account found in pc/MRP will be credited
> If the freight does not equal $0.00
> > The default Freight Expense account found in pcmrp will be credited

* It is important to note, that once QuickBooks has the part, it will debit the expense account found in QuickBooks. Therefore, if you wanted to change the account to be debited when an item is received and that part exists in QuickBooks, you would change the expense account in QuickBooks instead of the expense account in pc/MRP.

** pc/MRP will allow you to insert a COGS type account in a non-inventory part's Asset/Expense field, provided you create a text file named "ALLOWCOGS.FLG" in the pcmrpw directory. The COGS account will be debited when the non-inventory item is received. WE DO NOT RECOMMEND USING THIS OPTION AND BELIEVE IT REPRESENTS POOR ACCOUNTING PRACTICES AT THE LEAST.

Assigning a Chart of Account number to a non-inventory expense item with or without a part number in a Purchase Order.

Solution 1, without a part number:
1. Go to Optional, QuickBooks Export, Set Exporter Default Settings, Set-up Account Names, and select a QuickBooks Chart of Account for Operating Expense.
2. From then on, use 'NA' as a part number in the Purchase Order and edit the description to describe what you are ordering. QuickBooks will create an 'NA' part number in QuickBooks if one does not exist already.

Solution 2, with part numbers:
1. Create a couple of generic part numbers in pc/MRP such as 'Shop Supplies', 'Office Supplies', etc.
2. Edit the new generic part numbers, select the QuickBooks tab, and select the QuickBooks expense account to be debited. Repeat for each generic part number.
3. When using a generic non-inventory part number in a Purchase Order, edit the description to describe what you are ordering.

16.16.5 pc/MRP's Logic

16.16.5.1 Inserting a Part Number into QuickBooks

The diagram below illustrates how pc/MRP exports a part to QuickBooks if that part does not exist in QuickBooks or it exists in QuickBooks as an inventory type part.

Inserting a part from pc/MRP (that doesn't exist in QB**) into QuickBooks (Qb_CreateNewPartItem)
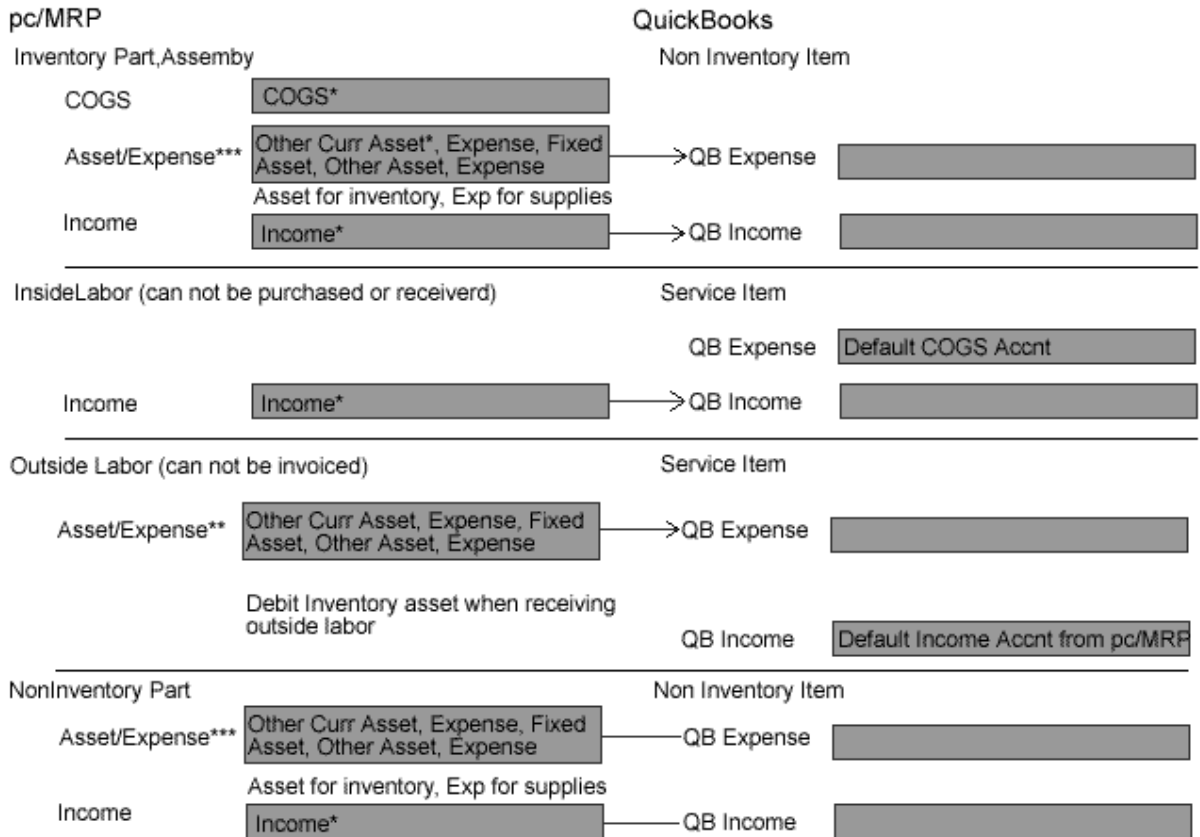
*   If there is no account or an invalid account in the part's account field, pc/MRP will insert a default account number into QuickBooks.
**   If the part exists in QB as an inventory part, but not as a non inventory part, pc/MRP will insert it as a new non-inventory item with an (MRP) suffix attached to the name or the part's parent's name.
*** The Asset/Expense account should contain an asset account if it is an inventory part or an expense account if it is a non inventory part number(office supplies, etc.)

If a NA part number exists in an invoice or receiver that is being exported to QuickBooks, and QuickBooks does not contain a NA part number, pc/MRP will insert the NA partnumber into QuickBooks as a non-inventory item with the default income and expense accounts.

Inserting the Same Part Number into QuickBooks (to overcome QB's item limit)

Currently QuickBooks Pro has a limit of 14,500 total items (parts, vendors, customers, employees, terms, chart of account numbers).   QuickBooks Enterprise expands the limit to 30,000 items.   For this reason, you may want to give the same QB Inventory ID (QbPartID) to all of your pc/MRP part numbers.   Once this part is imported into QuickBooks, QuickBooks will credit its Income Account whenever it's invoiced and debit its expense account whenever it is received as per the following diagrams.

16.16.5.2 Debiting and Crediting Invoice Logic

The diagram below illustrates where pc/MRP's export invoice gets its debits and credits

Debiting, crediting invoice line items from pc/MRP into QuickBooks(QB_InvoicesAdd, QB_Journal Entry)

Inventory Parts, Noninventory Parts, Assemblies, Inside Labor/Service (can be sold):

QuickBooks debits the default AR Account for the amount of the invoice

QuickBooks credits the part's income accnt for the amt-frt-tax-discount *
   pc/MRP checks that the account is an income account (8)

Exporter credits Default Sales Discount Income Accnt for -amt of discount

Exporter credits the Default Sales Tax Liability Account (if single tax) or
credits the Sales Ttax Entity found in pc/MRP's sales tax table (if mult tax)

Exporter credits Default Freight Income Account for the amount of the frt

Inventory Parts and Assemblies

Exporter debits the part's COGS Account or the Default COGS Account
amt = value of componets + (Outside Labor+Inside Labor+Ovr Hd for assys)

Exporter credits the part's Inventory Asset Account or the Default Asset Account
amt = value of componets + (Outside Labor for assemblies)

Exporter credits the Default Gross Wage Expense Account for assemblies
amt = Inside Labor for assemblies

Exporter credits the Default OverheadExpense Account for assemblies
amt = Overhead % x Inside Labor

QuickBook Item Accounts
   If Purchase and Sale
      Expense Account
      Income Account
   If Purchase or Sale
      Account Name

pc/MRP Default Accounts
   Accounts Receivable
   Sales Discount
   Sales Tax Liability
   Freight Income
   Cost of Goods Sold
   Inventory Asset
   Gross Wage Expense
   Overhead Expense

pc/MRP Parts Accounts
   Cost of Goods Sold
   Asset/Expense Account
   Income Account

* QuickBooks automatically performs this operation on its own.

If an NA Part Number does not exist in QuickBooks, it will be automatically inserted into QuickBooks. The Default AR Account will be debited and the Default Income Account will be credited.

pc/MRP's Invoice Date (DateShip) will be carried into QuickBooks Invoice Date

16.16.5.3 Debiting and Crediting Receiver Logic

The diagram below illustrates where pc/MRP's export receiver gets its debits and credits.

Debiting, crediting receiver line items exported from pc/MRP into QuickBooks(QB_BillsAdd)

Inventory Parts, Noninventory Parts, Assemblies, Outside Labor/Service (can be purchased):

QuickBooks debits the part's Expense Account for amt of receiver - frt *
pc/MRP checks the acct is an expense(6) or Oth Cur Asset(11) Accnt **

Exporter debits the Default Feight Expense Account for the amount of the frt

QuickBooks credits the default AP Account for the amount of the receiver *

QuickBook Item Accounts
   If Purchase and Sale
      Expense Account
      Income Account
   If Purchase or Sale
      Account Name

pc/MRP Default Accounts
   Accounts Receivable
   Sales Discount
   Sales Tax Liability
   Freight Income
   Cost of Goods Sold
   Inventory Asset
   Gross Wage Expense
   Overhead Expense
   Freight Expense
   Accounts Payable

pc/MRP Parts Accounts
   Cost of Goods Sold
   Asset/Expense Account
   Income Account

* QuickBooks automatically performs this operation on its own.

pc/MRP's function QB_ReceiversValidate performs this check.

If an NA Part Number does not exist in QuickBooks, it will be automatically inserted into QuickBooks with the Default Operating Expense Account inserted into the QB Parts Expense Account. QuickBooks will debit the accnt in its expense account and credit the default AP Account.

16.16.5.4 Exporting Invoices to QuickBooks Pseudo Code

The following pseudo code describes how pc/MPR exports invoices to QuickBooks. Credit Card logic is shaded. QuickBooks Module activation sets Invoice.BatchNo to -1 for Complete = Y and BatchNo = 0. This keeps pc/MRP from exporting over invoices that have been marked as complete and have CreditCard in the CheckNo field (this is historical data and should not be exported to QB.

Function QB_Export
Creates a CreditProvider Object
Calls QB_BuildPcmrpCursors()
Calls QB_InvoicesValidate()
Calls QB_CreditCardExclude()
Calls QB_InvoicesAdd()
If SchedulerInProcess()
  Calls QB_ReportGenerate()

Function QB_BuildPcmrpCursors()
If exporting invoices
  Creates an ExportCursor with all invoices whose Batchno=0, not deleted, not complete, not a CM
  If Option 98, Credit Card Integration is enabled (Version 8.56K and higher)
    Include invoice that were charged and complete, BatchNo = 0 AND CheckNo = "CreditCard"
  Creates a cursor, CcExclude, to contain invoice numbers that have not been processed (approved).

Function QB_InvoicesValidate()
Scan the Invoice records in the ExportCursor
  If Option 98 Credit Card Enabled and references a credit card and credit card was not charged
    Insert the invoice into the CcExclude cursor
  Case the part number = "NA" and an item named "NA" does not exist in QuickBooks
    Add an NA non-inv item to QuickBooks with the default expense and income accounts
  Case the part number exists in QuickBooks and is an Inventory Item
   Qb_CreateNewPartItem() Adds part number to QB, see Qb_CreateNewPartItem section
  Case the part exists in QuickBooks and the QuickBooks Account Type is not an income account
    If we are adding the part to QuickBooks for the first time
      (Invoice# Item#) The pc/MRP part (Partno) does not credit an Income type account
    If we are not adding the part to QuickBooks
      (Invoice# Item#)The QuickBooks part(Partmast.QbPartId)does not credit an Income acct
  Case the part exists in QuickBooks and the QuickBooks Expense Account is not active
    (Invoice# Item#)The QuickBooks acct (QbParts.IncomeAccnt) has been marked as inactive in QB
  Case the part number does not exist in QuickBooks
   Qb_CreateNewPartItem() Adds the part number to QB, see Qb_CreateNewPartItem section.

Function QB_CreditCardExclude()QB_CreditCardExclude
Excludes Invoices found in ccExclude cursor by setting pcmrp_header.DupSkip to .T.

Function QB_InvoicesAdd()
Debits the default Accounts Receivable Account for the full amount of the invoice
Credits the parts income account found in QuickBooks
If you collect sales tax and the sales tax ≠ 0, credits the default sales tax liability acct for the amt of the tax
If the discount ≠ 0, credits the default sales discount account for the amount of the discount
If the freight ≠ 0, credits the default freight income account for the amount of the freight
Function QB_ReportGenerate()
Creates a CcExclude cursor if it doesn't already exist.
If Option 98, Credit Card Enabled
  Alters the query expression to (Complete ≠ Y OR CheckNo = "CreditCard")
Set relation into the CcExclude Cursor
If Option 98, Credit Card Enabled

If the part is not an NA part and it is an inventory part or assembly
    QB_JournalEntryAddCOGS() Credit COGS,debit inventory, labor,overhead using default accts.

Note: pc/MRP gets the inventory and COGs sold dollar amount from the partmaster. Option 35 determines if the average or standard cost is sent to QuickBooks.

16.16.5.5 Exporting Receivers to QuickBooks Pseudo Code

The following pseudo code describes how pc/MPR exports receivers to QuickBooks. The error messages are displayed in the same text as this sentence.

Function QB_BuildPcmrpCursors()
If exporting receivers
  Creates an ExportCursor with all receivers whose Batchno=0, not deleted, not complete, not a DM and
  contains a vendor invoice number

Function QB_ReceiversValidate()
Scan the Invoice records in the ExportCursor
Case the part number = "NA" and an item named "NA" does not exist in QuickBooks
   Add an NA non-inv item to QuickBooks with the default expense and income accounts
Case the part number exists in QuickBooks and is an Inventory Item
   Qb_CreateNewPartItem() Adds the part number to QuickBooks, see Qb_CreateNewPartItem section
Case the part exists in QuickBooks and the QuickBooks Account Type is not an Expense or Asset Acct
   If we are adding the part to QuickBooks for the first time
     (Receive# Item#) The pc/MRP part(Partno) does not expense an Asset or Expense acct
   If we are not adding the part to QuickBooks
     (Receive# Item#) The QuickBooks part(Partno) does not expense an Asset or Exp acct
Case the part exists in QuickBooks and the QuickBooks Expense Account is not active
     (Receive# Item#)The QuickBooks acct (QbParts.ExpenseAccnt) has been marked as inactive in QB
Case the part number does not exist in QuickBooks
   Qb_CreateNewPartItem() Adds the part number to QuickBooks, see Qb_CreateNewPartItem section

Function QB_BillsAdd()
Credits the default Accounts Payable Account for the full amount of the receiver
Debits the part's expense account or account name account found in QuickBooks
If the freight ≠ 0, debits the default freight expense account for the amount of the freight

16.16.5.6 Exporting Parts to QuickBooks Pseudo Code - Qb_CreateNewPartItem()

The following pseudo code describes how pc/MPR exports parts to QuickBooks. The error messages are displayed in the same text as this sentence.

Function Qb_CreateNewPartItem()
If part is a labor part (Partmast.Part_assy = "L")
   QuickBooks Item Type = "Service" (lcItemType = "Service")
   If it is Outside Labor part (PartMast.Outsource = .T.)
      QuickBooks Expense Account = the part's pc/MRP's Asset/Expense account
   If it is an Inside Labor part (Partmast.Outsource = .F.)
      If the part's pc/MRP's Asset/Expense Account is empty
         QuickBooks Expense Account = pc/MRP's default COGs Account
      If the part's pc/MRP's Asset/Expense Account is not empty
         QuickBooks Expense Account = the part's pc/MRP's COGs Account
If the part is a part or assembly
   QuickBooks Item Type = "Non Inventory" (lcItemType = "Non Inventory")
   If the part is a Non Inventory part in pc/MRP (Part_Assy = "P" AND OutSource = .T.)
      QuickBooks Expense Account = the part's pc/MRP's Asset/Expense account
   If the part is an Inventory Part or an Assembly
      If the part's pc/MRP's Asset/Expense Account is empty
         QuickBooks Expense Account = pc/MRP's default Inventory Asset Account
      If the part's pc/MRP's Asset/Expense Account is not empty
         QuickBooks Expense Account = the part's pc/MRP's Asset/Exp Account
If the parts pc/MRP QB Income Account is empty
   QuickBooks Income Account = pc/MRP's default Income Account
If the parts pc/MRP QB Income Account is not empty
   QuickBooks Income Account = the part's pc/MRP's Income Account
Select QbAccounts and check the above accounts
Case the parts pc/MRP Asset/Exp account is empty
   If it is a labor part
   Partno is an outside labor item that cannot be exported to QuickBooks because it does not have an asset/expense account set in inventory.
   If it is a non-labor part
   Partno is a non-inventory part that cannot be exported to QuickBooks because it does not have an asset/expense account set in inventory
Case the expense account not found in QuickBooks:
   Partno: (Partno) references an asset/expense account (lcExpense) that does not exist in QuickBooks.
Case the expense account is not active in QuickBooks
   Partno: (Partno) references an account (lcExpense) that exists in QuickBooks but is not active
Case the income account is not found in QuickBooks
   PartNo: (Partno) references an account (lcIncome) that does not exist in QuickBooks.
Case the expense account is empty
   PartNo: (ExportCursor.Partno) does not reference a valid asset/expense account.

16.16.5.7 QuickBooks Tab on the Partmaster Screen Pseudo Code -

pc/MRP Version 8.15A and higher no longer query QuickBooks for a list of accounts from QuickBooks every time you click on pc/MRP's Inventory Module's QuickBooks Tab. Instead it uses a permanent copy of QuickBooks Chart of Accounts named QbAccountsDbf.dbf that is created whenever it does not exist; invoices are exported to QuickBooks, receivers are exported to QuickBooks, or pc/MRP's Default Chart of Account Settings are accessed.

Advantages creating a dbf file for the partmaster screen
    Faster, no need to establish a connection to QB
    Computers without a copy of QuickBooks can access QB Account Info
Advantages of continuing to use cursors in all other instances
    No concurrency issues

Partmaster screen QuickBooks() (Code for cached copy of QB parts and accounts in yellow)
    PartScr.Page6.Activate()
    IF !USED("QbAccounts")
        IF(!FILE2("QbAccountsDbf.dbf") OR !FILE2("QbPartsDbf.dbf"))
            QbAccountsPopulate()
            QbPartsPopulate()
        ELSE
            Create QbParts cursor and QbAccounts cursor from dbfs
            Creates AcctType Index for QbAccounts cursor
        ENDIF
    ENDIF
        QbAccountsCombobox.Vcx
            LoadList()
            Select QbAccount
            Set Order to AcctType
        PartScr.Release()
        Closes QbAccounts and QbParts

QbAccountsPopulate():
    If QbAccounts is not used
        Create a new QbAccounts Cursor
    If this function is called by Qb_Export()
        Create a new QbAccountDbf.dbf file
    Closes QbAcccountsDbf

QbPartsPopulate()
    If QbParts is not used
        Create a new QbParts Cursor
    If this function is called by Qb_Export()
        Create a new QbPartsDbf.dbf file
    Closes QbPartsDbf

16.16.6 Troubleshooting

Creating response and request logs (when asked to by Software Arts, Inc.)

pc/MRP can create an XML event log if a blank file is created with Notepad exists in the pcmrpw directory with the same name as the function that produced the error. To fill the request logfile, give the file a .txt extension. To fill a response logfile, give the file an extension of .xml (available in version 7.90e and higher). The following is a list of functions that can fill a response or request log:

        QB_AccountsPopulate
        QB_BillsAdd
        QB_ClassesPopulate
        QB_CustomersPopulate
        QB_DuplicateDetect
        QB_EmployeesPopulate
        QB_EXPORT
        QB_HostQuery
        QB_InvoicesAdd
        QB_OtherNamesPopulate
        QB_SalesTaxCodesPopulate
        QB_ShipMethodsPopulate
        QB_TermsPopulate
        QB_VendorsPopulate

The command to render the .txt or .xml in indented XML would be entered into the command line as follows:

        STRTOFILE(INDENTXML(FILETOSTR("qb_export.txt")),"qb_export.txt")

16.16.6.1 QuickBooks did not contain the invoice, receiver or general ledger entry.

The invoice, receiver or GL entry was valued at $0.00.

16.16.6.2 Member FullName did not evaluate to an object

An item such as a preferred vendor or sale tax code for the part was deleted; however, the part kept the link to the vendor (QuickBooks does not display the link field). Simply add a preferred vendor or sale tax code to the part or update to the latest version of pc/MRP.

16.16.6.3 Multiple users cannot log into QuickBooks

1. Make sure you are in multi-user mode (select File and switch to multi-user mode).
2. Everybody, including pc/MRP, must login with a unique user name. Check user names: Select Company, Set-up Users.
3. Un-select Automatic Update by selecting, File, Update Quickbooks, Options.

16.16.6.4 List element is already in use.

Pc/MRP is trying to export an element (term, discount, item, customer, or vendor) that already exists in QuickBooks. If it is the same element type QuickBooks has and that element is marked as in-active. Edit that list and check the "Show All" checkbox. Change the name of the element or mark it as Active. If it is in another list, change either the QuickBooks or pc/MRP name.

16.16.6.5 The vendor invoice numbers on the receivers listed here already exist in QuickBooks and cannot be exported.

The vendor invoice numbers on receivers should be unique for each vendor from batch to batch (different vendors may have the same invoice number).

16.16.6.6 Address exceeds 5-lines of 41-characters per line.

If necessary (first 4 lines of address are full), QuickBooks will attempt to put the city, state, zip, and county into the 5th line. These 4 fields with the spaces and commas that QuickBooks adds cannot exceed 41-characters.

16.16.6.7 Bills due date not incrementing properly.

pc/MRP sends over 'NET 30' as one of its items to get it to increment properly in QuickBooks. Select 'Lists', Customer Vendor Profile, Terms, double-click on 'NET 30', and set the net due to 30.

16.16.6.8 Error QB foundation class library not found.

If QBFC2 is installed, remove it by going to the Windows Control Panel, selecting Add or Remove programs. Once it is removed, re-install it within pc/MRP by selecting Optional, QuickBooks Default Settings or run qbfc2installer.exe in the pcmrpw directory. If all else fails, double-click on C:\Program Files\Intuit\QuickBooks Premier\re-boot.bat (your QuickBooks directory may be different).

16.16.6.9 Error exporting receiver, duplicate invoice number in QB.

pc/MRP export to QuickBooks allows one Vendor Invoice nbr for one Receiver nbr.
Two scenarios may crop up:
- Multiple invoice numbers for a multiple line receiver requires you to find the last receiver number (Modules, Receiver, Edit/View, scroll to bottom of list), add one to it and modify the receiver number and line number of the line item in question. Option 74 must be set to allow modifying the Receiver number.
- Multiple receiver numbers for an invoice in the same batch requires you do #1 above and append a suffix, e.g. 'B', to the Vendor Invoice number of the receiver.

16.16.6.10 The QuickBooks Application has refused to allow access because the specified QuickBooks company file is already in use by another user.

- Start QuickBooks, select File and Switch to Single User Mode, then re-connect try the export again.
- pc/MRP stores the QBW path and name in a mapped drive or UNC mapped format and QuickBooks 'F2' function will show the QBW location in either mapped drive or UNC mapping format. Both locations must be the same. We recommend using the UNC drive format.

16.16.11 Error accessing QuickBooks. The QuickBooks application could not be started and may be damaged.

- If you have a Windows Vista computer, the User Account Control must be set ON. Click on the Start Button, Control Panel, User Accounts, and Turn User Account control On or Off to change this setting.
- Right-click on the pc/MRP desktop shortcut, select properties and ensure that the target and startup fields use UNC locations and not mapped drive locations. UNC locations are established by going through "Network" or "My Network Places" and not mapped drives.

16.16.6.12 The pc/MRP application has not accessed this QuickBooks company data file before.

Follow the instructions in this Manual regarding initializing a connection to a QuickBooks file (16.16.2.7). You may have to remove pc/mrp from QB's integrated apps and reconnect pc/mrp.

16.16.6.13 QBFC2 cannot be removed because it is not listed in the ADD/REMOVE program list, yet pc/MRP will not re-install QBFC@ when selecting Optional, QuickBooks, and Default Settings.

Click on the Windows Start button, select Run, enter 'REGEDIT ', select Menu Item EDIT, select FIND, enter QBFC2, only check the 'Keys' checkbox, click the NEXT button. Select the QBFC2.QBSessionManager, Select

Menu Item File, Export, select a folder and give it a name to export the reg information (if something goes wrong, you can just double-click the reg file to merge it back into the registry). Rename the' QBFC2.QBSessionManager' to 'xQBFC2.QBSessionManager'. Please note that there may be a 'QBFC2.QBSessionManager.1' and this must be exported and renamed as well. Exit the Regedit program and run pc/MRP. Select Optional Modules, QuickBooks Export, Default Settings an pc/MRP will re-install the correct QBFC2 program.

16.16.6.14 Starting QuickBooks gives the following error message: "You must log into Windows as a user with administrative privileges (error code (-6098,5).

Your copy of QuickBooks is not registered as Multi-user. With QuickBooks open, click on menu item Help, Support, and contact Intuit support..

16.16.6.15 QuickBooks Export Log (quickbooksexport.log) and / or QuickBooks Export Error Log (exportqberror.log) does not display.

This happens if the '.log' files are not associated with MS Notepad. To associate '.log' files with MS Notepad.
1. use Windows Explorer,
2. right-click on one of the '.log' files,
3. select Properties,
4. select Change,
5. select Notepad,
6. select OK.

16.16.6.16 Error extracting information from the external accounting application.

- Validate the QBW file. In QuickBooks, File, Utilities, Validate.
- Remove the QBFC2 in Windows Control Panel, Add/Remove Programs. Let pc/MRP re-install it by selecting Optional, QuickBooks, Default Settings.
- QBPartsdbf.dbf is corrupt. Use Windows Explorer to delete this file in the pcmrpw directory and run the export again.

16.16.6.17 Export Anomaly, the Export was unable to update the cache file.

QBPartsdbf.dbf or QBAccountsdbf.dbf could be locked or corrupt. Delete these two files in the pcmrpw directory. They will be re-created the next time an export is performed.
If you are on pc/MRP versions 8.40AA or AB, call software Arts and update to pc/MRP version 8.40AC or higher. Versions 8.43 to 8.47, update to pc/MRP version 8.50 or higher.

16.16.6.18 Invalid characters were detected in the pc/MRP data as described below.

- This error occurs when pc/MRP is validating new parts (QBPARTS), Addresses (QBADDRESSES), and divisions (QBCLASSES) to be added to QuickBooks from pc/MRP. You will find that the field in the error message contains an illegal character, which could include a 'carriage return'. Simply edit the part's partnumber, address, or division **in pc/MRP** to delete the illegal character.

- If the error message lists the DESCRIPTION field, hard carriage returns were entered into QuickBooks' Part Descriptions and were imported into pc/MRP. If so, you can remove the carriage returns by entering the following commands at pc/MRP's Command Line screen:
  USE PARTMAST
  REPLACE ALL DESCRIPT WITH CHRTRAN(DESCRIPT,CHR(10)," ")
  USE RECEIVE
  REPLACE ALL DESCRIPT WITH CHRTRAN(DESCRIPT,CHR(10)," ")
  USE INVOICE
  REPLACE ALL DESCRIPT WITH CHRTRAN(DESCRIPT,CHR(10)," ")

16.16.6.19 Unable to switch to single-user mode in QuickBooks.

Files on the server may be locked and/or not able to release a link between applications. QuickBooks support suggests re-booting the server.

16.16.6.20 The QuickBooks application can not be started and may be damaged.

Validate the QBW file in QuickBooks:
While in QuickBooks, select File, Utilities, and Validate.

16.16.6.21 PackageFromTheWeb Error Message

If you get this error message the QBFC2.exe file has been corrupt (most likely by a virus). Call Software Arts, Inc and allow them to transfer qbfc2installer.exe to your pcmrp directory and double click on it to install a new QBFC2.exe file. If you can not delete the original qbfc2installer, you may need to rename it to qbfc2installer2.exe and double click on it.

16.16.6.1000 Warning, Response Status Code = 1000

This error message displays when exporting to QuickBooks or selecting the QuickBooks tab in the Address Book module.
- Reboot the computer that pc/MRP and QuickBooks is installed on.
- Call QuickBooks's support representative at 1-888-859-4056 and request the technical support person to process the Microsoft.Net Removal Fix procedures. (Microsoft.Net and QuickBooks need to be removed and re-installed) See solution at:
  http://support.quickbooks.intuit.com/support/pages/knowledgebasearticle/1008898.

16.16.6.1924 LO Response is not an object (error 1924)

You do not have QuickBooks set to allow pc/MRP to login. Repeat step 7 (16.16.2.7).

16.16.6.1426 or 1429 OLE error

- Occurs after a un-install and re-install of QB or a QB upgrade.
    1. Must un-install QBFC2 via the Windows Control Panel, Add or Remove Programs.
    2. Run QBFCInstaller.exe from the pcmrpw directory. Or, restart pc/MRP, select Optional, QuickBooks, Default Settings and allow pc/MRP to re-install QBFC2
- If it is none of the reasons shown below be sure to note the name of the .fxp file, the line number and message prior to calling Software Arts
- Credit limit exceeds Quickbooks credit limit. Update to latest revision for your version of pc/MRP.
- If the error message says 'String too long', the phone number in pc/MRP exceeds 21 characters. If you have an extension for the phone number, the phone number **and** the extension must not exceed 19 characters as a space and a 'x' are inserted. This is a limitation for the QuickBooks interface only. Do a Controll-F12 while the error message is displayed to find the address book id for the phone number to fix.
- Trying to export a receiver or invoice into QuickBooks whose date is prior to the QuickBooks close date found in Preferences, Accounting, and Company Preferences.
- Receiver contains a quantity of 0.
- Quickbooks Administrator is already logged into pc/MRP and pc/MRP is trying to log in as the Administrator.
- If error occurs when testing the QB connection and all else fails, remove the pcmrp connection from QB and set up the connection again as per 16.16.2.6 and 16.16.2.7.
- If the error message includes the words Idispatch qbxml ole the .qbw file may be corrupt. Call QuickBooks Technical Support to verify your qbw file.   If you have a qbwin.log in the QuickBooks directory, rename it. Start QuickBooks, select File, Backup, select Verify. When the backup and verify option is done, Press Control 1, Press Control 2, select the Open File Tab, open the qbwin.log file.   See if you have any broken links such as an invoice whose customer was deleted.   If you receive a message that the verification has failed (The Verify Data Utility returns a b-check error), select Utilities and Rebuild.
- Error connecting to QuickBooks with a Vista computer. Go into the Computer's Control Panel, select Users, turn the User Account Controls ON and re-boot the computer.
- If the error message includes the words "QB_SubmitRequest" and you are at Step 2 of 26, press Ctl-F12, search for invoice or receiver number and look at that document for any non-ASCII characters such as boxes, smiley faces, etc. Delete those characters and re-export.
- If the error message involves QB_CustomersPopulate, and contains the words "unexpected agg tag",
    1) The .QBW file's Sale Tax Code no longer functions due to the 2009-R7 QB patch. You can no longer add a new customer. The fix is to:
        a. Start QB, select Vendors, Sales Tax, Manage Sales Tax.
        b. Add a new taxable Sales Tax Code
        c. Add a new non-taxable Sales Tax code.
        d. Delete both of the new codes you just entered.
        e. The problem will have now resolved itself.
    2) There are foreign characters in the QB customer address. Export the QB customers to Excel or to an IIF file (cust.iif). Call Software Arts.
        The allowable ASCII characters for the Addresses, Part numbers, Phone numbers, and Description fields are:
        upper & lowercase alpha 65(A)-90(Z), 97(a)-122(z), numeric 0-9,
        and these special characters:
        ,./<>?;':()[]{}-=_+!@#$%^&*"
        The IIF file can be mined for special characters by using the Developer Menu Toolbox, File Tools, Character Counter, Find Characters by line and output the identified lines to a separate file. Now you can delete the foreign characters in QB customer records.
- If the error message involves QB_duplicatedetect, check the 'qbsdklog.txt' file. Verify the QBW file by selecting File, Utilities, and Verify. If the file is corrupt, contact Intuit for help re-building and / or achieving your QBW file.
- If the error message includes the words "Class VendorRef got unexpected agg tag id-1()…", and you have QB 2009 R3 or higher (*press F2 to get the version release information screen*), one or more vendors has accounts prefilled that must be cleared.

- If the error message includes the words "QB_EmployeesPopulate…classEmployeePayrollInfo got unexpected tag id -1 ()…", and you have QB 2008 R6 or higher (*press F2 to get the version release information screen*), in QuickBooks, select Edit, Preferences, "Integrated Applications", "Company Preferences" tab, delete the first connection to pc/MRP, select the second pc/MRP connection, click the "Properties" button, and uncheck the "Include Social Security Number" checkbox. Click "OK" twice.
- If the error message indicates an invalid Certificate or invalid Digital Signature, the pcmrp.exe file is corrupt (most likely by a virus). To check this, use Windows Explorer and right click to on the pc/MRP.exe file. Select Properties, select Digital Signature. Update to the latest revision or version of pc/MRP or replace the pcmrp.exe file from a back-up.
- If you are exporting invoices or receivers and are at step 25, and the error message includes the words 'OLE Dispatch' and 'qb submit request', create a file named **qb_invoicesadd.txt** or **qb_billsadd.txt** in the pcmrpw directory, export invoices again, open up the 'txt' file and look for the bad characters causing the problem. pc/MRP versions 8.50R and higher, 853E and higher will display the problem invoice or receiver number and the 'txt' file will automatically contain the bad characters.
- If the error message says "OLE IDispatch exception code 0 from QBFC2.QBSessionManager.1: qbXML components have not been installed..." (also see 16.16.6.1928):
  1. Try to reinstall and reinstall the QBFC2 file according to the first bullet in this section. If that doesn't help
  2. Try to find any .TLG files in the C:\users\public\public documents\intuit\quickbooks\company files folder and rename them to have an .XXX extension. If this does not help
  3. You might need to uninstall then reinstall QuickBooks. Select Control Panel, and start uninstalling QuickBooks. If it offers to "repair" or "uninstall", try repair first.

16.16.6.1928 QBFC…

- If the message contains: QBFC… The ticket parameter is invalid and you need to re-boot the computer. If that still does not work, back up the QBW file, then run the Utility Option, Re-build.

16.16.6.1943 Member Account does not evaluate to an object

- QuickBooks has a blank partnumber in a one of it's BOM structures. Update to pc/MRP version 8.30E or higher.
- Error message states vendor reference does not evaluate to an object. Press **Ctl-F12** and see what 'lcitem' has as a 'Bill Number' in QB. Vendor name may be missing or invalid. You must add the vender to the 'Bill' in QuickBooks.
- Error message states Member does not evaluate to an object, Verify the QuickBooks Data.

16.16.6.3090 Error 3090 Names in this list cannot contain a colon.

Delete the colon (:) in the QuickBooks Vendor and / or QuickBooks Customer fields on the QuickBooks tab of the Address Book.

16.16.6.3100 Error 3100 Name already exists as a different list item

The vendor name, customer name, or partnumber name used in a pc/MRP Invoice or Receiver that you are trying to export into QuickBooks already exists in QuickBooks in a list (Item, Vendor, Customer) other than the list pc/MRP is trying to import it into. For example, you cannot export a part with a QuickBooks part id of 'DELL Computer' if QuickBooks already contains a vendor address with the name 'DELL Computer'. It could also be marked as in-active in QuickBooks.

16.16.6.3140 Error 3140 There is an invalid reference to a QB account.

Save and / or print out the XML error message and call Software Arts. The contents of the name field may exist in a list other than the list pc/MRP is expecting.

16.16.7   Special Cases

16.7.1 Entering Customer Deposits in QuickBooks

Start QuickBooks, select Customer, select Receive Payments, and select a specific Customer. Enter the deposit amount. Do not apply the payment to an invoice. When the invoice is exported over to QuickBooks, apply the deposit. You must create a custom invoice template that displays amount paid and balance due by selecting Invoice, Customize, New, Footer, and check Payments and Balance Due.

16.7.2 Entering Purchase Deposits in QuickBooks

Step 1 In QB, create a Purchase Deposit chart of account
Type = Other Current Asset

Step 2 In pc/MRP, create a Purchase Deposit Part Number
Type = Non Inventory
QuickBooks Tab Asset/Expense Account = Purchase Deposit

From then on, whenever you need to include a deposit on a purchase order

In pc/MRP

Purchasing:
1. Make a purchase order line item one contains the part number, qty and unit cost.
2. Add a second line item for a positive qty of 1 and a negative dollar amount of the deposit
3. Add a third line item for a positive qty of 1 and positive dollar amount for the deposit

Accounting:
4. Accounting will receive the third line item (Modules, Receive, New, select 3rd line item) and enter unique vendor invoice number
5. Accounting will export the 3rd line item to QB as a Bill
6. Accounting will cut the check in QB for the deposit

Receiving:
7. Receiving will receive line items 1 and 2

Accounting:
8. Accounting will add the vendor invoice number to the receiver and export it to QB as a bill
9. Accounting will cut a second check in QB for the amount of the goods minus the deposit.

16.17 Corporate Enterprise Reporting Module

16.17.1   Overview

The Corporate Reporting Module allows companies to:

- Select one of three methods to have their parts list and BOMs automatically synchronized (including all indexes) across the world in real time.
- Switch from one division to another by selecting that division from the drop down menu.
- Print out consolidated financial reports for all divisions, business units, and the entire corporation. Currencies are automatically reconciled if pc/MRP's Alternate Currency Module is active.

The consolidated reports include:

- Profit and Loss (current period and YTD with variance to budget for current period and YTD for all divisions)
- YTD Expense and Revenue (current period and YTD with variance to budget for current period and YTD for all divisions)
- Trial Balance (current month and YTD for all reporting divisions)
- Balance Sheet (for all reporting divisions)
- General Ledger (for the period for all reporting divisions)
- GL Transactions (for the period for all reporting divisions)

An online slideshow is located here: http://www.pcmrp.com/mrp101/corporateoverview.htm

Select Configuration, Module Activation, and then Corporate Reporting Module from the menu.   To **activate** this module, select Configuration, Module Activation, and Corporate Reporting. Then select "Free 10 day trial" or "Full activation" and enter the activation code number supplied by Software Arts.

Only the Corporate Headquarters' copy of pc/MRP is activated. The divisional copies of pc/MRP do not need to activate the Corporate Reporting Module.

To set your **default Corporate Enterprise default settings**, select Optional, Corporate Reporting, and Settings.

16.17.2   Setup

Step 1. Creating Business Units
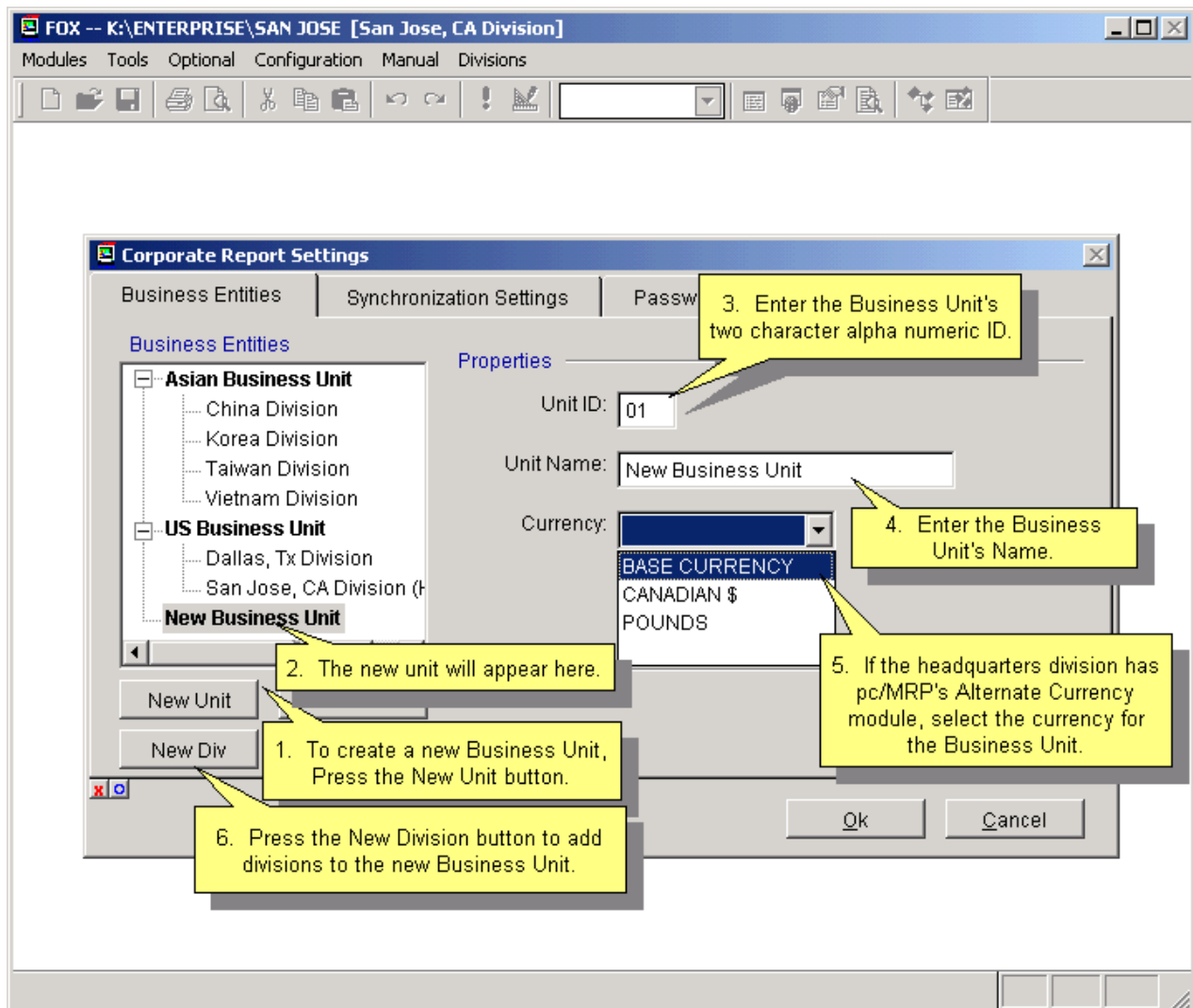
A company <u>must create one or more</u> Business Units. Business Unit(s) report to the entire corporation.   Divisions report to the Business Unit(s).

To enter a new Business Unit, click on the "New Unit" button.   Enter the two-character Unit ID field and the Business Unit Name.   If the Headquarters Division has pc/MRP's Alternate Currency Module, select the currency for the new Business Unit. The Base Currency is the currency used by the Headquarters division. The 2-character Unit ID field must be unique among both Divisions and Business Units.

To remove a Business Unit, select the Business Unit and then click on the "Remove Unit" button. All Divisions reporting to that Business unit will be removed as well.

Step 2, Creating Divisions
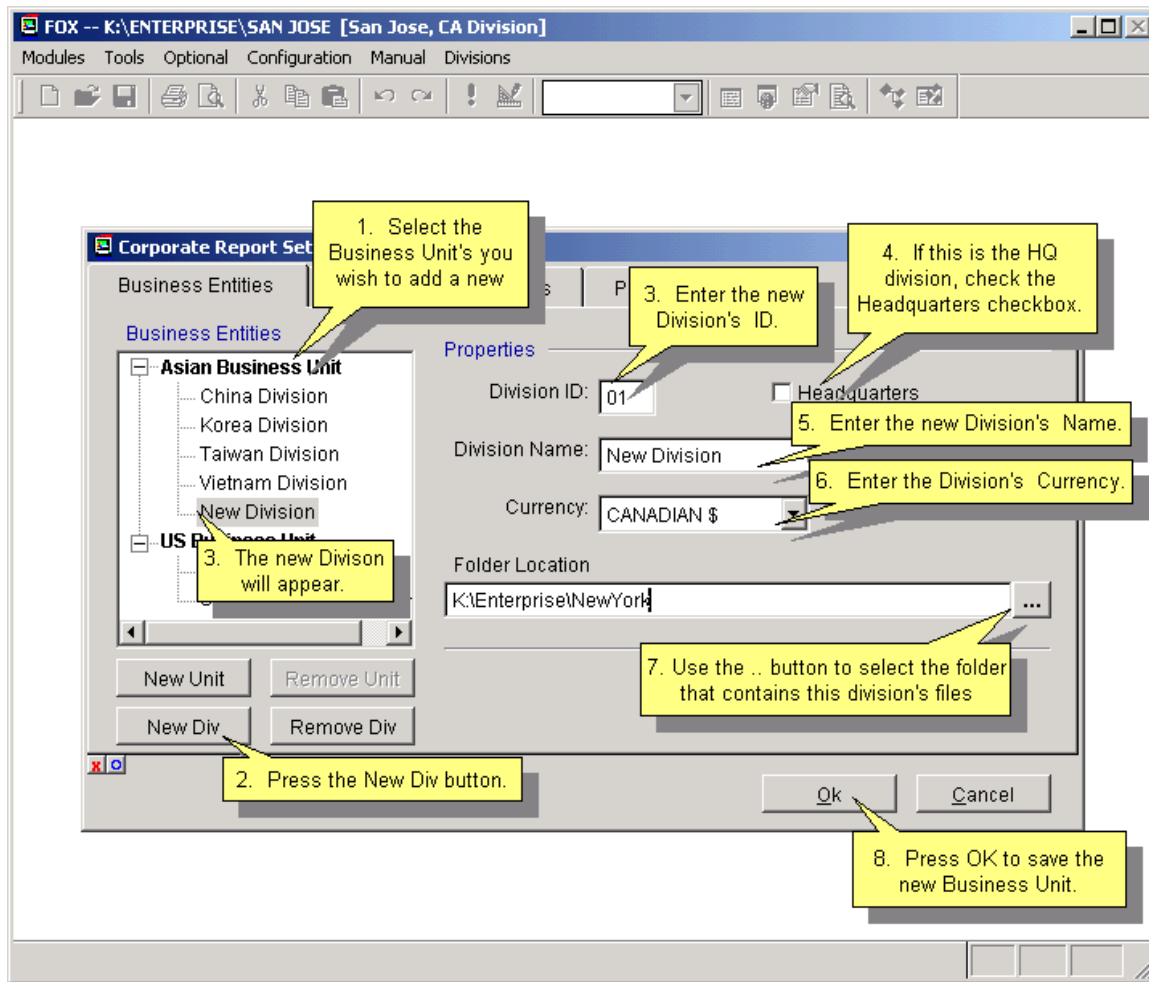
Divisions report to Business Units.   One division must be checked as the Headquarters Division.   This division is the only division that will contain an active Corporate Report Module.   This division must exist in the current default directory when it is created.

To enter a new Division, click on a Business Unit and then click on the New Division button.   Enter the 2-character Division ID field and the Division Name.   The 2-character Unit ID field must be unique among both Divisions and Business Units.

You can scroll through your network to get a UNC path or a mapped drive to get a drive path to the folder containing the division's pc/MRP files.   The UNC path is preferable because not all computers may have similar mapped drives.

If the Headquarters Division has pc/MRP's Alternate Currency Module, select the currency for that division.   The Headquarters Division must select "Base Currency".   If other divisions work in the same currency as the Headquarters Division, you must select "Base Currency" as their currency.

You cannot create more divisions that you are licensed for. To increase your division license count you must call Software Arts to purchase an additional copy of pc/MRP and an additional enterprise license.   Software Arts will give you a new activation code number.   You can then increase your division count by following one of the two methods below:

Method 1 -   Open the HQ division. Select Configuration, Module Activation, select Corporate Report module, and select Deactivate.   Then reactivate the Corporate Report module with your new activation code number by selecting Configuration, Module Activation, Corporate Report, Activate, and enter your new activation code number.

Method 2 -   Open the HQ division. Select Optional, Corporate Reporting, and Settings, Select the HQ division, double click on the word Properties, and enter your new activation code number.

Top get the activation code, Software Arts personnel must set the Seat Count to the total number of divisions and check the Corporate Reporting checkbox.

If none of your divisions use alternate currency, there is no need to purchase pc/MRP's Alternate Currency Module.

If one or more of the divisions use a different currency than the HQ division, the HQ division should purchase pc/MRP's Alternate Currency module. The HQ division and all divisions using the same currency as the HQ division must be set to Base Currency.   Divisions using alternate currency must be set to that currency.   These alternate currency divisions do not need to purchase pc/MRP's base currency module, unless they have vendors and or customers that use alternate currencies.   The alternate currency divisions would always set their own currency as their base currency in their own copy of pc/MRP's Alternate Currency module.

Step 3, Setting part and BOM synchronization settings
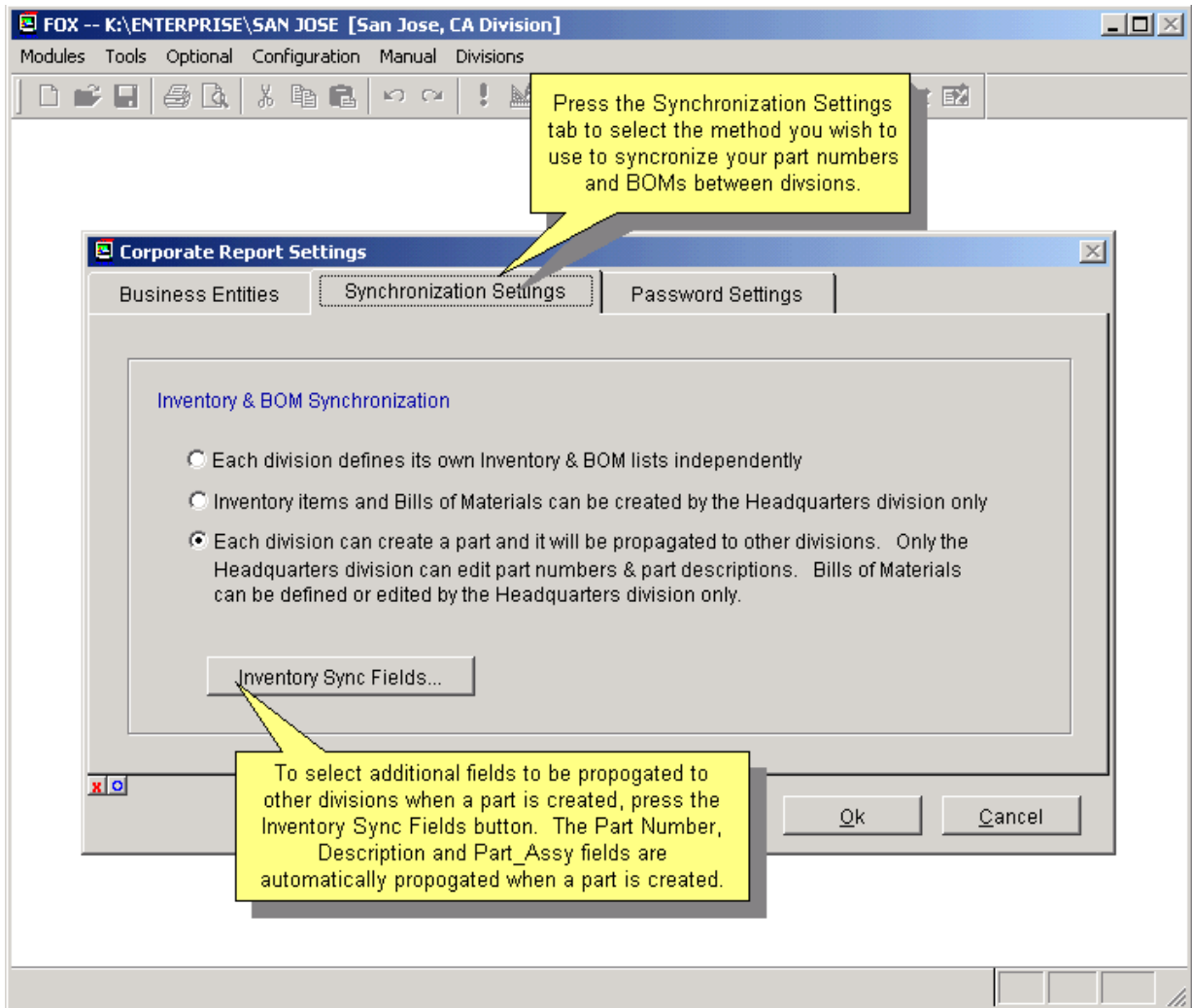
Select the "Synchronization Settings" tab and select the method you wish to use to synchronize your part numbers and BOMs between divisions.

Selecting the top radio button will allow each division to control their own partmaster and BOM database files with no synchronization between divisions.

Selecting the middle radio button will allow only the HQ division to create part numbers and BOMs. If HQ edits a part, the Part Number, Description, and Part Assembly fields are propagated. The new and edited part numbers and BOMs will be propagated to all other divisions within seconds. The other divisions can edit all of the fields for a part with the exception of the part number, description, and part type fields. Other divisions are not allowed to edit BOMs with this option.

Selecting the third radio button will allow all divisions to create part numbers. The new part numbers will be propagated to all other divisions within seconds. Only the HQ division can create and edit BOMs.

Step 4, Propagating Additional Partmaster Fields
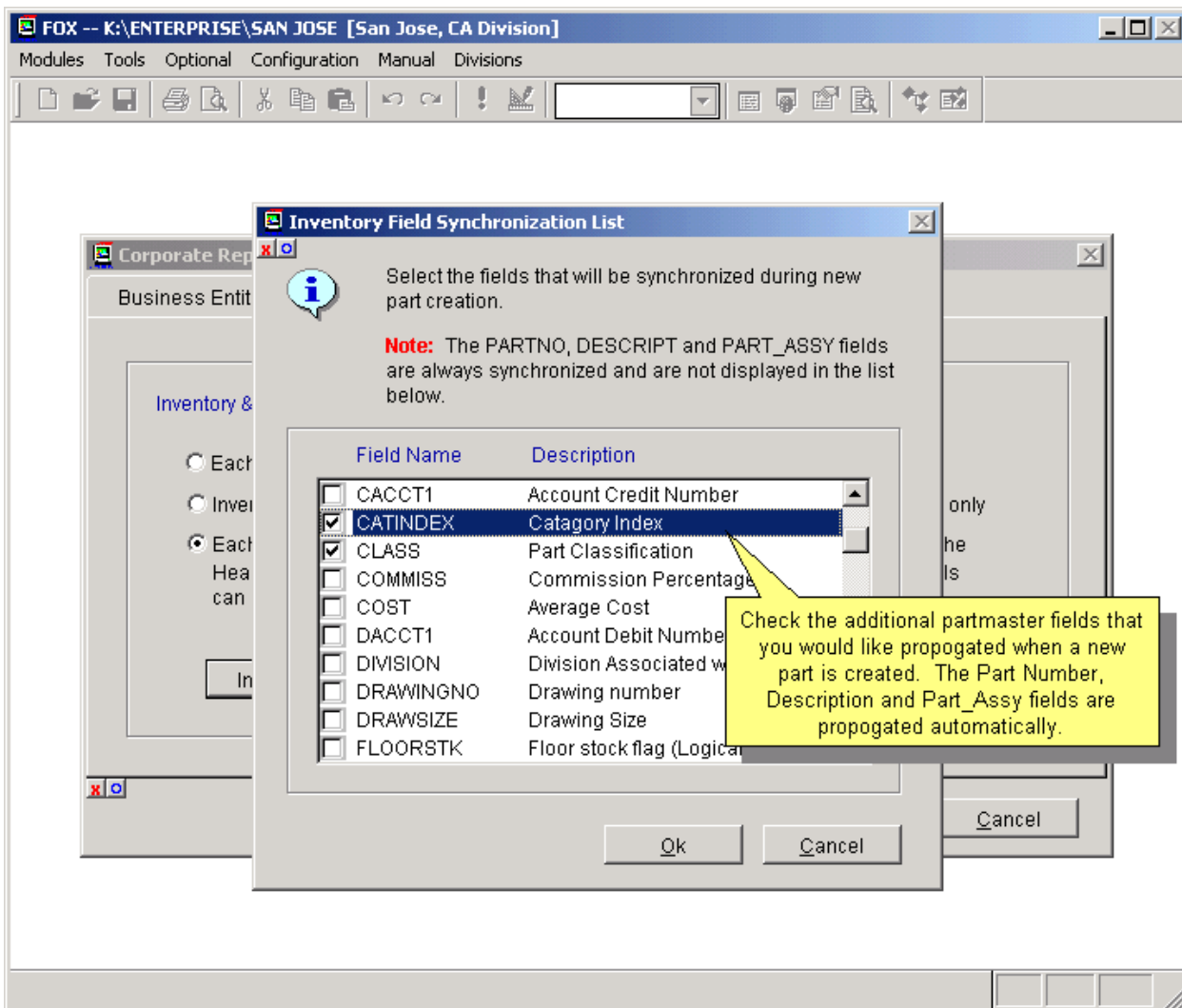
Select the Inventory Sync Fields button to check the fields you want propagated. The Part Number, Description, and Part/Assembly fields are propagated to the other divisions automatically when a part is created. The fields selected by the Inventory Sync List are propagated when a part is created but not when a part is edited. If you edit a part, the Part Number, Description, and Part Assembly fields are propagated.

Check the additional fields you want propagated. The Part Number, Description, and Part/Assembly fields are automatically propagated to the other divisions when a part is created. The fields selected by the Inventory Sync List are propagated when a part is created but not when a part is edited. If you select a cost field to be propagated, and the HQ division has pc/MRP's Alternate Currency module, the costs will be propagated in each division's currency.

Step 5, Setting up Passwords
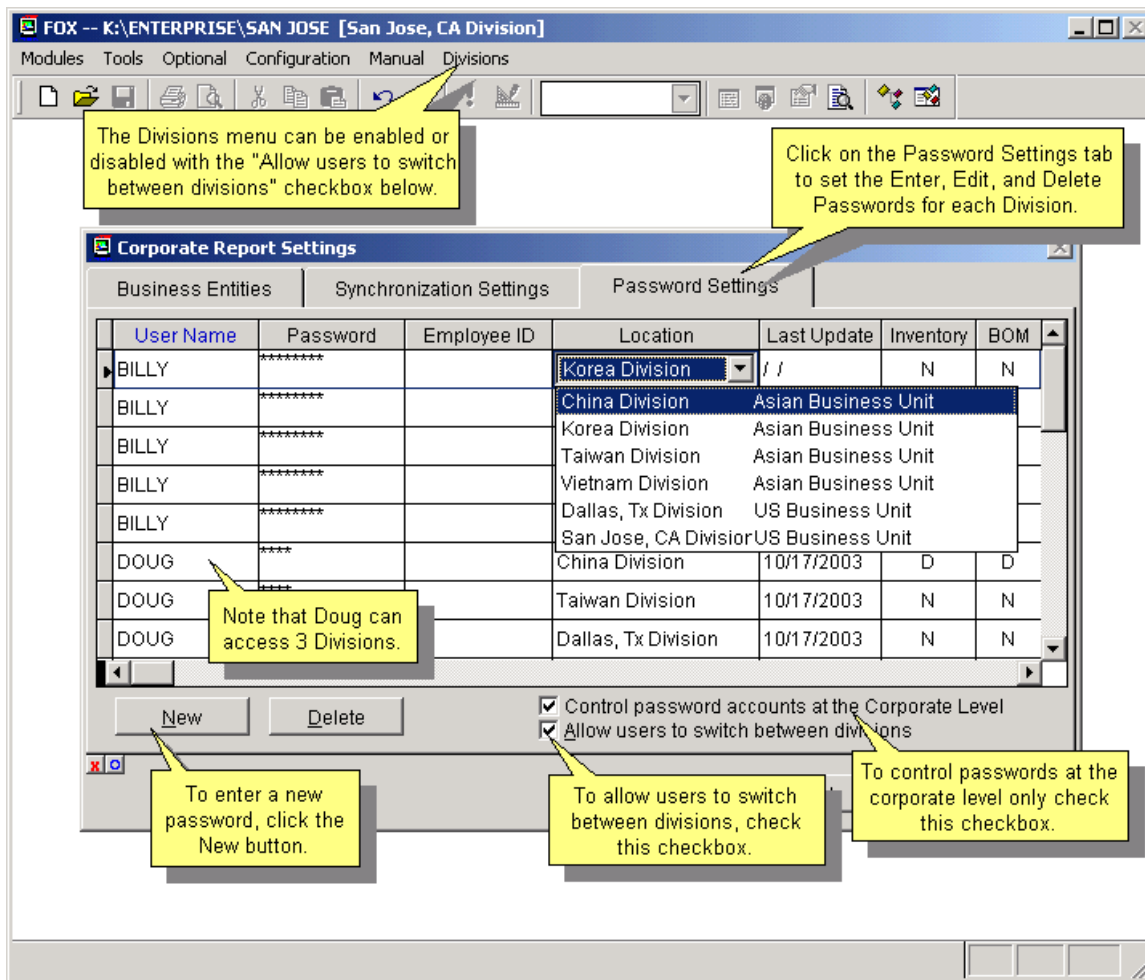
Select the "Password Settings" tab to enter and edit passwords for the entire corporation.   Each division must have their own pc/MRP password module. The above passwords are simply a consolidation of each division's Password Module.

If the "Control password accounts at the Corporate Level" checkbox is not checked, passwords are managed at the division level. If it is checked, all passwords are controlled at the HQ division.

To enter a new password, click the "New" button.   If the password's Location references another division, that division's password module will be updated.

If a person is to have access to multiple divisions, you should set up the same name and password for each division. That way if a user changes his password, it is automatically propagated to all divisions and he will be allowed to switch from division to division without re-logging in.

16.17.3   Reports

Consolidated Corporate Enterprise Reports
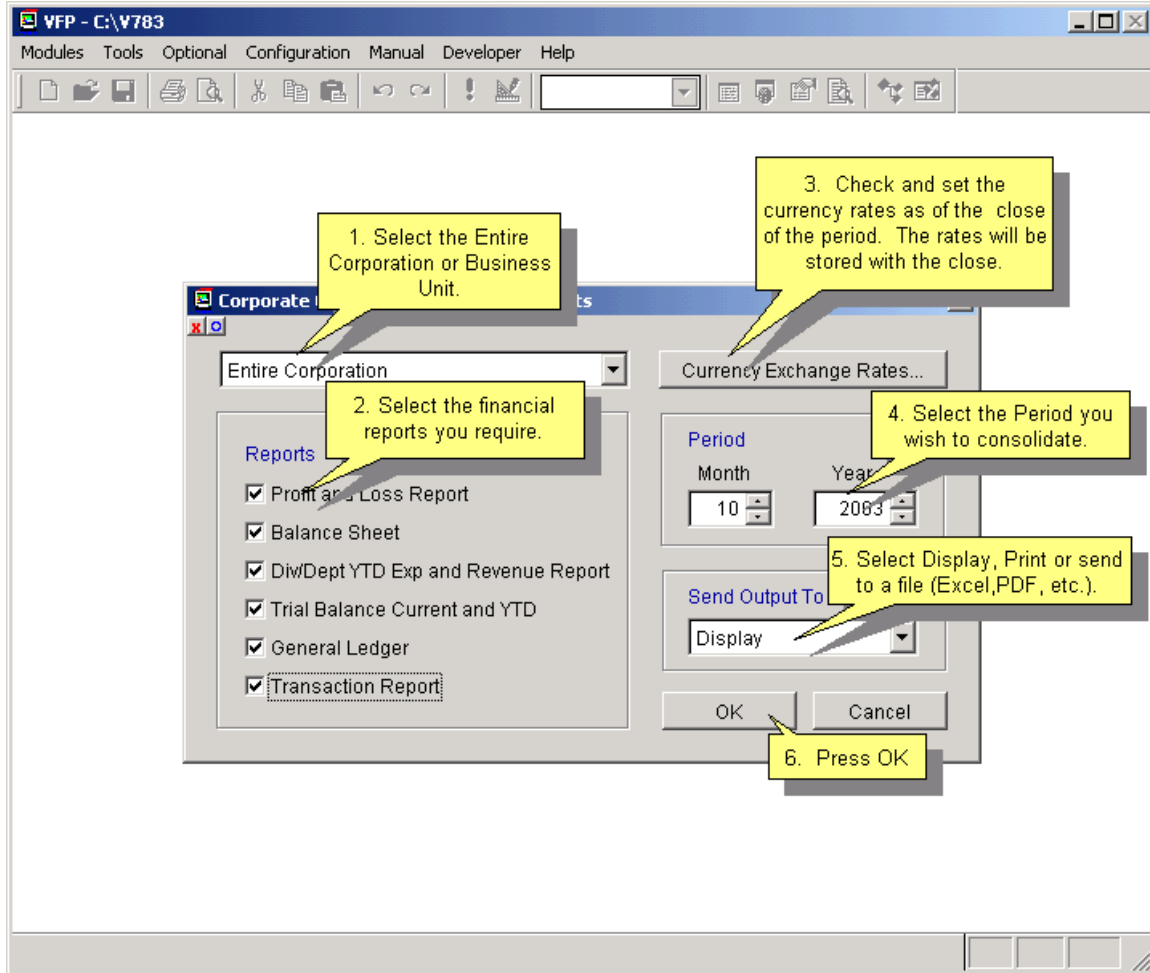
To print consolidated corporate financial reports, select the "Print Corporate Reports" option on the "Corporate Reports" menu.   pc/MRP will display the "Corporate Consolidated Financial Reports" window shown above. Select the Entire Corporation or one of the Business Units.   Check which reports you want to display and or print.   Select the report period.

If you have the Alternate Currency Module, press the "Currency Exchange Rates" button to check and or set the currency rate as of the last date of the period being consolidated. The rates are stored along with the consolidation data. If you were to reprint this period's consolidation reports, the stored rates would be used again, unless you were to adjust the rates again.

All divisions must have the same start of fiscal year.   Not all divisions have to close on the same date.   A warning message will be displayed if one or more of the divisions do not have a close for that period, however, pc/MRP will give you the option to print or display consolidated reports without those divisions.   Select Display or Print output and press the OK button.

Corporate Profit and Loss Report

The Corporate Profit and Loss report includes revenue and expense totals for the Current Month, YTD, Budget, YTD Budget, Variance, and YTD Variance for every division reporting to the Business Unit selected or the entire corporation.

Corporate YTD Expense and Revenue Report

The YTD Expense and Revenue report includes all revenue and expense charts of accounts and totals for the Current Month, YTD, Budget, YTD Budget, Variance, and YTD Variance for every division reporting to the Business Unit selected or the entire corporation.

Corporate Balance Sheet Report

The Corporate Balance Sheet report includes all the asset, liability, and equity accounts for all the divisions belonging to the Business Unit selected or for the entire corporation.

Corporate Trial Balance Sheet Report

Print Preview - CORPTRIALBALANCE.FRX

Print Preview

100%

Entire Corpora

10/08/2003
TRIAL BALANCE 10/03

CURRENT M(

ACCT	DESCRIPTION	TYPE	DEBIT
DIVISION :ASCH			
10100000	CASH ON HAND	AC	2496.00
10200000	BANK CHECKING ACCOUNT	AC	9387.50
10300000	BANK SAVINGS ACCOUNT	AC	0.00
11100000	ACCNT/RECVB.CUSTOMERS	AC	8500.00
11200000	ACCNT/RECVS.-OTHERS	AC	0.00
11900000	A/R.-BAD DEBTS RESERV	AC	0.00
12100000	STOCK INVENTORY	AC	750.00
13100000	SHOP EQUIPMENT	AF	0.00
13200000	FURNITURE & FIXTURES.	AF	7500.00
13300000	TRANSPORTATION EQUIP.	AF	0.00
13400000	LEASHOLD EQUIPMENT	AF	0.00
13500000	LAND	AF	0.00
13600000	BUILDING	AF	0.00
14100000	DEPRECIATION ACCRUED	AD	0.00
14200000	AMORTIZATION ACCRUED	AD	0.00
15100000	PREPAID EXPENSES	AL	500.00
20100000	ACCNTS/PAYAB.VENDORS	LC	0.00
20200000	ACCNTS/PAYABLE OTHERS	LC	0.00
21100000	SALES TAX	LC	0.00

The Corporate Trial Balance report includes the trial balances for the current month and YTD for every division belonging to the Business Unit selected or all divisions for the entire corporation.

Corporate General Ledger Report

The Corporate General Ledger report contains the starting balance for the year, the starting balance for the month, all transactions for the period, the ending balance for the month, and the ending balance for the year for every division belonging to the Business Unit selected or all divisions for the entire corporation.

Corporate Transaction Report

The Corporate Transaction report contains the every transaction entered during the period for every division belonging to the Business Unit selected or all divisions for the entire corporation.

16.18 User Task Manager & Tickler Module

16.18.1   Overview and Setup

(see the slideshow here: http://www.pcmrp.com/mrp101/utmt010.htm)
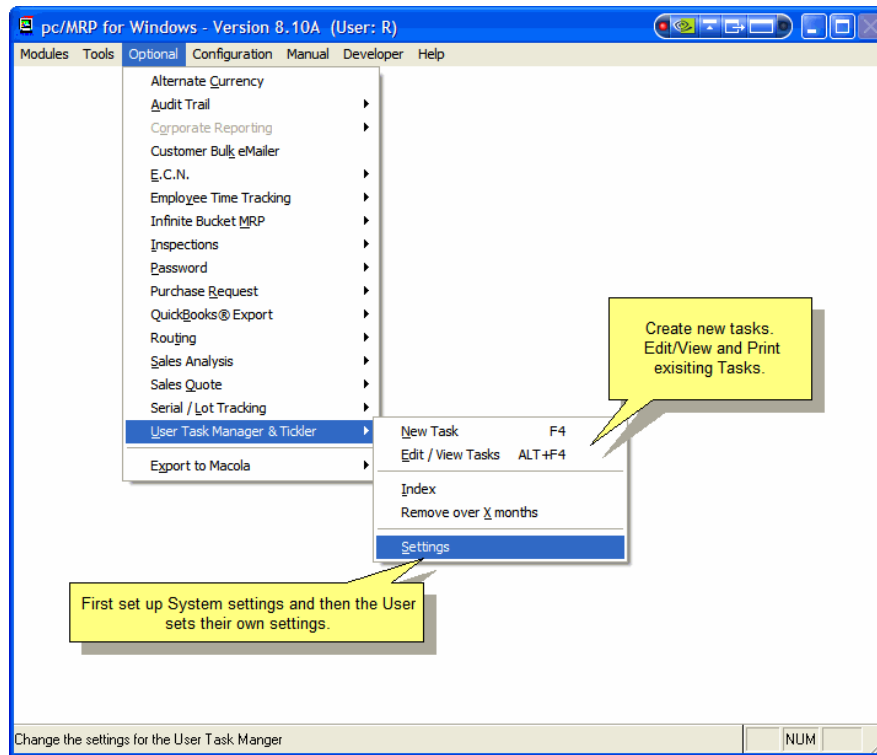
The User Task Manager & Tickler Module allows companies to
- Quickly set reminders.
- Manage and assign tasks of a project.
- Multiple task reports with various sort and group options.

The reports include:
- All displayed Tasks in List format.
- Just the selected Task in item format.
- All the displayed Tasks in item format.

To activate this module: Call Software Arts (408-226-7321) to obtain your activation code number. Select Configuration, Module Activation, and then User Task Manager & Tickler Module from the menu. Press the "Activate" button and enter your activation code number.

System Wide Settings
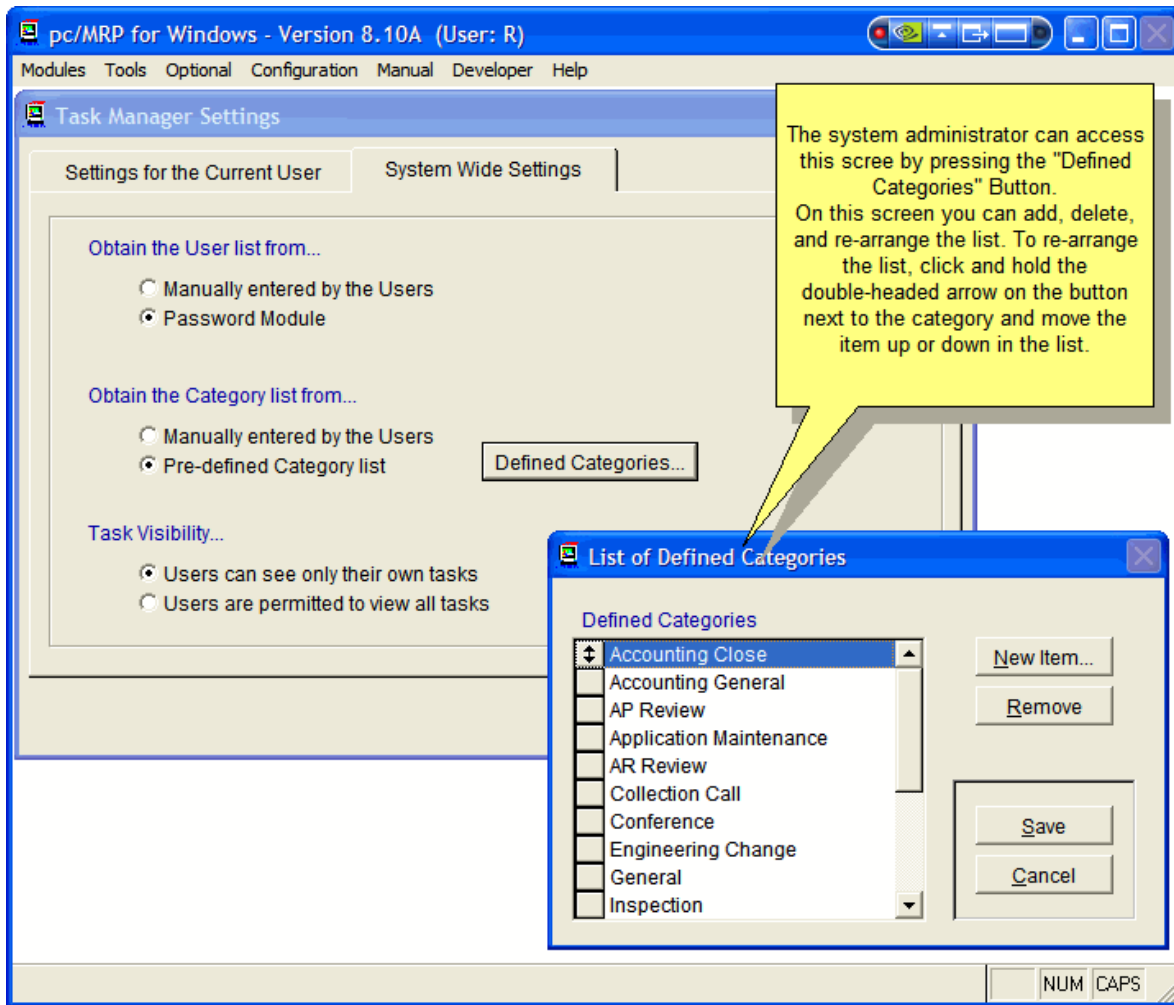
Obtain the User list from… Choose 'Manually entered by the Users' if you do not have the Advanced Password Module or wish the user to enter a name known not to be in the password module.

Obtain the Category List from… Choose 'Manually entered by the Users' if you do not want to control by a predefined category list. Pressing the 'Defined Categories' button will allow editing of the Defined Categories as seen in the screen above.

Task Visibility   This is self explanatory; usually you will only want the user to see his tasks. He will still be able to see tasks he has assigned to other people.

Settings for the Current User
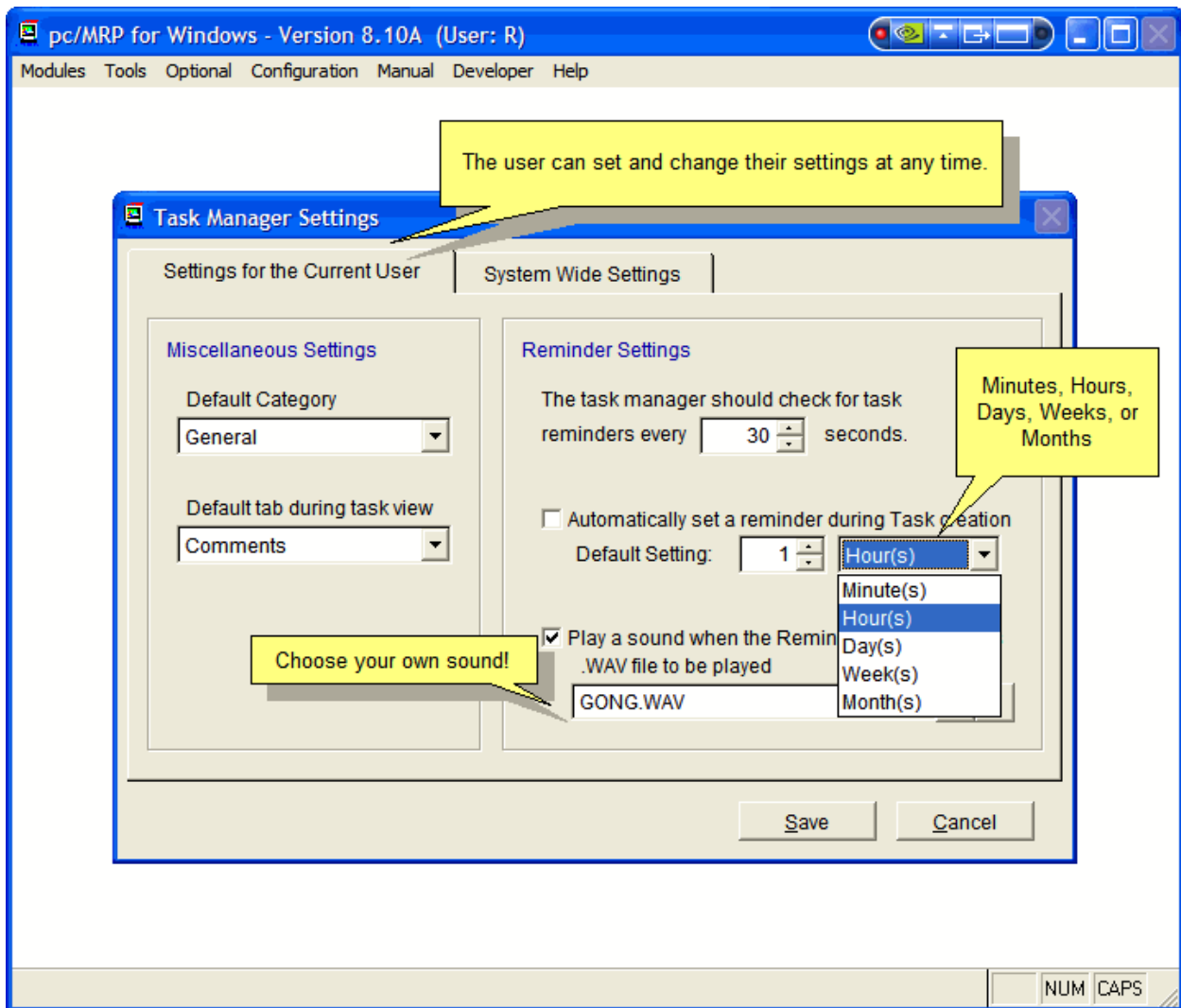
Default Category and Default Tab for comments or Properties can be changed by each user logon. Categories may be added if allowed by the system administrator. If additions are allowed by the administrator, only a 'General' category is supplied to start with. The user may enter one here or on the task screen.

16.18.2   Enter a New Task or Tickler

Step 1.

When selecting 'New Task' from the menu, you will be presented with the following screen.
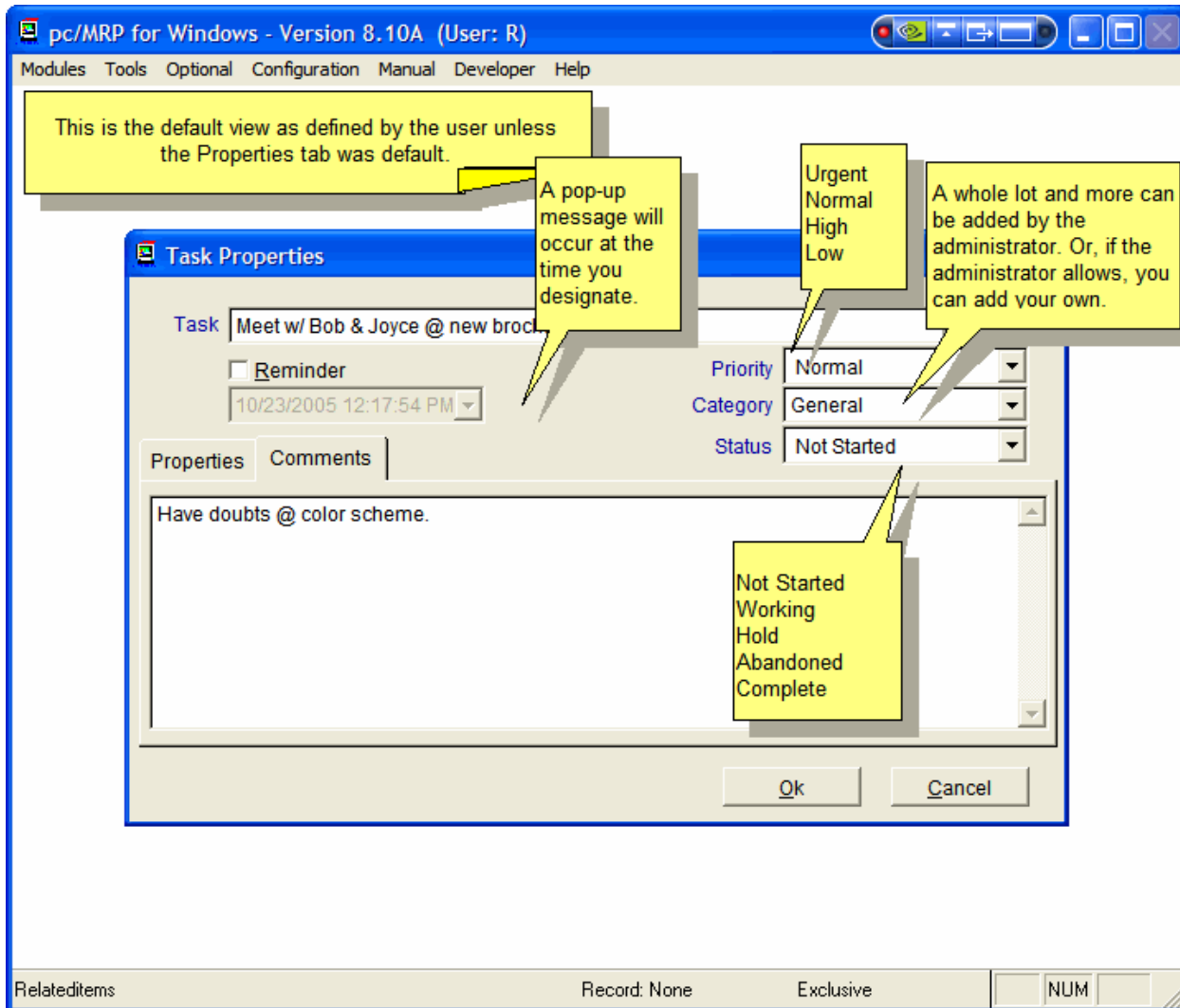
Default Priority, Category, and Status are filled in for the user. Abbreviated Task description, Reminder, and Comments are all that is needed for the basic Tickler.

Step 2, Properties tab

More detailed information is available for entry of the Properties tab. 'Created by' and 'Created Date' are not modifiable. 'Assigned to' can be selected from the drop-down list or, if the Administrator allowed, you can enter a name yourself just like the Category field.

Note: Due Date and Date Started (and Completed Date) are not validated against one another.

16.18.3   Edit/Complete/Print

Selecting 'Edit/View Tasks' from the User Task Manager & Tickler menu will bring up the following screen.
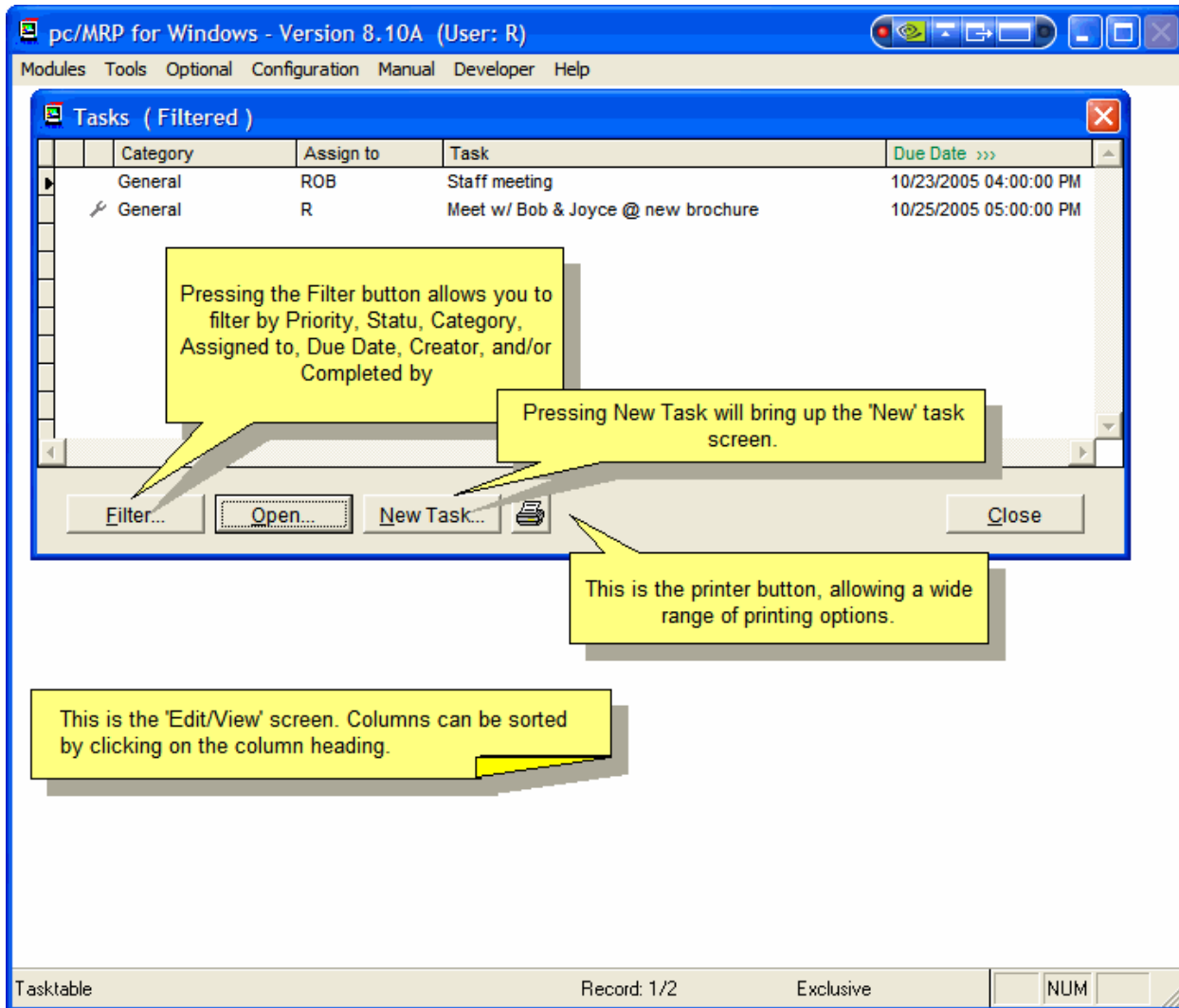
Selecting 'Open' button will open the details for the selected task, in this case, 'Staff meeting'.

Pressing the **Filter** button on the Tasks window presents this screen.

Changing any of the filter criteria changes the filter label to red. There are numerous filter criteria the user can set
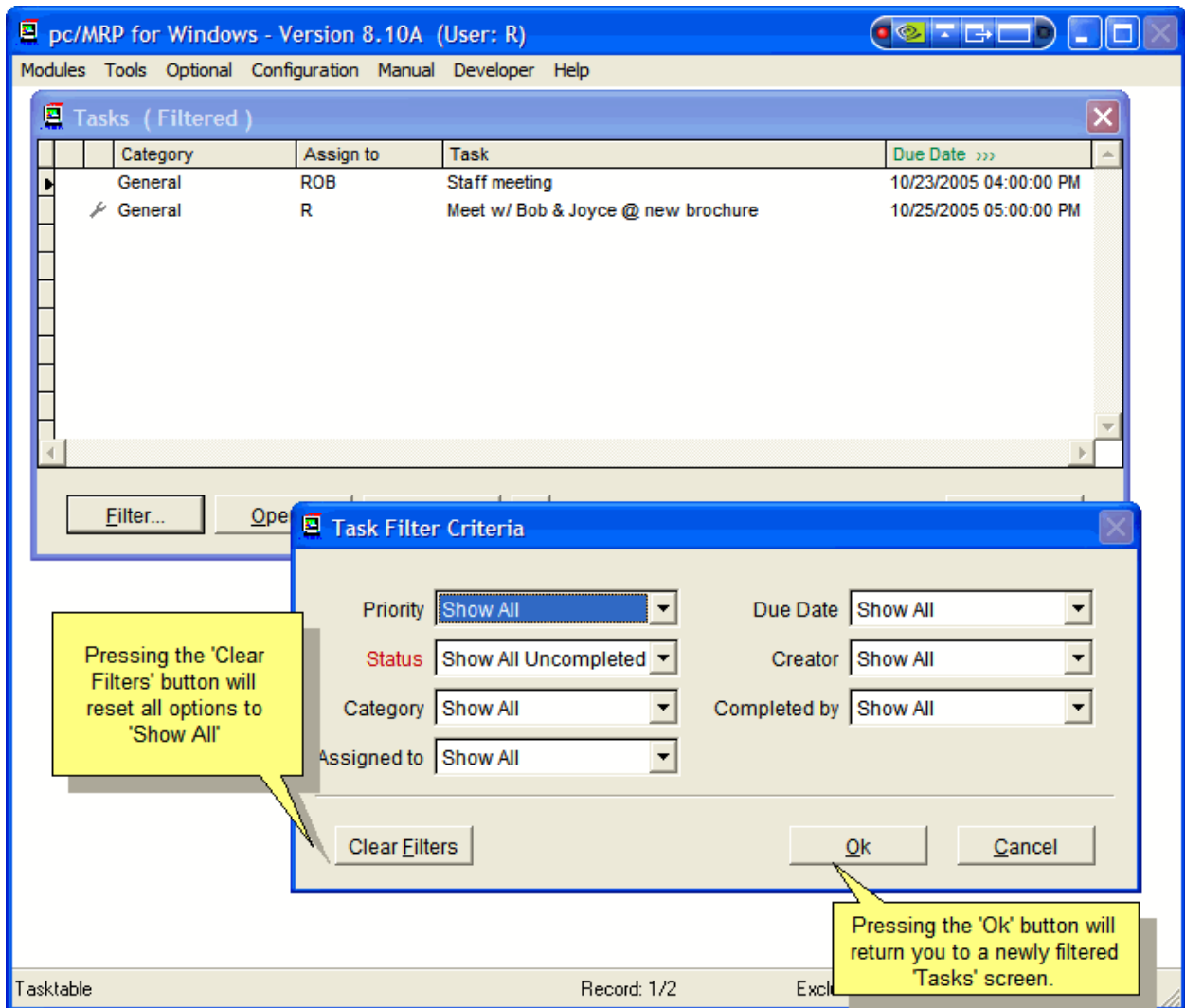
up. The default settings are shown above.

If you do not use the Properties tab, you may just adjust the 'Status' box in the upper window area to '**Complete**'.

For the Project tasks, the 'Properties' tab offers more options to complete the task.
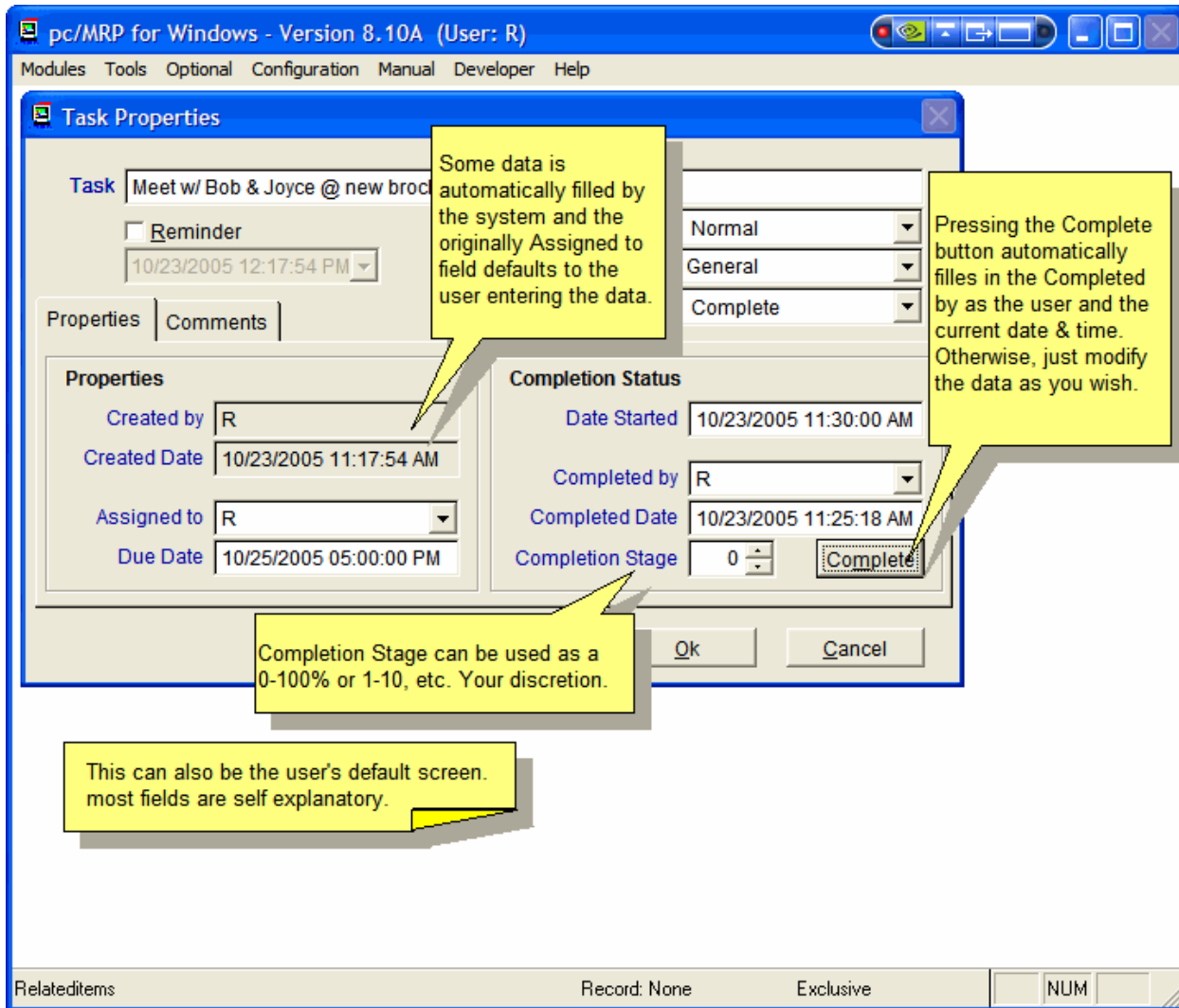
If all you need to do is mark the task complete, just press the 'Complete' button on the Properties tab and adjust the Completion Stage if required. 'Status', Completed by, Date and Time are automatically filled in for you. You may also need to adjust the 'Completed by' box if you did not do the work.

Pressing the **Print** button on the Tasks detail window brings up the following screen.
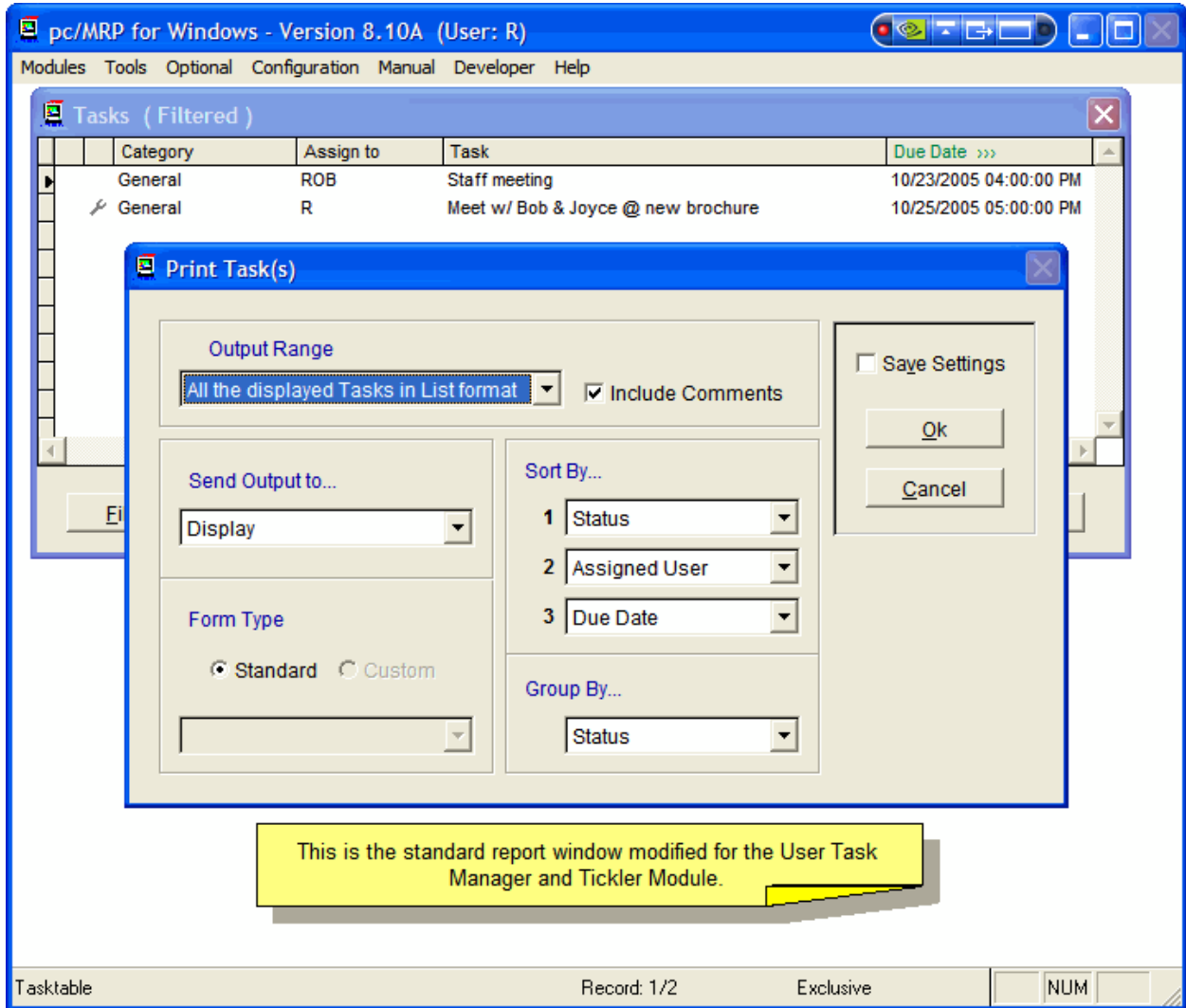
Choose the Output Range, where to send the report, how to sort the report and whether or not to include Comments.

The Save Settings checkbox will save your report settings to your login file to allow the same criteria to be used as default for the next report run.

Remove Over X Months.
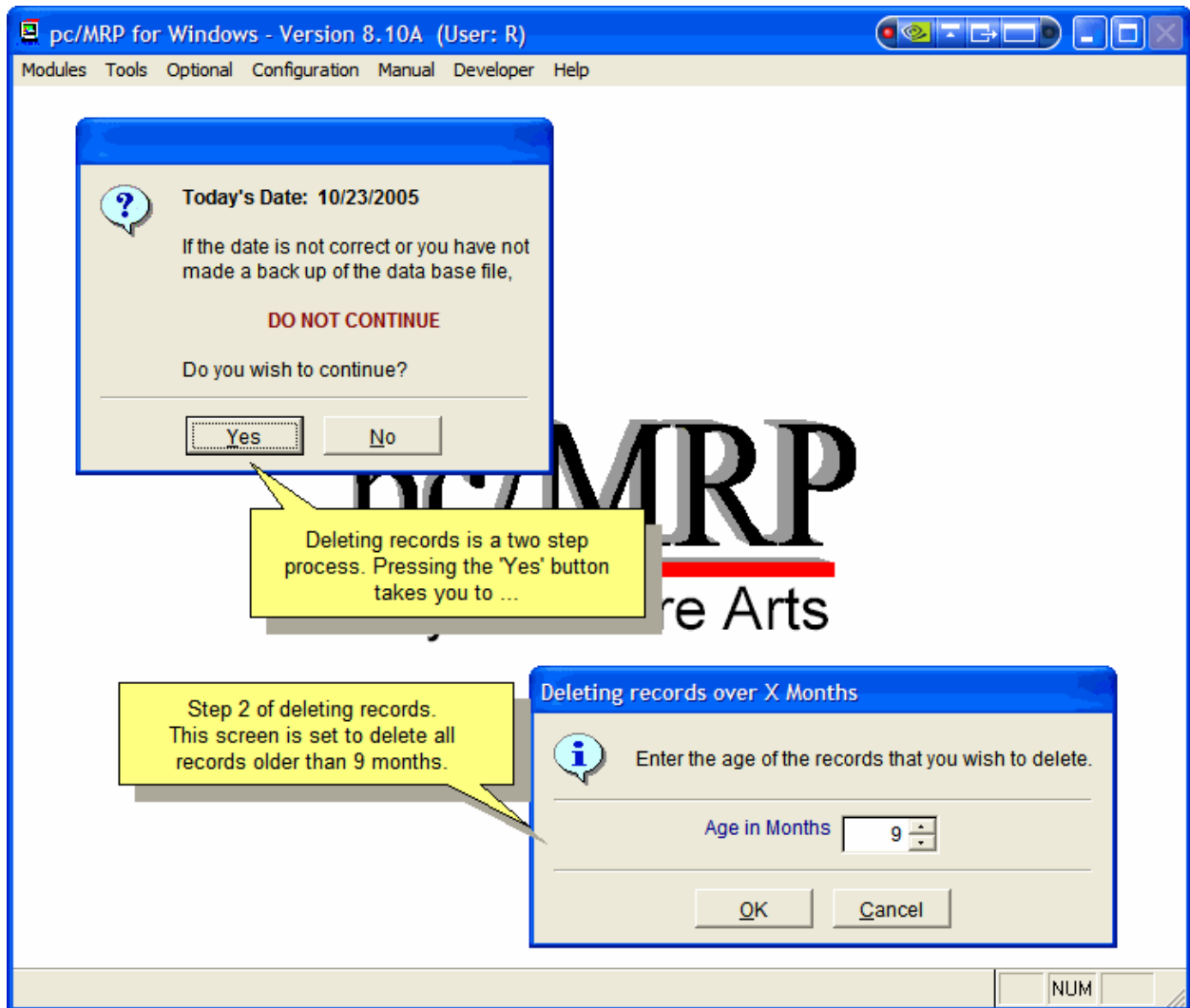
Selecting menu item 'Remove Over X Months' is a two step process.

It is imperative that the date be today's date and that you have a back-up of the production pcmrpw directory.

Think of this window as only keeping the past 9 months of Task and Tickler records.

If you want to keep the last year's worth of Task & Tickler records, you would enter 12 as the age in months.

16.19 EDI Import-Export
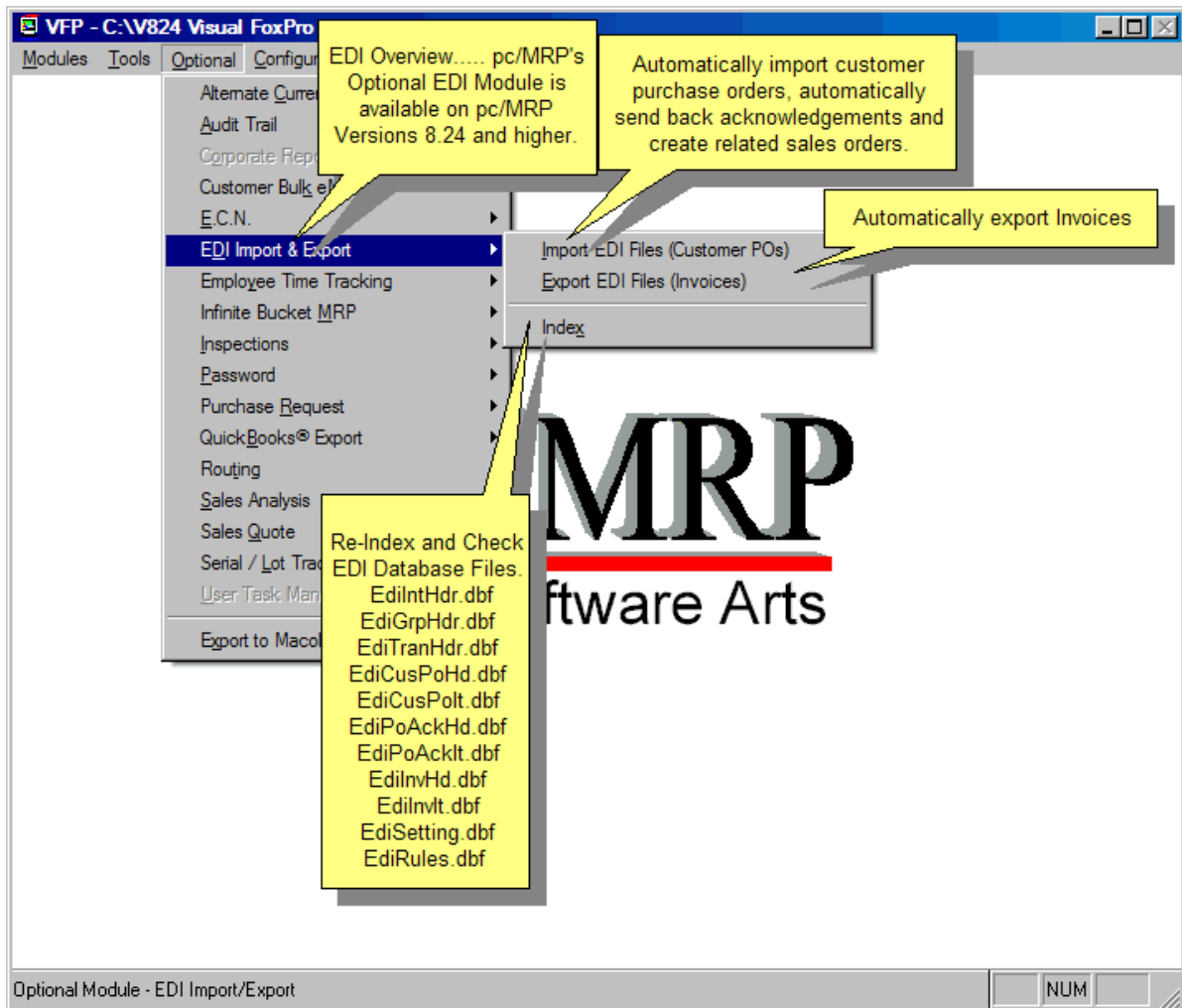
Overview

The Optional EDI Import-Export module allows electronic data exchange between you, your customers, and vendors.

The EDI Module allows users to import Customer EDI Purchase Orders. pc/MRP will automatically create pc/MRP Sales Orders and if requested send an EDI Acknowledgement. Once the Invoice(s) have been created, pc/MRP will allow users to automatically create EDI Invoices. However, it is up to the user to receive and send the EDI Files through email or FTP. The EDI module currently conforms to EDI spec 4010.

The on-line slideshow can be viewed here:

http://www.pcmrp.com/mrp101/edioverview.htm

EDI Setup Screen

pc/MRP's new optional EDI Module allows users to created unique EDI Rules for each customer as shown in the Modules, Address Book, EDI tab screen shot below. Please see the detailed slideshow for instructions.

17.2 pc/MRP Trouble Shooting Tricks

17.2.1   System Information

CTRL F12

Pressing CTRL F12 will display
- the forms methods and the settings for each of its properties
- the call stack
- the current status of the program's tables
- CDXs
- index tags in use
- the current contents of all of the memory variables

CTRL F10

Pressing CTRL F10 will toggle between Maximize and Restore Down.

System Information

System information, DLL's, operating system, memory, etc. can be viewed by selecting configuration, About pc/MRP, and System Information.

Datastru.dbf is Corrupt

If Datastru.dbf is corrupt, use Windows Explorer to delete it.

Start Up Programs and Processes

Click on the Start button, select Run, type in msconfig.exe, pick Start-up then look for programs that can cause start-up and or run problems. Such as: scheduling agent, printer monitors, virus checkers, etc.

Device Properties

Right click on my computer, select properties, click on device manager, select your device, click on properties, and then select the properties tab.

Taking Screen Shots within pc/MRP

You can click Ctrl-F8 if you want to print the screenshot or save it as a BMP file.

Alt-PrintScrn will place the screenshot on your clipboard, so you can Paste (Ctrl-V) it into an MS Word file.

Opening up Windows Explorer in pc/MRP

A simple way to open up Explorer in the pc/MRP home directory would be to select "Configuration," "About pc/MRP," and press control "E." This is the best way to find where pc/MRP resides on your computer.

Pressing F1 from the About pc/MRP screen

Displays information about the location of your pcmrp directory, the location of your Temp directory, the status of your Optional Modules, and the names of key files (.dbf, .ocx, .efx, .ef, .dll, .frx, .fxp) located in your pcmrp directory. Clicking the Send to File button will create a MS Notepad file that may be printed or emailed to Software Arts, Inc.

SFS() Server File Status

Entering SFS() in pc/MRP's command line displays all the open files and their status on the server. (**8.22 and above**.)

Verifying 'READ ONLY' files attributes (a tri-mode flag)

What the grayed-out and checked Read-only checkbox is telling you is that subfolders and files of the folder may have the read-only attribute and not the folder itself.

If you go through the motions of removing the read-only attribute not only from a parent folder but also select the option to remove the attribute from all subfolders and files, then the read-only tri-mode flag should no longer be set.

If it is still set, the bottom line with the read-only attribute when viewed as the properties of a folder is that seeing the tri-mode flag set for the read-only attribute does not mean that the folder (or any subfolders or files) have the read-only attribute. Instead, it may imply that the folder is deemed a "special folder." For example, folders that support customized views are special folders.

The best way to ensure that the read-only attribute is removed from all subfolders and files in a folder is to navigate to the folder from the command prompt and then run the command **attrib –r /s /d**. This removes the read-only attribute from all files and folders within the target folder, as well as its subfolders.

If you want to query for the presence of any files or folders marked as read-only, you can navigate to the folder from the command prompt and run **dir /ar /s**. If the command does not return any files as read-only, then you know that there are no longer any read-only files contained in the folder or any of its subfolders. Note that with customized folders, removing the read-only attribute from the folder may result in the customizations being lost.

You will find the full article here:

http://mcpmag.com/columns/article.asp?EditorialsID=1213

Viewing Security / User Rights

With Windows XP Professional or Windows 7, click on Control Panel, Administrative Tools, Local Security Settings Policy, Local Policies, Security Options, and make sure that Network Access: Sharing and security model for local accounts is set to 'Classic'.

17.2.2 Setting the Code Page Language in Windows

Step 1 Navigate to your Control Panel

Select the **Regional and Language Options.**
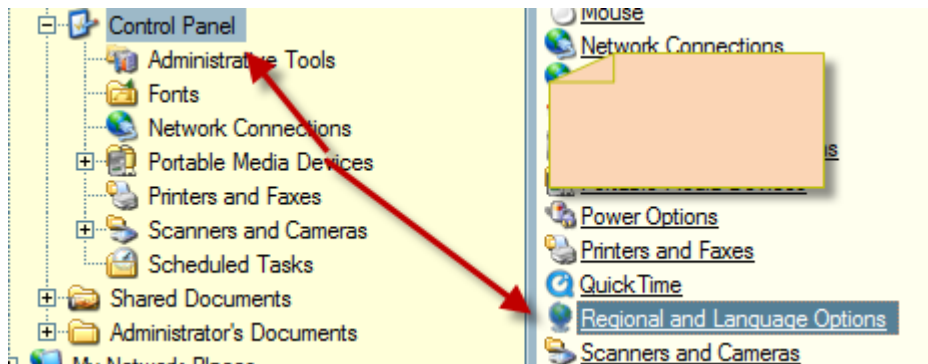
Step 2 Select the "Regional Options" tab

Make sure that under "**Standards and formats**", "**English (United States)"** from the drop down list is selected.
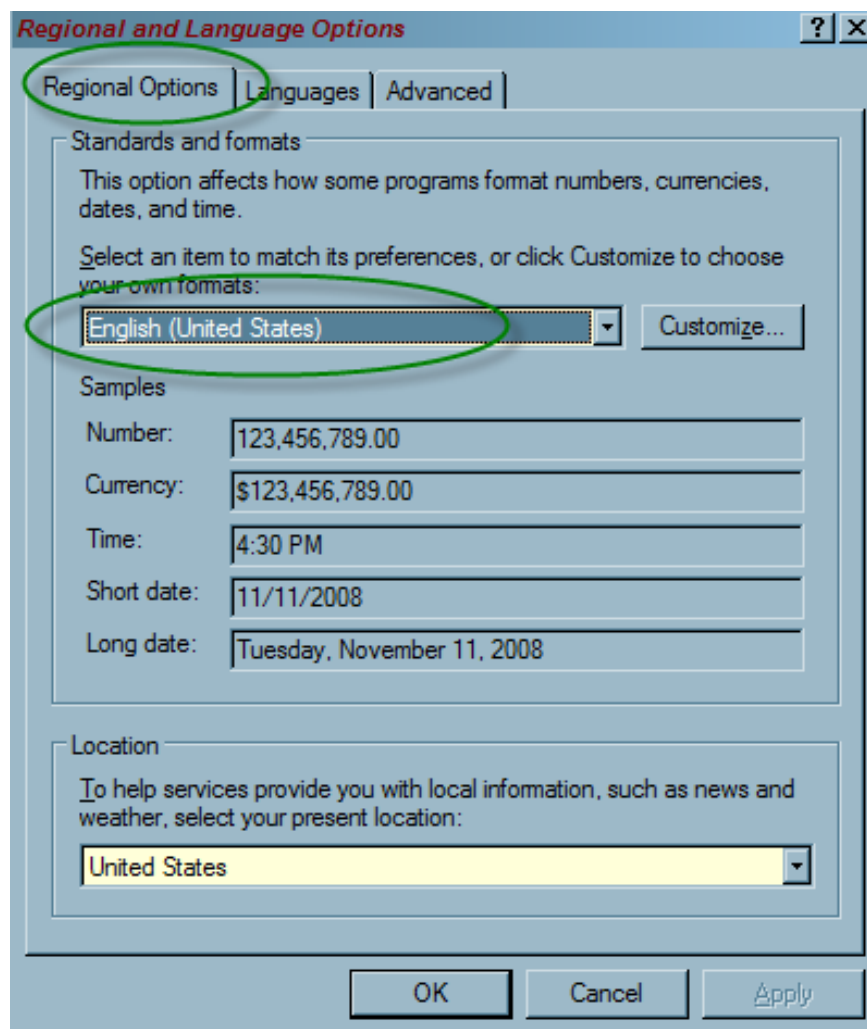
Step 3 Select the "Advanced" tab

Again, make sure you select "**English (United States)**" from the drop down list is selected.
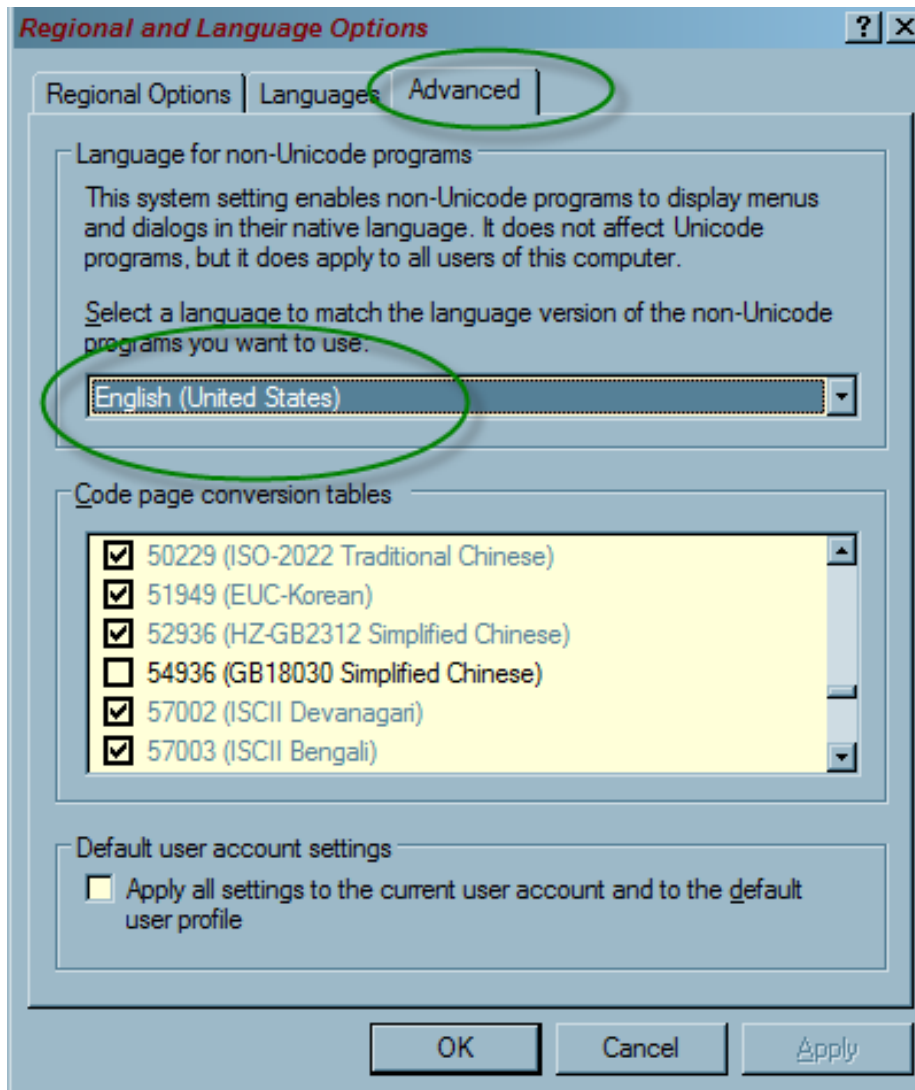
Now click the OK button to finish and save the settings.

17.3 General Protection Fault and Freeze-up Problems (C5 Errors)

17.3.1 General protection fault errors and freeze up problems can be caused by:

Insufficient RAM memory
Insufficient hard disk space
Insufficient swap file size
Hard disk corruption
Too many programs running at the same time or two programs are conflicting
Insufficient Resources
Memory leakage
Poorly written drivers (screen, print, etc.)
Conflicting hardware addresses and interrupts
Video driver conflict
Driver and or program conflicts in upper memory
Marginal network hardware
Invalid temp directory
Corrupt program or database files (exe, dbf, idx, mem, frx, frt)
Fragmented hard disk (local and or remote)
Print Spooler is turned off

17.3.2 Insufficient RAM Memory

pc/MRP for Windows requires a minimum of 8 Megs of RAM. To check how much RAM your PC has, go to the Start Button, select settings, select control panel, select help and then select about Windows.

17.3.3 Insufficient hard disk space

Windows 95 require a minimum of at least 20 MB of hard disk space be available for temporary files, print buffering and RAM memory overflow (swap file). You can check how much RAM your PC has by going to the MSDOS prompt and entering the command CHKDSK, then hitting Enter. Your screen will indicate the amount of bytes on your hard disk available to your PC. If your PC has less then 20,000,000 bytes available on disk, delete non-essential files on the hard disk to increase the space available on your hard disk.

17.3.4 Insufficient swap file size

Windows 95 requires at least 20 Megs of hard disk space for a swap file.   To check and or set your swap file size with Windows 95 you would select start, select settings, select control panel, select systems, select performance, and select virtual memory. If the free hard disk space is less than 20 Megabytes, you should remove unnecessary files from your hard disk to free up a minimum of 20 Megabytes. Be sure the radio button allowing Windows to manage memory is selected.

17.3.5 Hard disk corruption

You can use Microsoft's program called SCANDISK to check for hard disk corruption. If SCANDISK finds errors it can correct the errors, unfortunately in some cases the damage may have already been done (cross-linked files), and one or more files may be permanently damaged. Only re-installing the damaged file would correct the problem.

To run SCANDISK from Windows 95, exit Windows and go to the DOS prompt. Change to the Windows command directory by entering CD\WINDOWS\COMMAND [Enter] and then SCANDISK [Enter].

17.3.6 Too many programs running at the same time or two programs are conflicting

Windows can crash if too many programs are running at the same time taking up additional resources. Users have a tendency to load up programs (anti-virus, screen savers, office, etc.) in their start up file and run them in the background. Try running pc/MRP by itself to see if the frequency of crashing and or freeze ups is reduced. When programs are placed in the startup menu, these programs are drawing valuable resources even though they are not being used. Remove all programs from your startup menu and see if the frequency of crashes and freeze ups are reduced.

To check the number of programs running with Windows, press the Control ALT and DEL buttons, select Task Manager, and Applications.

Virus checkers that remain active during normal activation can cause problems. Deactivate the file system protection but not the email and internet protection to see if that solves the problem. If it does, set it to exclude checking the .DBF, .FPT, .FRX, .CDX, DBT, .DCT, & .DCX file types.

Older models of HP printers now came with a printer status programs that can cause problems. Disable the printer status program.

17.3.7 Memory leakage

Some Windows programs display memory leakage. Going into and out of various programs will result in Windows losing memory resources as most programs do not give back the original amount of memory they used after they have been run for awhile. If crashes are occurring in the afternoon, check the computers resources, if they are down, consider rebooting at lunchtime as a matter of routine precaution to recover lost memory.

17.3.8 Conflicting hardware addresses and interrupts

PC devices that occupy the same address or interrupt as another device can cause general protection fault and freeze up problems.

To check for hardware device conflicts with Windows, select start, select settings, select control panel, select system, select device manager. If any of the devices display a ! in a yellow triangle, click on properties to see the conflict.

17.3.9 Video driver conflict

Non-standard OEM video drivers can cause problems with FoxPro for Windows. Install Window's standard 16-color VGA driver and see if that fixes the problem.

To install the standard 16-color VGA driver in Windows 95 select settings, select setup, select options, select change system settings, select display, select VGA. If that clears up the problem, use the standard VGA or SVGA driver in the future.

Try running Window 95 in a "safe" mode (no program is allowed to use upper memory). Turn on the PC and press the F8 key when you see the words "Starting Windows 95". Select the "Safe mode". The safe mode does not use config.sys, autoexec.bat, command.com, windows drivers, print drivers, network drivers, or the start up programs. It uses Window's own generic 16-color VGA driver.

17.3.10 Driver and or program conflicts in upper memory

Drivers and or programs can conflict with other drivers and or programs in the upper memory area.

Try running Window 95 in a "safe" mode (no program is allowed to use upper memory). Turn on the PC and press the F8 key when you see the words "Starting Windows 95". Select the "Safe mode". The safe mode does not use config.sys, autoexec.bat, command.com, windows drivers, print drivers, network drivers, or the start up programs. It uses Window's own generic 16-color VGA driver.

17.3.11 Marginal network hardware

Marginal network cards and or cables can cause intermittent crashes. To stress test the network, go to each workstation and copy the contents of a large directory from the server to the workstation. The directory copy should take at least 5 minutes to test the network card, hub and cable adequately. As a final test, copy (not move) a directory on the server to another directory on the server. If the last test fails, the network card on the server may be bad.

17.3.12 Invalid 'temp' or hidden local directory

At the command prompt, type ?SYS(2023), MSG(GETTEMPPATH()), or Select Configuration, About pc/MRP, and press F1. See if the TEMP variable points to a valid (existing) directory.

The BEST method would to run Windows Explorer and enter %temp% in the address bar and press GO. This method will give you the full path name.

You must then create such a directory if it does not exist.

The local temp directory file could be hidden. To unhide the file, open Windows Explorer, click on options, view, and un-check "Hide protected operating system files". You may need to work your way up the chain of folders containing the "temp" folder.

17.3.13 Corrupt program files or data base files

Corrupt index files can cause general protection, illegal operation errors. Use the Configuration menu and select, "Re-index all files", to see if that corrects the problem. If you get a **stack fault error** or **Internal Inconsistency Error** message, delete the associated idx files and re-index.

Data base files can become corrupt by exporting the dbf file to Excel, editing the data and importing the Excel file back into pc/MRP. (Excel can change the structure of a column on its own based on the contents of the column.)

17.3.14 Sleep Mode

Disable.

17.3.15 Fragmented Hard Disk

Defrag your local hard drive.

17.3.16 Print Spooler is turned off

Select Control Panel, Printers (and Faxes), right-click on the default printer, and select Properties. Select "Print to spooler", not "Printer".

17.3.17 Allowed DO nesting level exceeded.

While generating an Infinite Bucket MRP, you get the error message: Allowed DO nesting level exceeded. This means that you have a recursive BOM structure (a BOM that is calling itself). (Also see 12.9)
1. Go to Configuration, User Connectivity, select Set Admin Lockout.
2. When everyone has logged off pc/MRP.
3. Create a backup of the pcmrpw directory.
4. Select Modules, BOMs, Audit BOMs, Yes, Compile, do not step-thru.
5. Select Yes to check for recursive BOM structures.
6. A report will be generated if there are recursive BOM structures (BOMs calling themselves).
7. Remove the Admin Lockout.
8. Fix the affected BOM structure and re-run the Infinite Bucket Generate Action Items process.

17.4 Error Messages with Numbers

The ERROR.LOG file is located in the PCMRPW folder and contains the most recent error messages. This file will be automatically created when the first error occurs.

17.4.1 File does not exist (error 1)

- The file pc/MRP is trying to find does not exist. This often occurs if you have selected a custom printout that does not exist instead of a standard printout. If you are running the audit BOM program and the missing file is BOMUPD.MEM, run the cost roll up option in inventory to generate a new BOMUPD.MEM. If you are trying to enter or edit the address logbook and get this error msg you have deleted a file named BLKEDIT.WRI and must restore this file to the pcmrpw directory. Another file often deleted is BOMTEMP.DBF. This file is necessary to print out BOMs and can be restored from a backup.
- The pcmrpw.exe file is broken or corrupt. Copy in a recent (same version!) pcmrpw.exe file from a backup copy or pcmrpupd directory.
- Name of .FXP file that is causing the error msg starts with FIND indicating pc/MRP cannot find an index file. Re-index the data base that pc/MRP is working or use pc/MRP's Configuration Module and run the re-index all files option.
- pc/MRP's config.mem file may contain extra variables or invalid variables such as local.mem or an invalid drive reference. Contact Software Arts, Inc. for a copy of the program CLRCONFG.EXE. Run CLRCONFG.EXE from Windows Explorer to clean up your config.mem file before you perform the update.
- If the error is "CLEANPATH DOES NOT EXIST", a library was not loaded or is corrupt. Reboot your computer and start again.
- If the error is because of a missing .fxp or .prg file, reboot the computer. If that does not work, restore the pcmrpw.exe from a backup.
- The temp directory file could be hidden. To unhide the file, open Windows Explorer, click on options, view, and un-check "Hide protected operating system files". Now you must go to properties of the hidden folder and un-hide it and any parent folders so pc/MRP can see the temp directory.
- Also see: **17.4.2091** if you have reason to believe that the database is corrupted.
- If you are using **version 8.43A-8.43M** and you get ChkArea does not exist, call Software Arts, Inc. for an update to the latest version.

17.4.3 File in use (error 3)

- Two users have logged in with the same name or no name and are printing or displaying a BOM. Logging in with the same name or no name causes both users to use the same temporary BOM file.
- If you are the one who caused the file in use error message, returning to the "Main Menu" will close the file and fix the problem.
- If you get this error when trying to modify a report/form using Option 24: Make sure that the .FRX and the corresponding .FRT file have the same name. If you rename one of these, you must rename the other one the same name.

17.4.4 End of file encountered (error 4)

Re-index the related data base file(s)

17.4.5 Record out of range (error 5)

- The index file that pc/MRP is trying to use needs to be re-indexed. Go to pc/MRP's Configuration Menu and select "Re-index all files".
- The index file may be broken in such a manner that re-indexing does not help. In that case, the index file must be deleted. Call Software Arts for help in determining the name of the .idx file to delete. (suspend with tag() in debug window)
- This error message can occur if you have an apostrophe or quote character(s) in your part number.

17.4.7 File you are attempting to rename already exists (error 7)

If you are removing records marked for deletion, you do not have deletion rights or another user has ownership of the file or folder.

17.4.10 Syntax Error (error 10)

- If this message appears when you are trying to scroll a data base file, the field you are trying to scroll on is blank in every record in that data base file. Edit a record in that data base file and enter some data in the field you are trying to scroll on.
- If this error appears during a cost roll up or an audit BOM, search for and delete an inventory and or BOM record with a blank part or BOM number.
- If this error message occurs when you are scrolling, and it does not display the scroll window, it could be caused by an older version MSG.DBF. Call Software Arts and they will walk you through installing the correct MSG.DBF file.
- pcmrp.bmp is corrupted; restore from backup.

17.4.11 Invalid Function (error 11)

- Data base file structure has been altered by EXCEL. Delete the dbf file, restore from a back up copy, and re-index new file.
- When creating a custom report or form, the user used a function for the wrong field type (ex. a string function on a date or numeric field).
- If this error occurs while you are running an exploded BOM, MRP, or cost roll up report, check for a BOM that calls itself, by running the "Audit BOM" report.
- If a BOM has a part number without an A, P or L in its part_assy field and you are running a check availability report, this error can occur. Edit the part and add an A, P or L to its part_assy field.
- pc/MRP version **8.60** would display this error when duplicating a Sales Order or Sales Quote. Update to pc/MRP version 8.60AF or higher.
- Control Panel, Regional and Language not set to English US (must be set in 2 places).

17.4.12 Variable not found (error 12)

This message will appear if pc/MRP cannot find a memory variable. Call Software Arts if this message appears.

- If the missing variable is the name of an index file, set the admin lock and reindex that file.
- If the missing memory variable is LEV, the BOMTEMP.DBF file has been overwritten and must be restored from a backup copy of BOMTEMP.DBF. The BOMTEMP.DBF file's first field is LEV.
- This error msg can appear if the data base file structure version does not match the pc/MRP's program version.
- Issuing stock to manufacturing from the stock room module gives a Variable MSITEMNO not found error message.
  Always answer Y; there is a sales order or work order number that you are issuing parts for. Answer N (no sales/work order) will cause this error.
- If you are trying to print out a BOM, run Audit BOM procedure and then fix any errors it may have reported.
- Could be an alpha character mismatch, update to the newest revision level of your version of pc/MRP, or call Software Arts.
- If you are trying to print a PO, delete that PO and try again.
- If the error occurs when you are entering or editing the address module, you may have to delete one or more of the drop down address lists. Use configuration and settings, and utilities to re-enter any blank lists.
- If the variable ByPWUser is not found, copy the wp.dbf file from a back-up copy of pc/MRP into your current production pcmrpw directory.
- If you install a newer version of pc/MRP over an older version of pc/MRP (this is NOT the same as updating an older version) re-install the new version of pc/MRP in a different directory.
- You are doing an Accounting, GL Transactions, New, "A" type, trx# and get an error. #12, line 123, proc transcr.init .../transcr.sct Variable (account lockout date is not found). The file 'acctdefault.mem' may be damaged. Restore from a current backup or delete the file. If you choose to delete the file, you must go to Configuration, Settings & utilities, Option 14 to reset the lockout date. Please work with your accounting department to do this fix.
- A computer crashed while accessing a database file causing the index file (databasename.CDX) to become LOCKED. Verify by going to the pcmrpw directory and trying to rename the 'databasename.CDX' file. If not able to, follow the instructions listed above to remove the file's LOCK.
- Error process ENTERTRA.FXP, Variable 'CABYDESC' is not found. Re-index via Accounting, Gl trx, index.

- Kaspersky Anti Virus program on the server or workstation can cause this problem. Turn off Kaspersky and install a different anti virus program, or add pcmrp.exe and pcmrpw.exe to Kaspersky's list of trusted applications.
  pc/MRP versions **7.83 and lower:** If you install pc/MRP twice, pc/MRP will report variable MFDRIVE not found. You must then run the CLRCONFIG.EXE program found in the pc/MRP directory. This file can also be downloaded from the troubleshoot section of our website www.pcmrp.com. CLRCONFIG.EXE will only work with pc/MRP versions 7.83 and lower (requires VFP6 dlls) because it will remove the company address from the Configuration, Settings and Utilities, Option 1.

17.4.13 Alias (file name) (error 13)
- If the error message is ALIAS PARTMAST not found, upgrade to 8.70F or higher. (partscreen, alias PARTMAST not found)

17.4.15 Not a table/dbf file (error 15)
   Also see Section 17.4.2091
- If the dbf file is a pc/MRP main data file (ACTMPLT, ADDRBOOK, BOM, CHARTACC, ECN, INVOICE, LABOR, PARTMAST, PURCHASE, REQUEST, RECEIVE, RTMPLATE, SALES, QUOTE, SNLOTDET, SNLOT, STAXENT, STOCKTRA, TRAIL, TRANSACT, ALTCUR, USERSETS, ROUTING) call software Arts, or restore from a backup.
- If the dbf file is your password data file, restore from a backup or you can call Software Arts for an authorization code to re-create the file with one user MASTER, with a password of MASTER. If you choose to re-create the file, you will have to re-enter all of your user names, passwords, and module rights.
- The Software Arts technician may ask you to press control F12 and look for a memory variable named mdbfname that contains the name of the corrupt dbf file.

17.4.22 Too Many Variables (error 22)
- Too many line items. Select SINGLE for REVIEW when editing.

17.4.26 Table is not ordered (error 26)
- Somebody has created a .cdx file with the same name as a pc/MRP .idx (index) file. Call Software Arts for instructions on deleting the cdx file.
- RAM memory has become corrupt or network delivered a corrupt exe file. Reboot the computer and try again.
- Re-index, option 27 in the settings and utilities.
- If the error is for' process scroll4.sct', delete the file 'msg.dbf' from the pcmrpw directory and re-log-in.

17.4.30 Position is off screen (error 30)
- The foxfont.fon file is missing or corrupt. Restore the **foxfont.fon** file.
  1. Click on Start, Control Panel, Fonts
  2. On the File menu, choose Install New Font
  3. Browse to the pcmrpw directory
  4. Select the **foxfont.fon** that is listed
  5. Press OK
- Another FoxPro application is active and is using the pc/MRP **foxfont.fon** font.

17.4.31 Invalid Subscript Reference (error 31)
- Reboot the computer.
- Document being edited has an invalid document number. Call Software Arts to change the document number from the command line.
- The **area.mem** file contains quote marks in one of the area names. Remove the quote marks via Option 34.
- A lower case letter exists in the document number. Call Software Arts to correct this, unless you want to try to find the lower case letter yourself. For Example (replace all SONO with upper)
- Re-index. Option 27 in the Settings and Utilities module.

17.4.39 Numeric Overflow (error 39)
- Data has been added to a pc/MRP dbf file from another program such as EXCEL causing numeric overflow in one of the fields in that file. Use option 41 in the settings and utilities to zero out the overflow. Users can also use dBASE or FoxPro 'replace' command to load valid values into that field.
- A BOM is calling itself. Run 'Audit BOM' and print the report to find the BOM.
- There is no true default print driver.

17.4.41 Invalid or missing memo file (Error 41)
- **Also see: 17.4.2091** Table 'tablename.dbf' has become corrupted (error 2091), if you have reason to believe that the database is corrupted.
- Another option is to copy the pcmrpw directory to the local C: drive, run pc/MRP, go to modules, re-index the affected database file, and copy the database file's .dbf, .fpt, & .cdx files back to the server.
- If this error message is displayed when generating an MRP, and it involves an ALTER TABLE command, the partmaster.altpartno or sales.comment fields may have illegal characters in them. Call Software Arts, Inc.
- A last case option would be to call Software Arts for directions on restoring a backup copy of the DBF, FPT and CDX files and re-entering lost data.
- If the memo file name is USERSETS, call Software Arts to run "FileUserSets" from the command line.
- If you get this error message and you can not replace the memo file because it is in use, call Software Arts, Inc. The support person will open the Command Line (from the error window) and enter the following:
  - set datasession to 1
  - use

Transfer a new copy of the table from the Software Arts development folder with the same version number. The enter into the command line:
  - use <name of database>
  - set datasession to 2

If this occurs in the middle of an update, you can now press the Continue button.

17.4.43 Insufficient memory (Error 43)
- Insufficient RAM memory, requires 128 meg
- If this error occurs while editing a PO or sales order, the PO or sales order has too many line items. Increase the RAM memory on that workstation and/or add the line 'me limit=60' (no quotes) to your config.fpw file using notepad. To limit the number of line items per PO or SO select option 63 in the settings and utilities.
- If this error occurs while running a cost roll up or generating an MRP, run the "Audit BOM" option. (Modules, Bill of Materials, Audit BOM) The audit option will check the BOM module for a BOM that calls itself. It will display a list of errors in the Bill of Materials module. Correct the errors and the cost roll up or MRP should run correctly.
- You are running too many executable programs at the same time, close all programs, reboot, and try running pc/MRP by itself.
- Index may be broken. Re-index the affected database table.
- Restore the related database file(s) from a backup.
- **Also see: 17.4.2091** Table 'tablename.dbf' has become corrupted (error 2091), if you have reason to believe that the database is corrupted.

17.4.50 Report file invalid (Error 50)
- Report file was not updated or updated incorrectly. Call Software Arts for the name of the report file. Then copy over the correct .FRX and .FRT file from the PCMRPUPD dir to the PCMRPW directory.
- Related index files may need re-indexing.
- If you get this error when you are attempting to modify a report using Option 24, this may be a 16-bit report. Call Software Arts to run: CONVERTFORM () from the command line. This function will allow you to pick individual forms to convert to 32-bit.
- pc/MRP directory is missing RPTCON60.EXE file; call Software Arts.
- Call Software Arts to clear the printer codes in all forms by running 'frxhpfix_all()' at the pc/MRP's command line.

17.4.52 No database file in use (Error 52)

If you are running an MRP report and a BOM exists in the partmaster but not in the BOM file and you hit continue after the warning msg you can get this error.

17.4.55 Memory variable file is invalid (Error 55)

.mem file is broken or corrupt. Call Software Arts to get the name of the file and copy in a new .mem file from a recent backup or the pcmrpupd directory. If the file is a local.mem file, it can be deleted. pc/MRP will create a new file. If the file is USERSETS.FXP (contains user scroll and report settings), you can call Software Arts, Inc. to run DO FIXUSERSETS from the command line.

17.4.56 There is not enough disk space for [path]:\pcmrpw\filename.fpt (Error 56)

- Check the disk space and quota allocation on the server.
- Check the user access rights to the pcmrpw directory on the server.

17.4.107 Operator/Operand type mismatch (Error 107)

- A character field was imported as a numeric field or a numeric field was imported as a character field. Correct the field type and import the data again.
- The user's USM file and / or the default USM file is corrupt. Delete both files and log back into pc/MRP with the user's name and password.

17.4.108 File in use by another (Error 108)

- You have attempted a 'USE', 'DELETE', or 'RENAME' command on a file that is in use by another person on the network.
- File with same name in another directory connected by the path statement is in use. This can happen with pc/MRP's .USR files. Assign the user another name for logging into pc/MRP.

17.4.109 Record in use by another (Error 109)

You have attempted to write to a file that is locked by another user. Go to the server and see who is using the file. (Reference Section 17.4.1705)

17.4.110 Exclusive open of file is required (Error 110)

- Somebody else is using the file. Wait until they are finished.
- File was left open when somebody shut off power to his or her PC. Get everybody off the network and reboot the server.
- You have two copies of pc/MRP open on your PC. Quit one of the copies of pc/MRP.

17.4.111 Cannot write to a read only file (Error 111)

- File has been attributed read only. In the PCMRPW folder no files should be attributed read only.
- This error message can occur if you have opened the drive and or directory shared as read only instead of full rights. In Windows 95, you must share the directory as well as the drive.
- Another program, such as Excel is using the .DBF file pc/MRP is trying to access. Close down the program.
- The user does not have network permissions to modify the related file. Go to the server, right-click on the pcmrpw folder, select Properties, Sharing tab, click on the Permissions button and make sure everyone accessing pc/MRP has Modify or Full Control rights. This can also be caused by a phantom lock that will have to be released as per **Section 17.4.1705** error write-up.
- Right click on the PCMRPW folder, select properties, remove the 'user' group from the pc/MRP folder and then add the 'user' group back to the PCMRPW folder.
- Cannot update the cursor SULF, since it is read-only. The pc/MRP directory does not have MODIFY rights for the users. It is also possible that the security settings had been lost.
- Cannot update the cursor SULF, since it is read-only. If you recently restored pc/MRP from a backup, and the backup was in a .zip file (not recommended) then several files might get attributed as blocked. In this case the SULF table might get read-only even if you unchecked the read-only box. Make sure all files are unblocked (you can download a Microsoft tool from the Internet) and then mark all files (including all files in the subfolders) not read-only.

17.4.112 Invalid key length (Error 112)

The product code size and suffix size equal or exceed the length of the entire part number. Decrease the product code and or suffix size.

17.4.114 Index does not match table file (Error 114)

- Index is broken. Rebuild the affected table index by re-indexing.
- If the file affected is not the Password file (WP.DBF), and re-indexing does not fix the problem, call Software Arts, Inc. for re-sorting or restore the .dbf, .dbt, .fpt, & .cdx files from a current back-up and re-index. Please note that you will lose any data entered into this file since the back-up file date. Example:
    1. rename addrbook.* to addrbookbu.*
    2. use addrbookbu
    3. sort to addrbook on id
    4. Modules, Address Book, Index
.
- Another option, (not the preferred option, because it would have to be performed at each work station), is to call Software Arts and have them send a file named pcmrp_external_indexer.exe (found in K:\Toolbox\Visual\ExternalIndex\Distribution). Place the file in the pcmrpw directory. Double-clicking it will extract the following 6 files into the pcmrpw directory (if different, select the correct production directory):

    saeiu.dll, saeiu.log, saeiu.tlb, saeiu.vbr, vfp6r.dll, vfp6renu.dll.

    This will allow VFP6 code to re-index the files. pc/MRP will use these drivers whenever a file is indexed. On some computers, the computer administrator must log into the user's computer and then "**regsvr32** {pc/MRP path}\DLLNAME.dll" from the Windows "Start, Run" window. pc/MRP versions **8.22 to 8.23B** require a "usesaeiu.flg" file in the production pc/MRP directory to use the VFP6 reindex files.

    An easier way to register the re-indexing ".DLL" files is to go to the Windows 'Run' dialog window and enter:
    - regsvr32 {pc/MRP path}\vfp6r.dll
    - regsvr32 {pc/MRP path}\vfp6renu.dll
    - regsvr32 {pc/MRP path}\saeiu.dll

    It is easier if you drag and drop the filenames, one at a time, onto the command line after the regsvr32. Remember to leave a space after the word regsvr32.

    If saeiu.dll exists in the pcmrpw directory, pc/MRP versions **8.23C and higher** will use the external indexer with or without the flag file and an indexing.log file will log all indexing events if it is in the pcmrpw directory. If an indexing.log file exists in the pcmrpw directory, opening it with notepad will tell you if pc/MRP used the internal or external indexer and what was indexed.
- Go to the command line (set an <u>admin lock</u> an create a backup first) and type "tablerandomize()", press execute, and choose the table, like addrbook.dbf for example. **This is the preferred method to fix this problem.** If the first attempt doesn't work, try tablerandomize() 2-3 times. (**8.22 and higher**. If you are using pc/MRP version **8.20 or 8.21**, call Software Arts to get the file from the 8.20 development directory.)
- The external indexer cannot index character date fields correctly if option 18 is set to European. In this case, rename the saeiu.dll to saeiu-orig.dll, which will keep the VFP6 re-indexer from running.
- Re-build the DBF file using pc/MRP's data recovery utility. (found in: K:\Toolbox\Visual\Data Recovery\Installer App). **This is the second preferred method to fix this problem.**
- Last resort, add a space to the index command. For example:
    USE snlot EXCL
    MODI STRU
    SnLot.SnBySn = UPPER(SNLOTNO+SUBSTR(PARTNO,1,15))+" "
    (type right into the index name, do not use expression builder)
    For Versions **8.60AA, 8.63F and 8.64A and higher** add file named IndexEXP.Flg containing just the modified index expression.

17.4.125 Error 125 Printer not ready

Printer is configured as a network printer when it is actually a local printer. Reconfigure the printer as a local printer.

17.4.202 Invalid path or filename (Error 202)

- pcmrpw directory is hidden.
- Network has lost connection with the server.
- BOMUP.MEM contains the wrong default directory. Delete the BOMUP.MEM, or do a cost roll-up.
- CONFIG.MEM file contains the wrong default directory. Run CLRCONFIG.EXE.
- If your computer does not have a C: drive (windows terminal workstation) select main menu and continue to use pc/MRP.
- Check to see if the pcmrpw directory contains the **remote.mem**; if so, delete it.
- Image file no longer exists for the partnumber.
- The document number (PO, Receiver, Sales Order number, etc.) contains a "\". Call Software Arts to run a command like the following:
  Replace all ReceiveNo with strtran(ReceiveNo, "\", "R")

17.4.356 Invalid Macro Key File Format (error 356)

An attempt has been made to use a macro file with invalid data. Delete all files with an ".fky" extension except the macro.fky. If that does not fix the problem, restore the macro.fky file from a backup.

17.4.1000 Internal inconsistency error (error 1000)

Go to the Settings and Utilities Module and run Option 27 to Re-index all files.

17.4.1098 API function UserError() was called

If this error occurred during a revision update, make sure everybody is out of pc/MRP and repeat the revision update. A file named RevUpdate.log in the pcmrpw directory will display which file was not restored.

17.4.1102 Can Not Create File (error 1102)

- pc/MRP may be trying to install a barcode font, the foxfont.fon, or the SAHTML driver. Try logging into this computer as an administrator. If this error occurs with the barcode fonts, go to the control panel and select to add/remove fonts. Then select the fonts from the pcmrpw\barfont folder. Administration rights may be needed to download and install these fonts.
- If this occurs when you are exporting to QuickBooks and you are using QuickBooks 2006 and higher: These QB versions do not allow pc/MRP to backup the QBW file before exporting. (You must do this from within QuickBooks itself before exporting.) Select Options, QuickBooks, Set Exporter Default Settings, Backup Options, and uncheck the Perform Backups checkbox.
- File is locked by the server, see error 1705, somebody may have turned off their computer while a file was still open.

17.4.1103 Invalid Seek Offset (error 1103)

A general fault protection error may have occurred. Exit Windows, shut down the computer, restart the computer and pc/MRP.
Network disconnect. Check your computer power save settings. Set sleep to NEVER.

17.4.1104 Can not read file (error 1104)

File is sitting on a bad sector. Use Microsoft's Scandisk to move data and mark out bad sector. Call your IT person. Go to the PC or server that actually contains the pc/MRP production directory. Start Windows Explorer, right-click on the drive that contains the pcmrpw directory. Select Properties and Check now. Check the disk without fixing or recovering errors. If it spots errors, copy the pcmrpw directory to another drive and then repeat the previous steps this time allowing the errors to be fixed.

17.4.1105 File write error. (error 1105)

- Hard disk is full.
- User does not have modify rights to the pc/MRP directory; usually 'pcmrpw'.

17.4.1108 Picture too big or wrong format (error 1108)

A picture has been loaded into memory and is corrupt. Reboot computer. If clrmem2.fxp is displayed it could be the pcmrpw.bmp file.

17.4.1234 Subscript out of bounds (error 1234)
- RAM may have caused error; exit pc/MRP and Windows, then reboot and try again.
- pc/MRP has a bad .USM user file.   Delete the broken user file (it will have the person's login name followed by the extension .USM.   Also, delete the default.usm file so that pc/MRP will recreate the default.usm file. Re-enter pc/MRP under that person's login name and pc/MRP will automatically create a new user file. If this error occurs when updating to a higher version of pc/MRP and the error message references Upd814code.fxp, Press Control F12 and the variable lcUserFile will equal the name of the bad .USM file.
- PCMRPW.EXE file has been corrupted; install a new copy of PCMRPW.EXE (must be from same version).
- Database file has been modified. Select configuration then select settings and utilities, press the next button, select option 39, print out the file structure of the database file involved and call Software Arts.

17.4.1282 Insufficient memory (error 1282)
- Windows does not have enough memory left to run pc/MRP for Windows.
- Make sure your workstation has at least 8 megabytes of RAM
- Close any programs that are running concurrently with pc/MRP
- Make sure your hard disk has a large permanent swap file (10-30M)
- Your computer may not contain enough RAM. Add the line "memlimit=60" (without quotes) to the config.fpw file. Config.fpw is a text file that can be modified with Notepad.

17.4.1405 Run Command Failed (error 1405)
- The directory is mapped as a drive. pc/MRP current update programs do not have this problem.
- If you are running the update through pcAnywhere and this error occurs, first run pcmrpupd.exe directly from explorer and then pcmrpw.exe.

7.4.1410 Unable to create temporary work files (error 1410)
- If you get this error while Removing Marked Records, make sure the hard disk that contains your pcmrpw directory and files is not full.
- Select Configuration, About pc/MRP, and press F1 to see the location of the temporary directory or enter %temp% into the Windows Explorer address line. Make sure that the directory exists and that you have 'MODIFY' rights to it and the pcmrpw directory.
- Files are attributed READ ONLY.
- The user's temp directory is checked as "Hidden". Or a directory above in the path is checked "Hidden'.

17.4.1426 Class Not Registered (error 1426)
- If this error occurs when updating from a previous version of pc/MRP to 8.20 and above, the computer you are updating from does not have MSXML3.0 installed. Either install from a newer computer that may have XML3 installed or get the MSXML3.MSI file from the Microsoft website to install.
- Process MRPMAIL.FXP OLE error. Registry entries for pc/MRP to create an instance of MS Outlook to attach a document to an email are not valid. Contact Software Arts.

17.4.1429 OLE Error (error 1429)
- If a QuickBooks error, please see 16.16.6.1429
- If the message mentions 'DTPicker' and 'date not within range' while attempting Option 14 in the Settings & Utilities module, delete the file 'acctdefault.mem' in the pc/MRP directory and do Option 14 again.
- pc/MRP contains two files named 'SAOCX.EXE' & 'SAIBTLC.EXE' in the pcmrpw directory. (**8.20U and higher**) Locating these files in Windows Explorer and double-clicking on them it will register all of the '.ocx' files required by pc/MRP. (You need to be the computer administrator.) (If not able to run the files on the server, copy them to the workstation's desktop, and try to run there.)
- Otherwise call Software Arts, Inc with the name of the fxp file, the line number and the error message.

17.4.1435 XML Parse Error (error 1435)

- Caused by an improperly formatted XML file passed to XMLTOCURSOR() function.
- If displayed when updating and adding list items for 'Ship Via', delete the 'lists.tpx' prior to re- running the update program as the update program is unable to overwrite the original 'lists.tpx' file.

17.4.1691 Library file is invalid (error 1691)

- Library file has become corrupt in memory, exit pc/MRP and restart your computer.
- Check the network for hub collisions. The hub light will go yellow or red when it is being used if there is a collision. Disconnect the workstation causing the collisions from the hub.

17.4.1705 File Access Denied (error 1705)

- Somebody else is using the file, the operation you are running requires exclusive use of the files, get everybody out of the file and try again.
- File is protected as Read/Only. Use Windows Explorer to remove protection.
- Exit out of windows, and re-enter windows
- If you have a NET.CFG = or SHELL.CFG, make sure the FILE HANDLES statement reads FILE HANDLES = 99
- Another application or program such as FOXPRO, R&R Report Writer or dBASE has opened the file for exclusive use
- You are trying to run a single user version of pc/MRP on a network as a multi-user product and either you have a second copy of pc/MRP open or another user has a copy of pc/MRP open.
- You are running a multi-user version of pc/MRP using Novell networking software and you have not flagged the five files sharable read only.
  Flag the 7 files CONFIG.FPW, MSG.DBF, FOXFONT.FON, PCMRPW.EXE, STARTMRP.EXE, FOXTOOLS.FLL FOXW2600.ESL SRO (sharable read only).
- Somebody turned off the computer power while in pc/MRP and after a file or record was locked. Users can either Reboot the server or close the locked file through accessing the server. The quick fix is to reboot the server. Make sure however, everyone is logged off the server. Then and only then, shut off the server and power it back up again. The file and or record will be unlocked.
  - If you opt to release the locked file, and you have Windows NT Server,
    - Go to the server,
    - Select start, programs, and admin tools.
    - Select server manager and double click on the server.
    - Select "In use" right-click on the pc/MRP resource file and select "Close the open file".

  - If you have windows 2000 server:
    - Go to the control panel,
    - Select Admin Tools, Computer Management,
    - System tools, Shared folders, Open files,
    - Select the pc/MRP resource file(s) that is(are) listed, right-click on it and select "Close the open file".

  - Another way to get to the "In Use" screen and remove the owner of a certain locked file:
    - Click on the "Start" button,
    - Select "Settings",
    - Select "Control Panel",
    - Double click on the Server icon,
    - Click on the "In Use" button
    - Select the pc/MRP resource file(s) that is(are) listed, right-click on it and select "Close the open file".

  - If that does not fix this error then you will have to reboot the server. Once again, make sure everyone is logged off the server if you choose to reboot.

- With the BOM module, if two people try to print out a BOM at the same time and both have logged in with the same name, the second person will get an error 1705. To prevent this, have everybody log in under a different name (mikes and mikeh instead of mike and mike)
- If error 1705 occurs with an index file, delete the index file and then rebuild it by re-indexing that file.
- You do not have modify rights (read, write, delete) to the pcmrpw directory. The pcmrpw directory and or the directory(s) above the pcmrpw directory have not been shared as full. Although the drive containing the pcmrpw directory may show modify control to everyone, the pcmrpw directory itself may have less than modify control rights to some files. To correct this situation open explorer and right click on the pcmrpw directory, select properties, select security (available on NTSF formatted drives only), select permissions, select modify control, check both the "Replace permissions on sub directories" and "Replace existing permissions" check boxes. Click on the OK button and Windows will give full control to all users for all files within pc/MRP.
- If you get this error when starting up, delete a file called local.mem and reboot.
- If you get this error while trying to scan for your browser, you do not have rights to write to your local windows directory.
- Somebody has taken over local ownership of a pc/MRP directory or file. To remove the local ownership of the pc/MRP directory, open Windows Explorer, right-click on the pcmrpw directory, select Properties, Security, Advance, make sure everyone has Allow All permissions checked, click OK, check Reset Permissions on all child objects, and click OK
- If the error process is 'Procedure reindex2_openreindex2.fxp' then check that all users have modify rights or higher. If these rights are inherited, you must grant the same rights in the parent directories or change the rights to this folder, subfolders, and files. See [IT101 Slide show #2 or #3](#) depending on your server.
- If this occurs during an AutoUpdate, update from the MENU and not from the warning message.
- You do not have full access rights to the pc/MRP directory or there is another copy of pc/MRP open. At the user's command line, enter "modi file revupdate.log" to view the name of the file causing the problem.

17.4.1707 Structural .CDX 17.file not found (error 1707)

User has created a .CDX index file for a .DBF file. Delete the associated .CDX file and re-index. .

17.4.1712 Field name is duplicate or invalid (error 1712)

If using AR report, delete billtmp.dbt.

17.4.1718 File is marked as READ ONLY (error 1718)

Temp folder is marked as READ ONLY. Try creating and deleting a text file in this directory using MS Notepad. Entering %temp% at window address bar will return the temp dir address.
If the company is using Kaspersky anti virus software, add pcmrp.exe and pcmrpw.exe to the list of trusted files. Show hidden files and folders and uncheck hide protected operating system files using Windows Explorer Tools Folder Options and View.

17.4.1734 Property ALIST is not found (error 1734)

A dropdown list may be empty. Use the Configurations & Settings menu, Option 52 to enter at least one item.

17.4.1915 Collating sequence "name" is not found (error 1915)

An index file is broken. Call Software Arts, Inc. to delete the index file. This can be caused by a computer using a collating sequence for a different language causing the index to become useless for other computers. Delete the named index file (.idx) and add the line COLLATE = "MACHINE" to the config.fpw text file in the pcmrpw directory. You should also ensure that all users' computers are set to use "English(United States)" as the language option. Go to Control Panel, Regional and Language Options. On the Regional Options and the Advanced tabs, ensure that "English(United States)" is selected in the drop down boxes.

17.4.1925 Unknown member "name" (error 1925)

- If you get this error msg while updating the partmaster file, change all semi-colons(;) to colons(,) in partmast descriptions. Command Line: Replace all descript with chrtran(descript, ";" , ",").
- If the message contains 'Quickform Generic…', Update to version 8.60AF or higher.
- If this message contains the word OLE, see Section 17.5.32 Class not registered.

17.4.1943 Unknown Member "recipients" (error 1943)

Outlook must be running when emailing documents (like POs, etc) as pc/MRP uses MS Outlook to attach the document to the email (pc/MRP does NOT use Outlook Express).

17.4.1951 Error Cannot clean the object UPDATEREMINDER because it is in use. (error 1951)

You can either:
1. Run the auto update from the configuration menu instead of from the pop-up message saying you have not updated in a while.
2. Do a manual update by downloading from the FREE UPDATES page on our website.
3. Call Software Arts, Inc to help resolve this error.

17.4.1957 Error Accessing Printer Spooler (error 1957)

Delete the pc/MRP printer driver from your computer's printer list and then re-login to pc/MRP so the program can re-install the pc/MRP printer driver.

17.4.1958 Error Loading Print Driver (error 1958)

- Try rebooting the client PC. If the error persists, reboot the server and/or un-install and re-install the print driver as in 17.4.1957.
- Type FRXHPFIX() at pc/MRP's command line and select the '.frx' file from which you want to remove the stored printer codes. To remove the printer codes from ALL the forms, enter FRXHPFIX_ALL() at the command line.
- Rename the print driver. Re-install the print driver with a different name, make sure to set it to the correct port USB or LPT1.
- See Section 17.11.1 & 2.

17.4.1960 Illegal definition of a variable (error 1960)

- Press 'Main Menu' button and continue to exit pc/MRP. Re-start pc/MRP and continue.

17.4.1976 Cannot resolve backlink (error 1976)

Run (clear.table backlink("database filename")) will return 1 if backlink removed, 0 if it did not have a backlink or table is invalid, and -1 if it could not access the file.

17.4.2005 Error loading file (error 2005)

Try rebooting the client PC. If the error persists, re-install pc/MRP from a manual update on our website for your version. This is possibly caused by a bad uncompress of the update files.

17.4.2062 Invalid Key (error 2062)

The receiver, sales order, invoice, or purchase order has a duplicate item number.

17.4.2066 Index file is corrupted (error 2066)

Index file "….cdx" tag "…" is corrupted. Reindex the module.

17.4.2091 Table 'tablename.dbf' has become corrupted (error 2091)

If the file is a temporary DBF file, such as auditmp.dbf, you can simply use Windows Explorer to delete (or re-name the dbf file and its index if your wish), and then retry the program that was displaying the error message. pc/MRP automatically re-creates the temporary DBF files it needs if they do not exist.

If the dbf file is your password data file, restore from a backup. Or, you can call Software Arts for an authorization code to re-create the file with one user MASTER, with a password of MASTER. If you choose to re-create the file, you will have to re-enter all of your user names, passwords, and module rights.

The database file has an invalid record count in the database header or has a corrupted data record. Call Software Arts, Inc. to have the support person transfer the data recovery utility to fix the database file and then re-index the database.

Note: pc/MRP includes auto-repair of simple table corruption caused by record count mismatch. Available **8.70AC, 8.73E** and higher.

NOTE: Software Arts, Inc. does NOT suggest you attempt this repair without Software Arts, Inc's help.

1. On the computer with the error message, you can determine the corrupt file by pressing **CTRL F12** when the error is on the screen. This opens a .txt file. Here search for the "**Currently Selected Table**" The .dbf file listed directly under this heading is the corrupt file.
2. Set the Admin Lockout and wait for everyone to exit pc/MRP.
3. To backup the affected database files at the pc/MRP command line:
   As an example, enter '**copy file addrbook.* to addrbook20130718.***'
4. Exit pc/MRP.
5. Transfer the self-executable file, "**K:\Toolbox\Visual\Data Recovery\Installer App\pcMrpDRU_1.2.exe**" to the customer's **pcmrpw** directory. If you right-click on the pc/MRP shortcut and select **Properties**, you will see the location of pc/MRP.
6. Double-click on the **pcMrpDRU_1.2.exe**. This will extract the needed files (9) into a newly created sub-directory named "Data Recovery Utility".
7. Using Windows Explorer, navigate to the "**Data Recovery Utility**" directory and run (double-click) on the program file "**DataRecovery.exe**"
8. Follow the slideshow instructions in the MRP101 section of the pc/MRP's website at: http://www.pcmrp.com/mrp101/filefixclickondatarecovery.htm
9. When finished with the data recovery utility, log back into pc/MRP using the same computer & logon name you used to set the admin lockout in step #1.
10. **Re-index the affected database** by going to Modules, select the module e.g. Addresses, and then Index.
11. Test that the database is no longer corrupt by checking the data using the process that created the error.
12. Check with the user to determine if all the data is there or that they may have to re-enter the data.
13. Remove the Admin lockout you set in step #1.

17.5 Error Messages without Numbers

17.5.1 Watcom WIN386 not running on a 386 DPI implementation error msg appears
Try starting Windows with WIN/D:X command instead of WIN. If that works modify the emm386 line in your config.sys file to read: DEVICE=C:\WINDOWS\EMM386 NOEMS I=E000-EFFF

17.5.2 pc/MRP says Record does not exist
- Item you are searching for has one or more blank characters. Scroll to the top of the screen to see if it is there. Once you have found it, correct the error by editing the item you are searching for; find where it should be and or what it should be and change it so there are no blank characters.

17.5.3 pc/MRP says Can not save record, record has been edited by another
- The pc/MRP dbf file has a numeric overflow in one of the fields.
  Use dBASE or FoxPro for Windows to replace the field with valid values.
- Use option 42 in configuration settings and utilities to zero out the overflow. This is usually caused by a PO ration of 0 (Zero) in Inventory.

17.5.4 Cannot edit a document.
- User selected VIEW instead of EDIT under ACTION.
- The Advanced Password module is activated and the user does not have edit rights to the module.

17.5.5 Cannot delete a document.
- User selected VIEW rather than EDIT.
- The Advanced Password module is activated and the user does not have delete rights to the module.

17.5.6 Highlighting a part in a BOM displays another partnumber.
The BOM has duplicate part numbers. Edit the BOM and change the item number of one of the effected parts.

17.5.7 Address and PO logbook files keep asking if you wish to convert the files
When you get to the save window, select save as WRI files.

17.5.8 Variable not found
If pc/MRP for Windows is closing the month and the variable not found is MDUMMY, the chart of accounts has a record in it with an illegal account type code. The chart of account record number will be displayed at the bottom of the screen. Edit the record and fill in the account type field with a legal account type code.

17.5.9 Dialog box asks "Overwrite invalid foxuser file"
Answer Yes to this question as a new empty foxuser file will not hurt anything.

17.5.10 Internal Inconsistency Error Message
- Video driver is incompatible with FoxPro for Windows, change to a standard VGA driver and see if that solves the problem.
- Reindex the database file that is being used when the error occurs.

17.5.11 Stack Fault Error Message
This message can be caused by a broken index file. Re-index the database file that is being used when the error occurs.

17.5.12 Macro Overflow.
Macro file has become corrupt or too long, delete the macro file "username.fky" or re-enter the macro you are running.

17.5.13 Library file is invalid
Library file has become corrupt in memory, exit pc/MRP and restart your computer.

17.5.14 Record has been edited by another.
- Somebody has edited and saved the record since the last time you opened the record for editing. Edit the record again.
- One of the fields has a numeric overflow (all stars in the field). Call Software Arts for instructions on running overflow.prg. Run Option 41 in the configuration settings and utilities menu to zero out the fields that have overflowed.

17.5.15 Cost roll-up and exploded BOMs contain incorrect dollar amounts.
If you are using a language other than English, use note pad to add the line: Point = "." to the *config.fpw* file in the pcmrpw dir.

17.5.16 MSG.DBF does not have an entry for <name of menu item>
pc/MRP's MSG.IDX file has become corrupt. Exit pc/MRP and use explorer to locate and delete the MSG.IDX file. Re-enter. pc/MRP will recreate the MSG.IDX file automatically.

17.5.17 pc/MRP field contains nothing but asterisks or stars (numeric overflow).
Use Configuration, Settings and Utilities, Option 41. This program allows the user to select a DBF field and zero out the overflow. Call Software Arts for instructions on running this program.
This can also be caused by not having a true default printer driver.

17.5.18 When scrolling for something (Inventory or BOMs), pressing enter does not open the selected file.
The user **FKY** file has been corrupted. Find the user **FKY** file, their login name with an .FKY extension and delete this file. All macros and personal save settings will be deleted for this user.

17.5.19 Insufficient memory when editing Address Book.
Go to the Configuration Settings & Utilities Option 52 to edit every text files. If a message comes up indicating the file is too big to open in Notepad, that is the file causing the problem. Use Windows Explorer to rename the file to another file name and go back to the Configuration Settings & Utilities Option 52 to recreate the file.

17.5.20 Part number in a BOM is not Issued when Running the Stockroom Issue Function.
The partnumber in inventory is checked as being floor stock. Un-check the floor stock check box.

17.5.21 When printing a BOM an incorrect part number displays or prints out in every BOM.
The BOMTEMP.DBF contains a record with this part number in it. Call Software Arts for instructions on how to ZAP the BOMTEMP.dbf file.

17.5.22 Browser location changes for everybody when individual user changes his browser location.
Browser location is stored in local windows directory on workstation in a file named BROWSMRP.UMF. Network maybe setup such that server contains the windows directory. Mark the BROWSMRP.UMF file read only in the server's windows directory. You can change the browser used to open the module. You can also open the BROWSMRP.UMF file with notepad but do not change it.

17.5.23 Cannot open or locate Visual FoxPro Library File
Restore VFP6R.DLL and or VFP6RENU.DLL from a backup copy if either of these two library files are missing.

17.5.24 Class not registered error message

- When pc/MRP needs to use a class library .DLL or .OCX file, the operating system will first look in the registry, if it finds an entry in the registry pointing to where the .DLL or .OCX file is located and that file does not exist, the operating system will throw an error message. If it does not find an entry in the registry, it will look in pc/MRP's home directory. If it does not find the .DLL or .OCX file there, it will look in the system folders. If it does not find it in the system folders, it will throw an error message.
- pc/MRP versions 7.50 and higher use the following DLL files, VFP6R.DLL and VFP6RENU.DLL
- pc/MRP versions 7.52 and higher use the following .OCX files, MSCOMCT2.OCX (Date Picker), CTSCTSCHEDULE.OCX, TIME LINE OCX, CTTABS.OCX, CTTIPS.OCX (MRP Timeline Report)
- pc/MRP version 7.83 added MSCCOMCTL.OCX (Tree View for Corporate Reporting)
- To fix the problem you could do the following. (1) Copy the missing file into the directory the registry indicates it should be in. (2) Copy the missing file into the System32 folder or the System folder (Win 98 and 98). (3) Open up Explorer, find the file, leave the Explorer window open, Click on the Start button, Select Run and register it by typing in REGSVR32 and drag and drop the file from explorer into the run command line one space after the word REGSVR32. Be aware, if you move this file, your computer may not be able to find it. If you are going to delete some of the registry entries, make a backup of the registry by selecting export and giving it a name to import it back in from if necessary.
- pc/MRP contains two files named 'SAOCX.EXE' & 'SAIBTLC.EXE' in the pcmrpw directory. (**8.20U and higher**) Locating these files in Windows Explorer and double-clicking on them it will register all of the '.ocx' files required by pc/MRP. (You need to be the computer administrator.) (If not able to run the files on the server, copy them to the workstation's desktop, and try to run there.)
- Other cures might include disabling a virus checker that is not allowing un-registered DLLs to run or an operating system doing the same.

17.5.25 Version Mismatch

pc/MRP has detected a version type mismatch. This occurs if a manual update is downloaded from our website and applied to a different version of pc/MRP. Restore from a back-up or call Software Arts, Inc. Software Arts will use Notepad to edit the config.fpw file to match the original version of pc/MRP prior to running the manual update. Software Arts then will run a full update to the newer version. By modifying the config.fpw file the update will know what version it is updating from.

17.5.26 Alias config.tmp is not found.

Select ignore, then Cancel. Go back into pc/MRP and the problem should be fixed.

17.5.27 Cannot change quantities, costs, and locations when adding part numbers.

Change Option 62 to allow editing of these fields.

17.5.28 Microsoft Visual FoxPro cannot load Resources.

1) re-boot the computer if this is the only computer affected.
2) delete foxuser.dbf & .fpt if they exist.
3) config.fpw should have a line: dataresources = off
4) Copy all DLL, OCX, FLL, and EXE files from a backup copy of pc/MRP containing the same version & revision number of pc/MRP into the pcmrpw directory, eg. "8.80K".

17.5.29 The configuration table used to check configuration changes is no longer available.

- The table was closed by a sub-process during the repair of an invalid table structure. Any changes made to application data have not been saved.
- Click the OK button when you get this message and re-enter your changes (if any) into the config menu.

17.5.30 Unable to access the "_____" data table. The index file could not be created.

pc/MRP was unable to obtain exclusive access to the named table. Get everybody off the table and try again or see error 1705 (Section 17.4.1705) for solutions if it is a phantom file lock.

17.5.31 Attempting to obtain Administrative Lockout will not allow cancel.
- If pc/MRP was not successful in running a scheduled task, and that task needed an Administrative lockout, pc/MRP will continue to try and obtain an Administrative Lockout in order to run the task. Pc/MRP versions 8.15 and above have a Cancel button for the administrating computer to use. You can then re-evaluate the scheduler's re-try options and then remove the Administrative Lockout.
- For versions of pc/MRP **8.14 and lower**, you must do a Ctl-Alt-Del on the administrative computer to stop that instance of pc/MRP, re-login and change the scheduler's re-try options.

17.5.32 Consolidated Infinite Bucket Report contains erroneous data.
Call Software Arts, Inc. to clean up (ZAP) the MRP2CONS.dbf file.

17.5.33 Invalid Seek Offset (without an 1103 error number)
- A general fault protection error may have occurred. Exit Windows, shut down the computer, restart the computer and pc/MRP.
- The computer logon may not have MODIFY rights to the pcmrpw directory.
- Network disconnect. Check your computer power save settings. Set sleep to NEVER.
- An Invalid Seek Offset Error Message is a system error message and can not be trapped by pc/MRP's VFP Error Logs (Error.log and Vfp9Rerr.log). This is an error in RAM which could be caused by bad RAM, printer drivers, indexes, NIC card, Hard Disk, cable, switch, auto defrag, auto backup, power saving (NIC,HD) etc. The error will be trapped in the event history system logs and the program/application log may reveal activity leading up to the error. See IT101 on the pc/MRP website:
  http://www.pcmrp.com/it101/w7reliabilityselectcontrolpanel.htm for W7/2008
  http://www.pcmrp.com/it101/xpreliabilityselectcontrolpanel.htm for XP/2003

17.5.34 Cannot import Excel 2007 files into pc/MRP
Running Office 2007 Excel on a Vista computer.
Save the Excel files as 'Excel 5.0/95' workbooks and then it will import into pc/MRP.
When you go to Properties of the 5.0/95 Excel file, it will say '97-2003 workbook' even though you saved it as a 95-97 workbook.

17.5.35 An essential program file has generated an error API00??
A software error has occurred; call Software Arts.

17.5.36 Delayed Write Failed error message
Windows 2000 requires SP4, XP requires SP2.

17.5.37 Reports Display zero totals
It could be a numeric overflow problem. Use Option 41 in the Configuration, Settings & Utilities menu to repair the data in the database table. Manual, Section 15.1.41.

17.5.38 One or more users cannot view area 3 in the Inventory screen
With versions **8.40** and lower and versions **8.43M** and lower, the Optional Password module would create a Master/Master record without rights to stores area 3 when the password database was created. Users created from the Master/Master record, would not have access to stores area 3. For any record created from the Master/Master record and the Master/Master record itself, hide inventory area 3, save it, then un-hide the inventory area 3 and re-save the record. By doing this for the affected records, you will not have to re-enter all the other permissions already given to the user(s).

17.5.39 On order quantity not adjusted correctly
A PO was deleted without first zeroing out the quantity ordered.

17.5.40 Entering a receiver does not adjust the inventory's onhand quantity correctly.

- The PO ratio for that part number was imported with a value of 0. If the issue unit is the same as the purchase unit change the PO ratio to 1.
- The quantity was increased in the wrong part number. The inventory index file is broken. Re-index the inventory file (partmast.dbf).
- The PO has already received the full quantity on a prior receiver, and the user overrode the warning.
- Browse the Receive table to see the Orgareaqty for the part: the user might not be correct about what the OH qty was before receiving.

17.5.41 Drive space is Critically Low

Drive space is Critically Low

❌ **Your temporary file drive (C:) has only 48.05 MB Remaining.**

To prevent possible corruption of pc/MRP's data integrity, pc/MRP is not permitted to operate without at least 50 MB of disk space available on this drive.

You or your system administrator MUST increase the amount of available space on this drive before pc/MRP will resume operation.

[OK]

This message will refer to the user's computer if pc/MRP runs in a LAN environment. If in a Terminal Server environment, this refers to the terminal server's drive. Contact your IT department to resolve the problem.

17.5.42 Indexing files is extremely slow

If you have a file named SAEIU.DLL in the PCMRPW directory rename it to SAEIU_ORIG.DLL. This will allow pc/MRP to use VFP 9's indexing DLLs.

17.5.43 File sadel.fll is invalid

That pc is missing MSVCP71.DLL. Call Software Arts, Inc and have them transfer MSVCP71.DLL from their developer directory to the PCMRP folder.

17.5.44 File Access Denied or Error Reading File (also see the next section)
Turn off Kaspersky antivirus program at server and workstations. If the problem goes away uninstall Kaspersky and install a different antivirus program, or exclude Kaspersky from checking the PCMRPW folder. This same error could be due to a virus checker other than Kaspersky.

17.5.45 Error Reading File or Exception code=C0000006
If the file it is trying to run is in a users temp directory (especially users Kim, Ron, Doug, Richard): Change your network switch mode from static port trunking to LACP.

17.5.46 pc/MRP runs extremely slow and/or has frequent Data Corruption

This could be an SMB2 protocol problem. See IT101 slide show #27.
http://www.pcmrp.com/it101/w7regeditstart.htm

17.5.47 User settings are not saved

User settings (like the size of the windows) are not saved: The USERSETS table might be corrupted, or there is a phantom lock on it. Call Software Arts.

17.6 Print or Display Problems

17.6.1 Reports do not print out or display correctly

- You do not have a default printer driver installed. Prints ************ or has bad margins.
  Go to Control Panel, select Printers, select Add Printer or make one of the existing printers your default printer.

- You do not have a compliment SVGA driver installed in Windows Setup.
  Use Windows setup program to install a standard SVGA screen driver.

- You do not have the correct printer driver installed as your default printer.
  Install the most recent printer driver from Microsoft and or the printer mfg for your printer using Control Panel, Printer Screen.

- You have an Apple Post Script laser writer installed as your default printer.
  Select a printer that can handle Windows True Type Fonts or modify the setup on your printer to handle True Type instead of Post Script.

- You are using the printer setup routine to change the printer orientation format in a manner that the report was not designed to print out in. Wide carriage reports , "W", were designed to print out on a wide carriage dot matrix printer in portrait orientation using fan fold 14x11 paper. Narrow carriage reports "P" were designed to print out in on a laser, dot matrix, or inkjet printer using 8-1/2x11 paper in landscape orientation. pc/MRP's reports will default to portrait if you select "W" and landscape if you select "P". If you change the orientation with the printer setup screen when running the report the printout may be cut off. If you want to get a wide carriage printout with a laser printer, read the instructions below.

- Your printer cannot print Courier New True Type Fonts (make sure you have Courier New True Type Fonts installed). Set the printer settings to True Type as Graphics. Try printing a Write file with Courier New True-Type Fonts. If it cannot, call PC manufacturer. With certain versions of Windows, you must select the Apply instead of the OK button when changing True Types to graphics.

- pc/MRP prints and displays little square boxes in place of normal characters because of conflicting fonts such as those used by Corel Draw.   Make sure the PC has courier new font installed. If that does not correct the problem delete the conflicting fonts (Corel Draw).

- In some cases with certain HP printers you can install smart fonts with the HP printer driver. Select Printers, select the HP printer driver, and click on the "Install Smart Fonts" button.

- The hard disk is full not allowing print manager to place the file on the hard disk. Go to program manager, select main, select print, uncheck print manager if it is checked and try to print out again. If you are able to print out without print manager on you should clean out some of the files on your hard disk to allow print manager to work.

- The network print buffer timeout time is not set correctly. Set the print buffer time out time to 10 to 30 seconds. On some networks setting this value to zero will actually set the time out time to infinite time out. If you have an NT or 98 server you can increase the printer time out settings by selecting settings, printers, right click on the printer, select properties, select ports, select configure port, set time out transmission retry to 60 to 90 seconds.

- Some HP printers include printer monitoring software that remains active at all times, informing you of low paper, no toner, etc. In some cases this software must set such that is does not display (icon is visible) at all times as it will not allow a time out page eject signal.

- If the form totals print out with ************** instead of totals you probably are using a generic print driver. Change to a valid print driver for that printer.

- If the form totals are 0 while detail values are other than zero, you might have a numeric overflow, maybe in the average cost of a part.

- If the left portion of the printout is missing and you have a postscript printer, change the margin to none.

- Make sure your print spooler is turned on. (see Section 17.4.1915)

- Turn off the printer, wait 60 seconds, turn the printer back on and reprint the form or report.

- Item number is not in a printable range of 0001-9999.

- Call Software Arts and have them send you a fresh copy of the report or form's .frx &.frt files.

- Custom reports that used to work in an earlier version, now display ***** in certain fields. Make sure that you have chosen the correct data type (Character, Numeric or Date) for the field displayed.

17.6.2 Windows version of pc/MRP appears in a small window in upper left portion of screen

pc/MRP is designed to completely fill an SVGA screen (800x600). Running pc/MRP in higher resolution modes will allow pc/MRP to appear in a smaller screen in the upper left portion of the screen. Change your display setting to a smaller resolution. If you are not sure how to do this, contact your IT personnel.

17.6.3 Cursor jumps around when scrolling a data base file

Re-index the data base file that is being scrolled.

17.6.4 pc/MRP only displays the top menu until you click on a top menu item

Open up the config.fpw file with Notepad and remove the line BITMAP = OFF.

17.6.5 HP DeskJet printer does not print out multiple copies

You are not using an up to date HP DeskJet print driver. Call HP (not Microsoft) and order the latest HP DeskJet print driver version 6.1 or higher.

17.6.6 Print outs are too slow on a dot matrix printer

When you get to the print window, select a lower resolution or draft printout.
If you own a laser printer you can print out the wide carriage reports by pre loading the laser printer with legal size paper. When you get to the print window, select landscape and legal size paper. If the laser printer does not have a legal size tray but can accept legal size paper you must configure it to accept legal size paper by following the directions listed below(for IIP, IIIP):

Click the On Line Key to take the printer off line
Click the Menu Key (should display MP SIZE LETTER)
Click the + Key to get LEGAL
Click the Enter Key
Click the Menu Key until you come to JOB SIZE
Click the + Key until you get to LEGAL
Click the Enter Key
Click the Menu Key until the display reads READY LEGAL
To reset the printer back to letter size as follows:
Click the On Line Key to take the printer off line

Click the Menu Key (should display MP SIZE LEGAL)
Click the + Key to get LETTER
Click the Enter Key
Click the Menu Key until you come to JOB SIZE
Click the + Key until you get to LETTER
Click the Enter Key
Click the Menu Key until the display reads READY LETTER

17.6.7 pc/MRP locks up when trying to print/display a form.

- Check the related database file for blank records. Mark the blank records for deletion and remove them.
- Enter another record, print it out, then print out the previous record that would not print out.

17.6.8 Barcode printout cannot be read by a bar code wand

The bar code font should be 26 points or higher and should not be printed out in bold. The 3 of 9 font requires that the variable be entered as (example is for the variable PARTNO):

"*" + UPPER(ALLTRIM(PARTNO)) + "*"   *or*   BAR39STR(PARTNO)

17.6.9 Totals do not print out on the bottom of forms (POs, Invoices, etc.)

Recreate the boilerplate for those forms using Option 22 in the configuration menu.

17.6.10 Numeric values do not print out on form

If you have leading blank spaces in the invoice number, edit and fill the blank spaces with leading 0s.

17.6.11 Form contains fields from another record

Delete the database reference for the field. For example purchase.modelno should be just modelno.

17.6.12 Line items no longer are in order or exist after entering a PO or Sales Order

Create a pcmrpw directory in a workstation, copy all of the files from the server's pcmrpw directory into the workstation's pcmrpw directory. If the workstation can create multiple line item POs and Sales Orders, the network must be carefully examined.

17.6.13 Printouts and editing BOMs take a long time.

Eliminate other programs running in the background such as, screen savers, anti-virus programs, etc.

17.6.14 Buttons are missing from screen.

Foxfont.fon is missing, corrupt, or not marked read only. Locate the foxfont.fon make sure it is attributed read only. If it is missing restore this file from a backup. If after locating and attributing the file read only, pc/MRP still does not work, restore foxfont.fon from a backup.

17.6.15 BOM report displays more parts than are in the BOM.

Some BOM and partnumbers are longer than the partnumber length set in the Settings and Utilities. Change the partnumber length in the Settings and Utilities to be large enough to include the longest partnumber.

17.6.16 BarCode fonts do not print out.

Bar Code Fonts are not installed, see Section 16.4.2.

17.6.17 Displaying or printing a report, form, or, label gives you an "Alias not found" error message.

The report or form contains a reference to a file (.bmp or .dbf) that does not exist. This error can occur when pc/MRP interprets file names because the 16-bit version only accepted 8 character names while the 32-bit version accepts larger names. To fix this, open the report form that has this error using option 24 in the settings and utilities. Then, remap the image or table to the form. This will save the full true mapping.

17.6.18 Reports print with large fonts.

Do not print from the display window tool bar icon. Instead, select print from the menu bar. You may need to close the display window to see the print dialog window.

17.6.19 Running 16-bit report with 32-bit version of pc/MRP.

This will cause an error when running the report as well as an error 50 when opening the report using option 24. See error 50 for the fix.

17.6.20 Sales Order will not display or print.

The Sales Order line item number is not numeric.

17.6.21 Print to Excel loses report columns.

This is not an error. Other than the primary DB table, linked DB tables used in reports are not exported to Excel, DBF, or TXT files.

17.6.22 Printer icon in Print Display toolbar does not print to or sends the report to the wrong printer.

Click on "Printer" in the menu instead. This will allow you to select the printer to send the print job to. The printer icon in the toolbar is designed to send the Form (report) to the default printer. When a user creates a custom form, that form points to the default printer for that user. The reference to his printer can be removed by entering '**FRXHPFIX()**' at pc/MRP's command line and selecting the form he wishes to remove the printer settings from. If you wish to remove printer settings for all your forms, run FRXHPFIX_ALL() from the pc/MRP command line. Please contact Software Arts, Inc. for instructions on accessing pc/MRP's command line.

17.6.23 PDF file doesn't open correctly for user receiving the file.

See Section 17.11. 2

17.6.24 Error Loading Printer Driver.

See section 17.11.1

17.6.25 Printing reports shows the red Ctl-F12 information in the upper right corner.

Do not print from the display window tool bar icon. Instead, select print from the menu bar.

17.6.26 Displaying or printing a report, form, or, label pops up a window looking for a picture file.

The report or form contains a reference to a file picture file (.BMP, .JPG, .GIF, etc) that does not exist in the referenced location. To fix this, open the report, for, or label that has this error using option 24 in the settings and utilities. Then, remap the image to the form. Save the file as this will save the full true mapping of the image. If the files name is not known, call Software Arts, Inc. and a support person will go to the command line, enter "use filename", browse, locate a tag# 17 to see the actual picture/logo reference on the form.

17.7 Start-up and Update Problems

17.7.1 pc/MRP having trouble starting up and or installing
- Video card driver has compatibility problem with pc/MRP. Use Windows Setup program to change to a standard VGA video driver.
- The pcmrpw.exe or fpw2600.esl execute files are damaged. Call Software Arts for instructions on replacing those files.
- For divide by zero, overflow and invalid library error messages on 400-megahertz Pentium computers, go to the Technical Support page on our webpage to download the foxw2600.esl program.
- The computer you are trying to install pc/MRP has a virus. One customer was getting an error msg VER.DL_ not found. Running a directory on disk one after an installation had been attempted revealed a new file with the letters IBM in the new file's name. The latest version of McAfee (408-988-3832) anti virus software was used to locate and clean out the virus called ANTIEXE.
- *Config.mem* file has an invalid memory variable in it. Run: *clrconfg.exe*, which is found in your pcmrpw folder.
- If you are trying to run pc/MRP from an internet download and it asks for disk two, files are missing. Download pc/MRP again.
- If your anti-virus programming is crashing pc/MRP. Disable your anti-virus program or disable the virus check when "running" a program. Kaspersky is known to cause pc/MRP problems.
- Cannot create workspace. Change user rights to allow the creation of files.
- If the shortcut points to an IP address, change it to go through a mapped drive or UNC address.

17.7.2 pc/MRP update fails to go through
The display driver is incompatible with pc/MRP. Switch to a Windows Standard display driver or update from a different computer.

17.7.3 "User does not have modify rights" message appears
Reinstall display driver or install standard display driver.

17.7.4 "FOXTOOLS.FLL DOES NOT EXIST" error message appears
- Recreate shortcut.
- Make sure pc/MRP is being run from a mapped drive and not through network neighborhood.

17.7.5 Error 1705 message appears
- You do not have full access rights to the pc/MRP directory or there is another copy of pc/MRP open. At the user's command line, enter "modi file revupdate.log" to view the name of the file causing the problem.

17.7.6 "Microsoft Product in Use by Another" error appears
- Workstation has not been mapped to the server.

17.7.7 "Unable to find the remote location" error appears.
- The *remote.mem* file containing the path to the server is invalid or non-executable. Delete the *remote.mem* file in the pcmrpw directory.

17.7.8 "Can not locate support library" error appears.
- Either the foxw2600.esl or foxtools.fll has been attributed as a systems file. Un-attribute the two files using the following command at the DOS prompt: attrib -s foxw2600.esl [press enter] attrib -s foxtools.fll [press enter]

17.7.9 Invalid library file
- Close all programs and reboot the computer displaying this message.

17.7.10 "The file containing the user rights is not present. Should the file be recreated?" error message appears
- The password database file has been deleted. Call Software Arts for the password authorization code number. The password database will be recreated with a single Master/Master entry. Names and passwords must be re-entered into pc/MRP's password module. Or, recover the database file from a backup.

17.7.11 pc/MRP's opening screen displays a different version number than pc/MRP's "About pc/MRP" screen
- Config.fpw file is missing or corrupt (contains version number). Update will not go through. Call Software Arts to receive a config.fpw file that matches your original version and revision number.

17.7.12 "Version Mismatch" error message appears.
- You have installed a manual update of a newer version over an older version of pc/MRP. Call Software Arts. Software Arts will examine the config.fpw file and send your company a full update that matches the config.fpw file.

17.7.13 "Enter the password recreation authorization code" error message appears
- pc/MRP's advanced password database file has been deleted. Restore the file from a backup copy of your pcmrp directory or call Software Arts for the Password Recreation Authorization Code. The authorization code is based on the user's telephone number. Call Software Arts for the Password Recreation Authorization Code (will be displayed after the words "WP.DBF Recreation"). If the Password Recreation Authorization Code is used, the password database file will be recreated with a single "Master"/"Master" administrator entry in it. All the user passwords and rights will have to be re-entered.

17.7.14 User has forgotten his password
- Ask the pc/MRP administrator to get or change your password if you have the Optional Password Module.
- If the user does not have the advanced password program. Press **Control-F12** at the Incorrect Password window. A window will appear that requires an authorization code. The authorization code is based on the user's telephone number. Call Software Arts for the Password Recreation Authorization Code (will be displayed after the words "Show Password").

17.7.15 Error Rendering Drive K
- If drive K is your CD drive, put any CD into drive K or assign your CD drive another drive letter.

17.7.16 "Install Disk 2" message appears.
- The internet download is not complete. Try to download pc/MRP again.

17.7.17 "Error Occurred when attempting to connect to HTML driver" error message appears.
- pc/MRP failed to activate an HTML class. This class allows the user to generate an HTML form instead of a printed form. The network administrator might have locked out the user's right to install a print driver. If you do not need to generate HTML files, you can turn off this option in "Configuration", "Settings and Utilities", Option 19.

17.7.18 "Visual FoxPro can not Create Program Work Space Temp File" error message appears.
- User has read only rights, or the PC's temp folder does not exist. To find your computer's Temp folder select, Control Panel, System, and Advanced or Environment. If the displayed temp folder does not exist, create it. If it does exist, make sure it is not marked as a system or hidden folder. You can remove the system attribute using Windows Explorer.

17.7.19 Invalid Resource File error message.
- User does not have 'Modify Rights' for the foxuser.dbf file in the pcmrpw directory on the server's hard drive.
- SULF.DBF file may be attributed as READ ONLY.

17.7.20 pc/MRP tries to start then disappears and may try to re-start many times.
- Your computer may not have FoxFont installed or your computer may be configured to use only True Type fonts. First ensure that FoxFont is installed (foxfont.fon is in the Fonts directory), then under the menu for Tools, Folder Options, True Type Fonts, make sure the checkbox for "Show only True Type fonts…" is NOT checked.
- Desktop shortcut properties' Shortcut tab for "Target:" must point to pcmrpw.exe, not pcmrp.exe. For example: G:\pcmrp\pcmrpw.exe (note the 'w' in the filename)
- Desktop shortcut properties' Shortcut tab for "Start In:" must point to the location where pcmrpw.exe resides. For example: G:\pcmrp
- Reboot workstation.
- Download a copy of pc/MRP to the workstation. If that runs, it may be a network 'rights' issue.

17.7.21 MSVBVM60.dll is missing.
- Use Window's Explorer to locate the MSVBVM60.DLL file. If you can not locate this file you can download it from our website; click on Technical Support and Support Files. Copy and paste this file into the C:\WINDOWS\SYSTEM32 folder.
- Leave this window open.
- Click on Start, Run, type in regsvr32
- Drag & drop the file MSVBVM60.DLL after the word regsvr32.
- Press OK. A response will come back saying the DLL was registered successfully.

17.7.22 You get a Fatal error 171 while attempting to report error 171
- You have a language other than English (United States)-US installed on your computer.   Select Start, Control Panel, Regional & Language Options, Select the Language tab, Details, and make sure your default language is English(United States)-US

17.7.23 pc/MRP does not start-up in full-screen mode.
- Create a file named pcmrpscr.max in the pcmrpw directory.

17.7.24 You get a message similar to: "Undergoing maintenance" when you attempt to login to pc/MRP.
- An administrative lockout is set and can only be removed by the user and computer that set the lock.
- If you confirmed that the administrative lockout is not intentionally set, use Windows Explorer to delete the file "MRPBUSY.flg" from the pcmrpw directory.

17.7.25 Everyone logging in gets an "Incorrect Password" error message.
One or more of the work station PCs are using a code page other than English (1252) or one or more of the work stations are not using English-United States as their Regional Setting. Change the Regional Settings to English by selecting Control Panel, Regional Settings, Advanced and select English-United States from the Regional Settings drop down list box.

17.7.26 You get a message "Variable ByPWUser can not be found"
Entering an incorrect password and leaving the login screen open, or a phantom file lock can result in simultaneous re-indexing of the WP.CDX.   This in turn can cause the CDX file to become malformed (missing its index tags). When you get the "Incorrect Password" error message, press Control I to force a re-index of the WP.DBF field

17.7.28 You get a message "Variable MRPUser" not found.
- User may have installed a new demo copy of pc/MRP into an older version of pc/MRP. Restore the pcmrpw directory from a backup of pc/MRP.

17.7.29 pc/MRP's start up window does not open in the maximized mode
- pc/MRP's Start up window is not set to open in the maximized mode.   However, you can force this mode by using Notepad to create a file named **PCMRPSCR.MAX** in the pcmrpw directory.

17.7.31 You get a message: 'Startkey.prg not found .'
You have a corrupt pcmrp.exe file in memory or on the disk.
Re-boot the PC and try to start pc/MRP again. I this does not work: Restore the pcmrp.exe file from a backup directory of the same version, or manually update to the latest revision from the pc/MRP website; must be the same major version number. OR: You are running pc/MRP offline. Right-click on the monitor icon in the system tray on the right. Select 'Offline Status', Check the work Online without synchronization. NEVER WORK OFFLINE WITH pc/MRP!

17.7.32 Updating pc/MRP errors out when populating Closedat with default data
- Restore from a backup and delete a file named LASTCLOS.MEM in the pcmrpw directory before applying the update again.

17.7.33 Updating pc/MRP errors out when Spawning QuickBook files
- Restore from a backup and double-check that a file named CLRCONFIG.EXE is in the pcmrpw directory before updating again.

17.7.34 You get a syntax error message when you start pc/MRP
- You have corrupt .dll files in memory. Re-boot your local computer and try again.
- You have corrupt .dll files on your server. Copy over all the .dll files from a current pc/MRP backup. (Must be the same main version of pc/MRP; e.g. from 8.80 to 8.80)

17.7.35 You get an Unable to load the "pc/MRP Internal Printer v4.5" (or v3.02) or PDF printer driver installation failed when starting pc/MRP
- See Section 17.11.1 & 2

17.7.36 Download and Install a New Revision Progress Bar freezes when it hits 100%
- Your computer is having trouble with the FTP Protocol. Call Software Arts and have them send you a full update for that version.
- As a last resort, try removing all print drivers, run pc/MRP, reinstall all print drivers.

17.7.37 Max number of users reached
- You will have to order more seats for more users to access pc/MRP.
- Ask some users to logout of some of their sessions of pc/MRP if they have more than one running.
- Make sure that users logout of pc/MRP when they are finished so others can login to pc/MRP.
- A user may have turned off his computer without logging off or his computer crashed. Either of these actions may corrupt or lock the SULF.DBF table in the pcmrpw directory.
- Turn on the Administrative Lockout and force all users logout of pc/MRP
- Call Software Arts to unlock (see Section 17.4.1705) and delete the sulf.dbf table. This will allow the sulf.dbf table to be re-created the next time pc/MRP is run.

17.7.38 You get a "VFP9.dll is invalid or damaged" when starting pc/MRP
- pc/MRP is compiled using VFP9 and requires the GDIPLUS.dll file. Make sure that this file is in the production pcmrpw directory.

17.7.39 pc/MRP displays a "The pc/MRP application is currently having the index files for all tables rebuilt by another user"
- Someone is performing an update; do nothing and try again later. If you confirmed that this is not the case: Someone quit while pc/MRP was re-indexing the files after an update. Use Windows Explorer to delete the file "UPDREINDEX2.flg" from the production pcmrpw directory.

17.7.40 Runtime Error 62 input path EOF()
- Use Windows Explorer to delete the file "MRPBUSY.flg" from the production pcmrpw directory.

17.7.41 Error Message "pc/MRP is waiting for the ActiveX controls needed for use on numerous application forms to be installed. Please continue to wait until component installation is complete."

- Windows7 and Vista computers require an installer file, SAOCX.EXE and SAIBTL.EXE (Infinite Bucket Timeline reports).

- pc/MRP is trying to install MSCOMCT2.OCX (Date Picker) and MSCOMCTL.OCX (ListView). Check and see if the date picker was installed by selecting Modules, Accounting, Pay Bills, Remittance, Date Range. If Date Range displays, the Date Picker does not need to be registered but MSCOMCTL.OCX does. Go to pc/MRP's command line and enter: registerocx()   and select the ocx file to be registered.

- If that does not work go to Windows Explorer, locate the pcmrp directory and double click on "SAOCX.EXE" or SAIBTL.EXE to run it directly. If not available, call Software Arts for the file. (These files are already installed in the pcmrpw directory)

17.7.42 Library file fllint210.fll (or fllint250.fll) is invalid

- Ensure that you have administrative privileges for your login. If your login does not have administrative privileges and you cannot login as the computer administrator, you need to inform your IT department that you need this capability or they need to login for you.
- Delete any pcMRP Internal Printer listed in the Control Panel's Printers & Faxes directory.
- Re-start pc/MRP and the printer driver will re-install.
- If needed, you can now exit pc/MRP and re-login to your computer as normal without administrative privileges.
- Or re-install the fllint210.fll (or fllint250.fll) from the nightly backup.
- Or first update to the latest pc/MRP version. Go to each computer's Control Panel, select Printers, and delete the pc/MRP Internal Printer Driver. Then start pc/MRP on each workstation to load the new printer driver.
- Copy in a new pcmrp.exe file.

17.7.43 pc/MRP takes a long time to start. Numerous file access error and file corruption.

- There is a bad pc or network card in a workstation on the network. Disconnect that computer from the hub. This computer can be identified as it will have a phantom lock on one or more files under Computer Management, System Tools, Shared Folders, Open Files.

17.7.44 Error 53 File not Found.

- The pcmrp.exe file may be missing. Restore from a backup with the same version and revision or call Software Arts.

17.7.45 Not enough room to install update.

- pc/MRP checks to ensure that there is enough disk space to perform an update or upgrade. Contact your IT department or Software Arts, Inc. for help.
- Possible solutions are:
  - Use UNC mapping.
  - Run the update from the server.

17.7.46 Download and install a new revision fails

- Make sure HTTP port 80 and FTP port 21 are open on the router and the host computer's firewall is open.

17.7.47 pc/MRP hangs when trying to enter a new partnumber.

- The user has set his default product code and suffix lengths via Options 29, 29, & 48, and the resulting number for pc/MRP to auto–increment is very small.
- Example (leaves only 1 digit to auto-increment):
  - Option 28 is set to 12
  - Option 29 is set to 6
  - Option 48 is set to 5

17.7.48 Program Error – API library not found.
- Get the CDINTF250.dll, FLLINTF250.dll, and FLLINTF450.dll files from the same version of pc/MRP located in the K:\ztemp directory and transfer them to their pcmrpw folder.
- Remove the older PDF print driver, then start pc/MRP and it will install the newer PDF print driver. If you have a W7 workstation, start pc/MRP by right clicking on the pc/MRP shortcut and select Run as Administrator.

17.8 Accounting Problems

17.8.1 pc/MRP cannot close the month

pc/MRP does not finish closing the month because it is stuck on two or more transactions with the same transaction number or blank transaction numbers. Edit the first transaction and change the transaction number to the next available transaction number.

17.8.2 Variable not found

If pc/MRP is closing the month and the variable not found is MDUMMY, the chart of accounts has a record in it with an illegal account type code. The chart of account record number will be displayed at the bottom of the screen. Edit the record and fill in the account type field with a legal account type code.

17.8.3 End of year and or end of month balances are incorrect

Possible computer glitch, re-close the month again or re-close the month on another computer.

17.8.4 Check reconciliation report does not make sense

Both checks and deposits must be cleared using the clear checks program in the accounting menu. Clearing checks only will cause the uncleared balance to go negative.

17.8.5 Trial Balance does not balance by the amount of the profit for the month

User has created two or more YTD retained earning accounts (QR chart of accounts records). Edit the chart of accounts and delete the extra QR accounts or change the extra QR accounts to QN accounts. There can only be one QR account in the chart of accounts data base file.

17.8.6 Trial Balance YTD Retained Earnings does not match YTD Returned Earnings in the Balance Sheet and YTD Retained Earnings in the Expense and Revenue Report

The YTD retained earnings amount in the Balance Sheet and the Expense and Revenue report are correct and include the profit (revenue - expenses) for the current month. The YTD retained earnings amount in the Trial Balance Report contains the retained earnings amount from the prior month, as the profit from the current month is already included by totaling the revenue and expense amounts for the current month. In addition in the YTD Trial Balance report the YTD retained earning for the year will always be zero since the YTD Revenues and Expenses are included in this report.

17.8.7 Accounts Payable Report prints out date with first 2 digits of the year causing everything to appear over 90-day column.

Delete the ACPAYTMP.DBF file. A new ACPAYTMP.DBF file will be formed from the RECEIVE.DBF with the correct date format containing the last 2 digits of the year.

17.8.8 Checks take a long time to print out.

The transaction DBF file has alpha characters in the transaction numbers. Manually edit the alpha transaction numbers with the next available transaction number, or call Software Arts, Inc to renumber.

17.8.9 Check number is not retained when you do an E or P type accounting transaction.

You are selecting no when asked if you want to print checks. pc/MRP assumes by this you have decided not to print the check. Therefore there is no check. Answer yes to retain the check number. If you are handwriting checks select print or display. If you select print simply print the check on a plain sheet of paper. To correct past omissions select Modules, Accounting, Pay Bills/Print/Clear Checks, and Print Unprinted Check(s).

17.8.10 Pay bills option does not display any bills to be paid.

The receiver index is broken, re-index the receiver file.

17.8.11 Entering an I, E, O, R, P, or S transaction displays an error message: "NOT FOUND IN ACTMPLT.DBF FILE."

One or more of the primary chart of accounts number(s) found in the account actmplt.dbf does not exist in the chart of accounts DBF.
Somebody has changed a primary chart of accounts description in the account actmplt.dbf. pc/MRP does not allow the user to change this description.

17.8.12 Cannot reprint checks.

Option 13 in the Settings and Utilities menu is set to off.
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17.8.13 YTD Retained Earnings Amount in the Balance Sheet do not match the YTD Retained Earnings Total in the YTD Expense and Revenue Report.

The YTD Retained Earnings Chart of Accounts (QR Account) was not debited and credited against an Undistributed Retained Earnings Account to zero out the QR Account at the beginning of a new year or somebody accidentally debited or credited the QR Account. If possible re-close the last month of the previous fiscal year. Then make an entry into your GL with a date of the first month and day of the beginning of the current fiscal year. In that entry debit out the YTD totals from the balance sheet and credit the prior year retained earnings account (QRC). Finally, re-close the first month in the current fiscal year and all months up to the current close.

17.8.14 Transaction numbers have jumped to a higher number or a weird number.

Somebody typed in a different transaction number and pc/MRP incremented the next transaction numbers from them. Edit and renumber the affected transaction numbers or call Software Arts to lead you through automatically renumbering all transactions using the command "REPLACE ALL TRANNO WITH PADL(TRIMSTR(RECNO())),6,"0". You must be aware that all prior printed accounting transactions in reports and checks could contain incorrect transaction numbers.

17.8.15 Summary Accounts Receivable report displays "Error- Unma".

The invoice in question amount due is equal to or less than $0.00 and the invoice complete field does not contain "Y".

17.8.16 Transaction number shows up twice in GL report.

Edit the transaction number, it has debited or credited the same chart of accounts number twice. Edit the transaction such that it only has one debit or credit entry for the difference of the amount.
Print out your chart of accounts, you may have duplicate chart of accounts numbers. Call Software Arts if this is the case.

17.8.17 Incorrect Financial Statements when closing a month.

The user edited a transaction in the prior year and re-closes that month. Re-close month prior to edit date.

17.8.18 Unable to proceed (accounting transactions)

When performing an accounting close process and there is a network failure, computer crash, computer turned off, power loss, or some other problem with the computer running the close process, all users will get the message "'username' is closing a month. No accounting transactions can be created while a month is being closed.", when they try to do any accounting transactions. If no one is actually closing, go to the pc/MRP production directory and delete the flag file named: closeinprogress.flg.

17.8.19 Accounting AR report shows a different amount due than the Address Book screen; the invoice report agrees with the Address Book screen.

There is an invoice where the "Complete" field does not contain a capital "Y" and there is an overpayment on the invoice. (**8.50 and higher**)

17.8.20 If you have pc/MRP version 8.50A – 8.50S and the current AR Summary report based upon invoices does not match the Chart of Accounts report based upon the Balance for a Date/Time Period.

You are creating 'R' type accounting transactions against a credit memo or you have manually attached a credit memo to a closed invoice (both of these methods should not be used and are NOT supported by pc/MRP). Please refer to the Credit Memo slide show on our website in MRP101, for the correct methods for handling credit memos in pc/MRP.   http://www.pcmrp.com/mrp101/creditmemooverview.htm

To correct the past errors, look for 'R' type accounting transactions that debit 'income' and credit 'checking'. Edit these transactions and debit AR instead of 'income'. In the future, handle credit memos as described in the Credit Memo slideshow and the pc/MRP Manual, Chapter 14.10.

Then update to pc/MRP version 8.50AT or higher and in the future, handle credit memos as described in the Credit Memo slideshow and the pc/MRP Manual, Chapter 14.10.

17.8.21 pc/MRP's Inventory Value Report does not match the dollar amount in the Inventory Asset Account

The Inventory Value Report will contain parts that have been received. However, some of those receivers may not have yet been posted to the general ledger so the Inventory Asset Account would have a lower $ amount.

When component parts are received, the inventory value in pc/MRP is increased by the quantity received x average or std cost. However the Inventory Asset Account is increased by the actual cost.

When assemblies are shipped, the inventory value in pc/MRP is decreased by the average or standard cost and the Inventory Asset Account is automatically debited by the same amount. However if the assembly being invoiced does not have an accurate cost roll up or no cost roll up at all the inventory dollar amount in the general ledger may be decreased by as little as $0.00.

If somebody adjusts stock, decreasing the quantity in pc/MRP, the inventory value goes down in pc/MRP. However, if accounting does not make an adjusting entry decreasing the value of inventory, the two values will not agree. It is best to use option 62 to block editing of quantities and costs in the inventory screen. Instead force users to use the stockroom and new adjusting entries to adjust quantities, accounting can then use the stockroom's report Adjusting Transactions Only for a specified time period to make one adjusting entry for the period..

If somebody rolls up costs for one or more assemblies and there is a change in value, pc/MRP's Inventory Value Report will contain the new costs. However, if an adjusting entry is not made, this change will not be reflected in the Inventory Asset Account. pc/MRP contains a Prior Cost Roll-up report (**8.52C and higher**) that will allow accounting to print out or display prior cost roll up variances.

pc/MRP's Inventory Value Report must be run at the end of the day on the last day of the reporting period. This is the gold standard. Make an adjusting entry debiting and crediting Inventory and Cost of Goods Sold to bring the Inventory Asset Account into alignment with pc/MRP's Inventory Value Report.

17.8.22 You are not able to edit the Account Type in pc/MRP's Chart of Account structure.

Once you have selected an **Account Type**, and have entered accounting transactions for the account, you cannot change the Account Type. Call Software Arts, Inc. if this is a necessity.

Before Software Arts, Inc. can change Account Type, we must determine that *there are NO*:
Existing transactions
Existing sub-accounts
Twin div/dept accounts

If any of the above mentioned conditions exist, please call Software Arts, Inc. before trying to modify on your own.

17.10 pcMRP is Running Slow

17.10 pc/MRP is too slow.

- Try disabling your virus checker or disable it for "Running programs". Kaspersky is known to cause pc/MRP problems.
- Remove any screen savers on the server.
- Pictures in the Inventory Module referencing a path that does not exist will delay the inventory part's "EDIT" screen from displaying.
- Change from wireless to an Ethernet cable network server connection.
- Change the network card settings to a fixed setting instead of "Auto Detect", disable Interrupt Moderation and turn off power savings.
- If you are using a Windows 7 Home workstation, update to Windows 7 Pro.
- Upgrade to pc/MRP version 8.60AF or higher if you have a Windows 2008 server.
- Copy the pcmrpw folder to another server; re-point the workstation shortcuts to the new server and the "pcmrpw.exe" file.
- Upgrade to the latest version of pc/MRP.
- See slide show about Troubleshooting a Network Card:
  For XP/2003: http://www.pcmrp.com/it101/xpnetworkcardspressstartbutton.htm
  For W7/2008: http://www.pcmrp.com/it101/w7networkcardspressstartbutton.htm

17.11 HTML and PDF Problems

17.11.1 Trying to print to PDF or Email as PDF does not work

- Regardless of the problem the first step is to try to print to PDF first (see Section 17.11.2). Once that is corrected you can try to use Email as PDF (see Section 17.11.3).

17.11.2 Print to PDF/HTML Problems

- There are three versions of the Amyuni PDF/HTML Print drivers, **pcMRP Internal Printer v2.50**, **pcMRP Internal Printer v3.02** and **pcMRP Internal Printer 4.5**.

- Version 2.50 is included with pc/MRP Versions 8.20AC, 8.23H and 8.24D and lower.   Version 2.50 does not support Windows Vista nor does it support 64 bit computers.

- Version 3.02 is included with pc/MRP Version 8.20AD, 8.23J, and 8.24E and higher.   Version 3.02 supports Windows Vista and or 64 bit computers but does not work on Windows 95 machines and may have to be installed manually on Windows 2000 machines.

- pc/MRP Internal printer 4.5 is included in pc/MRP Versions 8.50Z and 8.54H and higher. If you are running pc/MRP on a W7 or W8 computer, you should be using pc/MRP 8.50Z or 8.54H or higher.

- pc/MRP Internal printer 4.5 is included in pc/MRP Versions 8.70K and 8.72B and higher. If you are running pc/MRP on a W7 or W8 64 bit computer, you should be using this print driver.

- Option 19 must be set to allow the installation of the PDF and HTML print drivers.

- The form has been modified and dedicated to a specific printer through modifying the report by selecting "File, Page Setup, Print Setup" (or by checking "**Report, Printer Environment**"). To remove the printer settings, call Software Arts to run the FRXHPFIX() program, select the form with the problem. If you wish to remove printer settings from all your forms, run **FRXHPFIX_ALL()** from the command line (this will NOT remove printer codes from the PRCHECKS or CUSCHECK forms) .

- With Vista and some XP computers, you must be logged onto the computer as the computer administrator. To find out if you are the computer administrator right click on Windows Start Button, if you see the option "Explore all Users", you are this Computer's administrator (not necessarily the network administrator). Try starting pc/MRP by right-clicking on the pc/MRP shortcut and selecting "Run as administrator".   (XP and Vista home do not have this option)

- Make sure your security settings allow you to install a printer driver by clicking on the Windows Start, Control Panel, Administrative Tools, Local Security Policy, Security Options, Devices: and Disable "Prevent Users from installing print drivers".

- If you are accessing pc/MRP through Microsoft Terminal Server, the PDF Print Driver must be installed on the Terminal Server itself.   To do this, you must remote into pc/MRP on the Terminal Server or start pc/MRP at the Terminal server itself.

- If you are using Windows Vista, set **User Account Control to Off** by pressing the Windows Start Button, Control Panel, User Accounts Settings and turn User Account Control Off and reboot (make sure you have saved any data in any open programs first!). You can later turn this option back on if you wish, or your IT department requires it turned on. If the above conditions are met, restarting pc/MRP will automatically install the print driver and you are done

- The user does not have modify rights to the PDF subdirectory.

- Remove the current pc/MRP print driver, reboot the computer, Restart pc/MRP by right clicking on the pc/MRP shortcut and running as Administrator. If pc/MRP has no trouble with installing the print driver do not bother with the manual install instructions

- If you are running pc/MRP on a 64bit **W7 or W8** computer (you should be running pc/MRP's latest 4.5 print driver) and you get the error message Operation could not be completed (error 0x800f024b). The hash for the file is not present in the specified catalog file you need to do the following. If your computer has a pc/MRP Internal Print Driver (Control Panel, Printer and Faxes), right click and delete it. <u>Then you must reboot your computer.</u> If your computer does not have pc/MRP's Internal Print Driver or you have removed it, Call Software Arts and request they download and install a copy of pc/MRP's latest Print Driver Installer, **SaPdfDi.azf** into your pc/MRP directory (answer "Copy and Replace" if prompted). The file size (not size on disk) is 7,089,282 bytes. Restart pc/MRP by right clicking on the pc/MRP shortcut and running <u>as Administrator.</u>

  If pc/MRP has no trouble with installing the print driver do not bother with the manual install instructions:

- If pc/MRP can not install the print driver automatically, you can **install the 4.5 print driver manually** by making sure the above conditions are met and by following the directions listed below
  1. Locate the SaPdfDi.AZF file in the pcrmpw folder (this should be greater than 3 megabytes).
  2. Create a folder named SaPdf. In the users local c:drive
  3. Copy this file into the new folder.
  4. Rename the file to PdfDrive.Zip.
  5. Extract the file into the new folder by right clicking on the file and selecting Extract All
  6. Double click on Install.exe file the new folder
  7. Go to Printers and Faxes
  8. Select the Amyuni Document Converter 450
  9. Select the General Tab and change the printer driver name to: **pcMRP Internal Printer 4.5**.
  10. Select the Sharing Tab and click on the "Do not share this printer radio button.
  11. Exit out of the Properties Screen.
  12. On the Printer Sharing screen, select the Do not share this printer radio button.

- Modify the print driver's properties.

  Solution:
  Try the following:
  1. Go to Control Panel, Printers & Faxes
  2. Right click on the pcMRP Internal Printer 4.5 or v3.02 and select Properties
  3. Click on the Port tab
  4. Click on Add Port, select the 'Local' Port type, and press the 'NEW PORT' button.
  5. Name this port PDF1 (as an example)
  6. If not already checked, check the check box near the PDF1: port that you just created
  7. Click 'Apply'
  8. Re-boot the computer
  9. Test the PDF print option.
  10. If this does not work select the NULL (if available in W7 or W8 as the port)
  11. If this does not work select Start printing immediately instead of spooling the documents.

- Created PDF files contain unreadable characters when opened or read by a different computer. The other computer may not have the fonts installed that the PDF needs. You have two options:
  - Install the missing fonts on the other computer (preferred).
  - Or add a text file named "pdfembed.flg" in the pcmrpw directory. Note that the PDF file will be larger due to imbedding the fonts within the PDF file.

17.11.3 Email as PDF - Problems

- MS Outlook must be open on some computers or closed on other computers. Test to see which setting works.
- If you wish to email PDF documents directly, Microsoft Outlook must be installed on your computer as an automation server. If not, contact your network administrator. As an alternative, you can save the PDF file and attach it manually later or set Option 19 to 'Code Base HTML'. Select 'HTML' when printing a document and manually attach the saved file to an email.

17.11.4 Unknown Member "recipients" (error 1943)

Outlook must be running when emailing documents (like POs, etc) as pc/MRP uses MS Outlook to attach the document to the email (pc/MRP does NOT use Outlook Express). If you are using MS Terminal Server, you must log into the terminal Server and start your copy of MS Outlook.

17.11.5 Adobe Acrobat displays an error msg "File in use by another"

Delete the pc/MRP Internal Printer driver and PDF1 port. Reinstall the printer and PDF1 port. See Section 17.11.2, above.

17.11.6 Error code -30 means that the printer has timed out before printing starts.

- Un-install the pc/MRP print driver. Re-start pc/MRP to re-install the pc/MRP print driver (re-stores cdintf.dll). *Exclude the AMYUNI print driver from being updated by the Windows Update or Auto-update process.*
- Exclude the workstation and server virus checkers from scanning the pcmrpw directory.
- If you are using MS Terminal Server. Log into MS Terminal Server from your computer, and remove the old pc/MRP printer driver. Now when you start pc/MRP as Administrator, you will force pc/MRP to re-install the new print driver in your instance of MS Terminal Server.

17.11.7 Email as a PDF or HTML file is not listed in the "Send Output to:" dropdown list.

Go to pc/MRP's command line and enter "msg(chkserver("Outlook.Application")).
- If the value returned is ".F.", please inform your IT department or person that Outlook is not configured as an application server and needs to be in order for pc/MRP to attach a PDF or HTML file.
- If the value returned is ".T.", then call Software Arts, Inc. for further help
.

17.11.8 When reviewing PDF documents the Adobe tool bar is not displaying in Google Chrome.

Google Chrome now has a built in PDF viewer which is default, to go back to using Adobe plug-in, enter "about:plugins" in the address bar, press enter, and disable Chrome PDF Viewer.

17.12 Credit Card Connectivity Issues

**17.12.1 Credit card processing software can't connect to synapsegateway.net.**

- Disable the computer's firewall. If that works, configure the firewall to allow the connection.
- Problem: The credit card processing software can't connect to synapsegateway.net.
  Message: "There was a disruption while communicating with the credit card processor. The credit card information was NOT submitted.
  Connectivity error - The remote name could not be resolved:
  Connect14.synapsegateway.net"

  Solution: Change the user's DNS server settings.
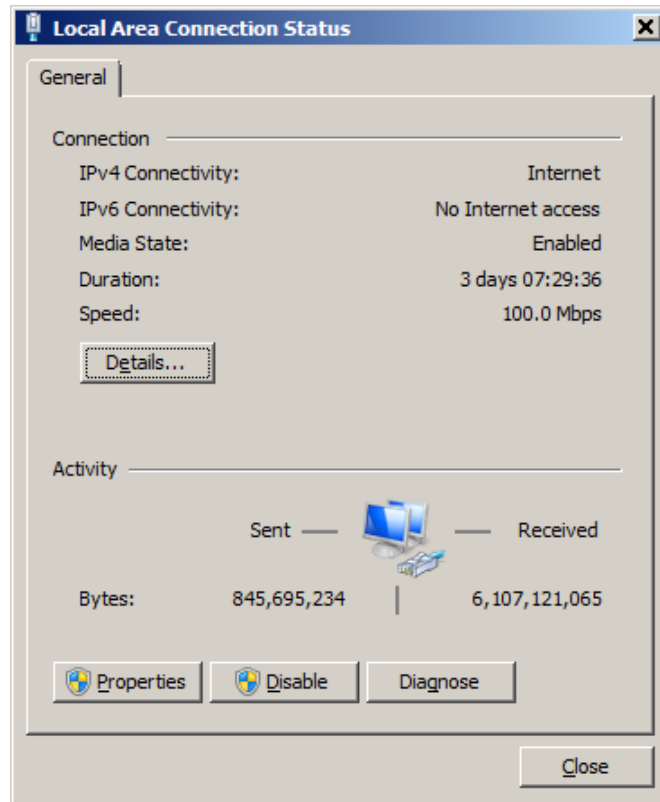
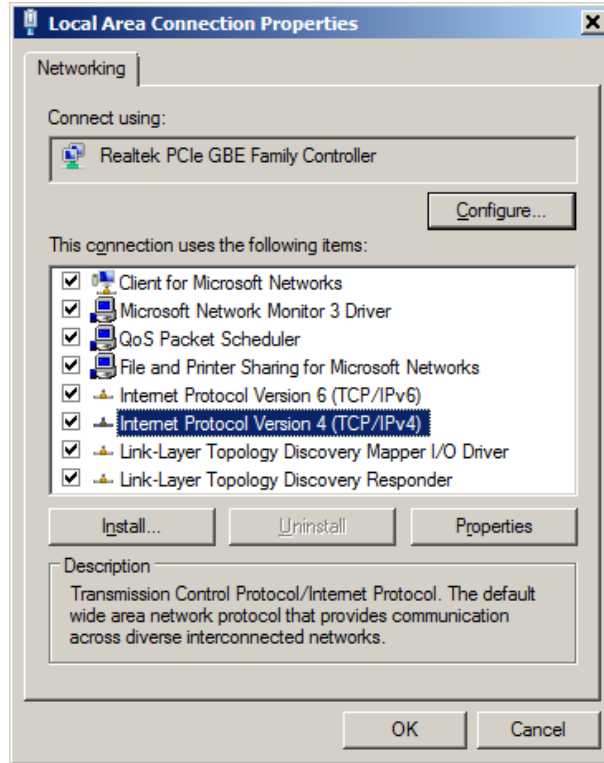 1. Go to Control Panel, Click on "Network Sharing Center"
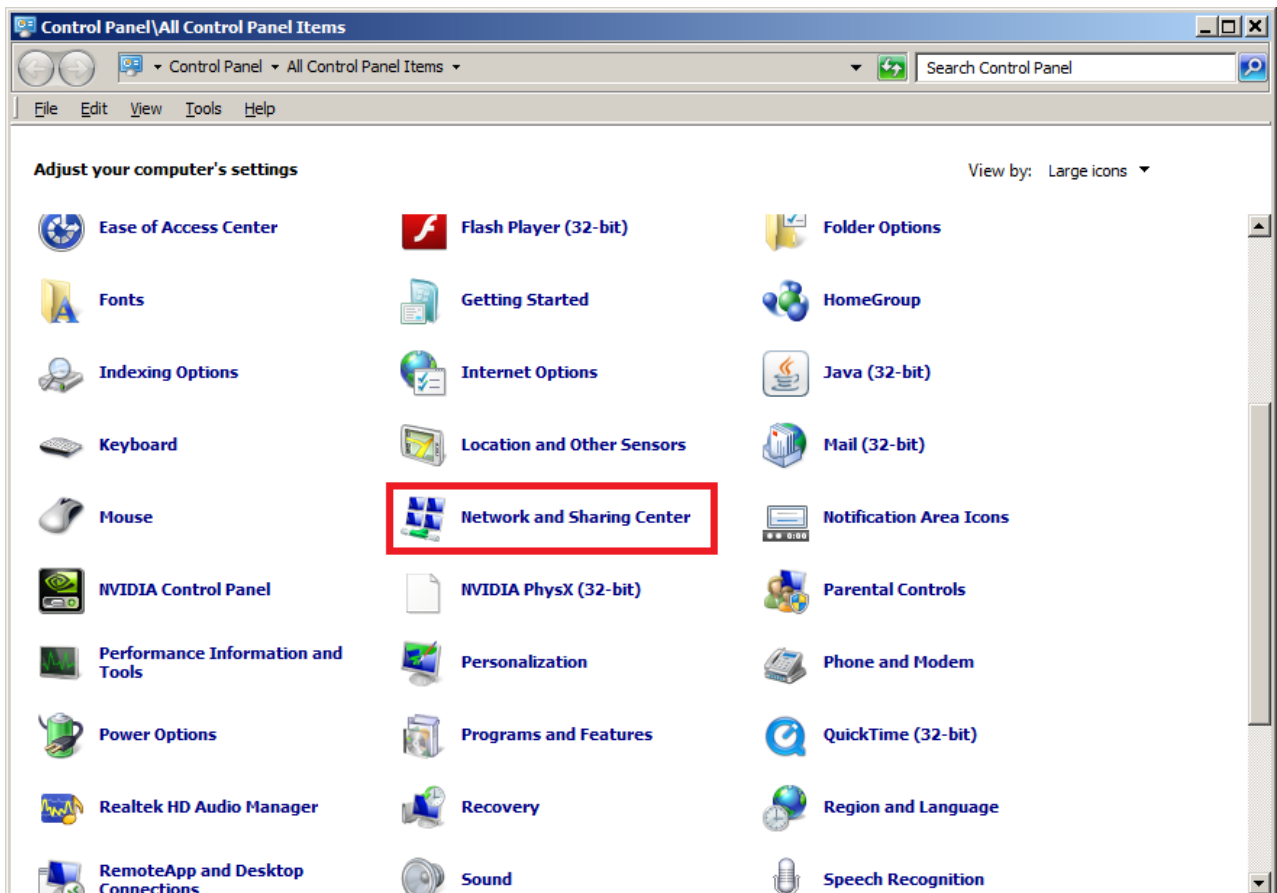
2. Click on link "Local Area Connection"
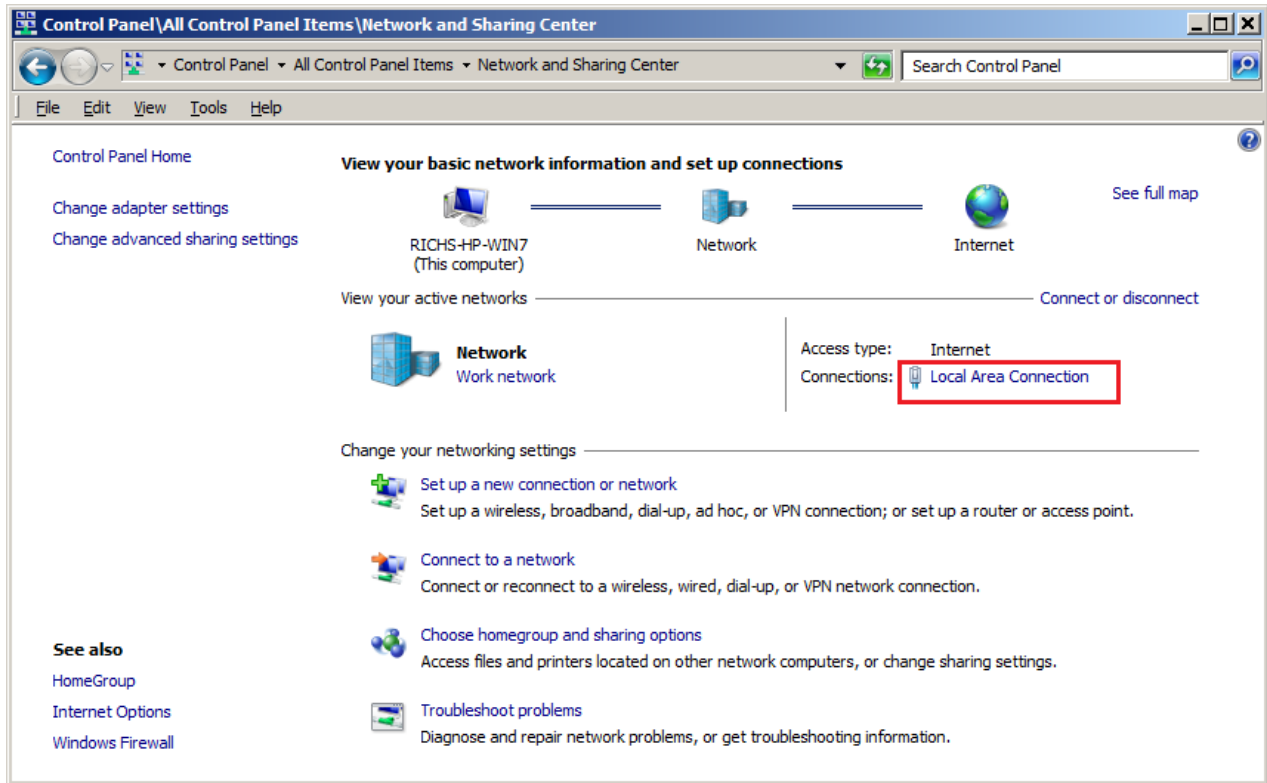
3. Click on [Properties]

4. Select line item "Internet Protocol Version 4 (TCP/IPv4)
   then click on [Properties]

5. Change values in textbox "Preferred DNS server" to "8.8.8.8"
   Change values in textbox "Alternate DNS server" to "8.8.8.8"