

# Alliance/MFG

## User Guide



## Version 7.1

Exact Alliance, Inc.

Technical Support (800) 349-0249

Web Page: [www.alliancemfg.com](http://www.alliancemfg.com)



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# Alliance/MFG Users Guide



## Welcome to Alliance/MFG

Alliance/MFG™ is a complete manufacturing management software system specifically designed for growing manufacturers. It has everything you need to run your company, including Bill of Materials, Material Requirements Planning, Shop Floor Control, Inventory Control, Sales Orders, and Purchase Orders, Forecasting, Capacity Requirements Planning, and Reporting, in a single package. Alliance/MFG doesn't just store your manufacturing information, it helps you act on it.

Alliance/MFG maintains dynamic information about your products, customers and suppliers, employees, manufacturing process, your shipments and your invoices—all the data you need to track your transactions and provide detailed reports on every aspect of your operation. Alliance/MFG is designed by manufacturers for manufacturers. The software is easy to install and easy to learn. It can help shorten your production times, reduce your inventory, cut your material costs, and help you manufacture products more efficiently—all of which can improve your bottom line.

Alliance/MFG is a totally integrated manufacturing information system where data is entered only once. The information can then be retrieved throughout the system at every point where it is referenced.

## Using the Alliance/MFG Help System

The Alliance/MFG Help program offers you three ways to look up topics. The left window pane contains four tabs that can be displayed or collapsed. The Contents Tab is the default Help File tab, it contains all of the Chapters and Topics. Once you choose a topic to display, you can read through the topic on screen, follow hyperlinks to related topics, and print the topic. You can also use the Index Tab or the Search Tab to locate and review topics.

**NOTE:**

*This Help document contains images from both Alliance/MFG Versions 6.X and 7.X.*

### Contents Tab

The Contents Tab in the left window pane contains a list of topics organized similarly to the way the Alliance/MFG User Guide Table of Contents is organized. Click the plus signs next to the topics to display related topics underneath. Double-click a topic to display the topic in the right window pane.

### Index Tab

The Index Tab displays a list of keywords in alphabetical order. You can scan through the list, or type in a keyword to find it in the list. Double-click on a list item or click Display to display the topic in the right window pane. Click the Back arrow to return to your original topic.

### Search Tab

In the Search Tab, you can find every occurrence of a word in the entire help file. Type in a word or short phrase and click List Topics to display all topics containing the word or phrase (exactly as typed). Select a topic and double-click or click Display to display the topic in the right window pane. All occurrences of the word or phrase will be highlighted in the text.

### Glossary Tab

In the Glossary Tab, you can find definitions for manufacturing terms used in the Alliance Help System. The Glossary Tab displays a list of keywords in alphabetical order. Click on a keyword to display the definition in the bottom window pane. Additionally, throughout the Help System text you will find glossary terms underlined the first time they appear in a Topic. Click on that occurrence to expand the text and display the definition. Click again to close the expansion.

## Implementation and Training Resources

The success of your Alliance/MFG-based manufacturing operation depends on the quality of your training and your initial implementation plan. Alliance Manufacturing Software offers several resources to help you plan a successful implementation and train your employees. If you have not already conducted some level of implementation or staff training; you should investigate these options before installing or operating Alliance/MFG. At a minimum, refer to your Alliance/MFG Technical Reference for information about creating an Implementation Plan.

### Implementation

#### On-Site Training and Implementation

We come to your site to satisfy your training and implementation needs. Our qualified instructor meets with your project team to train your staff on the full implementation of the software using your manufacturing process.

Contact Alliance Customer Management at (800) 490-2520 Ext. 3 for information about On-Site programs.

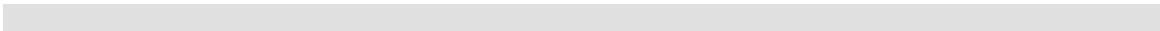
### Training

**Training Seminars** - Three and four day workshops focus on the manufacturing planning process and Alliance/MFG. These workshops are led by a team of trained specialists who have expertise in computer-based manufacturing planning.

**TeleTraining™** - A cost effective training session that connects you by phone and Internet to our Professional Services Department. Our MRP specialists review the concepts of MRP and how they apply to Alliance/MFG and your company. Training on customizing Alliance reports for your company is also available.

**TeleConsulting™** - Similar to TeleTraining, except you guide the session to review areas of concern to you.

Contact Alliance Customer Management at (800) 490-2520 Ext. 3 for information about any of these programs.



## Contacting Alliance

### Contacting Alliance Customer Management

The success of your Alliance/MFG-based manufacturing operation depends on the quality of your training and your initial implementation plan. Alliance manufacturing software offers several resources to help you plan a successful implementation and train your employees.

Alliance Customer Management is available to help you with issues outside the program; for example, if you wish to renew your Annual Support Agreement, schedule training, add more license user seats, or find out what other products and services are available to support your organization.

Customer Management is available during regular business hours, 8:00 A.M. to 5:00 P.M., Central Time, except public holidays. You can contact Alliance Customer Management by phone, fax, or email:

#### Exact Alliance Customer Management USA

Phone: Toll Free (800) 490-2520 Ext 3

FAX: (937) 913-3068 (Attention: Account Management)

Email: [service@exactsoftware.com](mailto:service@exactsoftware.com)

### Contacting Alliance Technical Support

#### Does your Company Qualify for Technical Support?

Technical Support for your Alliance/MFG products is provided on an annual contract basis, which entitles you to unlimited technical support incidents. You must have a current Annual Support Agreement to qualify for Alliance Technical Support.

Faxes, email, and telephone calls will normally be answered by a member of the Alliance Technical Support team within 2-4 hours of receipt. Technical Support incidents will normally be answered in the order they were received, however, some more complex incidents might take longer to research and/or resolve. Occasionally technical support may request that you email a file, download a file, or allow us to remotely connect to your computer. If your IT infrastructure does not allow us to use these tools there may be additionally support charges to cover the extra time needed.

#### Who Should Contact Alliance?

We recommend that you assign a single person from your site to be the primary contact with Alliance Technical Support. This person should have full SUPERVISOR rights to access all program functions, fields, and reports. They should be familiar with basic Windows features such as copying, finding and moving files, and possess a solid understanding of how your company uses Alliance/MFG.

### What Is An Incident?

#### Incident

Customer's original inquiry or report of problems in the operation of the Software, including all follow-up communications which are initiated by Alliance/MFG in an attempt to resolve the inquiry or reported problems in the Software.



## **Initiation**

Alliance/MFG shall Initiate an Incident upon receiving any inquiry or problem report from Customer by assigning an Incident Tracking Number for reference purposes.

## **Resolution**

An incident shall be deemed to be resolved and Alliance/MFG shall close an incident when the Customer's original inquiry has been answered in a reasonably complete and comprehensible manner. An Incident shall be deemed resolved and shall be closed when Alliance/MFG:

- (a) confirms to Customer that the particular functional aspect of the Software which gave rise to the incident is designed as part of the Software
- (b) determines that Customer is requesting that Alliance/MFG introduce a new behavior, a variation on an existing behavior, or a change in the capacity or performance of the Software
- (c) provides Customer a Workaround
- d) provides Customer an Update or other patch to the Software that corrects the Software error (sometimes referred to as a "fix")
- (e) is unable, following exercise of commercially reasonable efforts, to verify the existence of any problem or error in the Software that may have given rise to the Incident.

## **Limitation on Scope and Purpose**

### **Limitation on Scope and Purpose of Technical Support**

Technical Support services provided under an Agreement are intended to support and improve the Customer's understanding of the Software's operation, and is not intended to provide consulting services to Customer, to improve Customer's administrative or other business operating practices, or to write custom management reports for Customer's use. Alliance/MFG technical support staff shall have reasonable discretion for determining whether an inquiry poses a valid Incident for which technical support is required or instead represents a request for consultation, implementation, or training services which more properly should be supported with fee-for-service consulting services from Alliance/MFG or a third party.

## **Help Us Help You**

To get the fastest, most efficient service when contacting Alliance Technical Support either by phone, fax, or e-mail, please provide the following information:

1. Your name, company name, and phone, fax, or e-mail return address
2. If you have already been in contact with Alliance Technical Support regarding this particular problem, provide the incident number you were given
3. Product name and version number
4. The operating system on which the product is installed (for example, Windows 98 SE)
5. A complete description of the problem, including any steps that will reproduce it
6. Exact wording of any error messages you received when you experienced the problem
7. A complete description of any steps you have already taken to resolve the problem
8. A short summary of any other communication you have had with Alliance Technical Support regarding the problem

## **Exact Alliance USA Technical Support**

Exact Alliance USA Technical Support is available to customers Monday through Friday between the hours of 7:00 A.M. and 4:30 P.M., Pacific Time, excluding public holidays. You can contact Technical Support by phone, fax, or email.

Exact Alliance Software USA Technical Support

By Phone: Toll Free (800) 349-0249

By FAX: (937) 913-3068 (Attention Technical Support)

By email: [support@alliancemfg.com](mailto:support@alliancemfg.com)

Web: <http://www.alliancemfg.com>

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## **Exact Alliance (UK) Technical Support**

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Fax: +44 (0)1162784666

Support Fax: +44 (0)1162774169

Web: <http://www.alliancemfg.com>

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## Annual Support Agreement

### Support Services Provided Under an Annual Support Agreement

Support Services for your Exact Alliance product are provided on an annual contract basis, which entitles you to unlimited technical support incidents and any maintenance updates within the Exact Alliance product series. A support incident is defined as a question or limited set of questions directly related to one specific issue. Unlimited technical support can be requested by telephone, fax, e-mail or via the Exact Alliance Customer Portal at a cost of 16% of the current retail value of your software purchase. Technical Support can assist you with technical issues and defects within Alliance/MFG related to installation, bug reports and problems encountered during day-to-day operation of the software. Technical Support does NOT provide training sessions, use of product and implementation instructions, custom programming support, API support, or custom report writing services. (These services can be purchased from the Alliance Customer Management Department by phone at 800-490-2520 x 3).

Exact Alliance will, within an appropriate time period, use reasonable commercial efforts to correct or provide a usable work around solution for any reproducible material error in the software. Exact Alliance reserves the right to require that you update to the current release to facilitate the diagnosis and resolution of the reported error in the event that the error is corrected in the current release.

### Alliance Technical Support

Alliance Technical Support is available Monday through Friday (excluding holidays), from 7:00 A.M. to 4:30 P.M., Pacific Time. You can reach Alliance Technical Support via fax at (937) 913-3068 (Attention: Technical Support), e-mail at support@alliancemfg.com, or Toll Free at (800) 349-0249. In the event that your call is not answered in person, it will be routed to voice mail and you will be contacted in the order your call was received. Occasionally technical support may request that you email a file, download a file, or allow us to remotely connect to your computer. If your IT infrastructure does not allow us to use these tools there may be additionally support charges to cover the extra time needed. The Exact Alliance customer portal is normally available 24/7. Contact the Alliance Customer Management Department by phone at 800-490-2520 x 3, to request a password.

### Maintenance Releases

Maintenance Releases (software updates), contain defect corrections and optionally, major or minor product enhancements. Maintenance Releases are available to all Exact Alliance customers with current Annual Support Agreements. A Readme file and revised user documentation is normally included on the CD in Adobe PDF format.

### Custom Reports and External Utilities

Free custom reports and external utilities are periodically made available for download from the Alliance Customer Portal. Free custom reports, custom views and external utilities are periodically made available for Alliance Customers. Free reports, views and external utilities distributed by Exact Alliance may cease to execute without a current Annual Support Agreement. In addition, Exact Alliance reserves the right to change, withdraw, disable or remove any and all custom reports and/or external utilities at its discretion and is under no obligation to maintain, upgrade or support these reports and utilities which are not part of the commercial product. All such custom reports and external utilities are owned by Exact Alliance and provided to you at your own risk. External utilities (e.g. CRU & EIS) distributed by Exact Alliance may cease to execute without a current Annual Support Agreement.

**Customer Portal**

The Exact Alliance Customer Portal is located at <https://customers.exact.nl>

In addition to technical support services, you can access current Technical Bulletins and FAQ's, review free training sessions, download applicable software hotfixes, download free custom reports, review online training classes and content, read news items and participate in periodic customer forums on the Customer Portal area of our Website. You will need a password to access the customer portal.

**Term of Agreement**

An Annual Support Agreement continues in effect for 365 days.



## Microsoft SQL Installations

### Program Installation

Alliance/MFG installs quickly from the CD provided with your package. Complete instructions are presented in the Getting Started Booklet. Pre-Installation steps will ensure no other system elements are affected when you install the program. See Chapter 1: Installation, Preparing your Data for Migration, Check Data for Rules Violation and How Migration Integrates Data in Alliance/MFG.

### MSDE, Microsoft SQL 2000, Microsoft SQL 2005, and Microsoft SQL Express

#### Recommended Minimum System Requirements

For minimum acceptable system performance you should use the following:

Windows XP Professional or Vista with latest Service Pack

Workstations: 1 GHz Pentium Processor, 1 GB RAM, 500 Mb HDD space

Servers: 600 MHz Pentium Processor, 512 Mb RAM, approximately 1 GB for data

MS SQL Server Hard Disk Space 1 GB plus additional space for data

#### Minimum System Requirements

To take advantage of Alliance Technical Support services you must equip your computers as shown below:

Microsoft Windows 2000 or XP Pro with latest Service Pack (Home and ME versions are NOT supported)

Workstations: 600 MHz Pentium or compatible processor, 512 Mb RAM, 500 Mb HDD space

Servers: 600 MHz Pentium or compatible processor, 512 Mb RAM, approximately 1 GB for data

MS SQL Server Hard Disk Space 1 GB plus additional space for data

Microsoft SQL Server 2000, SQL Server 2005 (if you are installing the Microsoft SQL Server Database for Alliance/MFG)

### New Installations

If you are a new Alliance customer using the Access database option, review the System Overview section for information about the Alliance program, user interface and using the various toolbar, sidebar and menu elements. Also see the Getting Started Booklet.

### 2.5.3 or StartMRP 1.5.3 Customer Upgrades

If you are an existing Alliance 2.5.3 or StartMRP 1.5.3 user you will need to migrate your existing data to Access.

If you are an existing Alliance/MFG 2.5.3 or StartMRP user and intend to use a Microsoft SQL database option you will need to migrate your existing data to Access, open that Access database in Alliance/MFG 7.2 and then migrate it to SQL.

The steps you will follow to migrate your data are listed under Upgrade Installations below.

## Upgrade Installations

### Data Migration from Alliance/MFG 2.5.3 or StartMRP 1.5.3

Follow the Alliance/MFG installation instructions in the Getting Started Booklet. Once the program is installed, you can migrate your existing data.

#### What you will need:

Alliance Migration Utility (included on the Alliance/MFG CD)

This process uses the DBF to MDB Migration Utility included on the Alliance/MFG CD to convert data from the version 2.5.3 proprietary database to a Microsoft Access database. If you intend to use a SQL database you still need to convert your existing data to Access first, open that Access database in Alliance/MFG 7.2 and then migrate it to SQL. The steps you will follow to migrate your data are listed below.

#### Prepare your Existing Data for Migration

1. Complete your current month or accounting period

If you use an Alliance Accounting link, you should perform the following additional steps:

2. Run the accounting link.
3. Correct any errors.
4. Post all transactions.
5. Close your accounting period.
6. Backup your 1.5.3 or 2.5.3 database.

#### Rebuild your Company Database

Before migrating your existing 1.5.3 or 2.5.3 database to Alliance/MFG, it's a good idea to get it into the best shape possible by first performing a Rebuild and then backing up the data. This will ensure that all data is properly indexed. This is performed within Alliance from the File>Database>Rebuild menu.

#### Note:

*The Alliance/MFG Technical Reference contains additional information about how data is migrated and stored in Alliance/MFG. This information is not required, but may be helpful if you encounter multiple errors during the migration, or to review your current database for possible conflicts before you attempt migration.*

To rebuild your current database:

1. Login to your existing Alliance/MFG 2.5.3 or StartMRP 1.5.3 program.
2. Select File>Database>Rebuild.
3. If you receive any error messages during the rebuild, please contact Alliance Technical Support before proceeding.

## Back Up Your Rebuilt Database

Before migrating the data, it is important to back up your database so that if any problems occur during the migration, you will have a current database to restore, if necessary.

To backup your database:

1. From the main menu, select File>Backup.
2. If you receive any error messages during backup, please contact Alliance Technical Support before proceeding.

Note:

AllianceMFG will not migrate, nor will it have any access to or overwrite any custom reports or batch files in your old system.

## Install the DBF to MDB Migration Utility

Once Alliance/MFG has been installed, you can install the DBF to MDB Migration Utility. This utility will migrate your existing database to the new Access database.

### Install the Migration Utility

1. Insert the Alliance/MFG CD into your CD ROM drive. (If you have "Auto Insertion" enabled in your Windows CD properties, the Alliance/MFG installation program will begin. The Alliance/MFG install browser will be displayed. Click on Install Products and then select the DBF to MDB Migration button.
2. This will install the software and drivers necessary to run the MDB Migration Utility on your computer.

### Rename and relocate the Blank Migration Database installed by the Utility

The Migration Utility will copy a blank Migration database to your computer.

### The database will normally be installed in: C:/ProgramFiles/Alliance/MFG/MigrationUtility

1. Navigate to the migration database location and select the **Blank.mdb**
2. Copy the Blank.mdb to the location on a your computer you want your data to reside. If you plan to install your company database on a network, we suggest you migrate your data first and then move the database to your network.
3. Rename the Blank.mdb to a suitable name for your company database.

### Migrate the Existing Data to the Blank Access Database

After you have renamed and relocated the blank Access Migration database and brought your existing data up to date, you are ready to use the Migration Utility to migrate data from your existing 2.5.3 or 1.5.3 database.

To migrate the data:

First Close Alliance/MFG.

Navigate to the Alliance Group via the Windows Start menu and select Migration Utility from the submenu options.

1. The AllianceMFG Data Migration Utility dialog box opens.
2. Within this dialog box, you will point the utility to two files, one from the Directory of dbf Files (the old database), and one from the Destination Database (the new database).
3. Click the ellipsis button (. . .) next to the Directory of DBF Files , and navigate to the directory where the existing database you wish to migrate resides.
4. Select the .dbf file, all tables in the database selected will be migrated.
5. Click Open.
6. The path to the directory is added in the Directory of DBF Files box.
7. Click the ellipsis button next to the Destination Database box and navigate to the file where your new blank database resides.
8. Select the new database file and click Open.
9. The path and file name are added to the Destination Database box.
10. Click Migrate Data. The system will warn you that doing this will delete (overwrite) all existing data in the new database.
11. If this is OK, click Yes to continue.

The utility will begin copying tables and converting files. Errors written to the screen as dialogs during the migration are also written to a .log file in the same directory as the Migration Utility. This file will be helpful if you need to make corrections to the data or provide information to Alliance Technical Support. If the migration fails, it will help us to determine where the process failed.

When finished, the system reports: The Migration was completed successfully, click OK.

Click Done.

### **Login to the new database**

1. Start Alliance/MFG
2. Select File>Database>Login. The Alliance Data Connection dialog box opens
3. Choose Add Access Connection.
4. The Add Data Connection dialog box opens.
5. Type the name of your new database in the Data Source Name field.
6. Click the Data Source Path hyperlink and navigate to the new blank database.
7. Select the new database and click Add. The new database is now added to the list of available databases in the Alliance Data Connection dialog box.
8. Login to the new Access database. You will be asked to convert your newly migrated database structure to the latest version, click OK.



### **If the Migration Process Fails**

The Alliance/MFG Technical Reference contains additional information about how data is migrated and stored in Alliance/MFG. See Chapter 1: Installation, Preparing your Data for Migration, Check Data for Rules Violation and How Migration Integrates Data in Alliance/MFG .

### **Installing the Microsoft SQL Express Database for Alliance/MFG**

#### **What you will need:**

Alliance/MFG Installation CD 2

See the recommended Workstation/Server hardware and OS software requirements listed previously.

#### **Microsoft SQL Express Setup**

1. Insert the SQL Express for Alliance/MFG CD into your CD-ROM drive.
2. If Auto Start doesn't start the install, go to Step 3; otherwise, proceed to Step 5.
3. Select Start>Run>Browse and select your CD-ROM drive.
4. Locate Setup.exe on the CD and double click this file.
5. Click OK on the Run dialog box.
6. This will launch the Setup Program (Unattended Mode)

The first thing setup will do is check the minimum system requirements of the target machine. First the OS will be tested and if that fails the following message will be displayed:

*Setup has determined that the minimum version of the Operating System or service pack is not present on this computer.*

The minimum versions are as follows:

Windows 2000 Service Pack 4

Windows Server 2003 Service Pack 1

Windows XP Pro Service Pack 2

Windows Vista

*Please upgrade, or use the windows update feature to get the latest service pack for your system and run this setup again.*

*Setup will now abort.*

Next the setup will test the Windows Installer Service version and if that fails the following message will be displayed:

*Setup has determined that the minimum version of the Windows Installer Service 3.1 is not present on this computer.*

*Setup can launch the update for you now. Do you wish to continue? Yes or No*

If you answer No Setup will abort.

If you answer Yes Setup will download and install the latest Windows Installer Service and you will be asked to re-boot your computer when it completes.

Next the setup will detect whether or not the .NET Framework 2.0 is installed. If it is not the user will see the following message:

*Setup does not detect the Microsoft .NET Framework 2.0 on this computer.*

*Setup cannot continue until it is installed.*

*Please use the Windows Update functionality to obtain this setup.*

*Setup will now abort.*

If all of the above requirements are met, you will receive the following message:

*Setup will now configure the installation program for SQL Express.*

Follow the on screen installations instructions.

1. Alliance/MFG requires SQL authentication as opposed to Windows Authentication this requires a strong system administrator (SA) password.
2. This instance of SQL Express (MFGEXPRESS) will be installed with the default user name "sa" and setup will prompt you for a strong password. You will be asked to verify that password, if they do not match, you will be asked to try again.
3. SQL Express will now be installed on your machine.

## Installing the Microsoft SQL Server Database for Alliance/MFG

### What you will need:

Microsoft SQL Server 2000 or SQL Server 2005 (installed on your server)

Alliance/MFG Installation CD

### Microsoft SQL Server Setup

Setting up your SQL Server should be performed by your IT Professional or a Certified SQL Server installer.

Databases created using the Alliance File>Create Database option or the Alliance SQL Database Setup utility use SQL Server's default collation setting. Alliance has tested the application under the "SQL\_Latin1\_General\_CP1\_CI\_AS" collation setting and recommends using this collation. However we understand that in foreign countries this is not the best choice. Therefore when choosing a different collation setting, if your language supports a case-insensitive collation, choose that as your default setting when installing SQL Server.

If you have already chosen a different collation for the default collation when you installed SQL server, run the MDB to SQL Migration utility to create a SQL database as usual (see the following section). Then using the tools provided by Microsoft SQL Server, create another blank database using a case-insensitive collation such as the one recommended above. Then using Microsoft SQL Server's Import/Export Utility move all the structure and data from the database created by the MDB to SQL Migration utility to the one created with the proper collation.

## Installing the MDB to SQL Migration Utility

1. On a Windows workstation/server that has Alliance/MFG Version 7 installed, Exit from and close Alliance/MFG.
2. Insert the Alliance/MFG CD into your CD ROM drive. The Alliance/MFG install browser will be displayed. Click on Install Products and then the MDB to SQL Migration button.
3. This will execute the Installer for the Access to SQL Migration Utility which will also create your SQL database and migrate your existing Access data to it.
4. From your Windows Start Menu Alliance Group locate the MDB to SQL Migration Utility and launch it. Within this dialog box, you will point the utility to the MS SQL Server that will host the new database, and also which type of database to create and last whether or not to migrate your existing data (optional).
5. Click the MS SQL Server drop down list box, and navigate to the server where the database will reside.
6. Next enter a unique name for the new database in the New database name box. If you use an existing name the utility will prompt to overwrite that database.
7. Supply the SQL Server Administrator Name in the Admin ID box and the Password (this is not the Alliance/MFG Login "SUPERVISOR" and password.)
8. Next, select the type of database you wish to create (Blank, Default or Other). If you choose Blank or Default the source path and file name will be defaulted for you. If you wish to migrate your existing Alliance/MFG Access data, choose Other. If you choose Other the ellipsis button will be enabled. Navigate to the Alliance/MFG Version 7.2 source MDB database via the Open dialog box. Click Open, the path to the directory will be entered into the Source MDB box.

## SQL Installations and Firewalls

The Windows Firewall may hide SQL Express instances so they won't show up in drop down lists (e.g. when adding a connection, backing up a database, etc). Other Firewalls may cause the same problem.

If you encounter this you have three options:

1. If you don't need a Firewall (e.g. local network only) then disable your server's Firewall
2. Open UDP Port 1434 if you use something other than the Windows Firewall
3. If you use the Windows Firewall you can follow the steps in section 4.1 of <http://msdn.microsoft.com/vstudio/express/support/sqlreadme/>:

Click Start, click Control Panel, and then click Network Connections.

From the navigation bar on the left, click Change Windows Firewall settings.

On the Exceptions tab, in the Programs and Services box, you will probably see that SQL Server is listed, but not selected as an exception. If you select the check box, Windows will open the 1433 port to let in TCP requests. Alternatively, if you do not see SQL Server listed, do the following:

1. Click Add Program.
2. Click Browse.
3. Navigate to drive:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\BINN
4. Add the file sqlservr.exe to the list of exceptions

# Alliance/MFG System Overview



## The Alliance/MFG User Interface

When you start the program, Alliance/MFG opens in a window on your display screen and the Alliance/MFG system menu displays across the top.

You can minimize it (reduce the window to an icon on your Windows Task Bar), or maximize it (restore it to full screen size) like any other Windows program. Your Windows Start button and Task Bar will continue to display at the bottom of your computer screen so you can open other programs and send and receive email just as you can while using other Windows programs.

Select functions from the main system menu to display them in the body of the screen. We recommend that you maximize Alliance/MFG after it opens. This will provide an adequate area for viewing and maintaining data. The system will remember how you exited Alliance/MFG and reopen in that mode.

Alliance/MFG uses standard Microsoft Windows hot keys and short cuts that let you quickly edit, copy, and paste data, scroll through data lists, and move through the system using either the mouse or keyboard strokes. You can also drill down through the system screens to access related data.

See the sections Alliance System Overview and Navigating Alliance/MFG for complete details on menu functions and selections, sidebar and toolbar options and screen/window types.

**NOTE:**

*This Help document contains images from both Alliance/MFG Versions 6.X and 7.X.*

## Alliance/MFG System Overview

### Functional Overview

This section describes the general use of Alliance/MFG and briefly outlines the various functional areas of the system. Use this section to familiarize yourself with the basics of Alliance/MFG, including background information, system design and methodology, and how the various elements of the system interact.

Alliance/MFG is a Microsoft Windows-based application that is dependable, and very easy to use. If you are familiar with basic Windows operation, you will quickly master the program.

Alliance/MFG maintains dynamic information about your products, customers and suppliers, employees, manufacturing process, your shipments and your invoices—all the data you need to track your transactions and provide detailed reports on every aspect of your manufacturing operation.

Alliance/MFG fits into the tight schedule of busy, growing companies. Alliance/MFG is designed by manufacturers for manufacturers. The software is easy to install and easy to learn. Alliance/MFG, when properly used, will streamline the overall efficiency of your entire manufacturing process.

In the Navigating the System section, you will find a description of the menu structure; toolbar, sidebar and detailed information about how to navigate through the system. It explains how to open and use various lists, grids, forms, queries, transactions, and dialog boxes; and how to use the View and Edit features to drill-down through related data in the system.

*NOTE:*

*This Help document contains images from both Alliance/MFG Versions 6.X and 7.X.*

The following sections briefly summarize the functional areas you will access to set up and operate your Alliance/MFG system.

### The Alliance/MFG Main Menu Functions

#### FILE

All the elements you need to enter and maintain your company-specific information is found under the File menu. From the File Menu option, you can login to your databases, set up and maintain your company name and address information, establish security settings, set default values and maintain codes you need to operate your system.

See **Database** for information about importing data, creating and setting up your company databases.

See **Company** for complete information about setting up your company, employees, calendar and default code information.

See **Codes** for complete information about setting up your standardized and default code information.

#### PRODUCTS

In Alliance/MFG your products are maintained in the Part Master, which is the foundation for your Bill of Materials (Product Structure). All features relating to the Part Master are found under the Products menu.

The Part Master is a comprehensive table of parts—components, subassemblies, and assemblies—all of which form relationships that apply to the manufacture of your finished product. Descriptions, revision numbers, documents, and ECNs are just some of the details stored in the database. From this detailed part information, you can create multilevel product structures and preview or print detailed reports such as a Costed Bill of Materials, a Part Master List, a Component Where-Used report, or an Indented Multi-level BOM.

The Indented Bill of Materials Report “explodes” a product structure, showing the manufactured part and all of the pieces (components) needed to make it, through all levels of production. The “Where Used” Report tracks any component or assembly and where it is used throughout all product structures.

See **Setting up your Products** for detailed information on creating your part master, BOM's, part cross-reference, part documents and drawings.

## **DEMAND**

The Alliance/MFG system is designed around the concept of “supply and demand”— customer orders and forecasts are the Independent Demand that, through Material Requirements Planning, drives the action of purchasing or manufacturing the supply. Using Demand, you will maintain thorough and up-to-date information on your company's customers. Easily enter minimal quoting information, if awarded, convert the quote to a sales order. The Easy Entry Sales Order function simplifies and shortens the process of taking complex customer orders; select entries from codes tables linked to order forms to streamline data entry and minimize error. Easily enter and edit information about pricing, shipping, alternate currency, discount options, and taxes.

With Alliance/MFG's Forecast module, you can anticipate the potential effect of different levels of production demand on the company's operations to push the manufacturing process beyond the scope of its actual sales orders.

Use the Job Tracking feature to apply a unique job number to track related sales order, purchase order, and work order costs through the system.

See **Working with Demand**, for details about setting up your customers, creating quotes and sales orders and shipping customer orders.

## **SUPPLY**

The supply-side of the Alliance/MFG system contains information about your company's suppliers and OEMs. It is where you create and maintain purchase orders for your suppliers when their products are required for your manufacturing process. If in-house assemblies are required, MRP planned orders generate the requests to have these items made. The information that initiates supply-side activity is generated as a result of running the Material Requirements Planning function, which looks at existing orders and inventory, then flags requirements, potential shortages, and suggests reschedules for out-of-phase orders.

See **Working with Supply**, for information about creating and receiving purchase orders, and creating, kitting, and completing work orders, serialized completions and backflushing.

## MATERIAL REQUIREMENTS PLANNING

The Material Requirements Planning (MRP) module is your company's automated "master planner." Its primary function is to regularly examine the total demand for products and then decide what items need to be bought or made, and when, to meet that demand. MRP reviews every item of information input into the system, analyzes the data, calculates, and disseminates the information into action reports. When status of the manufacturing process is requested, MRP's powerful computation function reports exactly what your company needs to do to meet the demands placed on it.

All you need to do to initiate this system-wide, complex process is check a few parameters and click Calculate. The results are then sorted and reported in whatever way you request, either on screen or in print.

See **Material Requirements Planning** for information on what you need to build and buy to meet your customer's needs.

## INVENTORY CONTROL

The Part Maintenance function manages your inventory. It stores comprehensive information about parts including stock levels, labor, and costing. Costing fields include material, labor, burden, subcontract, setup, and total unit cost. You can maintain both standard and pending costs.

This inventory information also provides MRP with the precise ordering rules and necessary information to calculate the requirements plan. For example, you can establish the scrap factor for a part, which influences ordering quantities; and you can keep information relating to optimum order quantities, how much safety stock to keep on hand, the lead times for products, and normal shelf life.

With Alliance/MFG's ABC Analysis tool, you can prioritize the relative importance of a particular part by assigning ABC codes. ABC calculation parameters include YTD usage dollars, on-hand dollars, and unit cost.

Through the Transactions feature, Alliance/MFG tracks all inventory movement, including serial and lot numbers. On the demand side, Transactions document exactly what items are being shipped to the customer and from where the inventory items are taken. Transactions also include shipments returned from a customer and to what stock location they are returned.

You can perform Miscellaneous Issues, Miscellaneous Receipts, and Relocate inventory through the Transactions menu.

Transactions on the supply side include Purchase Order Receipts, Work Order Completions, Backflushing, Kitting, Deking, and Returns to Vendor.

The Shortages function gives you the ability to add, edit, or delete shortages, and you can use Relocate to move inventory between locations.

See **Inventory Control** for information on part maintenance, transactions and inventory control.



## CAPACITY REQUIREMENTS PLANNING

While the MRP feature reports what you need to make and buy within a specific time frame, Alliance/MFG's Capacity Requirements Planning (CRP) feature tells you if your manufacturing capacity is actually able to produce what you need within that time frame.

To use CRP effectively, you must identify and describe your company's work centers and assign each center a capacity. You can also divide work centers into groups or shifts and define capacity separately. In addition, labor routers that describe—in terms of function and time—each operation performed during the manufacturing process can be entered into the system.

Running CRP generates reports in either table or graph format that accurately show the daily load of a given work center over time. The graph displays exactly how far each center is under or over capacity.

See **Capacity Requirements Planning** to establish work centers, routings, and capacity planning.

## SHOP FLOOR CONTROL

Alliance/MFG's Shop Floor Control module provides a complete, up-to-date picture of your manufacturing operation. Within this feature, the Work-in-Process function displays the current status of all released work orders. Actual material, labor, and scrap costs are tracked to help you maintain an up-to-the-minute financial analysis of your manufacturing process.

With Alliance/MFG's Labor Distribution feature, you can maintain the labor charged to a work order or job. Reports provide efficiency and effectiveness data, by employee.

See **Shop Floor Control** to monitor WIP, labor effectiveness and efficiency

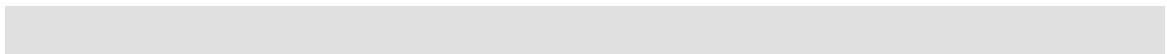
## HELP

You can access Alliance/MFG Help files, link to our Web site, or send email to Alliance Technical Support from the Help menu.

## REPORTS

Alliance/MFG offers a wide variety of pre-formatted, standard reports. These reports are accessible from each function menu. You can query reports from Alliance/MFG predefined queries on each report menu or create your own custom queries. For detailed information about creating custom queries for Alliance/MFG standard reports, see the Alliance/MFG Technical Reference, Chapter 5: Reports & Queries.

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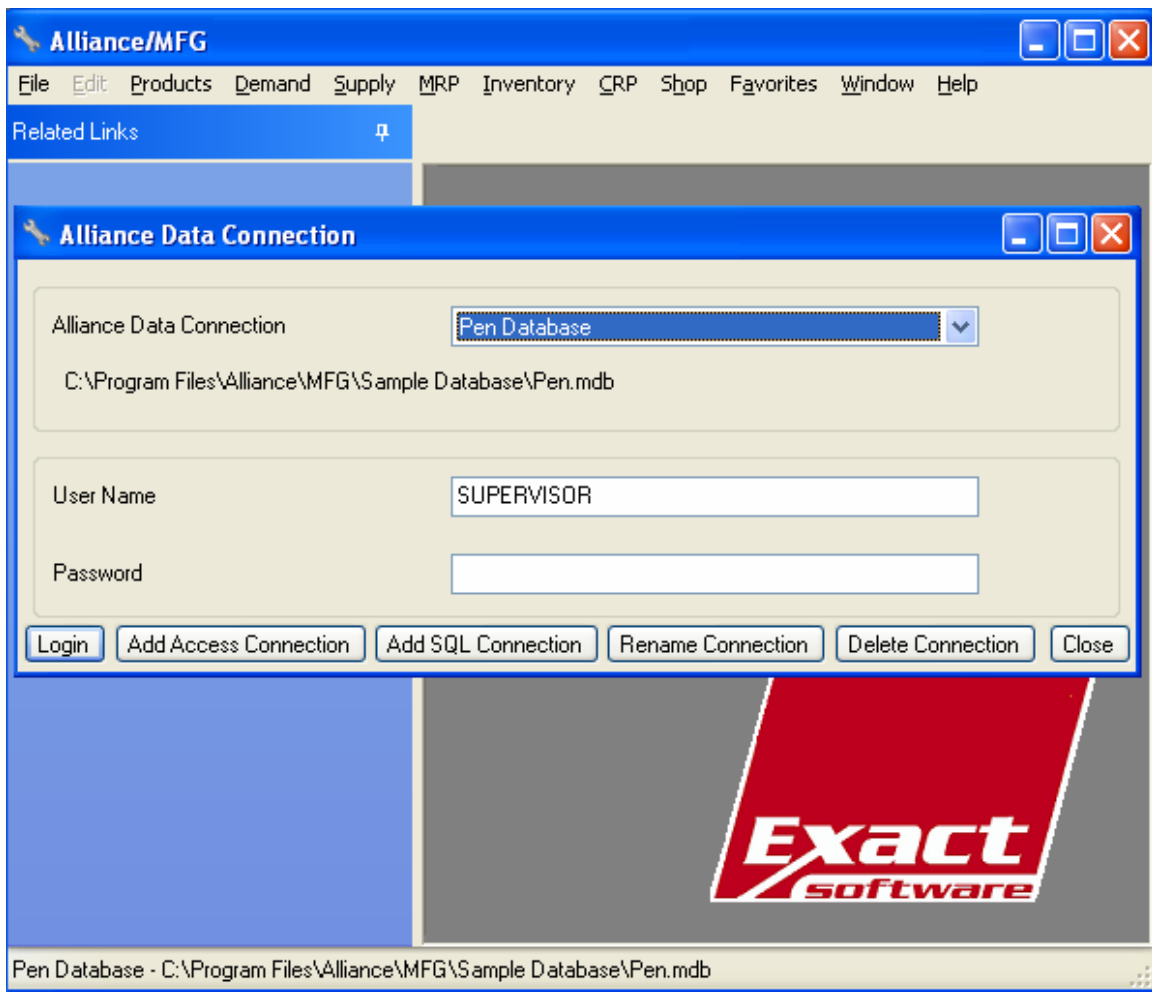
## Navigating Alliance/MFG

### Starting the Program

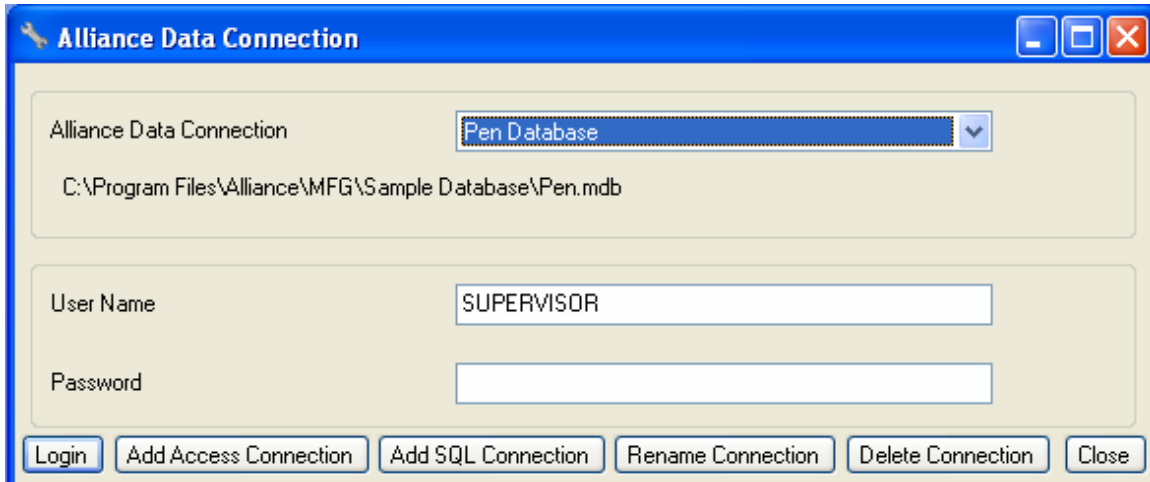
Once you have installed Alliance/MFG and have familiarized yourself with the implementation process outlined in the Getting Started or Technical Reference Manuals, you are ready to start the application. An icon will be set up in the Programs section accessed from the Start Menu on your Windows desktop.

#### To start the program:

1. Click the AllianceMFG icon on your desktop, or select Start>Programs>Alliance>AllianceMFG.
2. The Program window appears.



If the sample Pen Database has been installed with your system, the application will open normally and display the Alliance Data Connection dialog box. Use the name "SUPERVISOR"; no password is required. You can click Login to begin working with the Pen Database or add a new database. The initial login process will take a few moments.



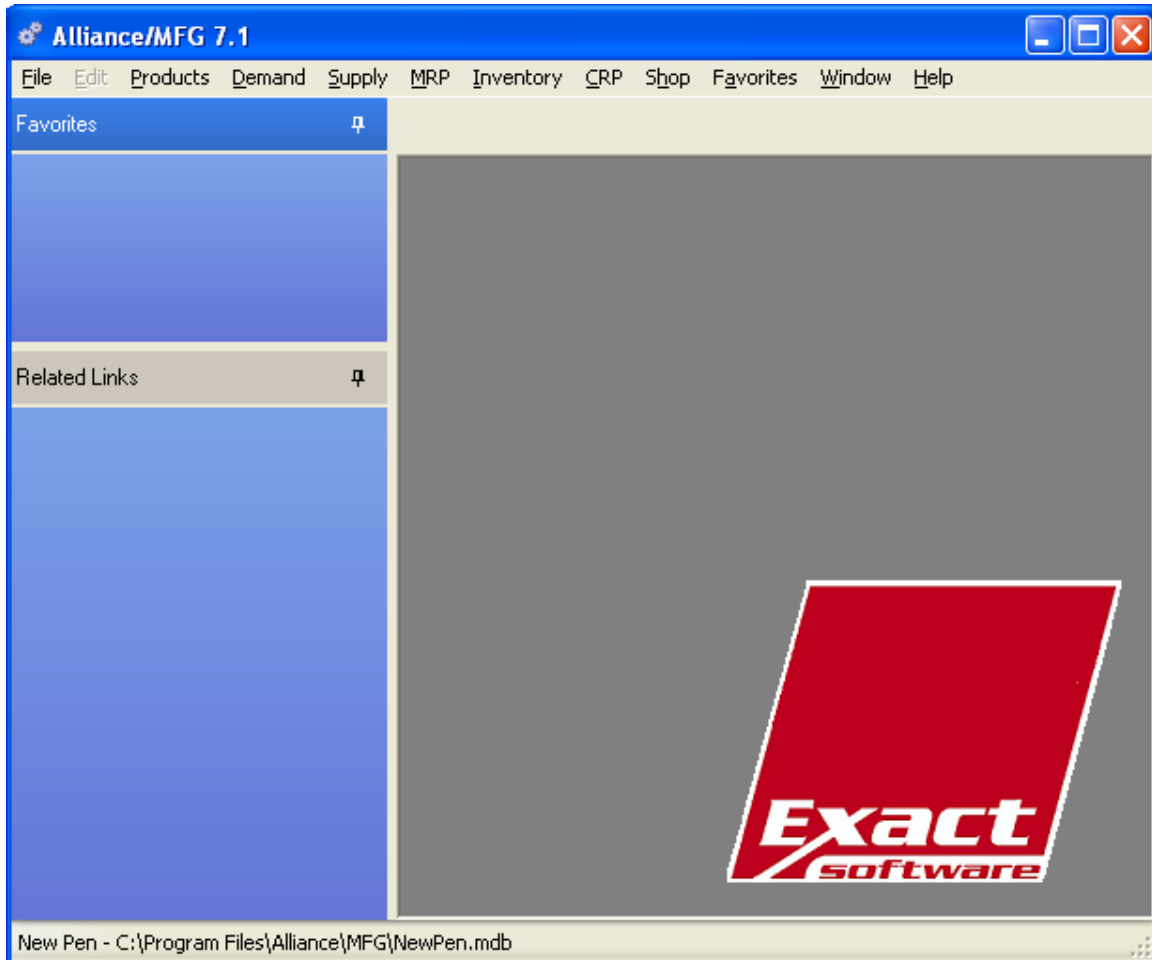
If no database has been installed and you are running Alliance/MFG for the first time, the Alliance Data Connection dialog box will display an empty list. You must add the database prior to Login.

**To add a database:**

1. From the Alliance Data Connection dialog box, click Add Access Connection or Add SQL Connection to open the Add Data Connection dialog box.
2. For Access enter the Data Source name and path of the existing database.
3. For SQL enter the Data Source, User ID, Password, Server and Database (this function should be performed by your Database Administrator).
4. Click Add. The database is added to the drop-down list on the Alliance Data Connection dialog box.
5. Select the database from the list.
6. If this is a new, blank, or default database, enter the User Name (SUPERVISOR) and leave the password blank.
7. If this is an active database, login with your User ID and password.
8. Click Login. After a moment, you will be able to add data and access information from all system menus for the database you added. If the system requests you to update your database to the current version, click OK, this will ensure your data is in the current format.

## Displaying Alliance/MFG

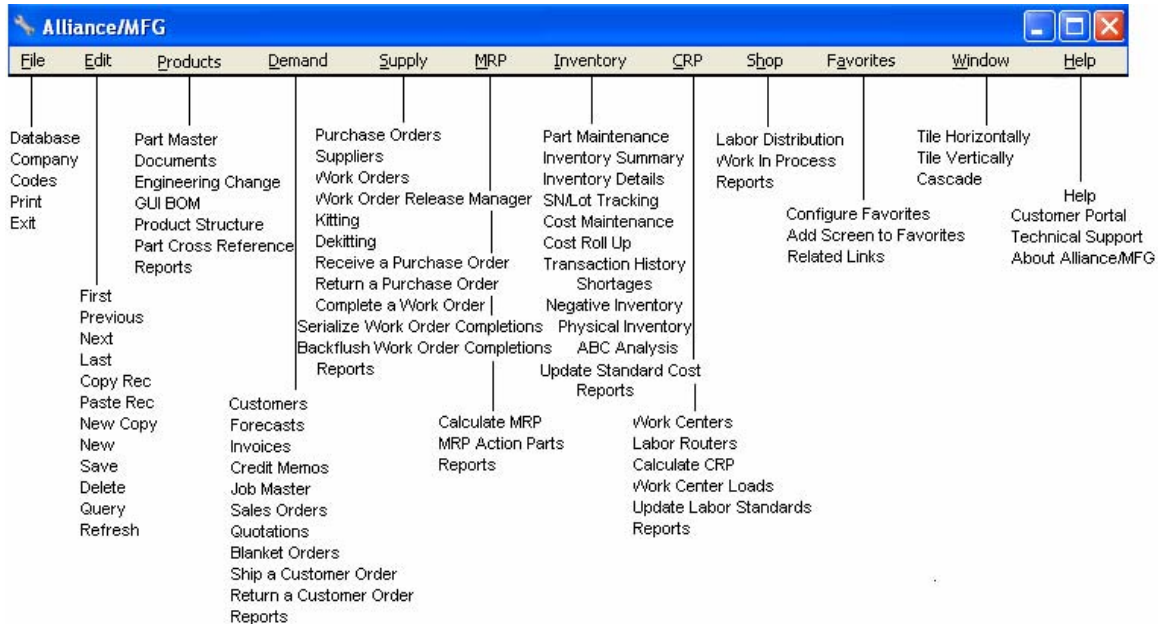
When you start the program, Alliance/MFG opens in a window on your display screen and the Alliance/MFG Main Menu displays across the top.



You can minimize it (reduce the window to an icon on your Windows Task Bar), or maximize it (restore it to full screen size) like any other Windows program. We recommend that you maximize Alliance/MFG after it opens. This will provide an adequate area for viewing and maintaining data. Your Windows Start button and Task Bar will continue to display at the bottom of your computer screen so you can open other programs and send and receive email, or use Alt+Tab to switch between other Windows programs.

## Menu Structure

The Main Menu appears on the top of window when the application is opened. You will select the primary functions used to run the program from this menu.



### Primary Functions

**File** Includes Database, Company, Codes, Print, and Exit.

**Edit** Includes First, Previous, Next, Last, Copy Rec, Paste Rec, New Copy, New, Save, Delete, Query and Refresh .

**Products** Includes Part Master, Documents, Engineering Change Notice, GUI BOM, Product Structure, Part Cross-Reference, and Reports.

**Demand** Includes Customers, Forecasts, Invoices, Credit Memos, Job Master, Sales Orders, Quotations, Blanket Orders, Ship a Customer Order, Return a Customer Order, and Reports.

**Supply** Includes Purchase Orders, Suppliers, Work Orders, Work Order Release Manager, Kitting, De-Kitting, Receive a Purchase Order, Return a Purchase Order, Complete a Work Order, Serialize Work Order Completions, Backflush Work Order Completions and Reports.

**MRP** Includes Calculate MRP, MRP Action Parts, and Reports.

**Inventory** Includes Part Maintenance, Inventory Summary, Inventory Details, SN/Lot Tracking, Cost Maintenance, Cost Rollup, Transaction History, Shortages, Negative Inventory, Physical Inventory, ABC Analysis, Update Standard Cost, and Reports.

**CRP** Includes Work Centers, Labor Routers, Calculate CRP, Work Center Loads, Update Labor Standards, and Reports.

**Shop** Includes Labor Distribution, Work in Process, and Reports.

**Favorites** Includes Configure Favorites, Add Current Screen to Favorites and Related Links.

**Window** Choose how you want windows to display on your desktop: Tiled horizontally, vertically, or cascade.

**Help** Includes Help, Technical Support, Customer Portal, and About Alliance/MFG.

### Submenu Functions

Most submenus contain New, Edit, and a list of predefined queries. The queries available depend on the function you select. The File, Edit, Favorites, Windows and Help submenus have specific function related options.

**New** - Displays a blank data entry form.

**Edit** - Displays the data entry form for the record entered in the query dialog box. (Must be an exact match; wild cards are not permitted.)

**Predefined Queries** - Displays a data view (list) of all records matching the query criteria. (Wild cards are permitted.)

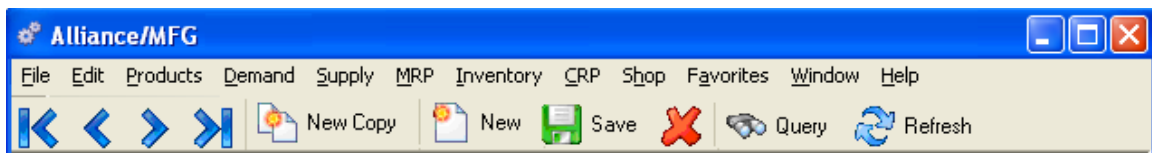
### MDI Logo

You may display your companies logo inside the Alliance/MFG MDI frame. Copy a bitmap to the Alliance>MFG>System folder. Delete or rename the existing Alliance "Background.bmp", then save your company bitmap as "Background.bmp".



### Toolbar Buttons

There are ten (10) toolbar buttons used by Alliance/MFG windows, the button functions are described below. The toolbar buttons are dynamically available based on usability, the active window (window with focus) and the action taken by the user in that window. The more frequently used buttons have a text description to the right. If you position your mouse cursor over a toolbar button a Tool Tip describing the button function will appear.



### Toolbar Button Functions

**First** - Move to the first record

**Previous** - Move to the previous record

**Next** - Move to the next record

**Last** - Move to the last record

**New Copy** - Copy the selected record and create a new record include associated detail records (**Header** A record containing common, constant, or identifying information for a group of records which follows. & **Detail**)

**New** - Displays a blank data entry form

**Save** - Saves any valid change(s) made to a record(s)

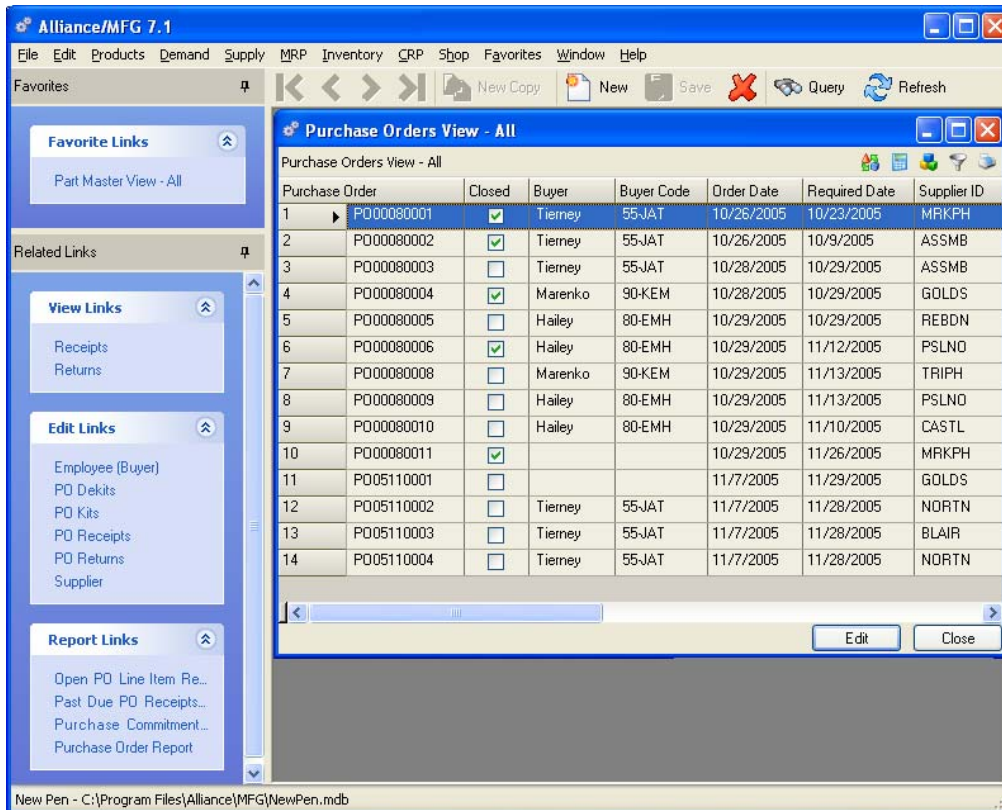
**Delete** - Deletes the selected record, record integrity is verified and a warning message may be displayed

**Query** - Displays a query form with the last query executed (if any)

**Refresh** - Refreshes the data in either a view or edit form

### Sidebar

The Alliance/MFG Sidebar contains two sections; Favorites and Related Links. The Favorites section contains links to your Favorite edit, view and report screens, this section will save you additional time and keystrokes if you perform repetitive tasks. The Related Links sections display dynamic links to associated data based on the active or highlighted record in the current window. The links will display as hyperlinks when selected and if clicked will execute a pre-defined query with the current record's data as the parameter(s). These links will save you time and keystrokes when you need to access related data (display the Receipts or Returns for the highlighted PO in the view screen). Unlike the queries from the Main Menu you are not required to fill in the query parameter(s), the parameter is supplied by the screen you have open and/or the record selected.



## Sidebar Sections

**Favorites** - Displays a list of your Favorite screens. You must configure this section by adding your favorite and often used screens (see below).

**Related Links** - Displays dynamic links to associated data based on the active or highlighted record in the current window.

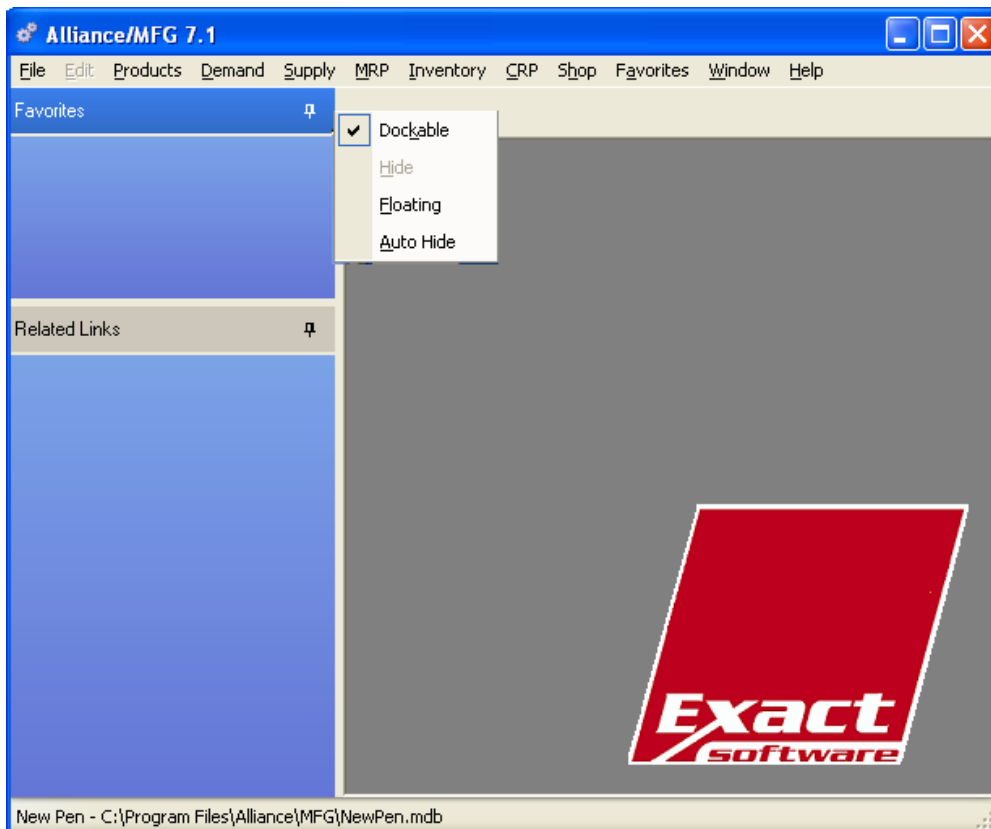
**View Links** - Displays pre-defined links to associated views. The list of links is dynamically created each time a different window is opened or record selected. You may view or drill down to related data by clicking on a link.

**Edit Links** - Displays pre-defined links to associated edit screens. The list of links is dynamically created each time a different window is opened or record selected. You may edit and change related data via these links.

**Report Links**- Displays pre-defined links to associated reports. The list of links is dynamically created each time a different window is opened or record selected.

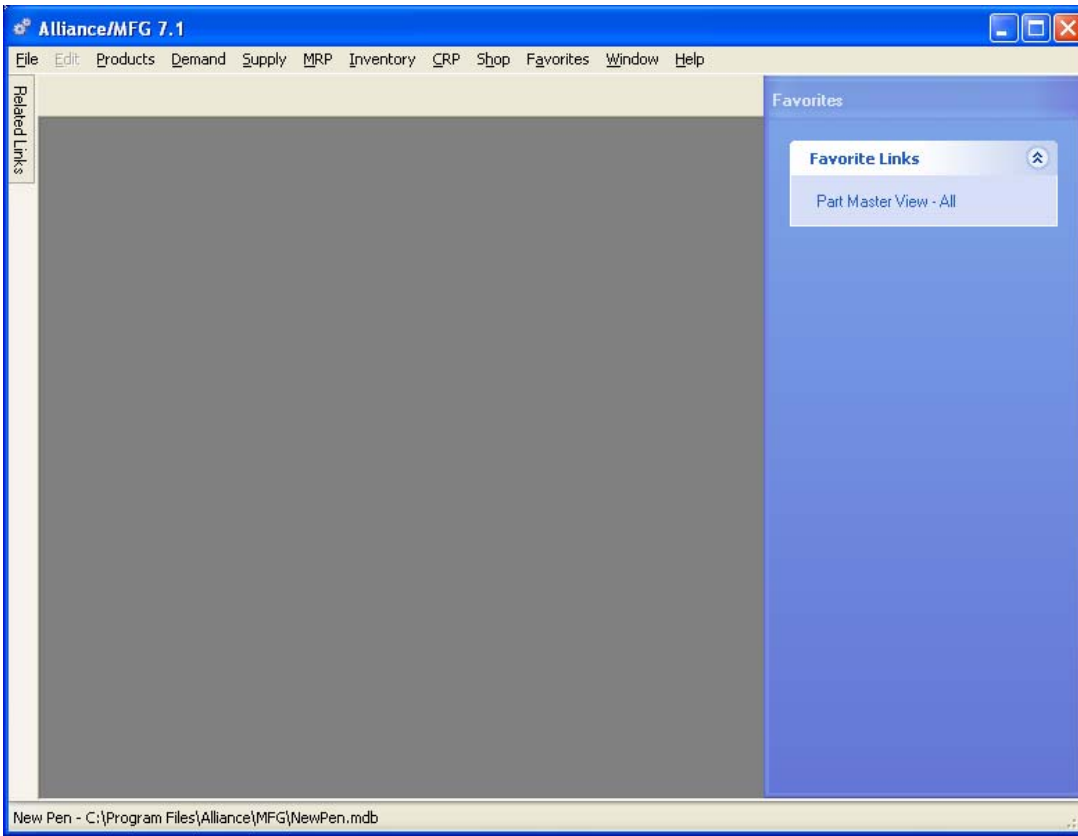
Sidebar sections can be expanded or collapsed as desired, just click on the double arrow in the top right title bar of each section. Hiding the sidebar allows more of the main application working area to be accessible. You can choose to display or hide either section of the sidebar by clicking the Auto Hide Stick Pen icon on the top right side of the Sidebar. Additionally you can drag and drop the sidebar sections anywhere within the Alliance MDI or drop them on your desktop if you prefer. If you right click the Auto Hide Stick Pen it will display the available sidebar position options.

Both sidebar sections docked.

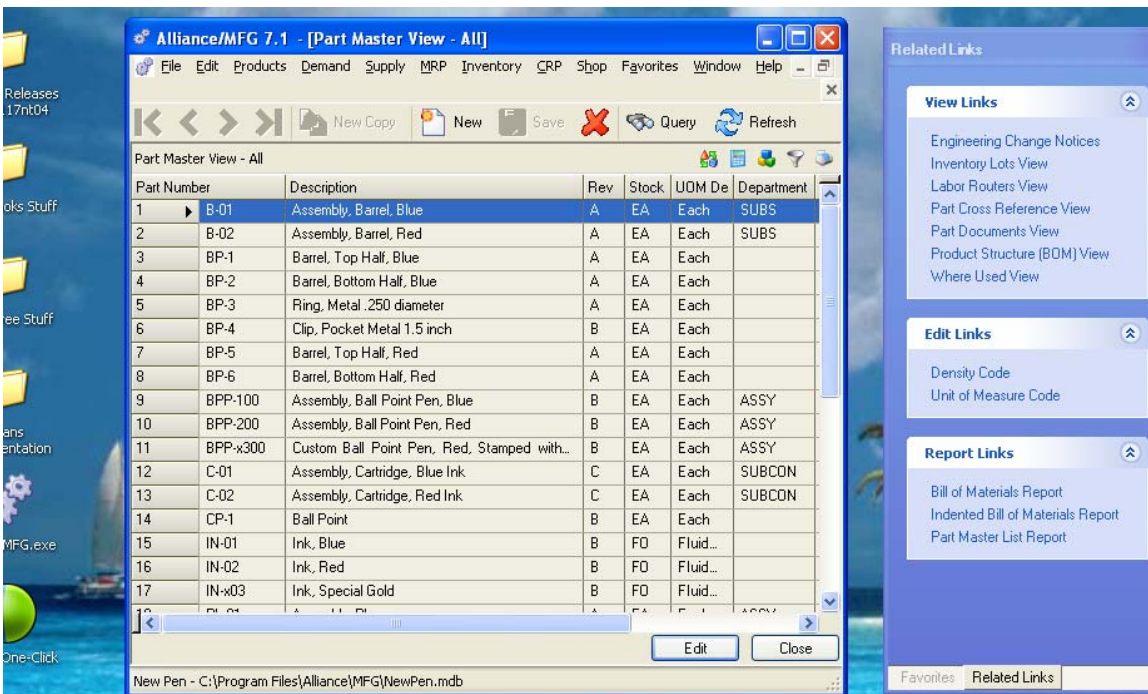




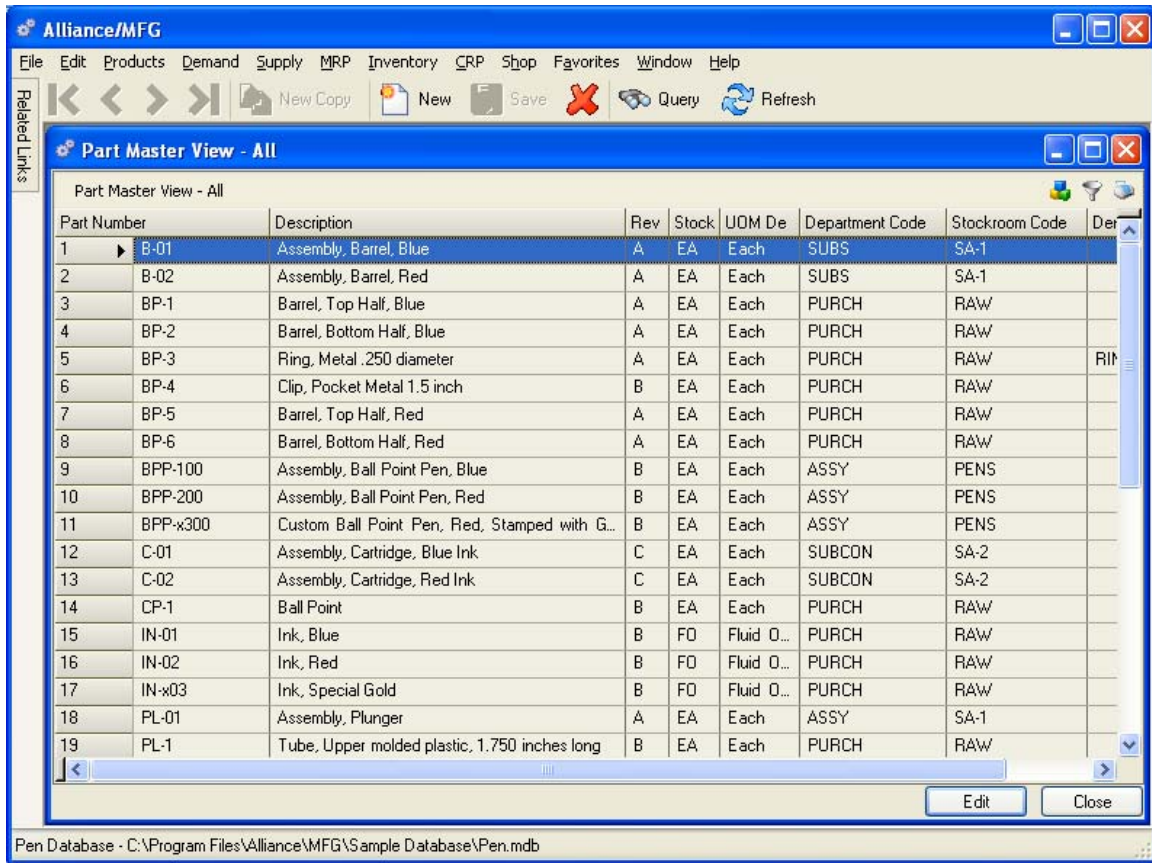
Drag Favorites section to the right side of Alliance/MFG, collapse Related Links section.



Move both sections out of Alliance/MFG to your desktop. When you close and then reopen Alliance/MFG the sidebar will display where you last positioned it.



When you hide a sidebar section, a Related Links or Favorites tab is enabled on the top left side of the main Alliance/MFG window (MDI), holding the mouse cursor over this button will allow you to access the Related Links and Favorites sections via a slide out window.

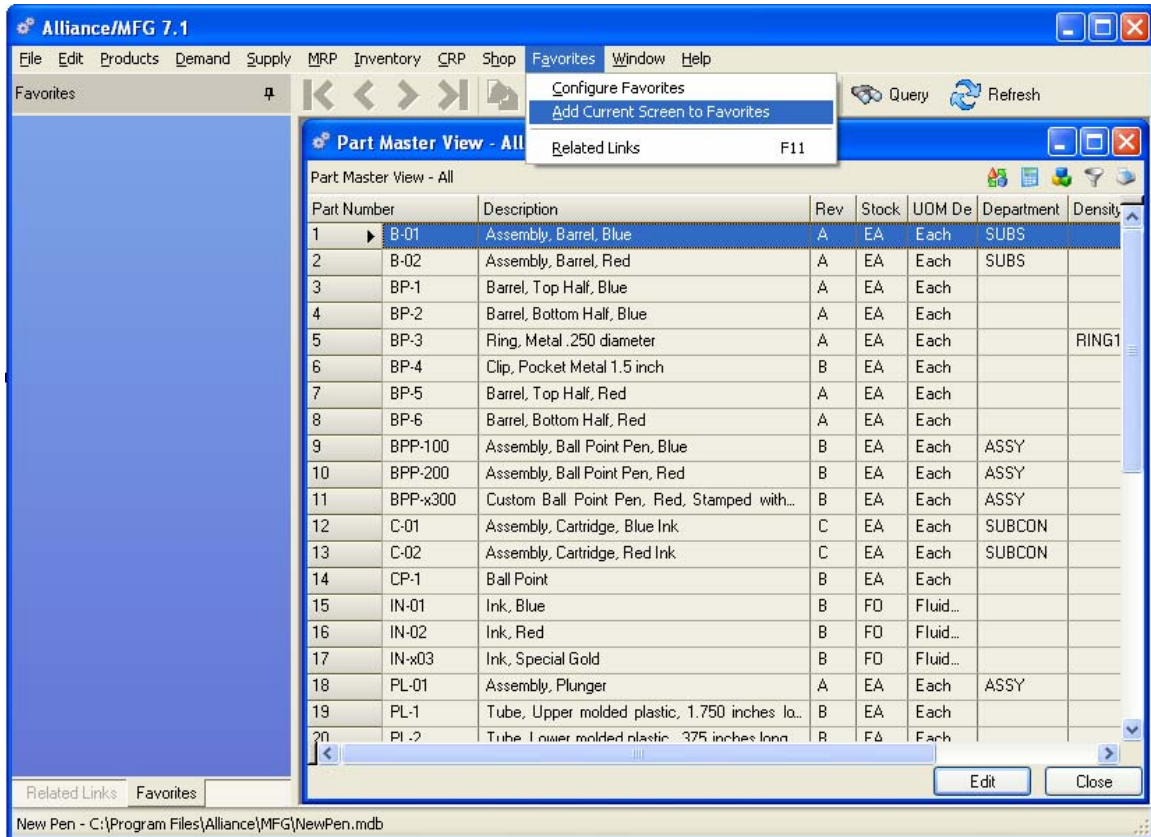


### Configuring the Favorites Section

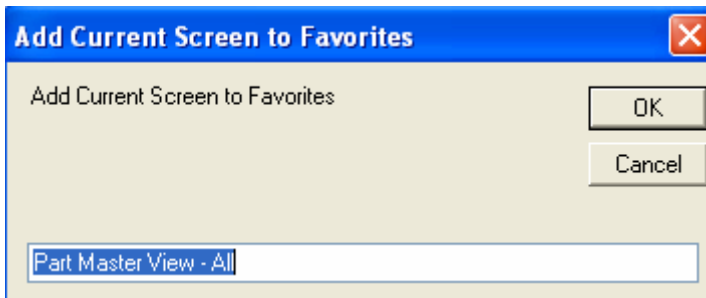
You can create a list of your Favorites to appear in the Sidebar every time you open Alliance/MFG. You can add Alliance/MFG views and reports and additionally, add external documents, spreadsheets, custom views and custom reports to your Favorites.

#### Adding internal items to your Favorites

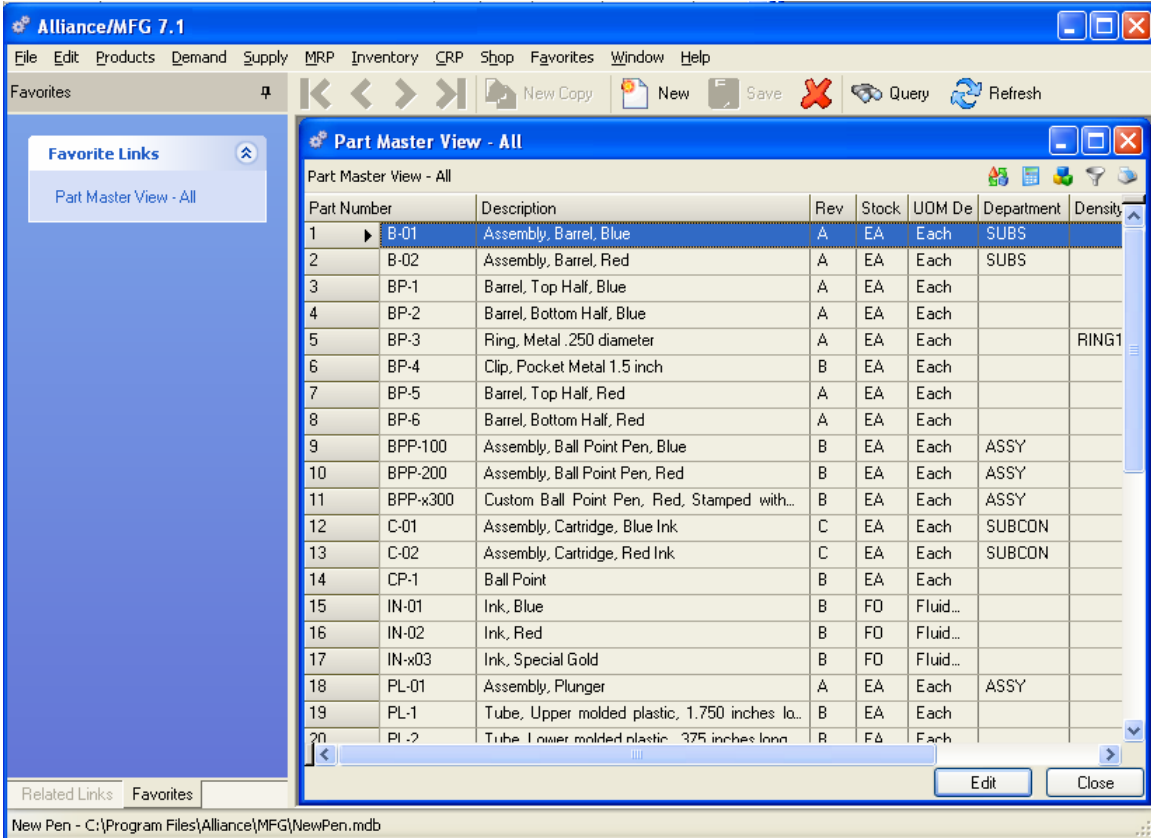
For internal items you must first open and display the view or report to add it to your Favorites. If you use the Part Master on a daily basis, open it with your most frequently used query. Click on the Favorites menu and then Add that Part Master view to your favorites.



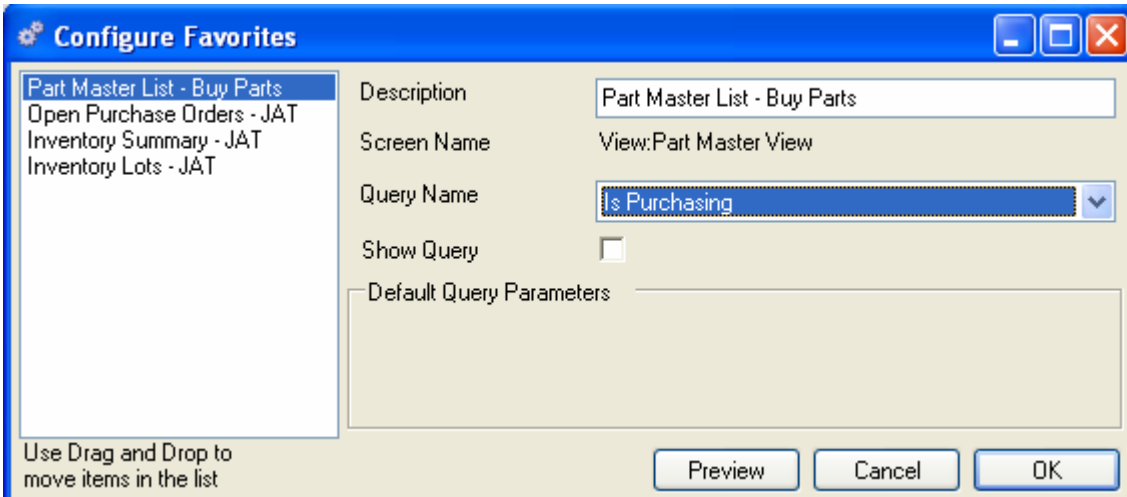
The Add Current Screen to Favorites dialog box will immediately display.



You may rename the screen if you like. Click OK, your Favorites section will now be displayed in the sidebar.



You may create as many Favorite Links as you need to be efficient. When you are finished, use the configuration tool to configure your Favorites section. Click on Favorites>Configure Favorites



Highlight the favorites selection you wish to configure, you may then rename a selection, modify the query, move a selection up or down within the favorites section, or delete a selection from the favorites.

**Configure Favorites**

Part Master List - Buy Parts  
Open Purchase Orders - JAT  
Inventory Summary - JAT  
Inventory Lots - JAT

Description: Part Master List - Buy Parts  
Screen Name: View:Part Master View  
Query Name: Is Purchasing  
Show Query: Is Purchasing  
Default Query Parameters:

Use Drag and Drop to move items in the list

Preview Cancel OK

To prefill a query parameter(s) with frequently used value(s), click on the drop down query list and select the desired query. To display only "your" open purchase orders, query by Buyer Code.

**Configure Favorites**

Part Master List - Buy Parts  
Open Purchase Orders - JAT  
Inventory Summary - JAT  
Inventory Lots - JAT

Description: Open Purchase Orders - JAT  
Screen Name: View:Purchase Orders View  
Query Name: By Buyer Code  
Show Query: By Buyer Code  
Default Query Parameters:  
Buyer Code

Use Drag and Drop to move items in the list

Preview Cancel OK

Next, enter the Default Query Values and Click OK.

**Configure Favorites**

Part Master List - Buy Parts  
Open Purchase Orders - JAT  
Inventory Summary - JAT  
Inventory Lots - JAT

Description: Open Purchase Orders - JAT  
Screen Name: View:Purchase Orders View  
Query Name: By Buyer Code  
Show Query:   
Default Query Parameters:  
Buyer Code: \*55-JAT

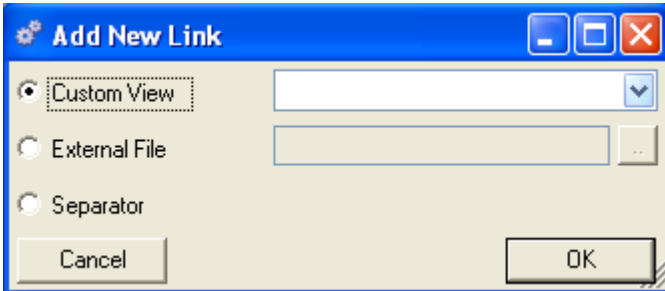
Use Drag and Drop to move items in the list

Preview Cancel OK

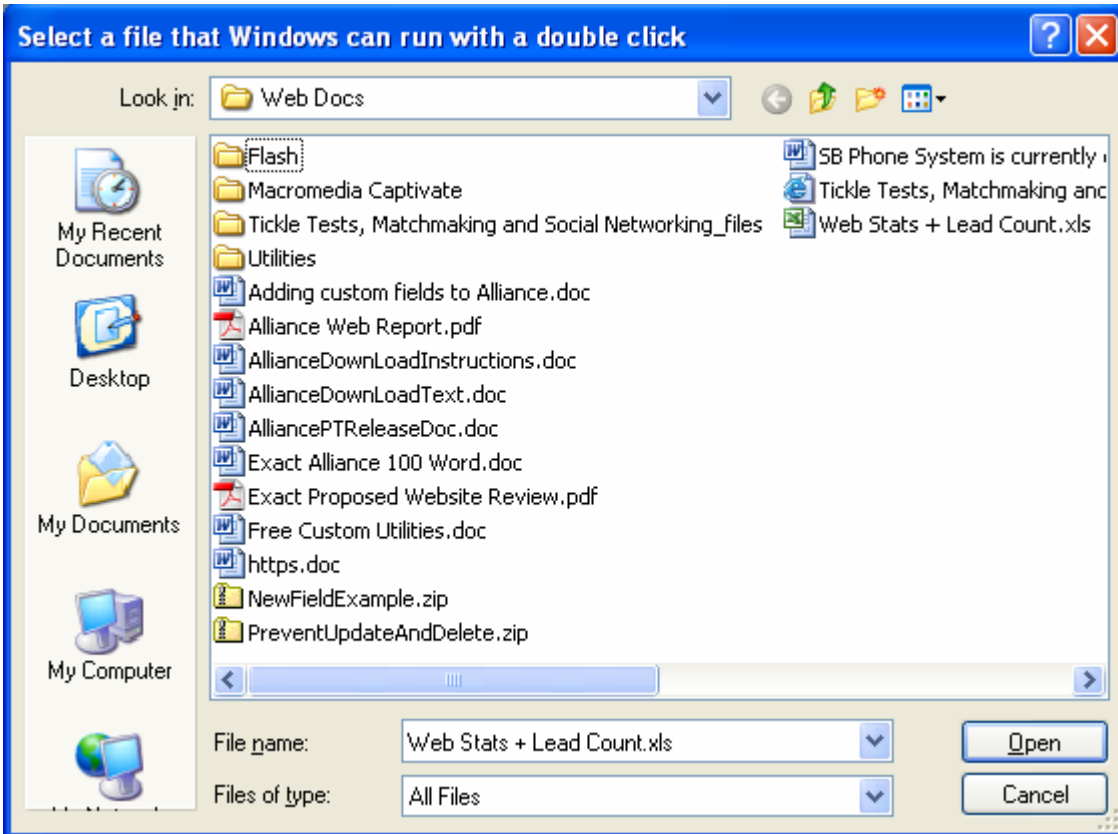
You may display and verify the results by either clicking the Preview button or clicking the favorite's selection in the sidebar.

**Adding External items to your Favorites**

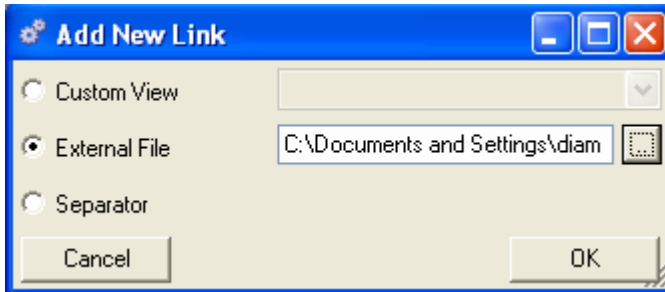
Click on Configure Favorites option on the Favorites menu. Click the New button on the Alliance/MFG Toolbar. The Add New Link window is displayed.



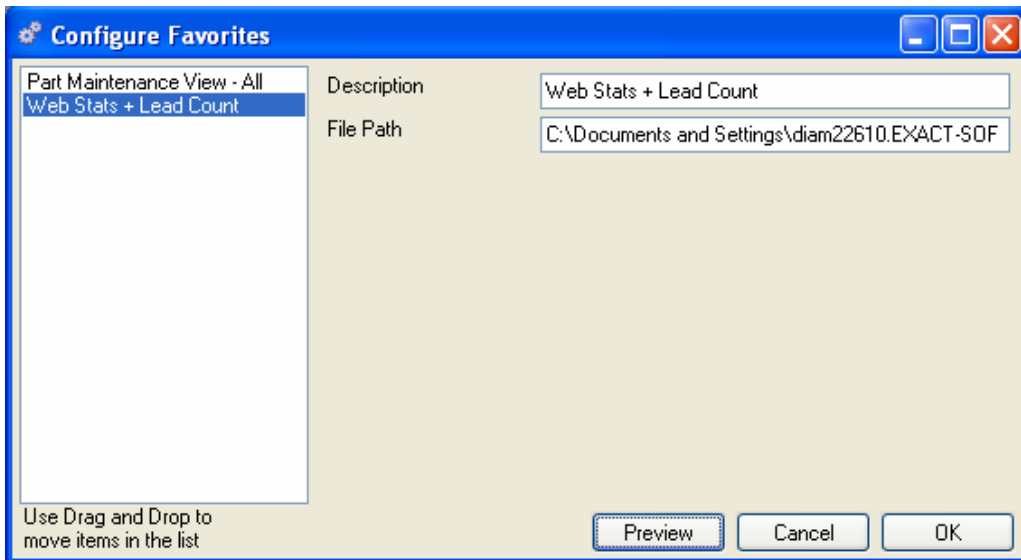
Click either the Custom View, External File or Separator radio button. To add a Custom View, click the drop down arrow and highlight any custom view you have created or downloaded and saved (Free Custom Views are available for downloading from the Alliance Customer Portal). To add an External file to your favorites, click the ellipse button and navigate to a document or file that can be opened with a double click event.



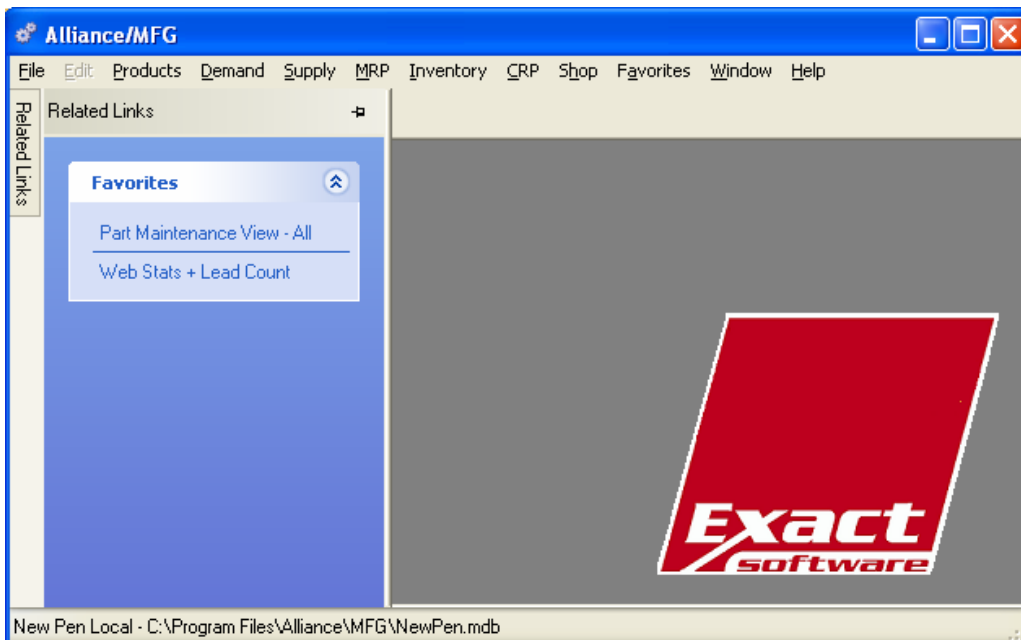
Click the Open button. The path will be displayed in the Add New Link window.



Click the OK button to add the external document, custom view or separator bar to your Favorites. You can change the Description if needed. If you added a separator bar to separate items in your favorites you can drag and drop items to reorganize how they are displayed.



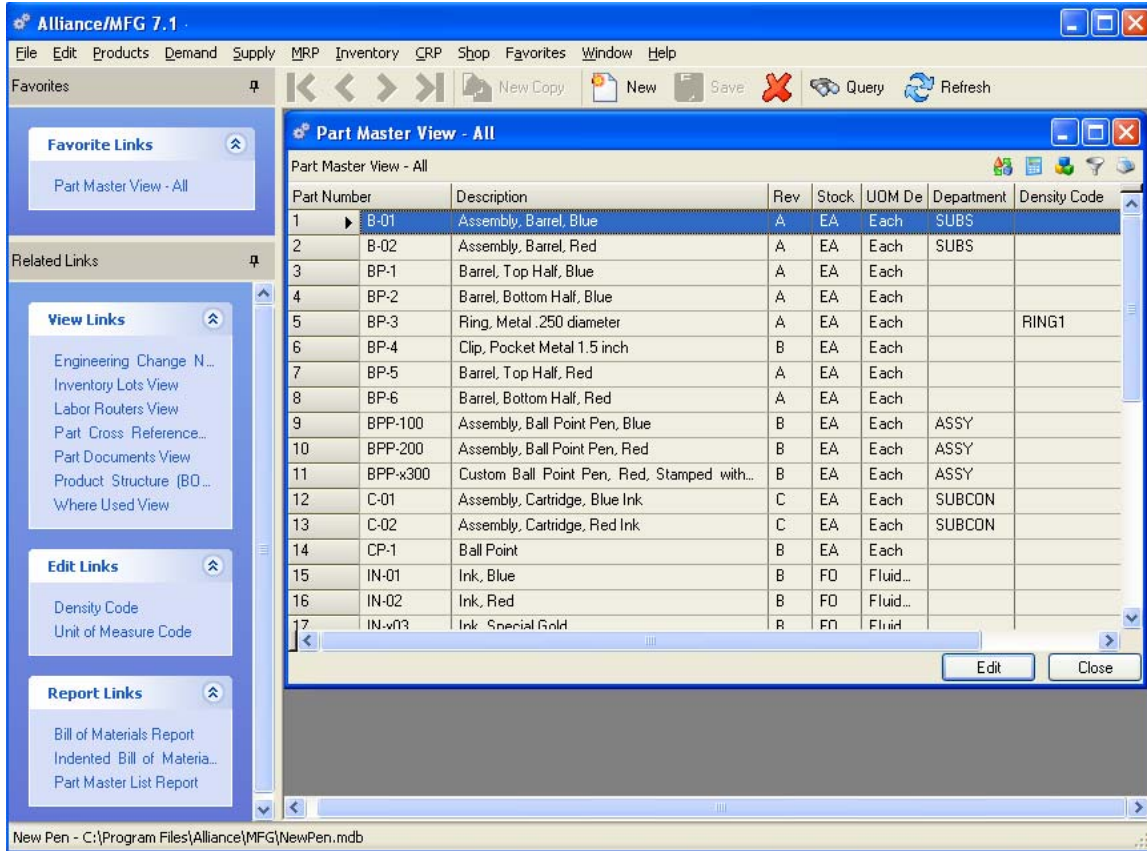
You can either highlight and Preview the item you just added or click OK to return to Alliance.



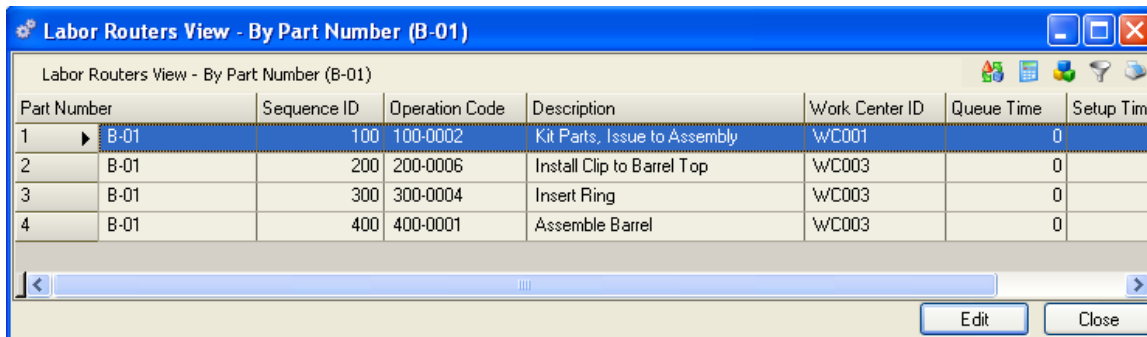
## Using the Sidebar Related Links Sections

The Related Links sections display dynamic links to associated data based on the active or highlighted record in the current window. The links will display as hyperlinks when selected and if clicked will execute a pre-defined query with the current record's data as the parameter(s). These links will save you time and keystrokes when you need to access related data (display the Receipts or Returns for the highlighted PO in the view screen). Unlike the queries from the Main Menu you are not required to fill in the query parameter(s), the parameter is supplied by the screen you have open and/or the record selected.

## Using the Sidebar with Related Views Section



To view the labor router for a the part B-01, simply click on the Labor Routers View hyperlink in the sidebar. The desired view screen will be displayed for the highlighted record.





## Using the Report Links Sidebar Section

Simply click on the desired related report in the sidebar. The report will be displayed for the highlighted record. If you had selected the Report Indented BOM report link for part BPP-100 from the sidebar a predefined query would have been executed with the part number parameter filled in.

<u>Assembly</u>		<u>Description</u>	<u>Rev</u>	<u>UOM</u>	<u>ISC</u>			
BPP-100		Assembly, Ball Point Pen, Blue	B	EA	M			
Item	Component	Description	Rev	Qty	UOM	Eff. Date	Obs. Date	ISC
* 10	B-01	Assembly, Barrel, Blue	A	1.00	EA			M
** 10	BP-1	Barrel, Top Half, Blue	A	1.00	EA			B
** 20	BP-2	Barrel, Bottom Half, Blue	A	1.00	EA			B
** 30	BP-3	Ring, Metal .250 diameter	A	1.00	EA			B
** 40	BP-4	Clip, Pocket Metal 1.5 inch	B	1.00	EA			B
* 20	C-01	Assembly, Cartridge, Blue Ink	C	1.00	EA			S
** 10	CP-1	Ball Point	B	1.00	EA			B
** 20	T-01	Tube, Plastic clear 3.25 inch	A	1.00	EA			M
** 10	TR-01	Tubing, Clear Plastic, Full Roll	A	3.25	IN			B
** 30	IN-01	Ink, Blue	B	0.50	FO			F
* 30	PL-01	Assembly, Plunger	A	1.00	EA			P
** 10	PL-1	Tube, Upper molded plastic, 1.750 inches long	B	1.00	EA			B
** 20	PL-2	Tube, Lower molded plastic, .375 inches long	B	1.00	EA			B
** 30	PL-3	Plunger, Metal .500 inch	A	1.00	EA			B
* 40	S-01	Spring, Metal .875 inch	A	1.00	EA			B

## Drilling Down

This feature allows you to move from one element of the system to another element via its table relationships, and optionally return to where you started without having to use the main menu functions and submenu queries. You can drill down from any data view form or data entry form to any related information linked to data in the form. You drill down by using the Related Links Sidebar. When you drill down through various tables from a data entry form, you can return along the same path as you close the various windows and tables.

## Data Views, Data Entry, and Transaction Forms

Alliance/MFG is set up and operated using four basic window formats: Data Views, Data Entry Forms, Transaction Forms, and various dialog boxes. The windows contain various buttons, scroll bars, drop-down lists, date calendars, dialog boxes, and other elements familiar to you if you have used Windows programs. The system also generates messages that warn you about invalid or missing data, or prompt you for more information. The basic elements shown in the Alliance Window Types section operate the same way throughout the Alliance/MFG system. Use the Data Views such as the Part Master View to browse or view data in a system table and “drill down” to related data; use Data Entry forms to add, edit, or maintain records; use Transaction forms to ship, receive, kit, and perform other tasks that move material from one location to another.

The Alliance Window Types section provide examples of each format and describe the basic controls used to view, select, enter, move, or delete data in the system.

## Alliance/MFG Window Types

Alliance/MFG is set up and operated using four basic window formats: Data Views, Data Entry forms, Transaction forms, and various dialog boxes. The windows contain various buttons, scroll bars, drop-down lists, date calendars, dialog boxes, and other elements familiar to you if you have used Windows programs. The system also generates messages that warn you about errors or missing data, or prompt you for more information.

The basic elements discussed operate the same way throughout the Alliance/MFG system. Use the Data Views such as the Part Master View to browse or view data in a system table and “drill down” to related data; use Data Entry forms to add, edit, or maintain records; use Transaction forms to ship, receive, kit, and perform other tasks that move material from one location to another.

### Data Views

#### Viewing and Browsing Data

When you select a function from the Alliance/MFG Main Menu, and then select a from the submenu, the system presents a list of data in a window called a View. Most View Grids have the ability to sort, group, filter and calculate simple summary functions on any of the Columns of data in that View. Additionally view data can be printed and exported directly from the view.

Select Products>Part Master>All to see a sample of a Data View showing all records in the Part Master.



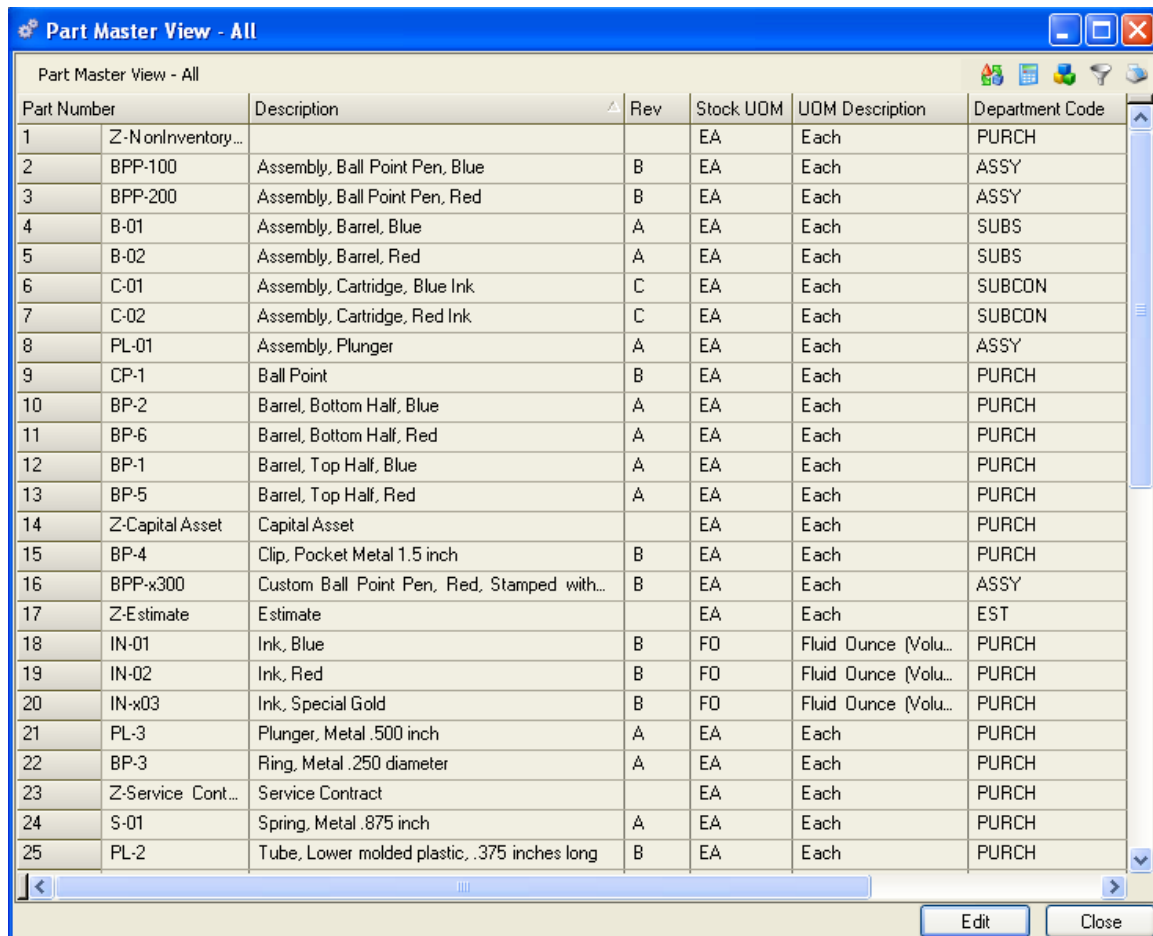
The screenshot shows a window titled "Part Master View - All" with a table of part records. The table has the following columns: Part Number, Description, Rev, Stock UOM, UOM Description, and Department Code. The records are as follows:

Part Number	Description	Rev	Stock UOM	UOM Description	Department Code
1	B-01	A	EA	Each	SUBS
2	B-02	A	EA	Each	SUBS
3	BP-1	A	EA	Each	PURCH
4	BP-2	A	EA	Each	PURCH
5	BP-3	A	EA	Each	PURCH
6	BP-4	B	EA	Each	PURCH
7	BP-5	A	EA	Each	PURCH
8	BP-6	A	EA	Each	PURCH
9	BPP-100	B	EA	Each	ASSY
10	BPP-200	B	EA	Each	ASSY
11	BPP-x300	B	EA	Each	ASSY
12	C-01	C	EA	Each	SUBCON
13	C-02	C	EA	Each	SUBCON
14	CP-1	B	EA	Each	PURCH
15	IN-01	B	FO	Fluid Ounce (Volu...	PURCH
16	IN-02	B	FO	Fluid Ounce (Volu...	PURCH
17	IN-x03	B	FO	Fluid Ounce (Volu...	PURCH
18	PL-01	A	EA	Each	ASSY
19	PL-1	B	EA	Each	PURCH

You can scroll up and down and from side to side using the scroll bars on the Data View window to bring all items into view. You can also press Ctrl+Page Up or Ctrl+Page Down on your keyboard to quickly go to the top or the bottom of the list. You can select and drag a column (Caption) to the left or right. A **Red Arrowhead** indicates where the column will relocate to when the mouse is released. You can select and drag column widths to re-size your display, a **Bold Dark Line** indicates where the column size will be when the mouse is released; and you can re-size the entire window to view all columns. These changes will be saved by the system. From the Data View, you can select an item and click Edit or double-click the item to open the related Data Entry form.

### Sorting Data Views

Changing the way data is sorted can help you locate what you need quickly. With a Data View open, click on the column that contains the field you wish to sort. The data will sort alternately in ascending or descending order, each time you click the column header. An Up or Down arrow appears, and the data in the list is sorted in ascending or descending order. Below is a Part master view sorted by Description.



Part Number	Description	Rev	Stock UOM	UOM Description	Department Code
1	Z-NonInventory...		EA	Each	PURCH
2	BPP-100 Assembly, Ball Point Pen, Blue	B	EA	Each	ASSY
3	BPP-200 Assembly, Ball Point Pen, Red	B	EA	Each	ASSY
4	B-01 Assembly, Barrel, Blue	A	EA	Each	SUBS
5	B-02 Assembly, Barrel, Red	A	EA	Each	SUBS
6	C-01 Assembly, Cartridge, Blue Ink	C	EA	Each	SUBCON
7	C-02 Assembly, Cartridge, Red Ink	C	EA	Each	SUBCON
8	PL-01 Assembly, Plunger	A	EA	Each	ASSY
9	CP-1 Ball Point	B	EA	Each	PURCH
10	BP-2 Barrel, Bottom Half, Blue	A	EA	Each	PURCH
11	BP-6 Barrel, Bottom Half, Red	A	EA	Each	PURCH
12	BP-1 Barrel, Top Half, Blue	A	EA	Each	PURCH
13	BP-5 Barrel, Top Half, Red	A	EA	Each	PURCH
14	Z-Capital Asset Capital Asset		EA	Each	PURCH
15	BP-4 Clip, Pocket Metal 1.5 inch	B	EA	Each	PURCH
16	BPP-x300 Custom Ball Point Pen, Red, Stamped with...	B	EA	Each	ASSY
17	Z-Estimate Estimate		EA	Each	EST
18	IN-01 Ink, Blue	B	FO	Fluid Ounce (Volu...	PURCH
19	IN-02 Ink, Red	B	FO	Fluid Ounce (Volu...	PURCH
20	IN-x03 Ink, Special Gold	B	FO	Fluid Ounce (Volu...	PURCH
21	PL-3 Plunger, Metal .500 inch	A	EA	Each	PURCH
22	BP-3 Ring, Metal .250 diameter	A	EA	Each	PURCH
23	Z-Service Cont... Service Contract		EA	Each	PURCH
24	S-01 Spring, Metal .875 inch	A	EA	Each	PURCH
25	PL-2 Tube, Lower molded plastic, .375 inches long	B	EA	Each	PURCH

You may sort views by more than one column by holding down the Shift key. Below is the Part Cross Reference view sorted by Part Number and supplier leadtime.

The screenshot shows a software window titled "Part Cross Reference View - All". The window contains a table with the following columns: Part Number, Cross Reference, Description, Supplier/Customer ID, Approved Source, and Leadtime. The table lists 25 rows of data, including part numbers like BP-1, BP-2, BP-3, BP-4, BP-5, BP-6, BPP-100, BPP-x300, C-01, C-02, IN-01, IN-02, and PL-1. Each row includes a cross reference code, a description (e.g., "Pantone 286C, Top Barrel"), a supplier/customer ID, an approved source status (checkbox or checkmark), and a leadtime value.

Part Number	Cross Reference	Description	Supplier/Customer ID	Approved Source	Leadtime	
1	BP-1	AVI564	Pantone 286C, Top Barrel	ASSMB	<input checked="" type="checkbox"/>	4
2	BP-1	PL05-286		OASIS	<input checked="" type="checkbox"/>	5
3	BP-1	KJI86HJ		CASTL	<input checked="" type="checkbox"/>	7
4	BP-2	AVI563	Pantone 286C, Bottom Barrel	ASSMB	<input type="checkbox"/>	4
5	BP-2	PL15-286		OASIS	<input checked="" type="checkbox"/>	5
6	BP-2	MIJ86BJ		CASTL	<input checked="" type="checkbox"/>	7
7	BP-3	25674		PSLNO	<input checked="" type="checkbox"/>	4
8	BP-3	S1064L3		REBDN	<input checked="" type="checkbox"/>	5
9	BP-4	25705		PSLNO	<input checked="" type="checkbox"/>	4
10	BP-4	S2946B4		REBDN	<input checked="" type="checkbox"/>	5
11	BP-5	AVI572	Pantone 186C, Top Barrel	ASSMB	<input checked="" type="checkbox"/>	4
12	BP-5	PL08-186		OASIS	<input checked="" type="checkbox"/>	5
13	BP-5	KJI86HJ		CASTL	<input checked="" type="checkbox"/>	7
14	BP-6	AVI571	Pantone 186C, Bottom Barrel	ASSMB	<input checked="" type="checkbox"/>	4
15	BP-6	PL18-186		OASIS	<input checked="" type="checkbox"/>	5
16	BP-6	MIJ86BJ		CASTL	<input checked="" type="checkbox"/>	7
17	BPP-100	1-UNR-AA		FENCO	<input checked="" type="checkbox"/>	0
18	BPP-x300	300MC800	McLaren Part Number	MCLAR	<input checked="" type="checkbox"/>	0
19	C-01	1WQ676		BLAIR	<input type="checkbox"/>	7
20	C-01	778JUN3		MRKPH	<input type="checkbox"/>	10
21	C-02	1WQ701		BLAIR	<input checked="" type="checkbox"/>	7
22	C-02	792JUN3		MRKPH	<input checked="" type="checkbox"/>	10
23	IN-01	2935C	Pantone 2935C	GOLDS	<input checked="" type="checkbox"/>	4
24	IN-02	199C	Pantone 199C	GOLDS	<input checked="" type="checkbox"/>	4
25	PL-1	004BJC		NORTN	<input checked="" type="checkbox"/>	3

**Printing a Data View**

In the top right of the data view window (below the Minimize, Maximize, Close buttons) there are three (3) buttons; Printer, Filter and Group. Arrange the data in the view the way you want to see it and then click on the Printer button. The Print Preview window will be displayed with your selected data view. You may have to adjust the page setup and other printing parameters (margins default to one (1) inch).

Part Number	Description	Rev	Stock UOM	UOM Description	Department Code	
1	B-01	Assembly, Barrel, Blue	A	EA	Each	SUBS
2	B-02	Assembly, Barrel, Red	A	EA	Each	SUBS
3	BP-1	Barrel, Top Half, Blue	A	EA	Each	PURCH
4	BP-2	Barrel, Bottom Half, Blue	A	EA	Each	PURCH
5	BP-3	Ring, Metal .250 diameter	A	EA	Each	PURCH
6	BP-4	Clip, Pocket Metal 1.5 inch	B	EA	Each	PURCH
7	BP-5	Barrel, Top Half, Red	A	EA	Each	PURCH
8	BP-6	Barrel, Bottom Half, Red	A	EA	Each	PURCH
9	BPP-100	Assembly, Ball Point Pen, Blue	B	EA	Each	ASSY
10	BPP-200	Assembly, Ball Point Pen, Red	B	EA	Each	ASSY
11	BPP-300	Custom Ball Point Pen, Red, Stamped with...	B	EA	Each	ASSY
12	C-01	Assembly, Cartridge, Blue Ink	C	EA	Each	SUBCON
13	C-02	Assembly, Cartridge, Red Ink	C	EA	Each	SUBCON
14	CP-1	Ball Point	B	EA	Each	PURCH
15	IN-01	Ink, Blue	B	F0	Fluid Ounce (Volu...	PURCH
16	IN-02	Ink, Red	B	F0	Fluid Ounce (Volu...	PURCH
17	IN-03	Ink, Special Gold	B	F0	Fluid Ounce (Volu...	PURCH
18	PL-01	Assembly, Plunger	A	EA	Each	ASSY
19	PL-1	Tube, Upper molded plastic, 1.750 inches l...	B	EA	Each	PURCH
20	PL-2	Tube, Lower molded plastic, .375 inches l...	B	EA	Each	PURCH
21	PL-3	Plunger, Metal .500 inch	A	EA	Each	PURCH
22	S-01	Spring, Metal .875 inch	A	EA	Each	PURCH
23	T-01	Tube, Plastic clear 3.25 inch	A	EA	Each	SUBS
24	TR-01	Tubing, Clear Plastic, Full Roll	A	FT	Foot	PURCH
25	7 Capital Ass...	Capital Ass...	EA	Each	...	...

### Filtering Data Views

With large databases, you may want to use the Find/Filter tools to quickly locate data. The Find/Filter tools provide a quick way to find a range of data that begin or end with the same letters, words, numbers, revision, and so on. To filter a data view, click on the Filter button (Funnel icon) or CTRL + F to toggle the Filter Row. A filter row will be inserted as the top row of the view. You may apply a filter on any column or on multiple columns. Each column contains a Function button, a Text box, a Drop Down List box and a Clear Filter button.

#### NOTE:

*Focus will be given to the Filter Row when it is first displayed. If a column has focus then the cell in the Filter Row for that column will be given focus, otherwise the first column will be given focus.*

*If you type in a "read-only" cell while the Filter Row is hidden, then the Filter Row will automatically be displayed, and the text will be entered into the Filter cell matching that column.*

Part Number	Description	Rev	Stock UOM	UOM Description	Department Code
1	B-01	A	EA	Each	SUBS
2	B-02	A	EA	Each	SUBS
3	BP-1	A	EA	Each	PURCH
4	BP-2	A	EA	Each	PURCH
5	BP-3	A	EA	Each	PURCH
6	BP-4	B	EA	Each	PURCH
7	BP-5	A	EA	Each	PURCH
8	BP-6	A	EA	Each	PURCH
9	BPP-100	B	EA	Each	ASSY
10	BPP-200	B	EA	Each	ASSY
11	BPP-x300	B	EA	Each	ASSY
12	C-01	C	EA	Each	SUBCON
13	C-02	C	EA	Each	SUBCON
14	CP-1	B	EA	Each	PURCH
15	IN-01	B	FO	Fluid Ounce (Volu...	PURCH
16	IN-02	B	FO	Fluid Ounce (Volu...	PURCH
17	IN-x03	B	FO	Fluid Ounce (Volu...	PURCH
18	PL-01	A	EA	Each	ASSY
19	PL-1	B	EA	Each	PURCH

**Filter by Column Data Value**

To find or filter by part number, simply click in the part number filter row, a text box and drop down list box are now available, either use the down arrow to select a part number or start typing a value in the text box. You may also create custom filters by clicking on (Custom).

Part Number	Description	Rev	Stock UOM	UOM Description	Department Code
1	B-01	A	EA	Each	SUBS
2	B-02	A	EA	Each	SUBS
3	BP-1	A	EA	Each	PURCH
4	BP-2	A	EA	Each	PURCH
5	BP-5	A	EA	Each	PURCH
6	BP-6	A	EA	Each	PURCH
7	BPP-200	B	EA	Each	ASSY
8	BPP-x300	B	EA	Each	ASSY
9	C-02	C	EA	Each	SUBCON
10	IN-02	B	FO	Fluid Ounce (Volu...	PURCH

### Using the Function Filter

We will attempt to find all parts with Descriptions containing the word "Red". Click on the Function button in the left side of the column header for "Description".

Description
A

This will display the filter criteria for that column. In the drop down box click on "Contains", this will activate a filter text box in the Description column header.

Part Number	Description	Rev	Stock UOM	UOM Description	Department Code
	Starts with				
	Contains				
	Ends with				
	Does not start with				
	Does not contain				
	Does not end with				
	Does not match				
	Not Like				
8	BP-6 Barrel, Bottom Half, Red	A	EA	Each	PURCH
9	BPP-100 Assembly, Ball Point Pen, Blue	B	EA	Each	ASSY
10	BPP-200 Assembly, Ball Point Pen, Red	B	EA	Each	ASSY
11	BPP-x300 Custom Ball Point Pen, Red, Stamped with...	B	EA	Each	ASSY
12	C-01 Assembly, Cartridge, Blue Ink	C	EA	Each	SUBCON
13	C-02 Assembly, Cartridge, Red Ink	C	EA	Each	SUBCON
14	CP-1 Ball Point	B	EA	Each	PURCH
15	IN-01 Ink, Blue	B	FO	Fluid Ounce (Volu...	PURCH
16	IN-02 Ink, Red	B	FO	Fluid Ounce (Volu...	PURCH
17	IN-x03 Ink, Special Gold	B	FO	Fluid Ounce (Volu...	PURCH
18	PL-01 Assembly, Plunger	A	EA	Each	ASSY
19	PL-1 Tube, Upper molded plastic, 1.750 inches lo...	B	EA	Each	PURCH

Simply begin typing the filter text (Red) beginning with the letters "Re" in the field to filter the view. The view will now only display part master records with descriptions containing the letters "Re".

Part Master View - All

Part Number	Description	Rev	Stock UOM	UOM Description	Department Code	De
	Re					
1	B-01 Assembly, Barrel, Blue	A	EA	Each	SUBS	
2	B-02 Assembly, Barrel, Red	A	EA	Each	SUBS	
3	BP-1 Barrel, Top Half, Blue	A	EA	Each	PURCH	
4	BP-2 Barrel, Bottom Half, Blue	A	EA	Each	PURCH	
5	BP-5 Barrel, Top Half, Red	A	EA	Each	PURCH	
6	BP-6 Barrel, Bottom Half, Red	A	EA	Each	PURCH	
7	BPP-200 Assembly, Ball Point Pen, Red	B	EA	Each	ASSY	
8	BPP-x300 Custom Ball Point Pen, Red, Stamped with...	B	EA	Each	ASSY	
9	C-02 Assembly, Cartridge, Red Ink	C	EA	Each	SUBCON	
10	IN-02 Ink, Red	B	FO	Fluid Ounce (Volu...	PURCH	

Buttons: Edit, Close

This is an incremental filter, if we continue to type letters (add the letter "d") in the filter text box and the view will be reduced to only those parts containing the word "Red".

Part Master View - All

Part Number	Description	Rev	Stock UOM	UOM Description	Department Code	De
	Red					
1	B-02 Assembly, Barrel, Red	A	EA	Each	SUBS	
2	BP-5 Barrel, Top Half, Red	A	EA	Each	PURCH	
3	BP-6 Barrel, Bottom Half, Red	A	EA	Each	PURCH	
4	BPP-200 Assembly, Ball Point Pen, Red	B	EA	Each	ASSY	
5	BPP-x300 Custom Ball Point Pen, Red, Stamped with...	B	EA	Each	ASSY	
6	C-02 Assembly, Cartridge, Red Ink	C	EA	Each	SUBCON	
7	IN-02 Ink, Red	B	FO	Fluid Ounce (Volu...	PURCH	

Buttons: Edit, Close

We could further reduce the view to display only "Red" parts with Rev "A" by filtering on the column "Rev".



Part Number	Description	Rev	Stock UDM	UDM Description	Department Code
1	B-02 Assembly, Barrel, Red	A	EA	Each	SUBS
2	BP-5 Barrel, Top Half, Red	A	EA	Each	PURCH
3	BP-6 Barrel, Bottom Half, Red	A	EA	Each	PURCH

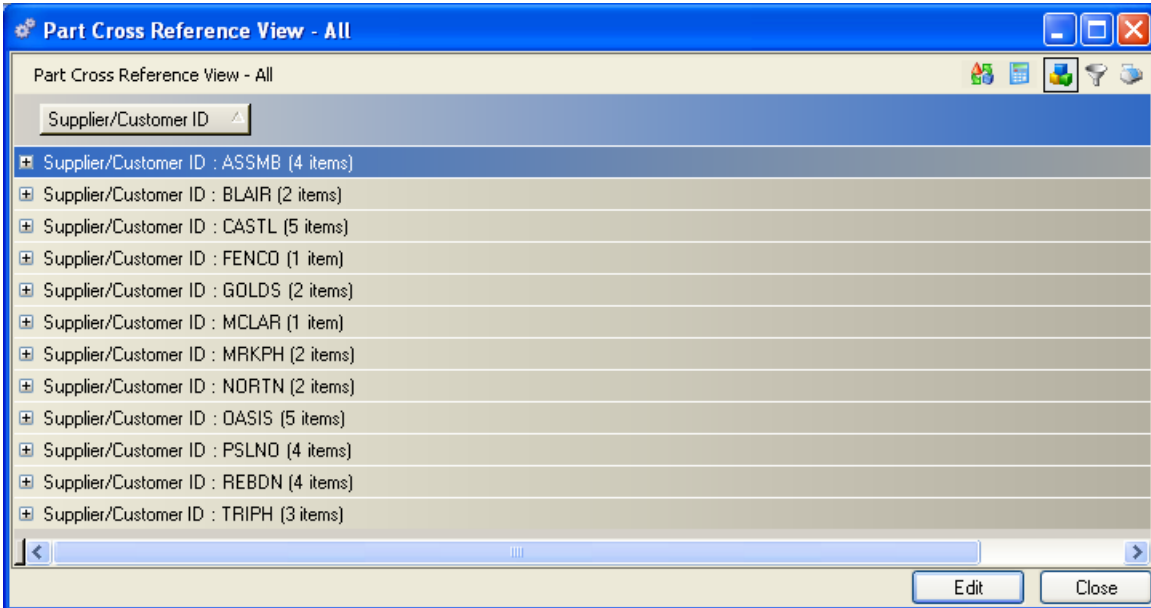
To clear the filter criteria click on the [no filter] button in the right side of the column header or to clear all column filters, click on the [no filter] button in the left column header above the row number.

### Grouping Data Views

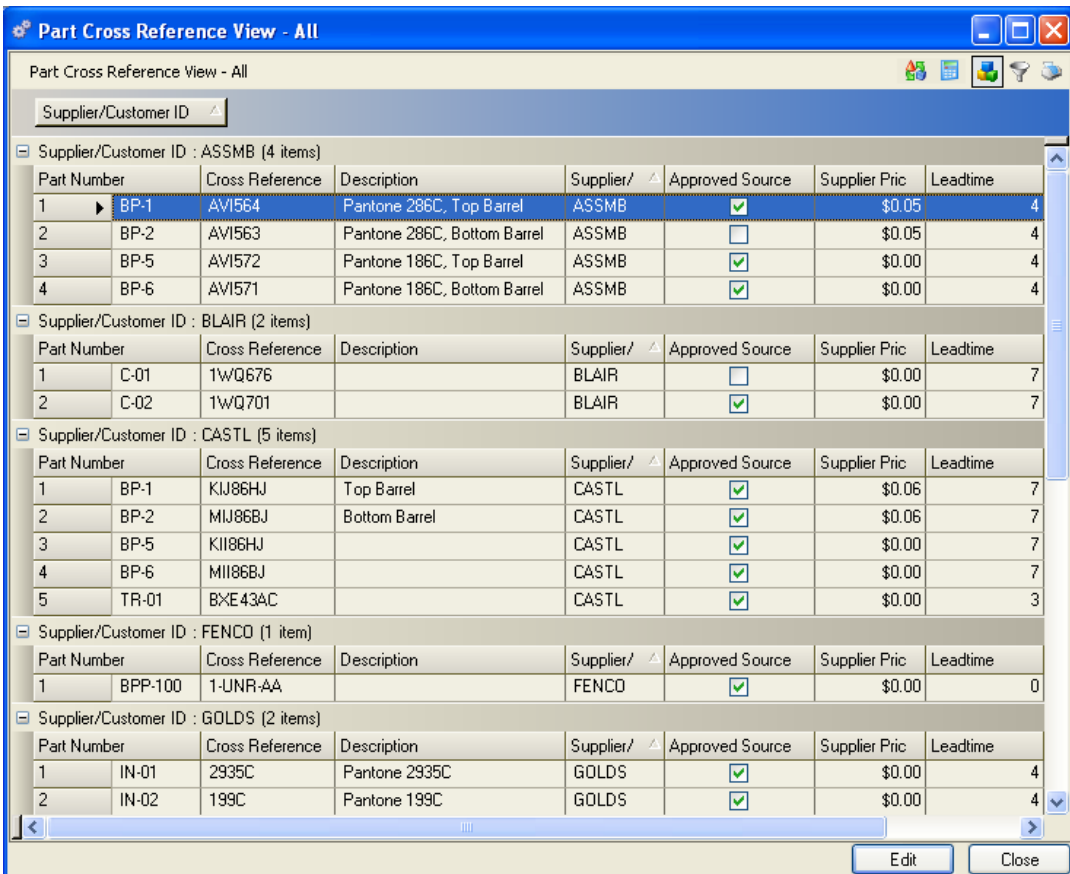
You may want to use the Grouping tool to better categorize and display data. The Grouping tool provides a quick way to display groups of data that you would have to perform and input multiple queries to see the same results. To group a data view, click on the Group button (Cubes icon) or - CTRL + G to toggle the Group Section. A Group header section will be inserted above the column headers in the view. The message "Drag a column header here to group by that column." will be displayed.

Part Number	Cross Reference	Description	Supplier/Cu	Approved Source	Supplier Pric	Leadtime
1	BP-1 AVI564	Pantone 286C, Top Barrel	ASSMB	<input checked="" type="checkbox"/>	\$0.05	4
2	BP-1 KIJ86HJ	Top Barrel	CASTL	<input checked="" type="checkbox"/>	\$0.06	7
3	BP-1 PL05-286	Top Barrel	OASIS	<input checked="" type="checkbox"/>	\$0.06	5
4	BP-2 AVI563	Pantone 286C, Bottom Barrel	ASSMB	<input type="checkbox"/>	\$0.05	4
5	BP-2 MIJ86BJ	Bottom Barrel	CASTL	<input checked="" type="checkbox"/>	\$0.06	7
6	BP-2 PL15-286	Bottom Barrel	OASIS	<input checked="" type="checkbox"/>	\$0.06	5
7	BP-3 25674	Ring	PSLNO	<input checked="" type="checkbox"/>	\$0.02	4
8	BP-3 S1064L3	Ring	REBDN	<input checked="" type="checkbox"/>	\$0.02	5
9	BP-4 25705	Ring	PSLNO	<input checked="" type="checkbox"/>	\$0.02	4
10	BP-4 S2946B4	Ring	REBDN	<input checked="" type="checkbox"/>	\$0.03	5
11	BP-5 AVI572	Pantone 186C, Top Barrel	ASSMB	<input checked="" type="checkbox"/>	\$0.00	4
12	BP-5 KIJ86HJ		CASTL	<input checked="" type="checkbox"/>	\$0.00	7
13	BP-5 PL08-186		OASIS	<input checked="" type="checkbox"/>	\$0.00	5
14	BP-6 AVI571	Pantone 186C, Bottom Barrel	ASSMB	<input checked="" type="checkbox"/>	\$0.00	4
15	BP-6 MIJ86BJ		CASTL	<input checked="" type="checkbox"/>	\$0.00	7
16	BP-6 PL18-186		OASIS	<input checked="" type="checkbox"/>	\$0.00	5
17	BPP-100 1-UNR-AA		FENCO	<input checked="" type="checkbox"/>	\$0.00	0
18	BPP-x300 300MC800	McLaren Part Number	MCLAR	<input checked="" type="checkbox"/>	\$0.00	0
19	C-01 1WQ676		BLAIR	<input type="checkbox"/>	\$0.00	7
20	C-01 778JUN3		MRKPH	<input type="checkbox"/>	\$0.00	10

To group the Part Cross Reference - All, data view by Supplier, drag the column header Supplier ID to the grouping section. A **Red Arrowhead** indicates where to drop the column when the mouse is released. The Part Cross Reference is now displayed grouped by Supplier ID.



Each group and the number of records in each group is displayed. To view the data in a group, click on the + button (expand).



To display only "Approved" sources you may either add a filter to the view or add a subgroup by that column header. Drag the column header Approved Source to the group section of the view. The view will now display two groups for each supplier; Approved and Non-Approved parts.

The screenshot shows a software window titled "Part Cross Reference View - All". At the top, there are two dropdown menus: "Supplier/Customer ID" and "Approved Source". The main area displays a table of parts, grouped by supplier. Each supplier group is further divided into "Approved Source : True" and "Approved Source : False" subgroups. The table columns are: Part Number, Cross Reference, Description, Supplier/, Approved Sourc, Supplier Pric, and Leadtime.

Supplier/Customer ID : ASSMB (2 items)							
Approved Source : True (3 items)							
Part Number	Cross Reference	Description	Supplier/	Approved Sourc	Supplier Pric	Leadtime	
1	BP-1	AVI564	Pantone 286C, Top Barrel	ASSMB	<input checked="" type="checkbox"/>	\$0.05	
2	BP-5	AVI572	Pantone 186C, Top Barrel	ASSMB	<input checked="" type="checkbox"/>	\$0.00	
3	BP-6	AVI571	Pantone 186C, Bottom Barrel	ASSMB	<input checked="" type="checkbox"/>	\$0.00	
Approved Source : False (1 item)							
Part Number	Cross Reference	Description	Supplier/	Approved Sourc	Supplier Pric	Leadtime	
1	BP-2	AVI563	Pantone 286C, Bottom Barrel	ASSMB	<input type="checkbox"/>	\$0.05	
Supplier/Customer ID : BLAIR (2 items)							
Approved Source : True (1 item)							
Part Number	Cross Reference	Description	Supplier/	Approved Sourc	Supplier Pric	Leadtime	
1	C-02	1WQ701		BLAIR	<input checked="" type="checkbox"/>	\$0.00	
Approved Source : False (1 item)							
Part Number	Cross Reference	Description	Supplier/	Approved Sourc	Supplier Pric	Leadtime	
1	C-01	1WQ676		BLAIR	<input type="checkbox"/>	\$0.00	
Supplier/Customer ID : CASTL (1 item)							
Approved Source : True (5 items)							
Part Number	Cross Reference	Description	Supplier/	Approved Sourc	Supplier Pric	Leadtime	
1	BP-1	KIJ86HJ	Top Barrel	CASTL	<input checked="" type="checkbox"/>	\$0.06	
2	BP-2	MIJ86BJ	Bottom Barrel	CASTL	<input checked="" type="checkbox"/>	\$0.06	
3	BP-5	KII86HJ		CASTL	<input checked="" type="checkbox"/>	\$0.00	
4	BP-6	MII86BJ		CASTL	<input checked="" type="checkbox"/>	\$0.00	
5	BP-3	PII86BJ		CASTL	<input checked="" type="checkbox"/>	\$0.00	
6	BP-4	QII86BJ		CASTL	<input checked="" type="checkbox"/>	\$0.00	

### Grouping and Filtering Data Views

To display only "Approved Sources" you could have added a filter to the Grouped view above instead of the subgroup. Click on the Filter button to add the filter row to the top of the view. Click on the filter button in the "Approved Source" column header. Then click in the True/False filter box.

Part Cross Reference View - All

Supplier/Customer ID

Part Number	Cross Reference	Description	Supplier/	Approved Source	Supplier Pric	Leadtime
				<input checked="" type="checkbox"/>	=	=
Supplier/Customer ID : ASSMB (3 items)						
Part Number	Cross Reference	Description	Supplier/	Approved Source	Supplier Pric	Leadtime
1	BP-1	AVI564	Pantone 286C, Top Barrel	ASSMB	<input checked="" type="checkbox"/>	\$0.05 4
2	BP-5	AVI572	Pantone 186C, Top Barrel	ASSMB	<input checked="" type="checkbox"/>	\$0.00 4
3	BP-6	AVI571	Pantone 186C, Bottom Barrel	ASSMB	<input checked="" type="checkbox"/>	\$0.00 4
Supplier/Customer ID : BLAIR (1 item)						
Part Number	Cross Reference	Description	Supplier/	Approved Source	Supplier Pric	Leadtime
1	C-02	1WQ701	BLAIR	<input checked="" type="checkbox"/>	\$0.00	7
Supplier/Customer ID : CASTL (5 items)						
Part Number	Cross Reference	Description	Supplier/	Approved Source	Supplier Pric	Leadtime
1	BP-1	KIJ86HJ	Top Barrel	CASTL	<input checked="" type="checkbox"/>	\$0.06 7
2	BP-2	MJJ86BJ	Bottom Barrel	CASTL	<input checked="" type="checkbox"/>	\$0.06 7
3	BP-5	KII86HJ		CASTL	<input checked="" type="checkbox"/>	\$0.00 7
4	BP-6	MII86BJ		CASTL	<input checked="" type="checkbox"/>	\$0.00 7
5	TR-01	BXE43AC		CASTL	<input checked="" type="checkbox"/>	\$0.00 3
Supplier/Customer ID : FENCO (1 item)						
Part Number	Cross Reference	Description	Supplier/	Approved Source	Supplier Pric	Leadtime
1	BPP-100	1-UNR-AA	FENCO	<input checked="" type="checkbox"/>	\$0.00	0
Supplier/Customer ID : GOLDS (2 items)						
Part Number	Cross Reference	Description	Supplier/	Approved Source	Supplier Pric	Leadtime
1	IN-01	2935C	Pantone 2935C	GOLDS	<input checked="" type="checkbox"/>	\$0.00 4
2	IN-02	199C	Pantone 199C	GOLDS	<input checked="" type="checkbox"/>	\$0.00 4

Buttons: Edit, Close

Only Approved Source parts for each supplier will be displayed.

### Summarizing Data Views

To review the average cost variance for each person performing cycle counts in the stockrooms, click on the Inventory>Physical Inventory>Edit/Review Counts>Current Counts. Click the Group icon and move the "Counter" field to the view header.

Inventory Tags

Counter

Counter : 40-NAW (7 items)

Tag Number	Count Quanti	Counter	Counted	Part Number	Part Description	Stockroom	Location	SN/Lot	Frozen	Variance Quantity	Variance Cost
1	000033	3999	40-NAW	BP-1	Barrel, Top Half, Blue	RAW	100		3999	0	0.00
2	000034	18200	40-NAW	BP-2	Barrel, Bottom Half, Blue	RAW	100		17900	300	15.00
3	000035	10000	40-NAW	BP-3	Ring, Metal .250 diameter	RAW	100		10000	0	0.00
4	000036	10000	40-NAW	BP-4	Clip, Pocket Metal 1.5 inch	RAW	100		10000	0	0.00
5	000037	8310	40-NAW	BP-5	Barrel, Top Half, Red	RAW	100		8310	0	0.00
6	000038	5210	40-NAW	BP-6	Barrel, Bottom Half, Red	RAW	100		5210	0	0.00
7	000045	15000	40-NAW	CP-1	Ball Point	RAW	100		15000	0	0.00

Counter : 44-KNM (8 items)

Tag Number	Count Quanti	Counter	Counted	Part Number	Part Description	Stockroom	Location	SN/Lot	Frozen	Variance Quantity	Variance Cost
1	000046	2300	44-KNM	IN-01	Ink, Blue	RAW	100		2324	-24	-0.24
2	000047	4200	44-KNM	IN-02	Ink, Red	RAW	100		4168	32	0.32
3	000048	200	44-KNM	IN-x03	Ink, Special Gold	RAW	200		200	0	0.00
4	000050	9000	44-KNM	PL-1	Tube, Upper molded plasti.	RAW	100		8999	1	0.04
5	000051	13000	44-KNM	PL-2	Tube, Lower molded plasti.	RAW	100		12999	1	0.04
6	000052	8000	44-KNM	PL-3	Plunger, Metal .500 inch	RAW	100		7999	1	0.02
7	000054	2400	44-KNM	S-01	Spring, Metal .875 inch	RAW	100		2400	0	0.00
8	000056	2800	44-KNM	TR-01	Tubing, Clear Plastic, Full...	RAW	100		2811...	-11.666666666...	-0.29

Counter : 80-EMH (6 items)

Tag Number	Count Quanti	Counter	Counted	Part Number	Part Description	Stockroom	Location	SN/Lot	Frozen	Variance Quantity	Variance Cost
1	000031	2900	80-EMH	B-01	Assembly, Barrel, Blue	SA-1	100		2900	0	0.00
2	000032	4200	80-EMH	B-02	Assembly, Barrel, Red	SA-1	100		4210	-10	-2.31
3	000043	15000	80-EMH	C-01	Assembly, Cartridge, Blue...	SA-2	100		15000	0	0.00
4	000044	6300	80-EMH	C-02	Assembly, Cartridge, Red I...	SA-2	100		6300	0	0.00
5	000049	0	80-EMH	PL-01	Assembly, Plunger	SA-1	100		0	0	0.00
6	000055	10000	80-EMH	T-01	Tube, Plastic clear 3.25 in...	SA-1	100		10000	0	0.00

Next click on the Summary Icon in the View header, the Summary icon will be added to each column in the view.

Inventory Tags

Counter

Counter : 40-NAW (7 items)

Tag Number	Count Qua	Count	Part Num	Part Description	Stockroo	Locatio	SN/L	Froz	Variance Quan	Variance C
------------	-----------	-------	----------	------------------	----------	---------	------	------	---------------	------------

Click the summary button in the column header that you want to summarize (Cost Variance in the example).

Inventory Tags

Counter

Counter : 40-NAW (7 items)

Tag Number	Count Qua	Count	Part Num	Part Description	Stockroo	Locatio	SN/L	Froz	Variance Quan	Variance C	
1	000033	3999	40-NAW	BP-1	Barrel, Top Half, Blue	RAW	100		3999	0	0.00
2	000034	18200	40-NAW	BP-2	Barrel, Bottom Half, Blue	RAW	100		17900	300	15.00
3	000035	10000	40-NAW	BP-3	Ring, Metal .250 diameter	RAW	100		10000	0	0.00
4	000036	10000	40-NAW	BP-4	Clip, Pocket Metal 1.5 inch	RAW	100		10000	0	0.00
5	000037	8310	40-NAW	BP-5	Barrel, Top Half, Red	RAW	100		8310	0	0.00
6	000038	5210	40-NAW	BP-6	Barrel, Bottom Half, Red	RAW	100		5210	0	0.00
7	000045	15000	40-NAW	CP-1	Ball Point	RAW	100		15000	0	0.00

Counter : 44-KNM (8 items)

Tag Number	Count Qua	Count	Part Num	Part Description	Stockroo	Locatio	SN/L	Froz	Variance Quan	Variance C	
1	000046	2300	44-KNM	IN-01	Ink, Blue	RAW	100		2324	-24	-0.24
2	000047	4200	44-KNM	IN-02	Ink, Red	RAW	100		4168	32	0.32
3	000048	200	44-KNM	IN-x03	Ink, Special Gold	RAW	200		200	0	0.00
4	000050	9000	44-KNM	PL-1	Tube, Upper molded plasti.	RAW	100		8999	1	0.04

Select Summaries

Average

Count

Maximum

Minimum

Sum

OK Cancel

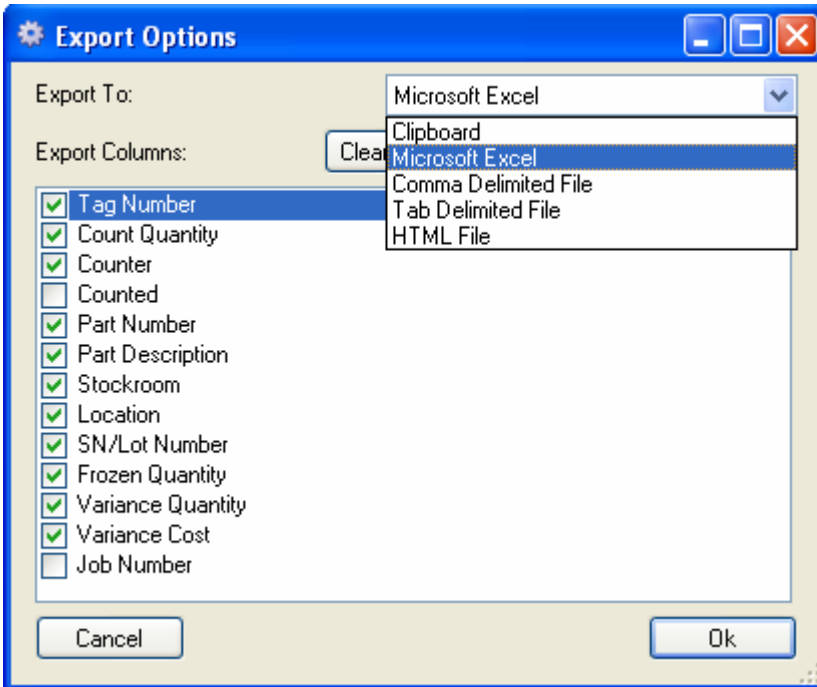
The following summary functions are available: - Average - Count - Maximum - Minimum - Sum.

To view the average cost variance by counter we check the Average box. We now see the summary line for each counter added to the counter group and the average cost variance for each counter displayed. Hold your mouse pointer over the Average to display the actual unrounded figure.

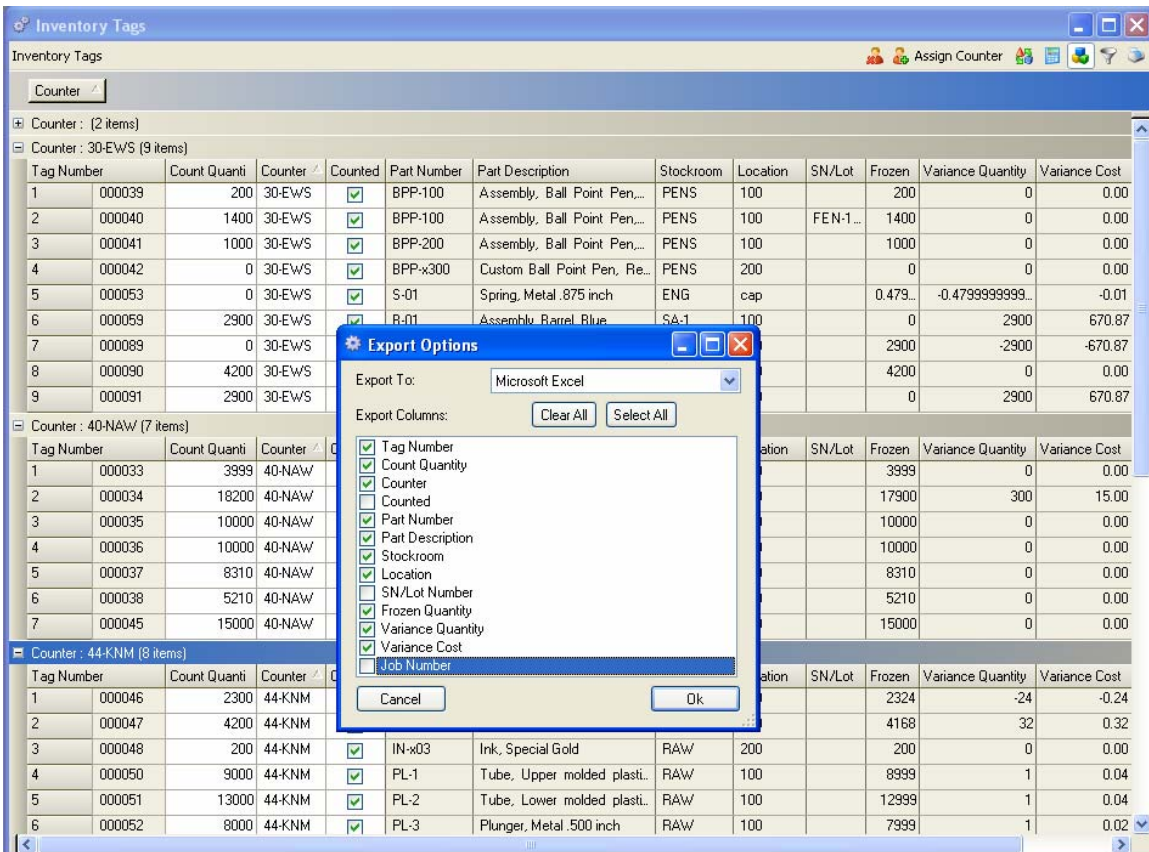
Tag Number	Count	Part Num	Part Description	Stockroo	Locatio	SN/L	Froz	Variance Quan	Variance C
Counter : 30-EWS (1 item) Variance Cost Average = 2.1428571428571428571428571428571429									
9	2900	B-01	Assembly, Barrel, Blue	SA-1	100		0	2900	670.87
Average = 74...									
Counter : 40-NAW (7 items) Variance Cost Average = 2.1428571428571428571428571428571429									
1	3999	BP-1	Barrel, Top Half, Blue	RAW	100		3999	0	0.00
2	18200	BP-2	Barrel, Bottom Half, Blue	RAW	100		17900	300	15.00
3	10000	BP-3	Ring, Metal .250 diameter	RAW	100		10000	0	0.00
4	10000	BP-4	Clip, Pocket Metal 1.5 inch	RAW	100		10000	0	0.00
5	8310	BP-5	Barrel, Top Half, Red	RAW	100		8310	0	0.00
6	5210	BP-6	Barrel, Bottom Half, Red	RAW	100		5210	0	0.00
7	15000	CP-1	Ball Point	RAW	100		15000	0	0.00
Average = 2...									
Counter : 44-KNM (8 items) Variance Cost Average = -0.013958333333333332875									
1	2300	IN-01	Ink, Blue	RAW	100		2324	-24	-0.24
2	4200	IN-02	Ink, Red	RAW	100		4168	32	0.32
3	200	IN-x03	Ink, Special Gold	RAW	200		200	0	0.00
4	9000	PL-1	Tube, Upper molded plasti..	RAW	100		8999	1	0.04
5	13000	PL-2	Tube, Lower molded plasti..	RAW	100		12999	1	0.04
6	8000	PL-3	Plunger, Metal .500 inch	RAW	100		7999	1	0.02
7	2400	S-01	Spring, Metal .875 inch	RAW	100		2400	0	0.00
8	2800	TR-01	Tubing, Clear Plastic, Full...	RAW	100		2811...	-11.666666666...	-0.29
Average = -0...									
Counter : 80-EMH (6 items) Variance Cost Average = -0.38555555555555555									

**To Export Data from a View**

Select the Export icon on the top of the view window, the following Export Options window is displayed.



Click on the Drop Down List Box to choose the export format. You are also presented with a list of all of the columns in the view. The check boxes indicate which columns will be exported. Un-check if you do not want the column exported.



Click Ok, wait while the data is exported. The exported data will be displayed in the format indicated.

	A	B	C	D	E	F	G	
1	Tag Number	Count	Quantity	Counter	Part Number	Part Description	Stockroom	Location
2	57	2900			B-01	Assembly, Barrel, Blue	SA-1	100
3	58	0			B-01	Assembly, Barrel, Blue	SA-1	100
4	39	200	30-EWS		BPP-100	Assembly, Ball Point Pen, Blue	PENS	100
5	40	1400	30-EWS		BPP-100	Assembly, Ball Point Pen, Blue	PENS	100
6	41	1000	30-EWS		BPP-200	Assembly, Ball Point Pen, Red	PENS	100
7	42	0	30-EWS		BPP-x300	Custom Ball Point Pen, Red, Stamped with Gold	PENS	200
8	53	0	30-EWS		S-01	Spring, Metal .875 inch	ENG	cap
9	59	2900	30-EWS		B-01	Assembly, Barrel, Blue	SA-1	100
10	89	0	30-EWS		B-01	Assembly, Barrel, Blue	SA-1	100
11	90	4200	30-EWS		B-02	Assembly, Barrel, Red	SA-1	100
12	91	2900	30-EWS		B-01	Assembly, Barrel, Blue	SA-1	100
13	33	3999	40-NAW		BP-1	Barrel, Top Half, Blue	RAW	100
14	34	18200	40-NAW		BP-2	Barrel, Bottom Half, Blue	RAW	100
15	35	10000	40-NAW		BP-3	Ring, Metal .250 diameter	RAW	100
16	36	10000	40-NAW		BP-4	Clip, Pocket Metal 1.5 inch	RAW	100
17	37	8310	40-NAW		BP-5	Barrel, Top Half, Red	RAW	100
18	38	5210	40-NAW		BP-6	Barrel, Bottom Half, Red	RAW	100
19	45	15000	40-NAW		CP-1	Ball Point	RAW	100
20	46	2300	44-KNM		IN-01	Ink, Blue	RAW	100
21	47	4200	44-KNM		IN-02	Ink, Red	RAW	100
22	48	200	44-KNM		IN-x03	Ink, Special Gold	RAW	200
23	50	9000	44-KNM		PL-1	Tube, Upper molded plastic, 1.750 inches long	RAW	100
24	51	13000	44-KNM		PL-2	Tube, Lower molded plastic, .375 inches long	RAW	100
25	52	8000	44-KNM		PL-3	Plunger, Metal .500 inch	RAW	100
26	54	2400	44-KNM		S-01	Spring, Metal .875 inch	RAW	100
27	56	2800	44-KNM		TR-01	Tubing, Clear Plastic, Full Roll	RAW	100

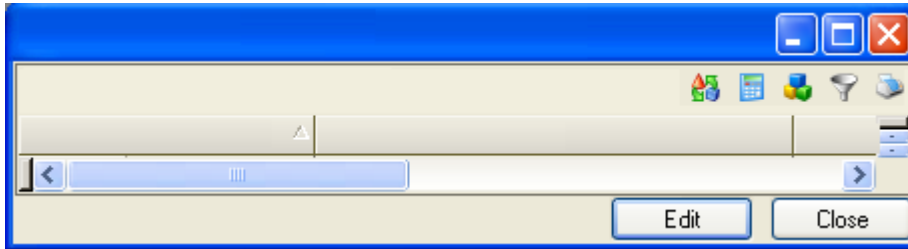
**NOTE:**


*If you selected Clipboard, open the document you want to enter the data in and select Edit>Paste.*

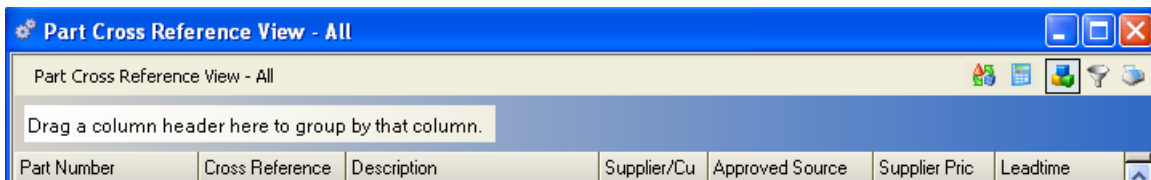



## View Screen Buttons

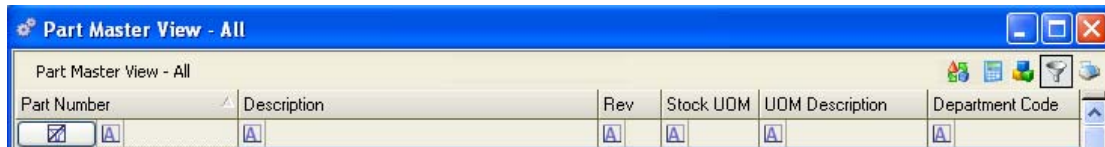
Icons on the top of the view window give you options for working with the data.



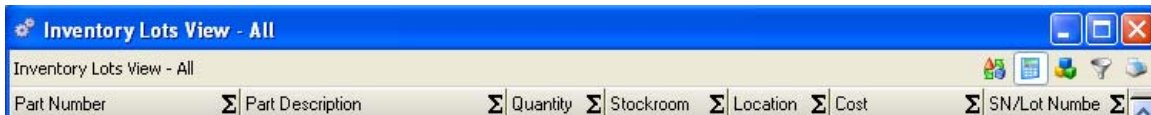
**Group**  Click on this button or use CTRL + G to activate the column Grouping section of the view window.



**Filter**  Click on this button or use CTRL + F to insert a Filter row at the top of each column in the view.



**Summary**  Click on this button to activate the Summary feature of the view window.



**Export**  Click on this button to activate the Export feature of the view window.

**Print**  After you have sorted, grouped or filtered a view you may print the view by clicking the Print button.

**Edit** Select an item and click Edit to open a data entry form for the item.

**Close** Click Close to close the data view.

**NOTE:**

*On Data Views, the double-click event always activates the highlighted (default) button, normally the Edit button. For custom views contact Account Management.*

## Data Entry Forms

All information is entered into the system via data entry forms. Whether you are working with products, customers, suppliers, sales orders, or other information, you will find a data entry form associated with the function you're using. Fields available on data entry forms differ, depending on the record and table you are maintaining. When you select an item from a data view or execute an Edit query from the menu, a data entry form opens.

### Maintaining and Adding Data

As with data views, you can use the sidebar to "drill down" through data related to the item. For more detailed information about specific data entry forms, see the section related to the function of interest. There are two (2) Easy Entry forms in the system; one (1) each for Sales Orders and Purchase Orders, see the section related to each function for additional information on these forms.

Key fields are normally displayed at the top of the form. If the record contains many fields, the form may display related fields on separate tabs.

### Data Entry Form Buttons

Buttons on the bottom of the edit form give you various options for working with the data. Default options are active depending on which data edit form you open. Each button is briefly described below.

**Links** Click Links (Links button is enabled only if sidebar is hidden) to view the Related Views, Related Edit Screens and Related Reports tabs.

**OK** Click OK to save any changes and close the data edit form.

**Close** Click Close to close the data form (if changes were made and not saved a warning will be displayed).

The screenshot shows the 'Part Master' window with the following data:

Part Number	BPP-100	Revision	B
Description	Assembly, Ball Point Pen, Blue	Inactive	<input type="checkbox"/>

Navigation tabs: Engineering (selected), Notes, MRP Planning, Inventory Codes, Part Costs, Statistics

Fields and values:

- Stock UOM: EA (Each)
- Density Code: [Empty]
- Weight: .058 lb
- Dimension: .375in x 5.375in
- Special Storage:
- Shelf Life: 0.00
- User Defined 1: [Empty]
- User Defined 2: [Empty]
- Graphic Path: C:\AMS\PEN\BPP100.BMP (with Show Graphic button)

Buttons: OK, Close

### Key Fields

Every record in a table must contain unique data in key fields. When entering a new record, if a key field is left blank, an “invalid” icon will appear next to the field. When you place the cursor over the icon, an error message will be displayed “Field cannot be empty” (Key fields are always required). Once valid data is entered, the invalid icon changes to a check mark, and if all other required information has been entered, the record can be saved.

### Validated Fields

Many fields on the data entry forms are validated to ensure system integrity. The system will accept only valid data in these fields. An invalid icon appears next to the field and continues to display until you enter valid data. You will be unable to save a record until all validated fields contain valid data.

Invalid Red **X** icon. Indicates a field contains invalid information.

Green Check  icon. Indicates a field has been changed.

Hyperlink Stock UOM Click to select data from a table.

### Optional Fields

All remaining fields are optional and may remain blank, if entered some may require validation (Codes). Any information you enter in optional fields will appear in windows and can print on reports. Optional data can also be sorted in views and some will be transferrable to accounting packages.

### Saving a Record

When you click OK in a data entry form, your entry is saved, the record is added to the database, and the edit form closes. When you click the Save button on the Toolbar or use the Control + S keys, the record is saved and you can continue to work with the data entry form, entering optional information, selecting various tabs, or “drilling down” through various related **tables** Standardized information sets that uniformly describe and categorize data fields. For example, a stockroom table contains a list of stockrooms along with several fields of information that convey information about each stockroom. The type of information held is standard for each stockroom. .

### Canceling an Entry

Click Close before you click OK or Save to exit a data entry form without saving your entries. You will receive a warning message.

### Detail Records

Some records (sales orders and purchase orders, for example) contain multiple detail records as line items. **Line item** One item on a customer order or purchase order, regardless of quantity, details are usually added in data entry forms via the Lines detail tab. From here you can review or edit any existing lines, delete lines or add new ones.

Order	Supplier	Lines	Notes	PO Line	Part Number	Kit Part Flag	PO Unit Price	Quantity Ordered	Quantity Received	Quantity RTV	Required	
Add				1	001	BP-1	No	\$0.05	4,000.00	4,000.00	0.00	8/31/200
Edit				2	002	BP-5	No	\$0.05	4,000.00	4,000.00	0.00	8/31/200
				3	003	BP-5	No	\$0.05	4,690.00	0.00	0.00	9/14/200
				4	004	BP-6	No	\$0.05	9,000.00	9,000.00	0.00	8/31/200
Delete				5	005	BP-1	No	\$0.05	4,504.00	0.00	0.00	9/14/200

PO Total Amount \$1,309.70 PO Remaining Amount \$459.70

NOTE:

*New line entries and line changes are saved when you return to and save the header.*

### Transaction Forms

Transaction Forms provide the means to record the movement of parts and materials in and out of inventory and between locations. For example, you will use these forms when you ship and receive materials, kit and complete work orders, etc. These forms have multiple tabs for recording and viewing information pertaining to transactions.

Transaction PO Receipt - PO Detail Tab

PO Receipts

PO Number: P000080003 Entered By: SUPERVISOR  
 Receipt Date: 11/2/2005 Tran Group: -1  
 Close Purchase Order:

PO Details | Receipts | Notes

	PO Line	Part Number	Remaining	Quantity Ordered	Quantity Received	Quantity RTV	Required
Add	1	001	BP-1	0.00	4,000.00	4,000.00	0.00 8/31/200
Edit	2	002	BP-5	0.00	4,000.00	4,000.00	0.00 8/31/200
Delete	3	003	BP-5	4,690.00	4,690.00	0.00	0.00 9/14/200
All	4	004	BP-6	0.00	9,000.00	9,000.00	0.00 8/31/200
Receive Line	5	005	BP-1	4,504.00	4,504.00	0.00	0.00 9/14/200

OK Close

PO Receipt - Receipts Tab

PO Receipts

PO Number: P000080003 Entered By: SUPERVISOR  
 Receipt Date: 11/2/2005 Tran Group: -1  
 Close Purchase Order:

✓ PO Details | ✓ Receipts | Notes

	PO Line	Part Number	Quantity Received	Stockroom Code	Location Code	SN/Lot Number
Add	1	003	BP-5	4,690.00	RAW	100 Lot200500111
Edit						
Delete						

OK Close

After a line is selected and received a transaction edit form is displayed. You may add additional information about the transaction here.

The Receipts form displays the following information:

- PO Number: P000080003
- Part Number: BP-5
- PO Line: 003
- Closed Flag:
- Stockroom Code: RAW (Raw Materials/Purchased Parts)
- Location Code: 100
- SN/Lot Number:  Lot200500111
- Job Number: [Empty]
- Quantity Received:  4,690.00
- SN/Lot Information: [Button]
- Tran Info:  Package has slight damage

Close

You may also drill down to record additional data concerning the transaction such as transaction information/text or you may also click on the SN/Lot Information button to record additional SN/Lot data, such as notes, expiration date, warranty date, maintenance date, etc.

The SN/Lot Information form displays the following information:

- Part Number: BP-5
- Barrel, Top Half, Red
- SN/Lot Number: Lot200500111
- SN/Lot Information | Notes
- Expiration Date: 11/ 2 /2005
- Maintenance Date: 11/ 2 /2005
- Warranty Date: 11/ 2 /2005

Close

All data entered on a transaction form (shipping a sales order or receiving a purchase order) is also recorded in the Transaction Log. Alliance/MFG has twelve (12) transaction types. Detailed information about using each transaction type can be found in the help topics that describe each function (Demand, Supply, etc.) and also in the Inventory Control>Transactions section.

## Other Controls and Functions

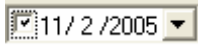
This section describes other types of controls and functions found within Alliance/MFG.

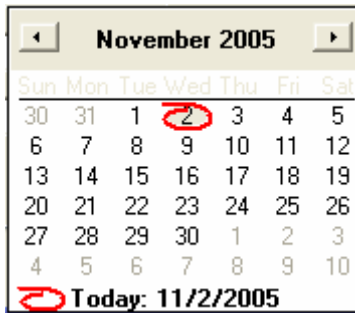
### Date Calendars

You'll find drop-down calendar boxes on every window and dialog box in the system where dates must be entered or changed.

#### TIP

Use the date check box to indicate the date is active. Clear the check box to disable the date.

 You can highlight and edit a date here, or . . . click the down arrow to access a drop down calendar box.



#### To change dates in a calendar box

1. Click the down arrow on a date box to open a calendar box.
2. Click the left or right arrows to scroll to the appropriate month.
3. The calendar defaults to "today's" date; you can select a different date.

The system will prompt you to enter both start and stop dates if required. If the date you enter has already passed, a caution icon will appear. If the date is still appropriate, you may go ahead and enter it.

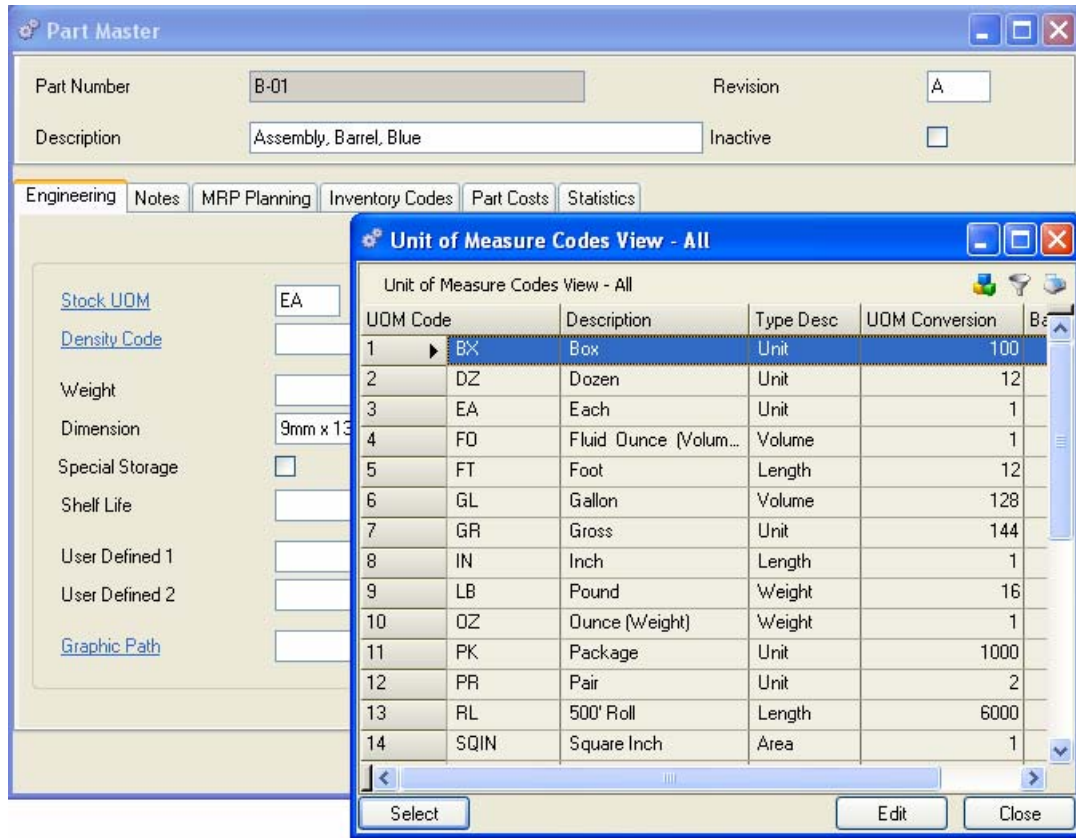
#### NOTE:

*The system will use 12 hour or 24 hour time keeping, depending on your windows regional settings.*

### Hyperlinks

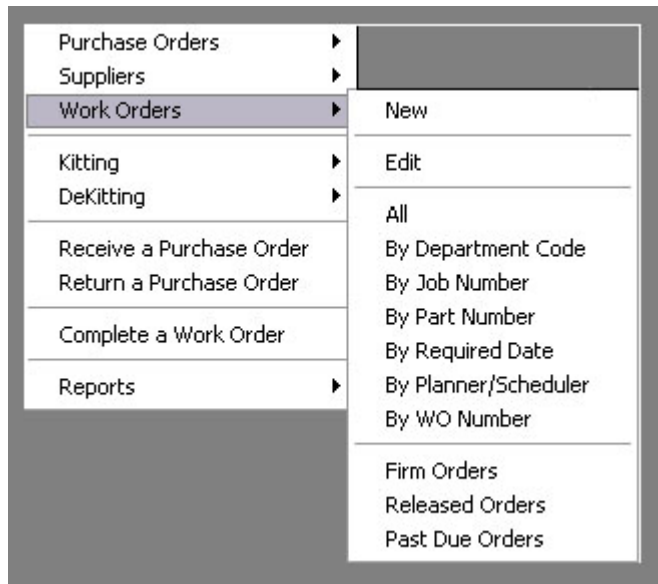
On Edit Forms you can enter data directly into fields; or if the field is linked to a table, you can click the hyperlink to access and select data. When a field is linked to a table via a hyperlink, the field title is underlined. You can also place the cursor in a hyperlink field and press F3 to open the linked View. Right click the Hyperlink to open a drop-down list of predefined queries, or left-click to use the default query.

#### Hyperlinks



### Submenu options

The system also provides a number of ways to access and enter data from a main menu function using submenu options. After selecting a function, select a menu item and then a submenu option. Supply>Work Orders>





## Basic Queries

### New

When you select New from a submenu, a blank data entry form opens for the item selected.

### Edit

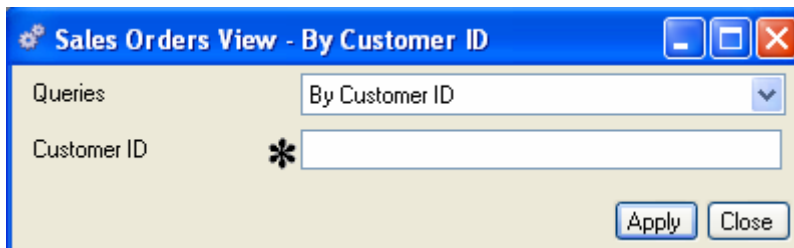
When you select Edit from a submenu, you will be prompted for the value of the record you wish to edit (Part Number, SO Number, Supplier ID, etc.).

### All

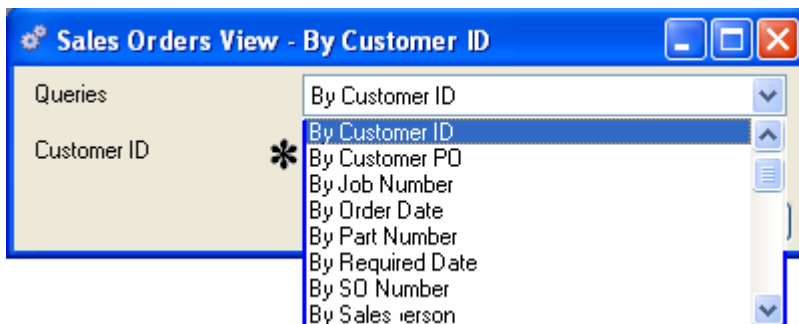
All will display all table records in a data view. This may be slow if the table is large. Try to narrow your search by using the predefined queries.

### Predefined Queries

With large databases, you can limit your query to a specific range of data. Depending on the menu item selected, a number of predefined queries will be available on the submenu. For example, to query sales orders by customer id, enter a Customer ID in the field and click Apply to view all sales orders for the customer ID selected. An asterisk icon next to the field indicates that you can use wild cards to locate a range of data.



Click on the down arrow to display a drop down list of available queries.



### Using Wild Cards

If you don't know the exact information you need for a query, you can substitute wild cards for the unknowns, or to query a range of data. When an asterisk icon appears on a query window, hold the cursor over the icon to display valid wild cards. (Examples shown inside quote marks should be used without the quote marks.)

\* Matches any number of characters. It can be used as the first or last character in the character string. You can use "wh\*" to find: what, white, and why.

? Matches any single alphabetic character. "B?ll" for example, would find ball, bell, and bill.

[ ] Matches any character within the brackets. For example, "B[a,e]ll" finds ball and bell but not bill.

- Matches any one of a range of characters. You must specify the range in ascending order (A to Z, not Z to A). For example, "b[a-c]d" finds bad, bbd, and bcd, but not bmd.

! Matches any character not in the brackets. For example, "b[!ae]ll" finds bill and bull but not bell.

### **Custom Queries**

Alliance/MFG predefined queries were created by experienced manufacturing and materials planners, and at the requests and expressed needs of our customers. However, if you don't find a query that meets your needs, you can create your own. See the Technical Reference, Chapter 5: Reports & Queries, for information about creating custom queries.

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## Alliance/MFG Process Flow

### Manufacturing Process Flow

The Alliance/MFG process flow chart below briefly summarizes the steps to enter an order and follow it through planning, purchasing components, manufacturing, and finally shipping. It assumes a basic bill of materials.

**Part A - Make Part**

**Part B - Buy Part**

**Part C - Buy Part**

**Part D - Buy Part**

From here you can reference the User Guide Chapters that discuss the various operations in each step.

#### Alliance/MFG PROCESS FLOW

**STEP 1** Create and enter Part Master, Bills of Material and Inventory data for all of the parts. *See Products, Part Master; and Inventory, Part Maintenance.*

**STEP 2** Enter demand on your system; in this case, a Customer Sales Order for part A. *See Demand, Customers, Entering Sales Orders.*

**STEP 3** Run MRP that will recommend POs for buy parts B, C, and D, and a WO for make part A. Accept the suggestions and place the orders. *See Material Requirements Planning, Scheduling POs & WOs from MRP.*

**STEP 4** Receive the material on the Purchase Orders, which will update your inventory quantities for buy parts B, C, and D. *See Supply, Receiving Purchase Orders.*

**STEP 5** Release the Work Order for make part A to the shop floor using the Kitting function. This will update the quantities in stock for buy parts B, C, and D. *See Supply, Releasing & Kitting Work Orders.*

**STEP 6** As the Work Order moves through the shop floor, direct labor can be applied to the work order through the Labor Distribution function. *See Shop Floor Control, Labor Distribution.*

**STEP 7** When all work has been completed, complete the work order through the WO Completions function. This will update your inventory quantity for the final assembly, part A. *See Supply, Work Order Completions.*

**STEP 8** Finally use the Shipping function, send the finished goods to your customer, and update the quantity of make part A you have in stock. *See Demand, Shipments and Returns.*



# Setting Up Your Company



## System Implementation

### Create an Implementation Plan

This section describes how to set up and customize Alliance/MFG to perform according to your company's specific set of operating parameters. It is important to establish an implementation plan before you begin creating your company and entering data. If you have not yet created an Implementation Plan, see the Alliance/MFG Technical Reference, Implementing the System, or see your Alliance/MFG Getting Started booklet for additional resources to help you put together your plan.

**NOTE:**

*Descriptions and procedures presented in this section assume familiarity with Alliance/MFG's Data View List and Data Entry forms, hyperlinks, and other system elements. These elements are discussed in detail in the section on Navigating Alliance/MFG. We recommend that you read the section on Navigating Alliance/MFG and understand the elements before beginning any procedures described in this section.*

## File Menu functions

The File menu gives you access to the features you'll use to create and access your company database. From here, you'll define your company preferences for elements such as sales order, purchase order, and work order number formats, date formats; and define your company codes tables such as department numbers, region codes, tax codes, and so on. The options on the File menu include the following functions.

**Database** - Select Database to log in and log out of databases in the system, set up security access for database users, create new databases, perform database utilities and import and export data to the system.

**Company** - Select Company to set up your company name and address information, holiday calendar, employee files, and define your company preferences.

**Codes** - Select Codes to set up all your company codes tables. (With a few exceptions noted in the appropriate sections, codes must be set up to facilitate setting up most other system functions.)

**Print** - Select Print to preview or print a selected Alliance report. From the Print option you may also select a different printer.

**Exit** - Select Exit to exit Alliance/MFG, all open windows will be closed. If data changes have been made and not saved, you will be warned.

All except *Exit* are described in detail in the following sections.

---

## Database

A database is a collection of information associated with a specific entity, such as your company. Your manufacturing database will contain all the information about your company's products and product structures; customers, suppliers, and employees, and your inventory. Alliance/MFG supports multiple databases, each with a unique name (identifier) and unique information. The number of databases you maintain will depend on your company organization and its products. For example, if your company has different business segments with different customers and suppliers, you could create a second database for that segment.

To learn how to work with the system, you can first login to the sample Pen database that was supplied with your system. After you are familiar with how customers, suppliers, parts and other elements are added and managed in the system, you can create your own database using one of the start-up options described in the following section. (See Creating a New Database, later in this section, and be sure to review database information in your Alliance/MFG Technical Reference.)

### Choosing a Database

The Alliance/MFG system offers one ready-to-use sample database (the Pen database) and two templates for creating your own databases. If you have already migrated your existing data you can also select that database to login to.

#### PEN Database

The Pen database contains sample company data that you can use to experiment with the system and familiarize yourself with its features. It represents a ball point pen manufacture and has sample sales orders, forecasts, purchase orders and inventory. You can add, edit, and delete data; perform transactions within this database, and practice working with MRP without fear of altering your own vital company information.

#### Default Database

The default database contains data commonly used in many of the codes tables, such as units of measure, shipping methods, and terms. You can use this database as a shortcut to help you set up your codes tables more quickly than if you were to start from a blank database. You can log in to this database, review the tables, and if the data is similar enough to require minor editing, you can save time by starting here.

#### Blank Database

The blank database template contains no data. You enter all the necessary information into all data tables. If the default database would require too much editing to fit your company's parameters, this is the place to start.

#### NOTE:

*After you create either type of database, or migrate your data you must add the database through the Alliance Data Connection dialog box, prior to logging in.*

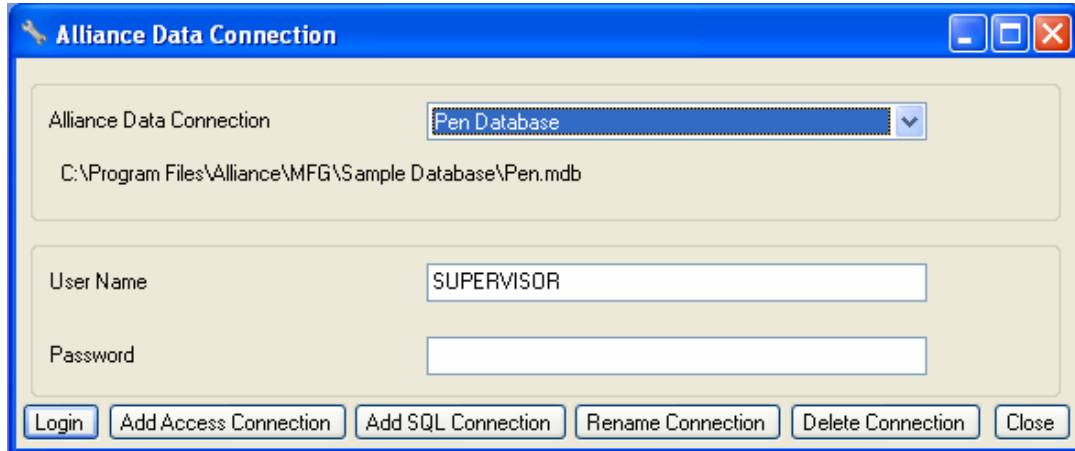
### Database Menu Options

Once you start Alliance/MFG and the main menu appears on your screen, you must log in to the database you want to work with from the Alliance Data Connection dialog box. If you installed the Pen database, it will appear in the Alliance Data Connection field when you select Login.

## Login

To login to a database:

1. Select File>Database>Login. The Alliance Data Connection dialog box opens.
2. Select a database from the drop-down list.
3. Click Login. After a moment, the Alliance Data Connection dialog box closes and you can access the database from all the system menu options. This may take a while as the system loads. All system users must login. The number of concurrent users is controlled by the system license.



## Logout

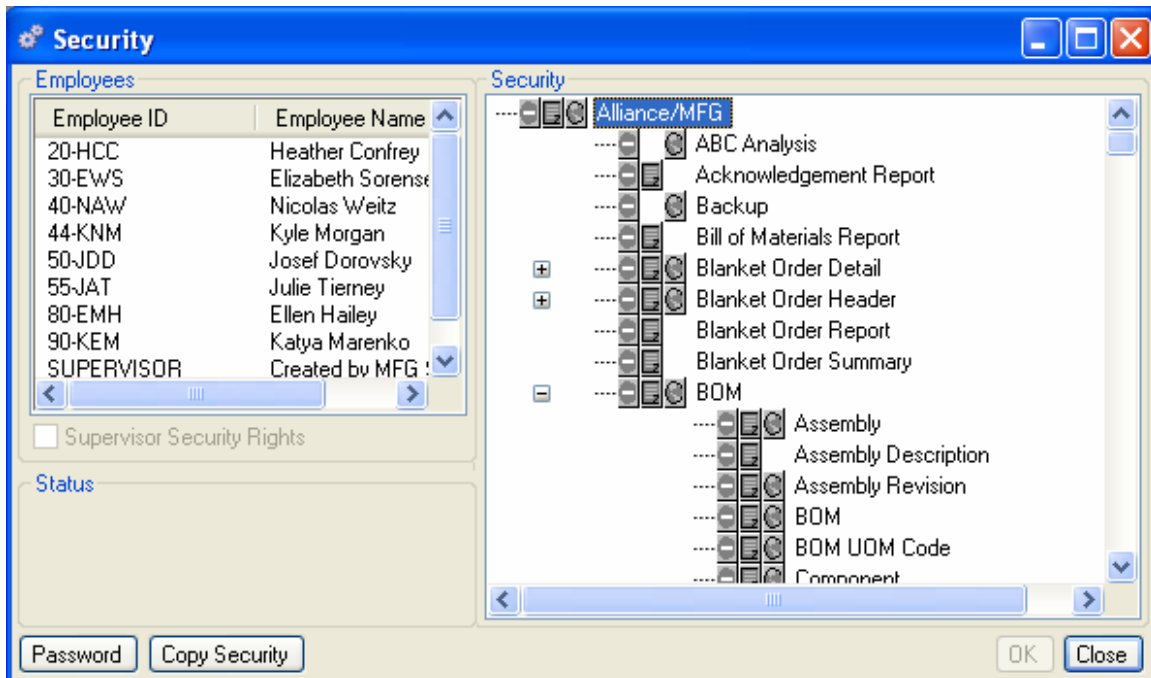
Click Logout to exit this database, this does not close the application. Choose a valid database and login to resume.

## Security

Access to functions, tables, and even specific fields on forms in the system can be enabled or disabled for individual users. If as a user you find that some menu items are dimmed, or that “padlock” icons appear next to fields on a data entry form or other dialog box, it means that you have not been given full access to those features.

Supervisor rights give you full access to all system elements. You can assign limited rights to different employees as necessary; the system can add or limit employee access to specific features, reports, and even specific fields on a window. Security allows None, Read Only, and Read/Write privileges.





System security access is usually controlled by the System Administrator or Supervisor. For more information about assigning access to individuals, see the Alliance/MFG Technical Reference.

### Change MSDE Password

If you are using MSDE you may want to periodically change the server's password. The password should be known by your System Administrator and/or a Supervisor. It is important to remember the password and to make sure that it can be accessed even during personnel changes. If you loose or forget your password Alliance may not be able to help you access your data.

#### NOTE:

*The MSDE instructions described here are for MSDE Databases only. Microsoft SQL Server 2000, SQL Server 2005 and SQL Express all come with there own Administration Tools.*

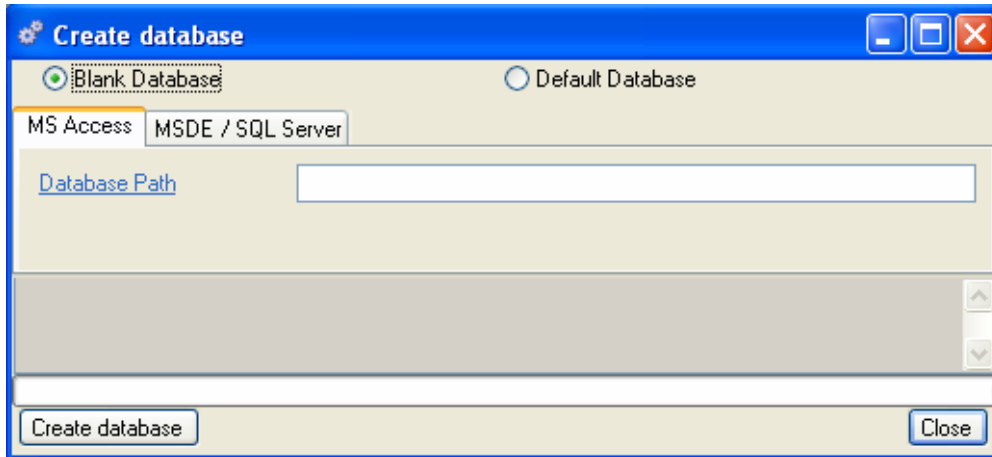
### Create a New Database

Databases are usually created by a System Administrator or Supervisor. Detailed information about creating a new database is presented in the Alliance/MFG Technical Reference. To create a new database you must first select the format, Blank or Default, then the database type, Access or MSDE/SQL Server.

To create a new Access database, you must give it a file name and supply the path to it. You can use the Database Path hyperlink to drill down and insure path accuracy.

To create a new MSDE/SQL Server database, click on the MSDE/SQL Server tab, enter the Server Admin Name, Password, the Server Name and the Database name.

Once it's created, it will be available to add to and select from the Alliance Data Connection dialog box.



### Compact MDB Database

It is important to maintain your database in its most compact form. Database management is usually performed by a System Administrator or Supervisor. Detailed information about database maintenance is presented in the Alliance/MFG Technical Reference.

### Backup Database

Backing up is important to ensure the safety of your data. You should backup often and on a regular basis. Backups are usually created by a System Administrator or Supervisor on a daily basis and a copy may be taken off site weekly. Backups may be requested by Alliance Manufacturing Technical Support when troubleshooting a problem, they should be available. See the Alliance/MFG Technical Reference for detailed information.

### Restore MSDE Database

You may need to restore a database if your server goes down or if you want to view history. Restoration is usually done by a System Administrator or Supervisor. See the Alliance/MFG Technical Reference for detailed information.

### Delete MSDE Database

You should use extreme caution when deleting a database. Databases that have been restored to view history can be safely deleted. However, deleting your live database will result in permanent data loss. Deletions should only be performed by a System Administrator or Supervisor.

### Verify MDB Structure

This feature is designed for use with Alliance Manufacturing Technical Support, and is typically only performed by a system administrator. For more information, see the Alliance/MFG Technical Reference, Chapter 3: System Administration.

### Import/Export

You can import data into and export data out of Alliance/MFG for use in other programs. This procedure is normally performed by a System Administrator or Supervisor. Detailed information about importing and exporting data is presented in the Alliance/MFG Technical Reference.

#### NOTE:

*The MSDE/SQL instructions described here are for MSDE Databases only. Microsoft SQL Server 2000, SQL Server 2005 and SQL Express all come with there own Administration Tools.*

## Company

Once you have logged in to the appropriate database, you are ready to begin entering Company information. Select the Company option on the main menu to enter data about your company, including name and address, holiday schedule, employee information, and preferences for various global company attributes such as the number of decimal places you wish to display, and whether you want the system to auto-generate numbers for sales orders, purchase orders, work orders, and invoices. We recommend setting up the system codes prior to setting up your Company>Preferences as the Preferences screen will require various default codes be established.

### Company Menu Options

**Name and Address** - Add basic company information such as name and address, contact, phone, fax, and e-mail address.

**Holiday Calendar** - Schedule the days your company is closed; such as weekends, holidays, and plant shut downs. These closed days will be excluded from MRP planning.

**Employees** - Maintain information about employees that will be used in various functions throughout the system.

**Reset Year-to-Date Usage** - Use periodically to reset to Year-to-Date usage on inventory parts.

**Preferences** - Configure default values, formats, and codes; and Sales Order, Purchase Order, Work Order, and Invoice numbering conventions.

Each is described in detail in the following sections.

---

### Company Name and Address

Enter your company's name, address, contact names, telephone numbers, fax number, and e-mail address as you would like them to appear on any displays, reports, orders, invoices, or other documents that will be produced by your system. Multiple addresses are permitted. Your company's "Bill To" address may be different than your "Ship To" address.

Once this information is added, you can enter as many different address lines as you need to conduct business. Each address line will have a unique ID.

#### To enter your company name information:

1. Select File>Company>Name and Address to open the Company data entry form.
2. Enter your company name.

Company Name: Alliance Pens, Int'l

Company Address

Primary Contact: Katya E. Marenko

Phone 1: (805) 682-6632 Phone 2:

Secondary Contact: Sharon van Derven

Phone 3: (805) 682-6633 Phone 4:

Fax 1: (805) 682-7707 Fax 2:

E-Mail: alliance@alliance-pens.com

Region Code: W

VAT Registration Number:

VAT Branch ID:

OK Close

### Company Tab

1. Enter the name of the person you wish to appear on any documentation generated by the system for company contact.
2. Enter the phone numbers for the Primary Contact person.
3. Enter the name of a second contact person, if available.
4. Enter the phone numbers for the second contact person.
5. Enter the Fax number for your company as you want it to appear on any correspondence.
6. Enter your company's primary e-mail address as you want it to appear on any correspondence.
7. Enter a Region Code or click the hyperlink to select one from the Region Code View.
8. Enter your VAT Registration Number if you will use the *Intrastat Reporting Tracks Value Added Tax payments and receipts*.
9. Enter your VAT Branch ID if you will use the Intrastat Reporting feature.

### Company Address Tab

Click the Company Address tab.

The Company Name displays at the top of the form. Any existing address lines display in the body. You can create as many address lines as you need to conduct business. For example, you may have different Bill To and Ship To addresses or you may have different warehouse locations.

#### To add a new address:

Click Add on the left side of the Company form. The Company Address form opens.

1. Enter a unique Address ID.
2. Enter up to four address lines for this Address ID. For example, you can enter a warehouse name, a block or suite number, and a person's name.
3. Enter the city, state and Zip code for this address ID. City, State, and Zip codes are hyperlinks to the Zip code table.

4. Select either Ship To or Bill To, or both, to identify this address ID as either the Bill to or Ship to address.
5. Enter the country name, if needed.
6. Enter a postal code, if needed.
7. Enter the tax code that applies to this address ID, or click the hyperlink to select one from the Tax Code table.
8. The Tax Rate will display for the Tax Code selected in the previous step.
9. Click Close to save your entries and return to the Company data entry form.
10. When you are finished entering company information, do one of the following:
  - Click Save to save your entries and leave the form open.
  - Click Add to add another company.
  - Click OK to save your entries and exit the form.
  - Click Close to exit the form without saving. (Saved entries will be saved.)

**To edit a company address:**

1. From the Company form, Address tab, select the Address ID line you wish to edit.
2. Click Edit on the left side of the form to open the Company Address data entry form.
3. Change information as needed.
4. Click Close to save your changes and return to the Company form, then click Save or OK to save.

**To delete a company address:**

1. From the Company form, Address tab, select the line you wish to delete.
2. Click Delete.

**NOTE:**

*You cannot delete an address if it is in use on any PO's in the system. You must first change or delete it from the PO, then delete it from the Company Address list.*

**Creating a Holiday Calendar**

Settings in the Holiday Calendar tell the system which days throughout the year your company will be closed. It is important to keep this calendar up to date because MRP does not schedule closed days when planning production requirements.

New holidays are added in the Holiday Calendar data entry form. Each holiday must have a unique description, start and end date.

The screenshot shows a standard Windows-style dialog box titled "Holiday Calendar". It has a blue title bar with minimize, maximize, and close buttons. The main area is light gray and contains three input fields: "Description" with the text "New Year's Day", "Start Date" with a date picker showing "1 / 1 / 2004", and "End Date" with a date picker also showing "1 / 1 / 2004". At the bottom right, there are two buttons: "OK" and "Close".

**To add a new holiday:**

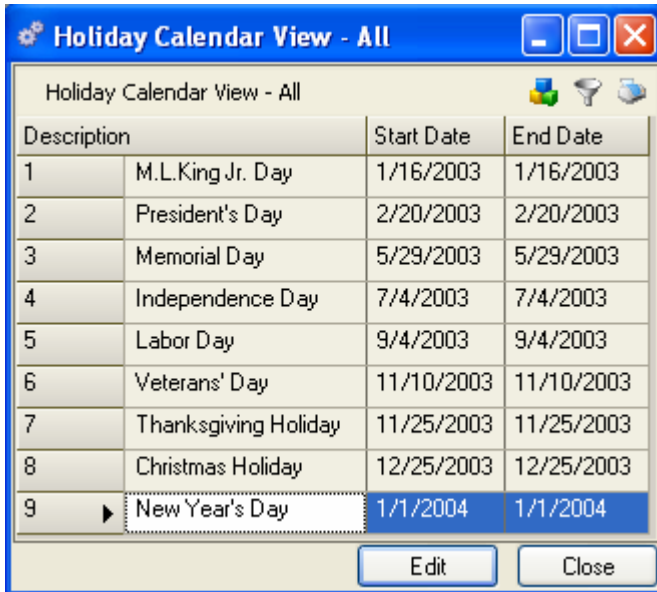
1. Select File>Company>Holiday Calendar>New to open a blank Holiday Calendar data entry form.
2. Enter a description for the new holiday.
3. Select start and end dates from the date boxes. (The start and end dates can be the same if the holiday is a single day.)
4. Click Save to save the holiday, or click Add to continue adding holidays to the calendar.
5. When you have finished adding all holidays, click OK to save your entries and exit the form. The system will now consider these days as non-production days when planning.

**NOTE:**

*If the Start and End dates of the holiday you select have already passed, a caution icon will appear next to the field. If the date is still acceptable to you, you may save the record.*

**Using the Calendar View:**

The Holiday Calendar View lists all the holidays currently set up for your company. From here you can print the Holiday Calendar Report or edit existing holidays.



**To edit an existing holiday:**

Select File>Company>Holiday Calendar>All. The Holiday Calendar view list opens. Select the holiday you wish to edit and click Edit or double-click to open the Holiday Calendar data entry form.

1. Select new Start and End dates.
2. Click OK to save your entries and close the form.

**To delete a holiday:**

1. Select File>Company>Holiday Calendar>All.
2. Select the holiday you wish to delete and click Delete.
3. Click Yes at the Warning to confirm the deletion.
4. Click Close to save your change and exit the data view.

**Entering Employees**

Alliance/MFG can store personal information about each employee who works for your company, such as address, phone, and social security number; however, its primary purpose is to define employee parameters such as department code, wage and commission rates, and in what system functions an employee's name will appear on selection lists.

Select File>Company>Employees>New to open a blank Employee data entry form.



The screenshot shows a software window titled "Employees" with a blue header and standard window controls. The form contains the following fields and values:

- Employee ID:** 21HCC (checked)
- Active:**
- Full Name:** Heather (checked), C (checked), Confrey (checked)
- Sub-headers:** "Address" and "Employee Detail" (both checked)
- Address Line 1:** 25716 N. Theater Dr. (checked)
- Address Line 2:** (empty)
- City:** Goleta (checked)
- State:** CA (checked)
- Country:** (empty)
- Zip:** 93117 (checked)
- Postal:** (empty)
- Phone 1:** (805) 562-9667 (checked)
- Fax 1:** (empty)
- E-Mail:** heather@alliance.pens.com (checked)

Buttons for "OK" and "Close" are located at the bottom right of the window.

1. In the form header, enter the Employee ID. The Employee ID is a key field and cannot be left blank. Employee ID's are used throughout the system for user identification.
2. Select Active if this is a current employee who will be accessing Alliance/MFG.

### Address Tab

The Address tab contains employee personal information. This information is optional and not used in any system calculations; however, you can print a comprehensive Employee Report that includes this information.

1. Enter employee address information. (Two lines available.)
2. Enter the first name, middle initial, and last name of the employee as you want it to appear in the system and on reports.
3. Enter the city, state, and Zip Code for the employee address.
4. Enter the Phone, FAX, E-mail, Country, and Postal information, if required.

#### TIP:

Alliance/MFG contains a comprehensive Zip Code table. To quickly enter the city, state and Zip, click the City hyperlink and enter a city in the By City dialog box. The Zip Code view list displays Zip Codes for only that city. Click the appropriate line and click Select to automatically fill in the City, State, and Zip code fields on the Address tab.

## Employee Detail Tab

The Employee Detail tab contains settings that determine how the employee record is used throughout the system.

The screenshot shows the 'Employees' window with the 'Employee Detail' tab selected. The fields and their values are as follows:

Field	Value
Employee ID	20-HCC
Full Name	Heather C Confrey
Department Code	MKT (Sales/Marketing)
Social Security Number	842659113
Wage/Rate	14
Commission Rate	0

The 'Employee Functions' section includes the following options:

- Engineering Changes:
- Labor Operations:
- Purchase Orders:
- Sales Orders:
- Inventory Accuracy:

1. Enter a valid Department code or click the hyperlink to select one from the Department Codes View. The code description will display to the right of the field.
2. Enter the employee Social Security Number.
3. Enter the employee wage rate to be used in labor calculations.
4. Enter a commission rate, if applicable.

### Employee Functions:

Select the Alliance/MFG functions this employee will perform. This will help narrow your search for employees when needed.

**Engineering Changes** - Select Engineering Changes if this employee will be involved in this activity. If selected, the Employee ID will be available from the Originator drop-down list on the Engineering Change Notice data entry form.

**Labor Operations** - Select Labor Operations if this employee's activity will be tracked via the Labor Distribution function. If selected, the Employee ID will be available from the Employee ID drop-down list on the Labor Distribution data entry form.

**Purchase Orders** - Select Purchase Orders if this employee is a buyer or purchasing agent. If selected, the Employee ID will be available from the Buyer Code list on Purchase Order data entry forms.

**Sales Orders** - Select Sales Orders if this employee is a salesperson. If selected, the Employee ID will be available from the Salesperson list on Sales Order data entry forms.

**Inventory Accuracy** - Select Inventory Accuracy if this employee will perform physical inventory counts. If selected, the Employee ID will appear on the Inventory Tags Counted-by list.

NOTE:

*Do not confuse these settings with Security Access. See Security in the Alliance/MFG Technical Reference for information about assigning employee permissions.*

**Viewing Employee Records:**

Once employee records have been entered into the system, they can be accessed from the Employees View list. Select File>Employees> All to open the entire list, or use a predefined query to locate a specific employee or group of employees.

Employee ID	Department	Name	Phone 1	E-Mail	Active	
1	20-HCC	MKT	Confrey, Heather C	(805) 562-9667	heather@alliance.pens.com	<input checked="" type="checkbox"/>
2	30-EWS	MFG	Sorensen, Elizabeth W	(805) 961-0789	elizabeth@alliance.pens.com	<input checked="" type="checkbox"/>
3	40-NAW	MFG	Weitz, Nicolas A	(805) 653-0372	nicolas@alliance.pens.com	<input checked="" type="checkbox"/>
4	44-KNM	MFG	Morgan, Kyle N	(805) 624-0153	kyle@alliance.pens.com	<input checked="" type="checkbox"/>
5	50-JDD	ENG	Dorovsky, Josef D	(805) 659-3188	josef@alliance.pens.com	<input checked="" type="checkbox"/>
6	55-JAT	PURCH	Tierney, Julie A	(805) 562-9452	julie@alliance.pens.com	<input checked="" type="checkbox"/>
7	80-EMH	PURCH	Hailey, Ellen M	(805) 927-0176	ellen@alliance.pens.com	<input checked="" type="checkbox"/>
8	90-KEM	MKT	Marenko, Katya E	(805) 652-3492	katya@alliance.pens.com	<input checked="" type="checkbox"/>
9	SUPERVISOR		Supervisor, Created by MFG			<input checked="" type="checkbox"/>

From here you can add, edit, or delete a record; or via the sidebar drill down or access related data; preview or print a report.

**To edit an employee record:**

1. Select an employee from the Employees View.
2. Click Edit or double-click to open the Employees data entry form.
3. Enter any changes.
4. Click Save or OK to save.
5. Click Preview to see the report on screen.
6. Click Print to print a hard copy of the report.

**To print a single employee record:**

1. From the Employee View or data entry form, select the employee record you would like to print and from the sidebar or link button click Reports.

2. Select Employee Information Report. The Employee List Report dialog box opens. The Employee ID field displays the ID for the employee selected.
3. Click Preview to see the report on screen.
4. Click Print to print a hard copy of the report.
5. When you are finished, click Close to return to the Employees View, or enter another Employee ID and preview or print another record.

### Reset Year-to-Date Usage

Alliance/MFG tracks all issues and shipments from inventory throughout the year and displays that figure as the YTD Usage field on the Part Master>Statistics Tab. Companies typically reset this feature to zero annually. Select File>Reset Year-to-Date Usage to set all parts usage back to zero. Employee access to this function can be controlled through the security function.

### Setting Your Company Preferences

Company preferences specify universally used settings for your company such as formats for displaying dates and numbers, whether or not to auto-generate sales order, purchase order, work order, or invoice numbers and what those number formats will be; define your default billing and shipping address; define default AP and COGS accounts, and other settings specific to your operation.

The settings in this window apply to all areas of the company database. You should select settings in the Preferences window according to your Implementation Plan.

Settings are accessed via five tabs: Accounting, Auto-Numbering, Base Units, Number, and Manufacturing.

Enter the information on each tab as described in the following sections. You can click Save as you work your way through the tabs to save your settings, or when you are done, click OK to save your settings and exit the Preferences window. Your settings will be applied throughout the system.

#### NOTE:

*The Company Preferences data entry form offers selections from the data set up in the Codes feature. If you have not yet set up these codes and tables, no selections will be available. See Codes, for more information about setting up Codes.*

### Accounting Tab

This tab defines various default accounting information used throughout the system.

Field	Value
Default PO Bill To	93101
Default PO Ship To	93116
Default AP Department	PURCH
Default COGS Department	COGS
Invoice Remit To Address	93101
Cost Type	Standard Cost
Base Currency	US
Default PO Tax Code	SB
Require Intrastat	<input type="checkbox"/>
Require Invoicing	<input checked="" type="checkbox"/>

Enter your company's Default PO Bill To address as set up in your Company Address list. This address will default to new purchase orders. You can override this address on a purchase order at your discretion.

Enter your Default PO Ship To as set up in your Company Address list. This address will default to new purchase orders. You can override this address on a purchase order at your discretion. (The Bill To and Ship To address need not be the same.)

Enter a Default A/P Department. This account number will default to new purchase orders. You can override it on a purchase order at your discretion.

Enter a Default COGS Department. This department number will default to new sales orders. You can override it on a sales order at your discretion.

Enter an Invoice Remit To Address if your invoice address will be different from your billing and shipping address. This address will default to your invoices.

Select a Cost Type from the drop-down list. You can choose to maintain the average cost of your purchased parts (and standard costs on your manufactured parts), use standard costing for all parts, or maintain average costs for all parts (For more information about cost types, see [Selecting a Cost Type](#) below).

Enter your company's Base Currency code. You can use other currencies on purchase order and sales order reports. Alternate currencies will be converted to or from this currency for internal accounting transactions.

Select Require Intrastat if you do business in the European market and require Intrastat Reporting. This feature works in conjunction with ICN Codes, Intrastat Rates, and Region/Country codes. (See Inventory Control, for more information about setting up the Intrastat Reporting feature.)

Select Require Invoicing to enforce invoice creation from sales order shipments.

## Selecting a Cost Type

There are three cost type options available in Alliance. This option should be discussed with your Owner, CFO (Chief Financial Officer), accountant or consultant. The value of your WIP (work in process) and on-hand (purchased and/or manufactured) inventory is dependent on the costing method chosen. After deciding which method is appropriate for your business you will need to set your cost type in System Preferences and establish your initial costs. See Inventory Control>Cost Maintenance for information on entering costs for new parts.

### Standard Cost – All Parts

If you use the *Standard Cost The normal expected costs of an operation, process, or product including labor, material, and overhead charges, computed on the basis of past performance costs, estimates, or work measurement* method, you will need to establish initial standards based on current or historical costs, engineering or purchasing estimates and work measurements. Most manufacturers then record and measure any variances (Labor, PPV and MUV) against their established standards and perform a periodic cost revision to update those standards. Also see Cost Roll Up and Update Standard Cost in the Inventory Control section of the Help.

### Average Cost – All Parts

#### If you use the Average Cost - All Parts method;

**The average cost for manufactured parts** will be recalculated and updated when you move material into a nettable stockroom (WO Completion/Backflush). You must complete your manufacturing work orders in one (1) transaction (no partial completions).

The following formula is used to calculate a new average cost. The existing quantity on hand multiplied by the current inventory cost plus the WO completed quantity multiplied by its cost (WO cost = The total of WIP Issues cost + labor cost + burden cost + setup cost).

$$\frac{(\text{quantity on hand} \times \text{current inventory cost}) + (\text{quantity completed} \times \text{WO cost})}{\text{quantity on hand} + \text{quantity completed (or total quantity)}}$$

**The average cost for purchased parts** will be recalculated and updated when you move material (receive) into a nettable stockroom.

The following formula is used to calculate a new average cost. The existing quantity on hand multiplied by the current inventory cost plus the PO received quantity multiplied by its PO price. The existing inventory quantity includes purchased parts issued to work orders that are still in WIP.

$$\frac{(\text{quantity on hand} \times \text{current inventory cost}) + (\text{quantity received} \times \text{PO cost})}{\text{quantity on hand} + \text{quantity received (or total quantity)}}$$

*Average costing* A system-calculated cost value based on the average price of received materials. recalculates the cost of your parts and displays this current average cost as the "Current Inventory Cost." You can view the Current Inventory Cost on the Part Cost tab of the Part Maintenance form. (Select Inventory>Part Maintenance and select a part from the list, click Edit, then select the Part Cost tab.)

The "Use Current Cost" checkbox must be checked when performing a cost roll up.

### **Average Cost - Purchased Parts Only**

When you elect to Average Purchase Parts Only, Alliance will use an average cost when performing transactions involving purchased parts, such as PO Receipts, Work Order Kitting, Subcontract PO Kitting, Backflushing and any Shipments of purchased parts.

A standard cost will be used for manufactured parts when performing transactions such as Work Order Completions, Backflushing, and Shipments of manufactured parts.

Average costing recalculates cost of your purchased parts with every receipt, and displays this current average cost as the "Current Inventory Cost." You can view the Current Inventory Cost on the Part Cost tab of the Part Maintenance form. (Select Inventory>Part Maintenance and select a part from the list, click Edit, then select the Part Cost tab.)

The "Use Current Cost" checkbox must be checked when performing a cost roll up.

The following formula is used to calculate a new average cost. The existing quantity on hand multiplied by the current inventory cost plus the PO received quantity multiplied by its PO price. The existing inventory quantity includes purchased parts issued to work orders that are still in WIP.

$$\frac{(\text{quantity on hand} \times \text{current inventory cost}) + (\text{quantity received} \times \text{PO cost})}{\text{quantity on hand} + \text{quantity received (or total quantity)}}$$

### **Example:**

For this example you have zero items in stock. You then receive 100 from a Purchase Order at \$1.00 each. You now have 100 on hand, and the average cost field is set to \$1.00. Next you receive 100 more at \$1.50. Now you have 200 on hand and the average cost field is set to \$1.25:

$$[(100 \times \$1.00) + (100 \times \$1.50)] / 200 = \$1.25$$

Next you issue 50 of the part to a Work Order. You still have 200 at \$1.25 (150 on hand and 50 in WIP). Next, you receive 100 more at \$1.50 each. You now have 300 at \$1.33.

$$[(200 \times \$1.25) + (100 \times \$1.50)] / 300 = \$1.33$$

The average cost is not recalculated until the material is received to a nettable stockroom. If you receive into a non-nettable stockroom the material's value will not be included in the average cost until it is relocated into a nettable stockroom.

### **Auto Numbering Tab**

You can set up the Alliance/MFG system to automatically generate Sales Order, Purchase Order, Work Order, Invoice or Quotation Numbers. We recommend that you use this feature. This way, the system will automatically keep track of system numbering for you. You can format the numbers any way you wish to meet your company requirements.

	Auto-Generate	Number Format	Next Number
<b>Sales Orders</b>	<input checked="" type="checkbox"/>	SO*Y*M#####	1
<b>Work Orders</b>	<input checked="" type="checkbox"/>	WO*Y*M#####	4
<b>Purchase Orders</b>	<input checked="" type="checkbox"/>	PO*Y*M#####	11
<b>Invoices</b>	<input checked="" type="checkbox"/>	1#####	3
<b>Credit Memos</b>	<input checked="" type="checkbox"/>	CM*Y#####	0
<b>Quotations</b>	<input checked="" type="checkbox"/>	QT*Y*M#####	3
<b>Blanket Orders</b>	<input checked="" type="checkbox"/>	BO*Y#####	0

#### To set up auto-generated numbering:

1. Select the Auto-Generate boxes as appropriate to indicate if you would like the system to automatically generate numbers (this is recommended). This option will generate unique, sequential numbers in the desired format for your sales order, purchase order, work order, and invoice documents.
2. If you select Auto-Generate, you must enter a format to auto-generate. This can be any combination of letters and numbers up to 10 characters. Any part of a date (Month, Year, Day) may be included in the auto-generation by entering \*M, \*Y, or \*D in any combination. Sequential numbering fills in the remaining numbers. For example, the sales order number SO00041547, would be the 47th sales order automatically generated on April 15, 2000 in the format "SO\*Y\*M\*D".
3. If you do not wish to use 10 characters, enter your preferred format, then insert "#" for the number of characters you wish to use. The system will increment those numbers. In the example, the system has been set up to create invoice numbers beginning with 1, then generate a five-digit number that increments by 1.
4. You can set the starting number to any number you wish. Enter the number in the Start Number field.

#### NOTE:

*You can select auto-generate for some or all of the functions; if you don't wish to use auto-generate, clear this checkbox.*



## Base Units Tab

The screenshot shows a 'Preferences' dialog box with the 'Base Units' tab selected. The dialog contains the following settings:

Field	Value
Base Length UOM	Inch
Base Weight UOM	Ounce (Weight)
Base Area UOM	Square Inch
Base Volume UOM	Fluid Ounce (Volume)
Base Unit UOM	Each

You must define a base unit of measure (The smallest units of measure used for either/or length, weight volume, or units. The smallest length unit may be inches, feet, etc., while the smallest weight unit may be ounces, pounds, etc.) for each type you will use (length, weight, area, volume, and unit). These form the basis for converting all measurements in your system and should represent the smallest unit of measure used anywhere in your system. For example, you may purchase tubing by the foot, but if you use it by the inch in production, then your base unit of measure for length should be “inch.” For more detailed information, see Working with Units of Measure at the end of this chapter.

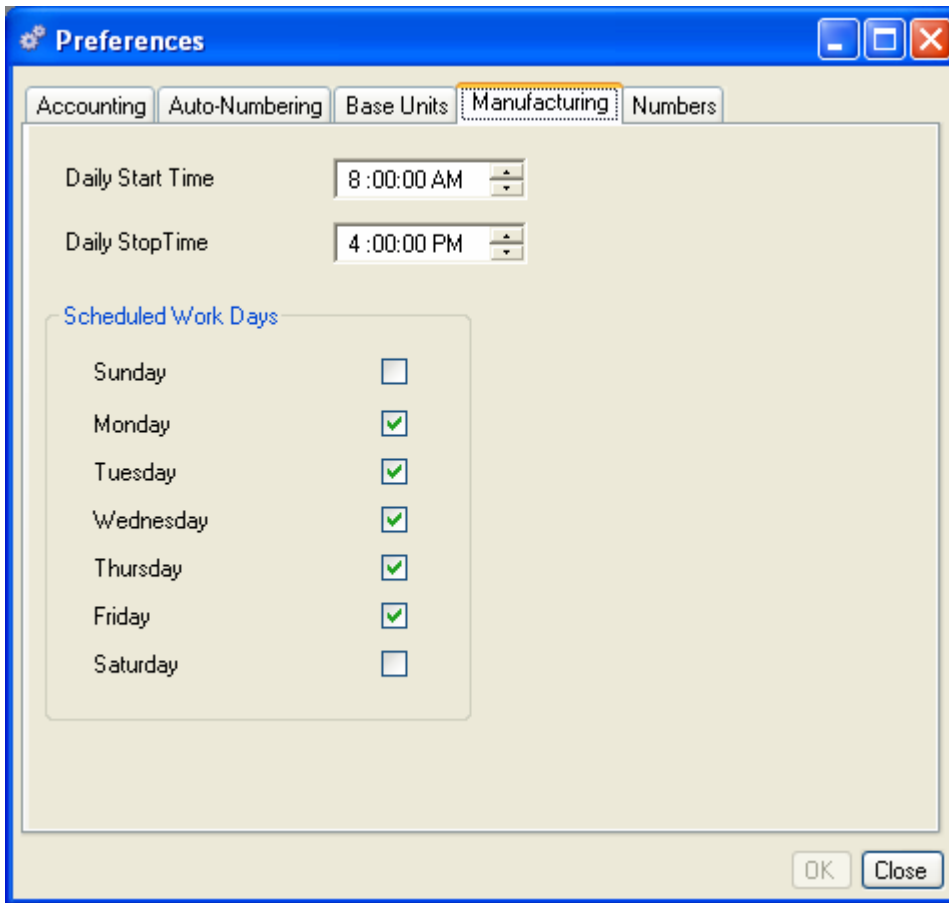
### NOTE:

*You must define your UOM Codes before you can select them in this tab.*

## Manufacturing Tab

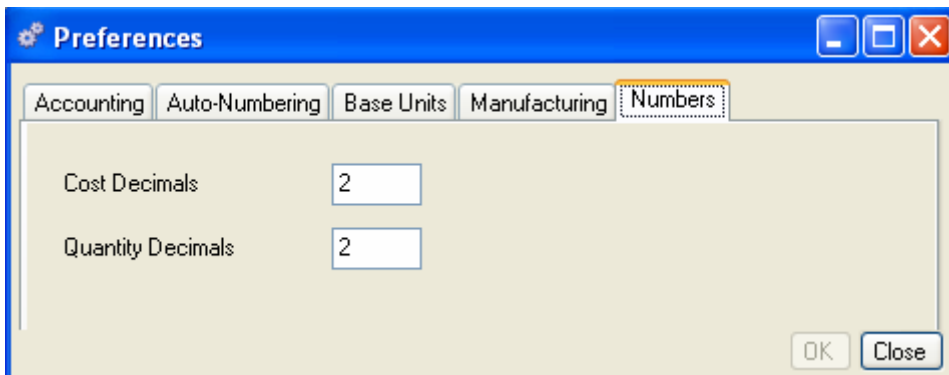
In the Manufacturing tab, define the days your company will be in production. MRP and CRP will consider this information when building schedules.

1. Under Scheduled Work Days, select the check boxes for the days of the week you want MRP and CRP to consider when planning.
2. Enter your daily Start and Stop times. You can use 12- or 24-hour formats. If you do not define work center shifts with individual start and stop times, CRP will use these times for all work centers.



### Numbers Tab

In the Numbers tab, enter the number of cost and quantity decimal places you wish to be displayed on Alliance/MFG forms and reports.



## Codes

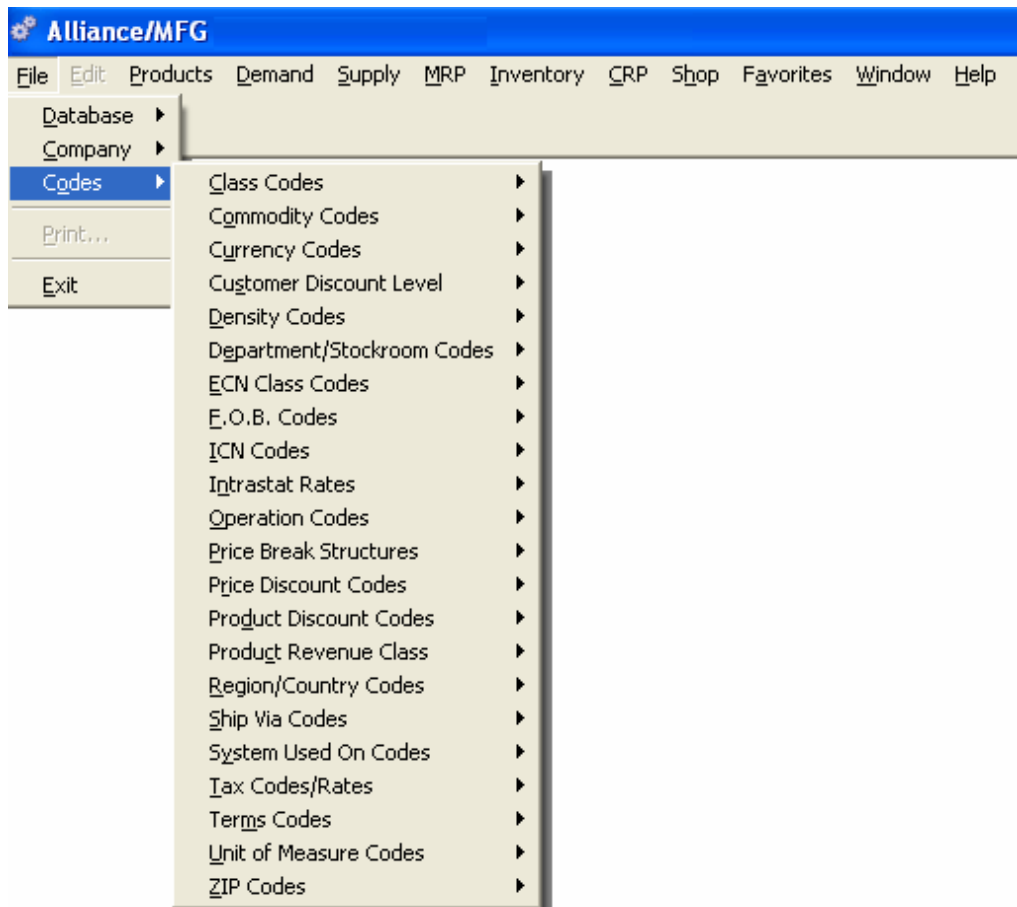
### Codes Menu and Tables

Codes tables provide the means to standardize your system and apply these standards to your company and to all your customers, suppliers, parts, pricing and inventory control, as needed. How you create and apply these codes should be part of your Implementation Plan.

Creating well-defined codes tables will save you time when entering information, as well as ensure that the data entered is consistent; particularly if several different users enter information. Standardizing such information will help guarantee reliable database sorting and reporting.

For example, if you create a region codes table containing North, South, East, and West; they will be accessible via hyperlink from your customer and supplier forms. Only codes contained in this table will be considered valid. When users enter customers and suppliers, they can choose the appropriate region code from a hyperlink, or enter a valid code if they know it. However, if they attempt to enter an invalid code, such as Western or W, the system will display an invalid icon next to the Region Code field, and disables the OK and Apply buttons until the invalid entry is corrected. You can also add new records via the hyperlink. In this example, region code validation ensures that when you want to report or view all sales orders by the region code, you will get all the records.

If you created your database using the Default database, some of the codes tables will contain entries to help you get started.



**NOTE:**

*Code setup should proceed in a logical sequence; therefore, the following sections are presented in logical order, rather than in the order they appear on the Codes menu.*

Access system codes tables from the Alliance/MFG File menu. For each code type, you can select New to open a blank data entry form, or select All to open a list of any existing codes. Additional menu queries available on submenus depend on the code you select. For example, the submenu queries for Commodity Codes are New, All, and By Buyer Planner; while the submenu queries for Department/Stockroom Codes are New, All, and By Account Number.

## **Creating and Editing Codes**

With a few exceptions, creating codes is a simple matter of entering a code or meaningful abbreviation for the code, along with a description. Once the codes are defined, they will be available for general use within the system. For example, Currency Codes, once defined, will be selectable via hyperlink on the customer, supplier, part cross reference, sales order and purchase order data entry forms.

### **To add a new code:**

1. Select File>Codes and from the submenu, the code type you want to create, then select New. A blank data entry form opens.
2. Enter a code and description for the new record.
3. Enter any additional information in the fields, depending on the code selected, then do one of the following:
4. Click OK, Add, Save, or Close as needed.

### **To edit an existing code:**

1. Select File>Codes, the code type you wish to edit, then select All.
2. The data view list opens for the code type selected, for example, if you select Region Codes, the Region Codes View opens.
3. From the view list, select the code you wish to edit and click Edit to open the data entry form. The code will display in the key field at the top of the form. You can edit the description and any other available information.

**NOTE:**

*You cannot edit a key field on a data entry form. Therefore, if the code is incorrect, you must delete the code from the codes list, then re-enter it in its corrected form.*

When you are satisfied with your edits, do one of the following:

- Click Save to save your changes and leave the form open.
- Click Add to add another code.
- Click OK to save your changes and return to the data view.
- Click Close to exit the form without saving your changes.

If you don't wish to save your edits, and you have not yet applied your changes, you can click the Refresh button on the toolbar to restore the original entries.

The following sections describe how each code type applies throughout the system; the other tables the code is related to in the system; and what information to supply in the fields when creating a code.

## System Codes

The following codes apply generally throughout the system. Unit of Measure and Discount codes are system codes but are presented separately and in more detail at the end of this section.

## Class Codes

The Class code table is currently for use with the Alliance/MFG QuickBooks accounting link. See your QuickBooks User Guide for details.

## Commodity Codes

Commodity codes are assigned to part numbers, assigning a commodity code helps categorize the inventory into buying and planning groups. Commodity codes may also be assigned to buyers and planners, they can be queried and are displayed on the MRP Action Parts screens and reports. For example, you may stock several different sizes of screws, nuts and bolts and though each one would have a separate part number, you may find it useful to categorize them also with a broad commodity code such as “hardware” or “HDW.”

The screenshot shows a 'Commodity Code Update' dialog box. The title bar is blue and contains a gear icon, the text 'Commodity Code Update', and standard window control buttons (minimize, maximize, close). The main area is light beige and contains three input fields. The first field is labeled 'Commodity Code' and contains the text 'HDW'. The second field is labeled 'Description' and contains the text 'Hardware, nuts, bolts and screws'. The third field is labeled 'Buyer/Planner' and contains the text '90-KEM' followed by the name 'Marenko, Katya E'. At the bottom right of the dialog are two buttons: 'OK' and 'Close'.

### To add a commodity code:

1. Enter a code and description for the new commodity.
2. Enter the Buyer Planner’s Employee ID. (To associate the Commodity Code with a Buyer/Planner, the employee must be set up as a Buyer in the Employee Functions box in the Employee’s record. See Company, Employees.)
3. Click OK, Close, or Save as required to complete the record.

### Viewing Commodity Codes

The records displayed in the Commodity Codes View depend on the query you select. In the following example, we selected “All.” From here you can add, edit, or delete a code; drill down or via the sidebar, access related data; preview or print a report.

Commodity Code	Description	Last Name	Employee ID
1	F/G	Finished Goods	Tierney
2	HDW	Hardware, nuts, bolts and screws	Marenko
3	MFG	Manufactured Parts	Tierney
4	NON	Non-Inventory	Marenko
5	PUR	Purchased Parts	Dorovsky
6	SPD	Sub-Contracted Parts	Marenko
7	SUB	Sub-Assembly	Tierney

### Currency Codes

If your company trades internationally, currency codes define exchange rates for each country you do business in. All exchanges will be compared to the base currency defined in your Company Preferences form.

If you specify a currency code in their respective records, exchange rates will print on the Sales Orders and Purchase Orders generated for customers and suppliers. (The codes and rates can also be edited in the Sales Order or Purchase Order data entry forms.)

Currency Code	AU
Currency Symbol	
Exchange Rate	1.29
Description	Australian Dollars
EMU Member?	<input type="checkbox"/>
Rate to one Euro	0

#### To add a currency code:

1. Enter a code and description for the Currency code.
2. Enter the appropriate Exchange Rate. This field is required and must be greater than zero.
3. Select EMU Member? If this currency is used by a member of the European Monetary Union. This flag will tell the system to calculate VAT accordingly (apply triangulation, or not).
4. Enter a Rate to one Euro if you are an EMU member. This will define the applicable conversion rate.

## Viewing Currency Codes

The records displayed in the Currency Codes View depend on the query you select. In the following example, we selected "All."



Currency Code	Rate to Base	Description	EMU Member	EURO Rate	Symbol
1 AU	1.29	Australian Dollars	<input type="checkbox"/>	0	
2 CA	1.4	Canadian Dollars	<input type="checkbox"/>	0	
3 DG	1.94	Dutch Guilders	<input type="checkbox"/>	0	
4 FF	5.8	French Francs	<input type="checkbox"/>	0	
5 GM	1.73	German Marks	<input type="checkbox"/>	0	
6 GR	271.41	Greek Drachma	<input type="checkbox"/>	0	
7 HK	7.75	Hong Kong Dollars	<input type="checkbox"/>	0	
8 JY	125.83	Japanese Yen	<input type="checkbox"/>	0	
9 MX	7.89	Mexican Pesos	<input type="checkbox"/>	0	
10 NZ	1.46	New Zealand Dollars	<input type="checkbox"/>	0	
11 SF	1.47	Swiss Francs	<input type="checkbox"/>	0	
12 TW	27.6	Taiwan Dollars	<input type="checkbox"/>	0	
13 UK	0.62	Great Britain Pounds	<input type="checkbox"/>	0	
14 US	1	US Dollars	<input type="checkbox"/>	0	

From here you can add, edit, or delete a code, or via the sidebar you may drill down or access related data, preview or print a report.

### NOTE:

*The system will display all costs in your default currency; however, Sales Order and Purchase Order printouts will show units in the currency code entered for the customer or supplier for that order.*

## Department/Stockroom Codes

Departments are functional areas of your company, such as Purchasing, Engineering or Assembly (WIP). Alliance/MFG also uses departments to refer to accounting activities. Departments and stockrooms can have default account numbers assigned.

You must provide at least one "Department" and one "Stockroom" to represent an area that you will move stock/inventory into, out of, or through. You can create any number of Department and stockroom codes to meet your requirements.

If you are using an Alliance Accounting Link, the account numbers you set up in Alliance/MFG Department Codes must match account numbers in your accounting package.

## Typical Manufacturing Department and Stockroom Codes

**Purchasing** - Reference an accounts payable account

**Subcontract WIP** - Reference an inventory account

**Work in Process** - Reference an inventory account

**Stockroom** - Reference an inventory account (see stockroom flags below)

**To add a Department/Stockroom Code:**

The body of the Department Code data entry form contains two tabs: Department/Stockrooms and Location. Departments and stockrooms use the same data entry form, however, stockrooms require additional information such as Location and three (3) Inventory Flags. After you enter a code, tab down and enter the information in the tabs as described in the following sections.

**Department/Stockroom Tab**

The screenshot shows a Windows-style dialog box titled "Department/Stockroom Codes". At the top, there is a text field for "Dept./Stockroom Code" containing the value "PENS". Below this, there are two tabs: "Department/Stockroom" (which is selected) and "Locations". Under the "Department/Stockroom" tab, there are several fields and checkboxes: "Description" with the value "Finished Goods - Pens", "Account Number" with the value "1310", "Inventory Flag" with a checked box and the text "(This Department maintains inventory)", "Nettable Flag" with a checked box and the text "(Inventory is available to MRP)", and "Quarantine?" with an unchecked box. At the bottom right of the dialog, there are "OK" and "Close" buttons.

1. In the Department/Stockroom tab, enter a description for the department or stockroom.
2. Enter an Account Number. If you use an Alliance Accounting Link, this account must match the corresponding account in the Chart of Accounts of your accounting package.
3. Select the Inventory Flag box if this is a stockroom and it will maintain inventory.
4. Select the **Nettable** The designation given to a stockroom to indicate that the parts within are part of available inventory and are to be used by MRP in its calculations. Flag box if the inventory is to be considered in MRP calculations. If Engineering has a stockroom with inventory specifically for design and/or prototypes, that is not available for manufacturing to use, don't check this box.
5. Select the Quarantine box if the inventory is to be considered in MRP calculations but is not yet available for kitting and shipping. Use this check box for Incoming Inspection, burn-in, quarantine, etc.

NOTE:

*All stockrooms must have at least one location assigned.*

**Locations Tab**

You can have as many locations as you need per stockroom. The body of the tab displays any locations already defined.



Dept./Stockroom Code: PENS

Department/Stockroom: Locations

	Location Code	Description
1	100	Default
2	200	Special

Buttons: Add, Edit, Delete, OK, Close

**To add a new location:**

In the Location tab, click Add to open a blank Stock Locations form.

Stockroom Code: INSP Incoming Inspection

Inventory Account?: Yes

Nettable?: Yes

Account Number: 1330

Location Code: QUAR

Description: Quarantine

Close

1. The Stockroom Code, Inventory Flag, Nettable Flag and Account Number display at the top of the form.
2. Enter the new location code.
3. Enter a description for the new location.
4. Click Close. The new location is added to the list in the body of the Locations tab, and will now be available for selection when you receive or kit parts.
5. Click OK, Close, or Save as required.

### Viewing Department Codes and Locations

The records displayed in the Department Codes View depend on the query you select. Codes are displayed along with a description, G/L account, and inventory, nettable and quarantine flags.

Department Code	Description	Account Number	Nettable ?	Inventory Account ?	Quarantine?
1	ASSY Pen Assembly - Work In Process	1800	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	COGS Cost of Goods Sold	5000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	ENG Engineering	8000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	EST Non Inventory - Estimate	7010	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	FG-2 Finished Goods - Special	1310	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	INSP Incoming Inspection	1330	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7	MFG Manufacturing	4000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	MKT Sales/Marketing	7000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	NON-1 Non Inventory	7020	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10	PENS Finished Goods - Pens	1310	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11	PROTO Engineering Prototype Stockroom	1600	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12	PURCH Purchasing - Accounts Payable	3000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	PVAR Physical Inventory Variances	6000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	RAW Raw Materials/Purchased Parts	1330	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15	SA-1 Sub-Assemblies	1300	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16	SA-2 Sub-Assemblies Subcontract	1330	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17	SUBCON Sub Contractor - Work In Process	1850	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	SUBS Sub-Assemblies Work In Process	1850	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

From here, you can add, edit, or delete records; or via the sidebar you can access related data, preview or print reports; and, because department codes are related to every transaction in the system, you can drill down to nearly every function.

### ECN Class Codes

When engineering changes are introduced, you can use a class code to advise users of the scope of the change. Once the codes are created, they can be accessed via hyperlink when employees create ECNs using the Engineering Change Notice feature.

#### ECN Class codes might include:

- CL1 - Class 1 - Stop All Shipments/Production
- CL2 - Class 2 - Stop All Production
- CL3 - Class 3 - Phase-in Changes
- REL - Product Release for Manufacturing

#### To add a new ECN Code:

ECN Class Codes

ECN Class Code: PRO

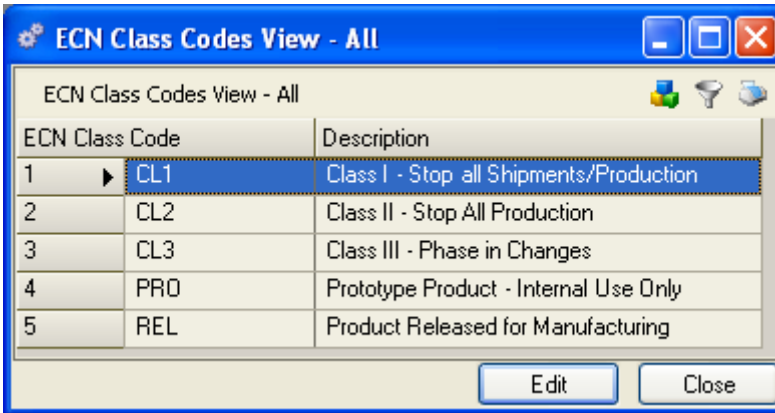
Description:  Prototype Product - Internal Use Only

OK Close

1. Enter an ECN Class Code and description.
2. Click OK, Close, or Save as required.

**Viewing ECN Class Codes**

The records displayed in the ECN Class Codes View depend on the query you select.

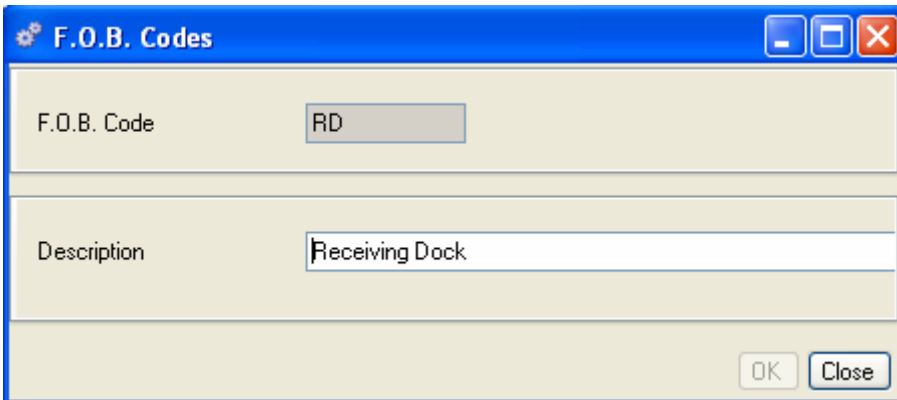


From here you can add, edit, or delete a record; or via the sidebar drill down or access related data; preview or print a report.

**FOB Codes**

Free On Board or Freight On Board (FOB) Codes assign responsibility and ownership during product delivery. For example, if the FOB point for a particular sales order is “shipping dock,” the goods are your company’s responsibility up until the order ships from your dock. At that point, ownership of the goods passes to the buyer. If the FOB for the sales order is “receiving dock,” your company is responsible for the goods until they are received by your customer.

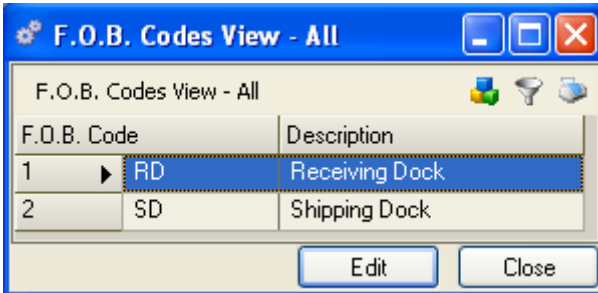
**To add an FOB code:**



1. Enter a Code and description for the FOB Code
2. Click OK, Close, or Save as required.

### Viewing FOB Codes

The records displayed in the F.O.B. Codes View depend on the query you select.



From here you can add, edit, or delete a record; or via the sidebar drill down or access related data; preview or print a report.

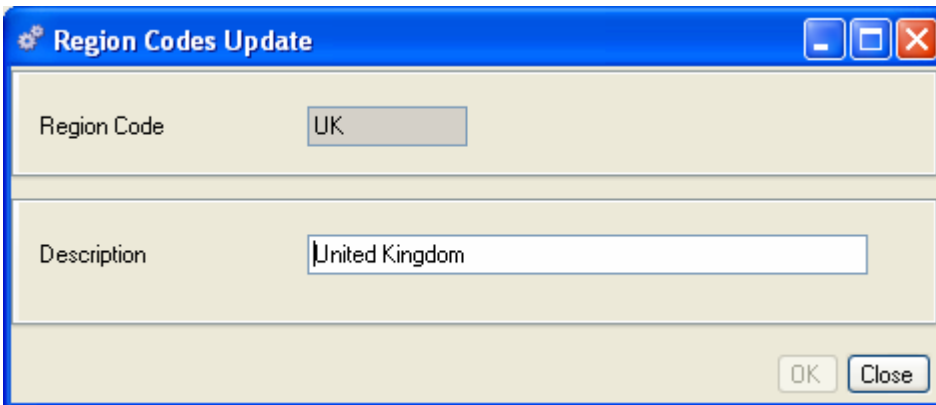
### Region/Country Codes

Enter Region/Country Codes to define geographical or other regions you would like to apply to your customers and suppliers. You may use this feature to group your sales orders by region and view sales volume by geographical areas.

If your business requires Intrastat Reporting, you can define Intrastat tax codes and rates. Region codes are used in conjunction with ICN codes, defined later in this section.

Once your region codes are created, they will be accessible via hyperlink from Customers, Suppliers, Sales Order, and Purchase Order data entry forms.

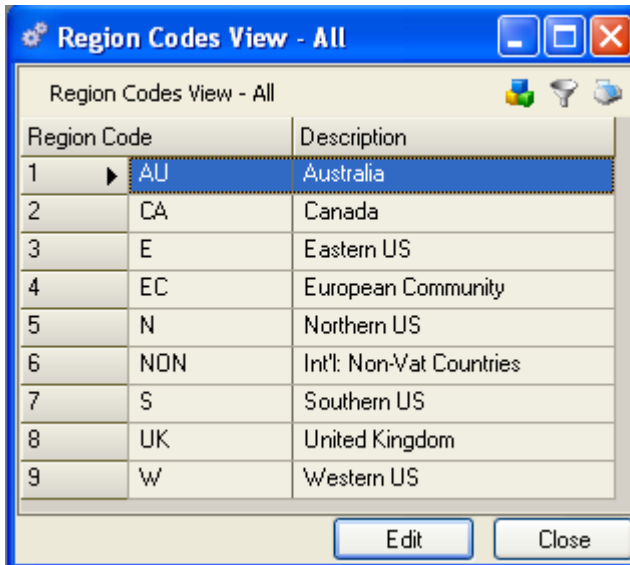
#### To add a Region/Country code:



1. Enter a Region Code.
2. Enter a description.
3. Click OK, Close, or Save as required.

## Viewing Region/Country Codes

The records displayed in the Region Codes View depend on the query you select.



From here you can add, edit, or delete a record; or via the sidebar drill down or access related data; preview or print a report.

## Tax Codes/Rates

You can create tax codes and rates that can be applied to any taxable items. Once you create the codes and associated rates, they will be accessible via hyperlink from the Sales Order and Purchase Order Detail Line Items forms, Intrastat Rates, and Customer and Supplier Address data entry forms.

### To add a Tax Code/Rate:

The screenshot shows a window titled "Tax Codes/Rates" with the following fields and values:

- Tax Code: CA
- Tax Rate: 7.25
- Liability Account: 7480.00
- Description: CA Sales Tax (Non-SB County)

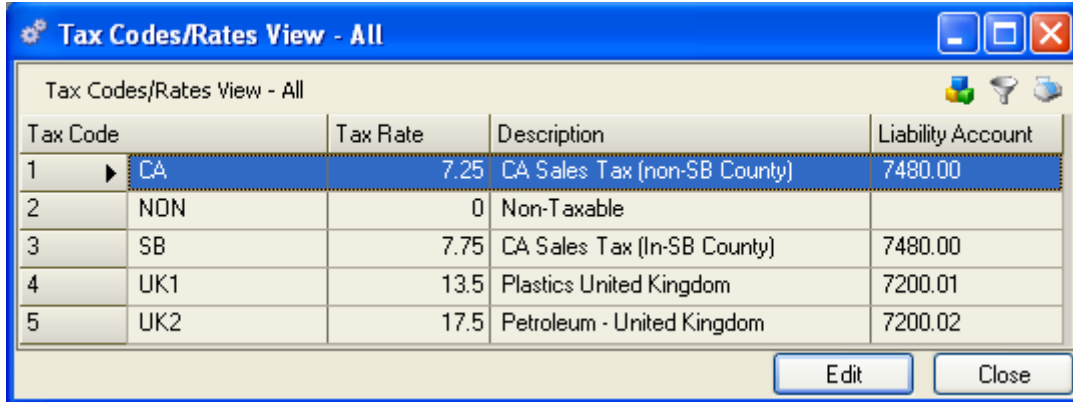
At the bottom right are "OK" and "Close" buttons.

1. Enter a Tax Code.
2. Enter the Tax Rate.

3. Enter a Liability Account number. This corresponds to your general ledger for sales tax payable.
4. Enter a description for the tax code.

### Viewing Tax Code/Rates

The records displayed in the Tax Code/Rates View depend on the query you select.



Tax Code	Tax Rate	Description	Liability Account
1 CA	7.25	CA Sales Tax (non-SB County)	7480.00
2 NON	0	Non-Taxable	
3 SB	7.75	CA Sales Tax (In-SB County)	7480.00
4 UK1	13.5	Plastics United Kingdom	7200.01
5 UK2	17.5	Petroleum - United Kingdom	7200.02

From here you can add, edit, or delete a record; or via the sidebar drill down or access related data; preview or print a report.

### ICN (Intrastat) Codes

If you do business within the European Union, you can assign ICN codes to help you track value-added tax payments and receipts for international customers. ICN codes and Region codes work together to compute tax codes and rates for Intrastat reporting. (Region codes are described later in this section.)

After you create ICN codes and Region codes, you assign tax codes and rates to them in the Intrastat Rates table.

*TIP:*

*You can set up this table from the Intrastat codes data entry form as you enter ICN codes, or create all ICN and Region Codes, then select Intrastat Rates from the Codes submenu and apply tax codes and rates all at once.*

ICN codes are assigned by commodity type to part numbers in the Part Maintenance function.

Once the ICN codes are created and rates assigned, they will be accessible by hyperlink from the Inventory tab on the Part Master. (For more information about setting up Intrastat Reporting, see the Inventory Control section.)

**To add a new ICN Code:**

1. Enter an ICN Code and Description
2. Click OK, Close, or Save as required.

**Viewing ICN Codes**

The records displayed in the ICN Codes View depend on the query you select.

ICN Code	Description
1	Exmpt
2	Std
3	Zero

From here you can add, edit, or delete a record; or via the sidebar drill down or access related data; preview or print a report.

**Intrastat Rates**

After you create Intrastat codes and Region codes (see Region codes later in this section), you assign tax codes and rates to them in the Intrastat Rates table.

**To define a tax code and rate for an ICN Code:**

Select Codes>Intrastat Rates to open the Intrastat Rates data entry form.

**Intrastat Rates**

ICN Code: Std Standard Rate

Region Code: UK United Kingdom

Tax Code: UK1 13.50  
Plastics United Kingdom

OK Close

1. Enter an ICN Code.
2. Enter the Region Code that the rate will apply to.
3. Enter the Tax code to apply to the rate.

### Operation Codes

Operation codes identify individual labor or machine operations performed on the shop floor. When accessed in the Labor Distribution feature, the operation code helps you track individual operations on a work order, including the actual time worked on a specific operation and the quantity completed. Operations codes are linked to work centers and displayed on Labor Routers and Work in Process detail.

#### To add an Operation Code:

**Operation Codes**

Operation Code: 100-0001

Description: Connect Upper Tube to Lower Tube

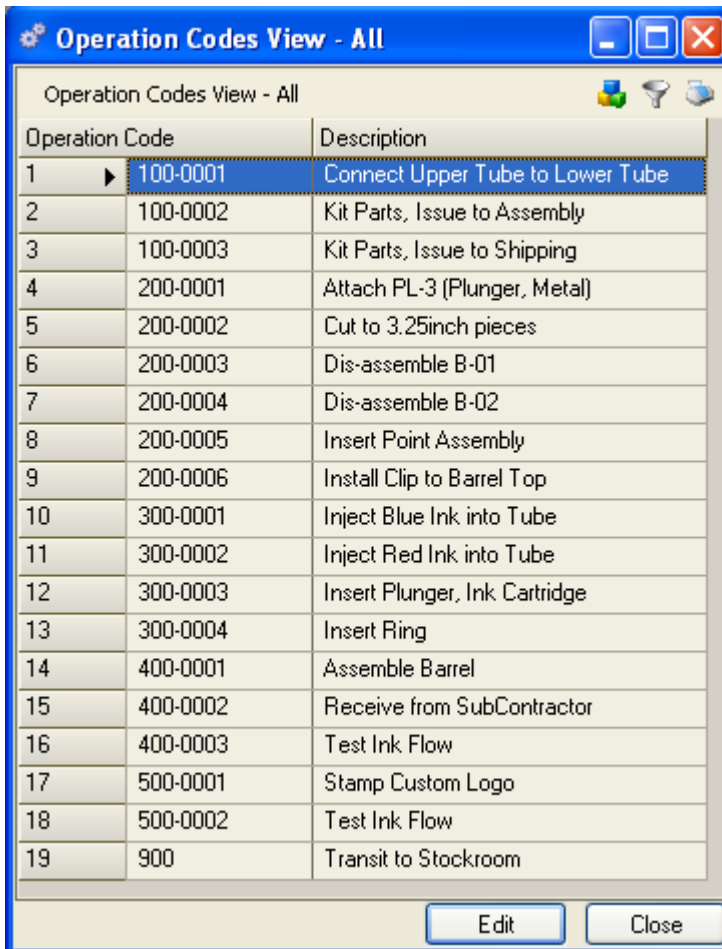
OK Close

1. Enter an Operations Code and Description.
2. Click OK, Close, or Save as required.

### Viewing Operation Codes

The records displayed in the Operations Code View depend on the query selected. In the following example, we selected "All."





Operation Code	Description
1	100-0001 Connect Upper Tube to Lower Tube
2	100-0002 Kit Parts, Issue to Assembly
3	100-0003 Kit Parts, Issue to Shipping
4	200-0001 Attach PL-3 (Plunger, Metal)
5	200-0002 Cut to 3.25inch pieces
6	200-0003 Dis-assemble B-01
7	200-0004 Dis-assemble B-02
8	200-0005 Insert Point Assembly
9	200-0006 Install Clip to Barrel Top
10	300-0001 Inject Blue Ink into Tube
11	300-0002 Inject Red Ink into Tube
12	300-0003 Insert Plunger, Ink Cartridge
13	300-0004 Insert Ring
14	400-0001 Assemble Barrel
15	400-0002 Receive from SubContractor
16	400-0003 Test Ink Flow
17	500-0001 Stamp Custom Logo
18	500-0002 Test Ink Flow
19	900 Transit to Stockroom

From here you can add, edit, or delete a record; or via the sidebar drill down or access related data; preview or print a report.

### Product Revenue Class

You can create product revenue classes to assign revenue and expense accounts to individual part numbers. When you assign a product revenue class to a part number, the revenue and expense accounts override the default COGS and department number on the sales order. If you use an Accounting Link, this information will be passed through the Link to your accounting package.

**To add a Product Revenue Class:**

The screenshot shows a dialog box titled "Product Class Codes". It has a blue header bar with a gear icon on the left and standard window control buttons (minimize, maximize, close) on the right. The main area is a light beige color with several input fields. The first field is "Product Class Code" with the value "BPP100". Below it are "Revenue Account" (4010), "Expense Account" (5010), and "Description" (100 Series). At the bottom right, there are "OK" and "Close" buttons.

1. Enter the new Product Revenue Class.
2. Enter the Revenue and Expense account numbers.
3. Enter a description for the Product Revenue Class.

Once your product revenue codes are created, they will be accessible via hyperlink from the Part Master data entry form.

**Viewing Product Revenue Class Codes**

The records displayed in the Product Revenue Classes View depend on the query you select.

The screenshot shows a window titled "Product Revenue Classes View - All". It has a blue header bar with a gear icon on the left and window control buttons on the right. Below the header is a table with the following data:

Product Class	Revenue Account	Expense Account	Description
1 BPP100	4010	5010	100 Series
2 BPP200	4020	5020	200 Series
3 GOLD	4030	5030	Gold Series
4 MISC	4000	5000	Parts and Other Sales

At the bottom right of the window, there are "Edit" and "Close" buttons.

From here you can add, edit, or delete a record; or via the sidebar drill down or access related data; preview or print a report.

**Ship Via Codes**

You can enter Ship Via Codes to define shipping methods frequently used by your company, such as UPS, FEDEX, and so on. Once these codes are defined, they are accessible via hyperlink from Customers, Suppliers, Sales Order, and Purchase Order data entry forms.

**To add a Ship Via Code:**

Ship Via Codes

Ship Via Code: UP2

Description: UPS Blue - 2nd Day

OK Close

1. Enter a Ship Via Code and description.
2. Click OK, Close, or Save as required.

**Viewing Ship Via Codes**

Ship Via Codes View - All

Ship Via Code	Description
1	1ST First Class US Postal Svc
2	3RD Third Class US Postal Svc
3	4TH 4th Class Freight US Postal Svc
4	BA Best Way Air
5	BW Best Way Surface
6	FX Fed-X Overnight
7	FXP Fed-X Priority
8	UP1 UPS Red - Next Day
9	UP2 UPS Blue - 2nd Day
10	UPS Ground

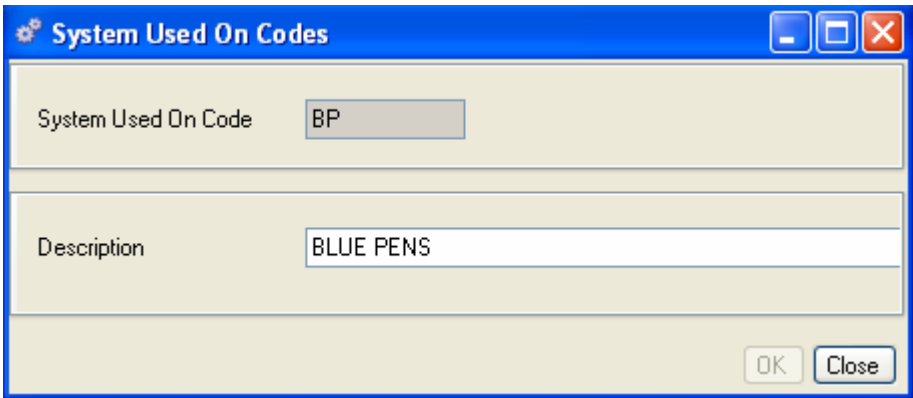
Edit Close

From here you can add, edit, or delete a record; or via the sidebar drill down or access related data; preview or print a report.

**System Used On Codes**

You can apply codes to components or assemblies to associate them with product lines. For example, in the sample Pen Database, the component “red ink” may be used in only one product—a red pen—while several different products may use a “spring.” You may want to give the red ink a code to identify its family, while the spring might be coded as mixed use. This code simply provides one more way to analyze inventory. Once your System Used On codes are created, they will be accessible by hyperlink from the Part Maintenance View.

To add a System Used On code:



System Used On Codes

System Used On Code: BP

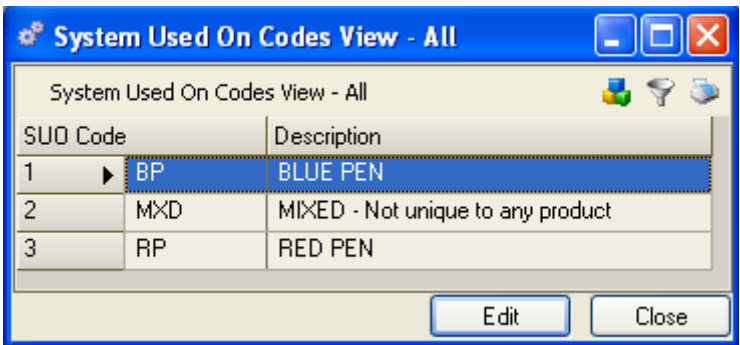
Description: BLUE PENS

OK Close

1. Enter a System Used On Code and Description.
2. Click OK, Close, or Save as required.

### Viewing System Used On Codes

The records displayed in the System Used On Codes View depend on the query you select.



System Used On Codes View - All

SUD Code	Description
1	BP BLUE PEN
2	MXD MIXED - Not unique to any product
3	RP RED PEN

Edit Close

From here you can add, edit, or delete a record; or via the sidebar drill down or access related data; preview or print a report.

### Terms Codes

You can define payment terms codes that will print on sales orders, invoices, or on purchase orders. Once you create the codes and descriptions, they will be accessible via hyperlink from the Customer sales order, Supplier, and purchase order forms.

**To add a Terms code:**

1. Enter a terms code for each payment type you will use.
2. Enter a description for the terms code.

**Viewing Terms Codes**

The records displayed in the Terms Code View depend on the query you select.

Terms Code	Description
1 210	2% in 10 Days, Net 30
2 COD	Cash On Delivery
3 N30	Net Amt Due in 30 Days
4 N45	Net Amt Due in 45 Days
5 PPD	Prepaid

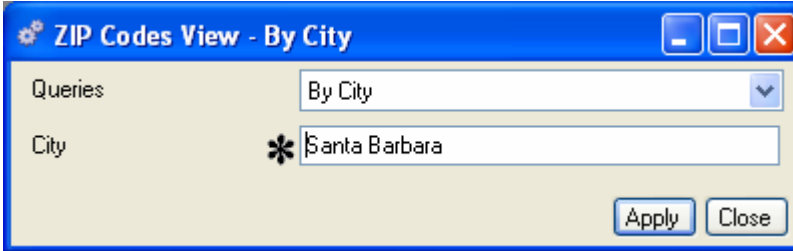
From here you can add, edit, or delete a record; or via the sidebar drill down or access related data; preview or print a report.

**ZIP Codes**

If you set up your system using the Default database, the ZIP Codes table will be populated with current United States ZIP codes. These are accessible from all address windows in the system. You may need to enter a new ZIP code from time to time; however, it is more likely that you would use this feature as a lookup table.

**To look up a Zip Code:**

Select File>Codes>ZIP Codes.



1. Choose by City or by State and enter the city or state name in the dialog box.
2. Click Save. The ZIP Codes View list displays only the ZIP codes for the city or state entered.

City	State	Zip Code	County	Area Code	Time from GMT	DST
1 Santa Barbara	CA	93101	SANTA BARBARA	805	4	<input checked="" type="checkbox"/>
2 Santa Barbara	CA	93102	SANTA BARBARA	805	4	<input type="checkbox"/>
3 Santa Barbara	CA	93103	SANTA BARBARA	805	4	<input type="checkbox"/>
4 Santa Barbara	CA	93105	SANTA BARBARA	805	4	<input type="checkbox"/>
5 Santa Barbara	CA	93106	SANTA BARBARA	805	4	<input type="checkbox"/>
6 Santa Barbara	CA	93107	SANTA BARBARA	805	4	<input type="checkbox"/>
7 Santa Barbara	CA	93108	SANTA BARBARA	805	4	<input type="checkbox"/>
8 Santa Barbara	CA	93109	SANTA BARBARA	805	4	<input type="checkbox"/>
9 Santa Barbara	CA	93110	SANTA BARBARA	805	4	<input type="checkbox"/>
10 Santa Barbara	CA	93111	SANTA BARBARA	805	4	<input type="checkbox"/>
11 Santa Barbara	CA	93120	SANTA BARBARA	805	4	<input type="checkbox"/>
12 Santa Barbara	CA	93121	SANTA BARBARA	805	4	<input type="checkbox"/>
13 Santa Barbara	CA	93130	SANTA BARBARA	805	4	<input type="checkbox"/>
14 Santa Barbara	CA	93140	SANTA BARBARA	805	4	<input type="checkbox"/>
15 Santa Barbara	CA	93150	SANTA BARBARA	805	4	<input type="checkbox"/>
16 Santa Barbara	CA	93160	SANTA BARBARA	805	4	<input type="checkbox"/>
17 Santa Barbara	CA	93190	SANTA BARBARA	805	4	<input type="checkbox"/>

**To enter a new Zip Code:**

Select File>Codes>ZIP Codes>New (or select Edit>Add New from the Zip Codes View list) to open a blank ZIP Codes form.

The screenshot shows a 'ZIP Codes' dialog box with the following fields and values:

Zip Code	93190
City	Santa Barbara
State	CA
County	SANTA BARBARA
Area Code	805
Time from GMT	4
DST	<input type="checkbox"/>

Additional labels: Time from Greenwich Mean Time, Daylight Savings Time. Buttons: OK, Close.

1. Enter the new ZIP code in the key field at the top of the form.
2. Enter the City, State, County, and (Phone) Area Code.
3. Time from GMT and DST information are optional.

## Customer Discount Codes

Alliance/MFG offers both customer and product discount setup options. The following sections describe how to set up the codes that govern discounts and how they are applied in the system.

### Customer Discount Types

Alliance/MFG gives you flexible customer discount options by offering three discount types:

**None** - Customer always gets list price, no discount applied (User can still edit the customers price)

**Discount %** - Flat Percent Discount applied on all orders

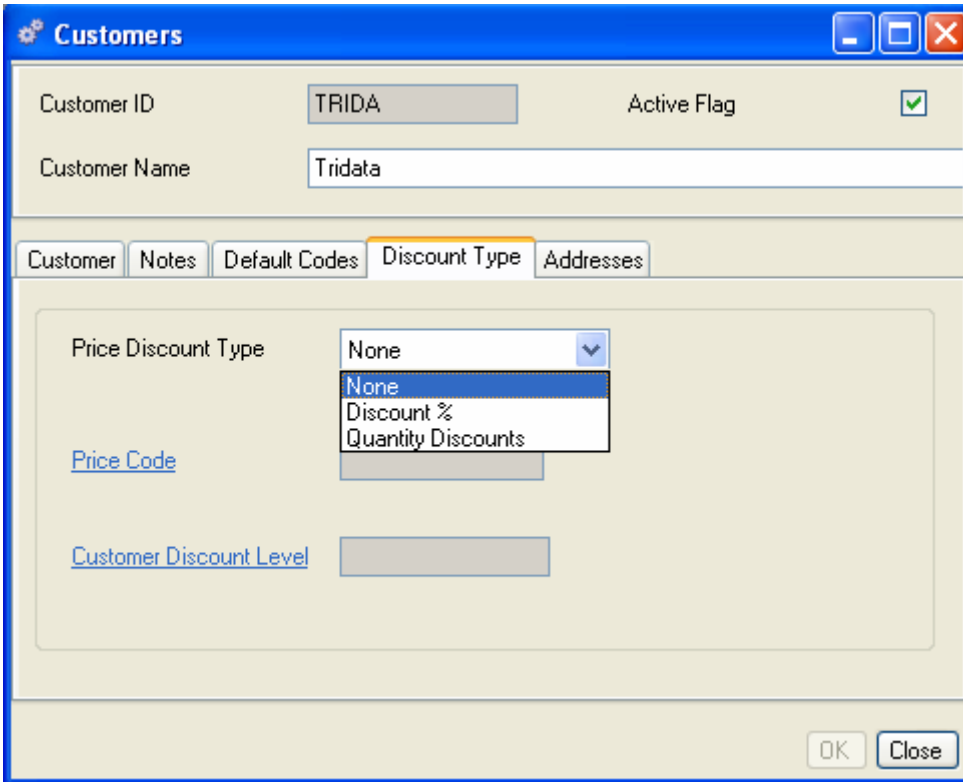
**Quantity Discount** - A combination of Product Discounts, Customer Discount Levels, and quantity ordered

After you set up the discount codes and structures described in the following sections, these options will be accessible from the Customers data entry forms. Each customer can be assigned a unique pricing type on the basis of either a Discount %, (flat percent rate) or the Quantity Discount (quantities and products) they buy. When customer orders are entered, the discount type and description will be displayed on the Sales Order, and the Sales Order Detail will calculate the actual discount applied to that particular line item based on this type.

The following sections describe how to setup each customer discount type.

### None (No Discount)

No discount code needs to be set up to apply this type to a customer. Simply select None as the Discount Type on the Customers Discount Type Tab data entry form.



The customer will get the list price no matter what quantity or parts they purchase. Authorized users can still override the List Price when necessary.

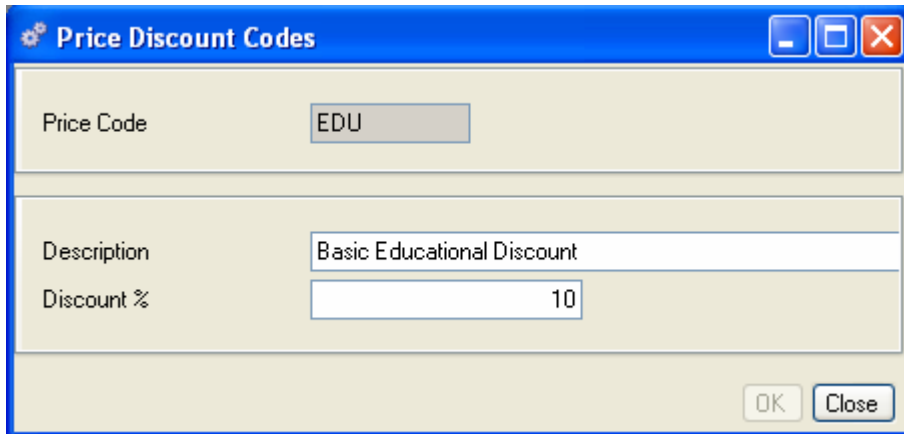
**Discount %**

Price Discount Codes are used to assign a flat discount percentage to this specific customer type (Discount Percent). In the example below, the customer with a Price Discount Code of EDU would get a straight 10% discount no matter what parts or how many they buy.

**To Set up Customers for Discount %**

**Step 1** - Set up your Price Discount Codes

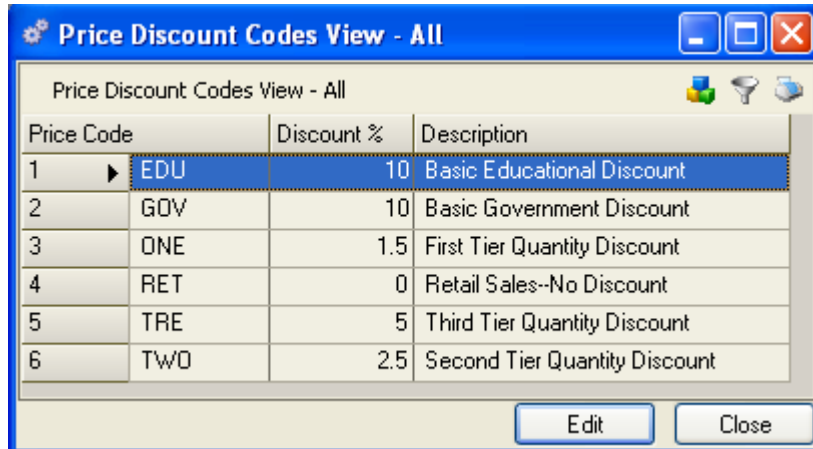
**To add a new Price Discount Percent Code:**





1. Enter a Price code and description for the code.
2. Enter the Discount % for the code.
3. Click Save, OK, or Close, as required.

Once you set up the code, you can select it from the Price Discount Codes View.



From here you can add, edit, or delete a record; or via the sidebar drill down or access related data; preview or print a report.

You can enter as many Price Discount Codes (price types) as you need. These codes will then be accessible from the Customers Discount Type Tab data entry form.

**Step 2 - Set up the Customer's Discount Type**

When you enter the customer record, select Discount % as the Discount Type. The sales order entry function will automatically look up the Discount % for the Customer's Price Code, and apply the appropriate percentage discount each time you enter an order.

The screenshot shows a software window titled "Customers". At the top, there are standard window controls (minimize, maximize, close). Below the title bar, there are two rows of fields: "Customer ID" with the value "MCLAR" and "Active Flag" with a checked checkbox. The second row contains "Customer Name" with the value "McLaren Distributors". Below this is a tabbed interface with five tabs: "Customer", "Notes", "Default Codes", "Discount Type" (which is selected and highlighted in orange), and "Addresses". The "Discount Type" tab contains a "Price Discount Type" dropdown menu set to "Discount %". Below that is a "Price Code" field with the value "EDU" and the text "Basic Educational Discount" underneath it. At the bottom of this section is a "Customer Discount Level" field. At the very bottom of the window are "OK" and "Close" buttons.

### Quantity Discount

This Customer Discount Type is based on a combination of the Customer Level and Product Type. You can define discount levels for each type of customer you do business with. For example, give a reseller or a distributor different pricing than your standard retail customers. Once you set up Customer Discount Level codes, you can use them in combination with Product Discount codes to create Price Break Structures on the basis of quantity ordered.

When you enter a sales order for a customer that has been assigned Quantity Discount as the Discount Type, the system will automatically look up the product type for the part they purchased, and then apply the appropriate percentage discount based on the quantity they purchased. (See Demand, Customers for more information on assigning Discount Levels.)

**Customers**

Customer ID: BLUES      Active Flag:

Customer Name: Blue Star Supply

Customer   Notes   Default Codes   **Discount Type**   Addresses

Price Discount Type: Quantity Discounts

Price Code:

Customer Discount Level: DISTR  
Distributors w/Agreements

OK   Close

### To set up a customer for Quantity Discounts

Quantity Discounts are applied to customer sales orders depending on the **Customer Discount Level** assigned to the customer and the **Product Discount Code** for the parts they purchase.

#### Step 1 - Set up the Customer Discount Level Codes

##### To add a Customer Discount Level code:

**Customer Discount Level**

Customer Discount Level: DISTR

Discount Level   Price Break Structures

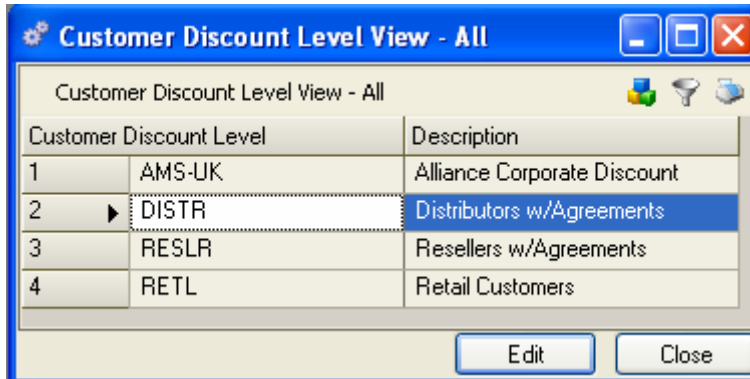
Description: Distributors w/Agreements

OK   Close

1. Enter a Customer Discount Level code, for example, RETAIL for retail customers, or DISTR for distributors.

2. In the Discount Level tab, enter a Description for the code; for example, Volume Distributor. You can enter as many discount level (customer types) as you need. These levels will be accessible from the Customers data entry form
3. After all your Customer Discount Levels and Product Discount Levels (described in the following section) are added, you can use the Price Break Structures tab to assign values to discount level and product combinations.

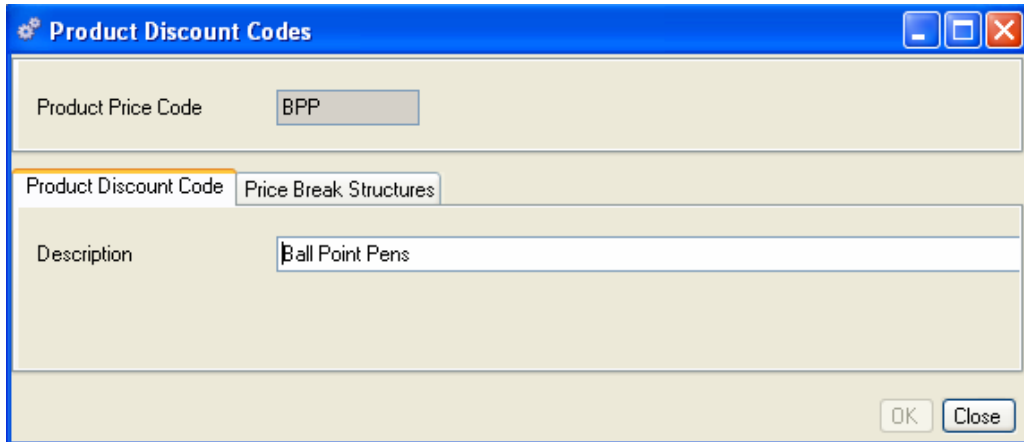
Once you set up a code, you can select it from the Customer Discount Level View.



From here you can add, edit, or delete a record; or via the sidebar drill down or access related data; preview or print a report.

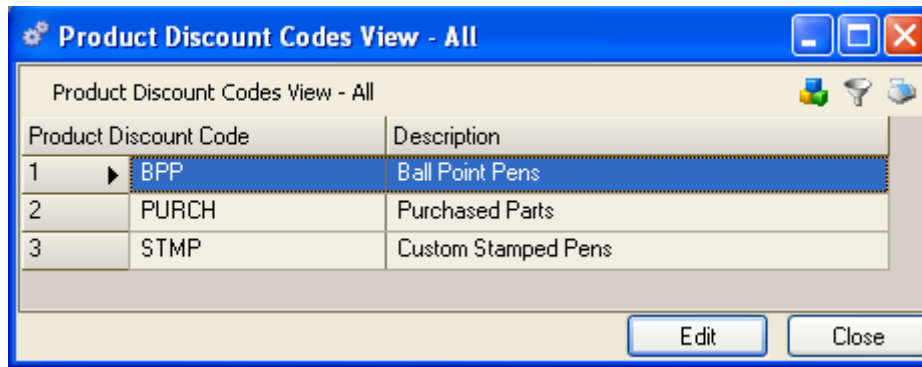
**Step 2 - Set up the Product Discount Codes**

**To add a Product Discount Code:**



1. Enter a code for the Product Price code.
2. In the Product Discount Code tab, enter a Description for the code.
3. When you are finished, click OK to save your settings and exit the form.

The new code will be displayed in the Product Discount codes view.



From here you can add, edit, or delete a record; or via the sidebar drill down or access related data; preview or print a report.

**Step 3 - Set up a Price Break Structure**

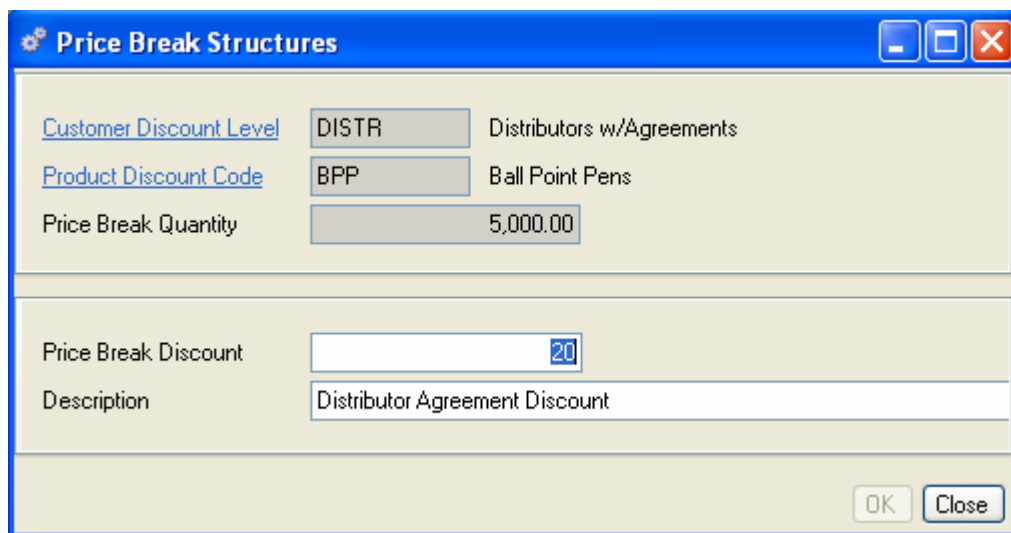
**To create a Price Break Structure:**

After you have set up Customer Discount Levels and Product Discount Codes, you can create a Price Break Structure to associate a discount with a customer, a part, and a quantity purchased.

**To add a Price Break Structure:**

Select File>Codes>Price Break Structures>New. A blank data entry form is displayed

1. Enter or select Customer Discount Level for this Price Break Structure
2. Enter or select Product Discount Code for this Price Break Structure
3. Enter a Price Break Quantity
4. Enter the discount for this customer level, product code and quantity purchased
5. Enter a Description for the discount if desired
6. When you are finished, Click OK, Close, or Save as required



In the following Price Break Structure View, a customer assigned the **DISTR** Discount Level purchasing parts assigned Product Discount Code of **BPP** gets a 10% discount for quantities of 500 up to 999 and a 12% discount for purchasing quantities of 1000 up to 4999.

The screenshot shows a window titled "Price Break Structures View - All" with a table containing 13 rows of data. The columns are: Discount Level, Product Type, Quantity, Discount %, and Description. The table lists various discount levels like AMS-UK, DISTR, RESLR, and RETL, along with their corresponding product types and discount percentages.

Discount Level	Product Type	Quantity	Discount %	Description
1	AMS-UK	BPP	1.00	60 Corporate Discount
2	AMS-UK	PURCH	1.00	60 Corporate Discount
3	AMS-UK	STMP	1.00	60 Corporate Discount
4	DISTR	BPP	500.00	10 Distributor Agreement Discount
5	DISTR	BPP	1,000.00	12 Distributor Agreement Discount
6	DISTR	BPP	5,000.00	20 Distributor Agreement Discount
7	DISTR	STMP	1,000.00	10 Custom Stamped Pens Discount
8	RESLR	BPP	250.00	6 Reseller Program Discount
9	RESLR	BPP	500.00	8 Reseller Program Discount
10	RESLR	BPP	1,000.00	10 Reseller Program Discount
11	RETL	BPP	250.00	5 Quantity Break 1
12	RETL	BPP	500.00	6.5 Quantity Break 2
13	RETL	BPP	1,000.00	8 Quantity Break 3

Once you create a Price Break Structure, you can access it from the Codes menu, and from the Customer Level and Product Discount Types Codes data entry forms.

### Unit of Measure Conversions

You must define a stocking UOM for each part on the Part Master. Inventory transactions into and out of stockrooms will be converted to the stocking UOM. Once UOM codes are defined, you can access them from various data entry forms in the system; the conversion units displayed depend on what form you open. For example, the Part Master always displays inventory costs in the stocking unit of measure, while a Purchase Order form may display in the Purchase unit of measure, if different from stocking units of measure.

### Base Units

Unit of measure conversions are calculated from and to five base units of measure. The five base codes are first set up in the Unit of Measure codes table and then selected as the Base Code in the Company Preferences window. (See Company Preferences, in this section, for more information.) The five base UOM codes are unit, length, weight, volume, and area.

UOM Code	Description	Type Desc	UOM Conversion	Base UOM	
1	BX	Box	Unit	100	<input type="checkbox"/>
2	DZ	Dozen	Unit	12	<input type="checkbox"/>
3	EA	Each	Unit	1	<input checked="" type="checkbox"/>
4	FO	Fluid Ounce (Volum...	Volume	1	<input checked="" type="checkbox"/>
5	FT	Foot	Length	12	<input type="checkbox"/>
6	GL	Gallon	Volume	128	<input type="checkbox"/>
7	GR	Gross	Unit	144	<input type="checkbox"/>
8	IN	Inch	Length	1	<input checked="" type="checkbox"/>
9	LB	Pound	Weight	16	<input type="checkbox"/>
10	OZ	Ounce (Weight)	Weight	1	<input checked="" type="checkbox"/>
11	PK	Package	Unit	1000	<input type="checkbox"/>
12	PR	Pair	Unit	2	<input type="checkbox"/>
13	RL	500' Roll	Length	6000	<input type="checkbox"/>
14	SQIN	Square Inch	Area	1	<input checked="" type="checkbox"/>
15	YD	Yard	Length	36	<input type="checkbox"/>

The far right column indicates “True” with a check mark if this code is a Base Unit of Measure.

### Unit of Measure Codes

You can buy, build, and ship/sell a part in your stocking UOM, or define alternate UOM's as needed. If you create alternate UOM's, however, you must define a conversion rate back to stocking units. For example, if you purchase springs by the gross; but stock and issue by the unit each; a purchase order placed for a quantity of one (1) gross will show 144 each when received into stock. You would define a UOM conversion rate to inform the system as to the number of EACH units are in 1 GROSS.

**Converting Between Like UOM Types** - If the conversion is between UOM's of the same type (both are lengths, both are weights, and so on) the conversion is performed by the UOM codes table.

**Converting Between Different UOM Types** - If the conversion is between UOM's of different types, for example, you purchase a material by the “pound” but stock it by the “EA,” for use in production, you must create a Density Code and then assign this density code in the Part Master record for that part. This conversion will be done by the Density Codes table. (See Density Code, in the following section.)

All Unit of Measure codes created for the system are displayed from the Unit of Measure Codes View list. Each entry defines how many Base units are associated for each UOM Code. If you used the Default database to set up your system, the five base units of measure will already be defined. You can enter additional definitions as required.

**To enter a new Unit of Measure Code:**

The screenshot shows a dialog box titled "UOM Codes". It has a blue title bar with a gear icon on the left and minimize, maximize, and close buttons on the right. The main area is light beige and contains the following fields:

- UOM Code:** A text box containing "EA" and a label "<BASE UOM>" to its right.
- Description:** A text box containing "Each".
- Conversion Factor:** A text box containing "1" and a label "EA" to its right.
- UOM Type:** A dropdown menu with "Unit" selected.
- Is Base Unit:** A checkbox that is checked.

At the bottom right of the dialog are two buttons: "OK" and "Close".

1. Select File>Codes>Unit of Measures Codes>New (or click Edit>New Record from the Unit of Measure Codes View list) to open a blank Unit of Measure Codes form.
2. Enter a new UOM Code in the key field at the top of the form.
3. Enter a description for the code.
4. Enter a Conversion Factor from the Base Unit for the code.
5. Select a UOM type from the drop-down list.
6. Check the box if this is a Base Unit.
7. Click OK, Close, or Save as appropriate.

**Density Codes**

MRP considers stock on hand and on order to recommend POs and WOs as needed. This is a simple task when you purchase and use materials that can be calculated in like measures, such as feet-to-inches or pounds to ounces. (Like calculations are based on entries in your Units of Measure table.) If, however, you purchase material by the “pound” but use it in production by the “each,” you must supply MRP a basis for conversion between different base measures.

If product manufacturing requires conversion between different measure types, you can use a density code to perform the conversion.

For example, you may purchase small screws by the pound, but stock them by the each for use on assemblies according to your bill of materials. If each pound contains a thousand screws, a representative unit for one screw would be .001. If your base unit of measure is “EA,” then you would create a density code to compute: .001 = EA.



**To add a Density code:**

1. Enter a Density code.
2. Enter the appropriate conversion per unit.
3. Enter a description for the code.

**Viewing Density Codes**

The records displayed in the Density Codes View depend on the query you select.

Density Code	Description	Density Length Conversion	Density Weight Conversion	Density Volume Conversion
1	1/4 Screws 1/4" Screws per pound	1	0.001	1
2	RING1 RING Type 1, 1200EA per Pound	1	0.0008334	1
3	TUBE Pre-Cut Tubing	3.25	1	1

From here you can add, edit, or delete a record; or via the sidebar drill down or access related data; preview or print a report.

**NOTE:**

*You must enter your base UOM codes before you can enter UOM conversion ratios in the UOM codes table. Remember: Changing your base UOM will alter the conversion ratio of all UOM's of the same type.*

**Using Unit of Measure and Density Codes**

Following are two UOM setup scenarios that will help you understand how to use this feature. Remember: for conversion of same types (length-to-length), use UOM. For conversions of different types (weight-to-length), use Density.

**EXAMPLE 1:** You purchase screws by the pound, but stock them by the each. There are 100 screws per pound:

UOM Table - Setup pounds (weight) and each (unit), if needed.

Set 1 LB = 16 OZ.

Base UOM - Setup EA as your base unit, and OZ as your base weight.

Density Table - Create a new density called "SCREWS." Fill out the table as follows:

Each screw equals:

Weight: 0.16000 ounces (weight) \*

Sample math: 100 EA = 1 LB =16 OZ, solve for 1 EA (divide by 100):

$100/100 \text{ EA} = 1/100 \text{ LB} = 16/100 \text{ OZ}$

$1 \text{ EA} = .01 \text{ LB} = .16 \text{ OZ}$

\* Because the base unit for weight is ounce, you must convert pounds to ounces first.

After all tables are set up as shown, you can assign UOM values on the Part and Inventory masters as follows:

Part Master (ENG Tab - Enter EA as the UOM and SCREW as the density.

Part Master (Inventory Codes Tab) - Enter LB as the UOM Purchase.

**EXAMPLE 2:** You purchase carbon rods by the pound, but stock them by the inch. Each rod weighs 6 OZ and is 12 inches long:

UOM Table: Set up ounces (weight) and inches (length), if needed.

Base UOM: Set up OZ as your base weight, and IN as your base length.

Density Table: Create a new density called "RODS". Fill out the table as follows:

NOTE:

*Because you must fill in a length, weight, and volume for each density, you may consider using the number "1" for any unneeded values (as used in the following example). Multiplying or dividing by 1 will not change the value of the number.*

Each ROD equals:

Length: 12.00000 Inches

Weight: 6.00000 Ounces (Weight)

Volume: 1.00000 Fluid Ounces

Enter IN as the UOM on the Part Master Engineering tab, RODS as the density, and on the Part Master (Inventory Codes Tab) - Enter LB as the UOM Purchase.

## Variable or Catch Weights

If your products are stocked and sold/shipped in boxes, but each box could be a different weight and your products are priced by the weight of the box, you probably want to create and use a Catch Weight. A catch weight can be set up and maintained in the Part Master for each product you sell (See the Part Maintenance, Inventory Control Tab section for more information on assigning Catch Weights).

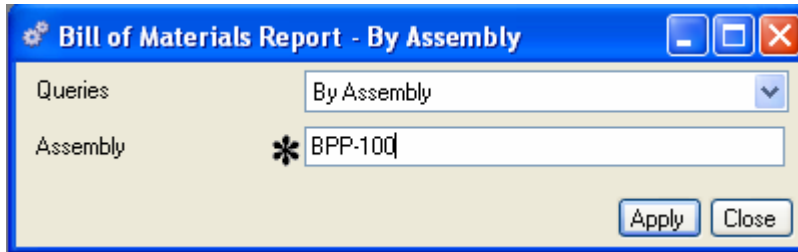
## Print

### Printing Reports in Alliance/MFG

Alliance/MFG provides a number of standard reports for each function, they are listed at the end of each section. Once you have queried and displayed an Alliance Report, the Print menu selection is enabled.

**To preview a Bill of Materials Report from the sample Pen Database:**

If you are not already in the Pen Database, login now. Select Products>Reports>Bill of Materials. The Bill of Materials Query dialog box opens.



1. Enter an assembly, for example, BPP-100.
2. Click Apply. The Report Preview window displays the report.
3. From here you can resize the report display, page through the report, export the report, search the report text, or apply an additional filter to the report.

**NOTE:**

*The dialog box opens with the default query setup by Alliance. To view additional queries or create a custom query, click on the drop down box.*

In the following example, the Bill of Materials report lists the Assembly, Description, Rev., number, and Stock UOM in the header. The body of the report lists each component by item number in the BOM, along with a description, Rev. Number, Qty Per, UOM, Obsolete and Effective dates and the ISC Code.

### **Bill of Materials**

<u>Assembly</u>		<u>Description</u>	<u>Rev</u>	<u>Stock UOM</u>				
BPP-100		Assembly, Ball Point Pen, Blue	B	EA				
Item	Component and Description	Rev	Qty Per	UOM	Obs. Date	Eff. Date	ISC	Order Quantity
10	B-01 Assembly, Barrel, Blue	A	1.00	EA			M	1.00
20	C-01 Assembly, Cartridge, Blue Ink	C	1.00	EA			S	5,000.00
30	PL-01 Assembly, Plunger	A	1.00	EA			P	1.00
40	S-01 Spring, Metal .875 Inch	A	1.00	EA			B	10,000.00

To print to the default printer click on the Print button on the bottom of the window. To change printers click on File>Print to display the printer dialog box. Click on Close to exit.

For more information about using Alliance/MFG standard reports, See the Alliance/MFG Technical Reference.



# Setting Up Your Products



## Products Menu Functions

This section describes how to enter part information into your Part Master; how to create and maintain your Bill of Materials and product structures, and how to manage related documentation, engineering change notices, and part cross references. All of the parts you use to create your assemblies and components are maintained in the Part Master, accessed from the Products selection on the Alliance/MFG Main Menu.

## Part Master

The Part Master is a file of all your parts. Everything you need to know about every part in the system is entered and stored in the Part Master. Whether you are in engineering and design, planning and scheduling, sales, cost accounting, or just about any other company function, you will find information in the Part Master that you can use to efficiently perform your tasks.

Tasks described in this section assume familiarity with the basic use of Alliance/MFG data lists, data entry forms, dialog boxes, queries, and finding and sorting features. If you need more information about how to use these features, review the System Overview section.

### Creating New Part Information

This sections describes how to manually enter parts into your part master; however, several options are available to import existing part numbers into the system. See the Alliance/MFG Technical Reference additional data entry options.

#### Engineering Tab

You must define "*at a minimum*" a part number, description, and stocking unit of measure for each part. Alliance/MFG provides many additional fields that you can use to add detailed notes, revision numbers, weight, dimensions, special storage and shelf life and other optional information. One record is required for each unique part that you make, buy, sell, or stock; whether it is a component, a subassembly, or the finished product.

#### Adding new parts to the Part Master:

From the main menu, select Product>Part Master>New. A blank Part Master data entry form opens at the Engineering tab.

The screenshot shows the 'Part Master' application window with the 'Engineering' tab selected. The form contains the following fields and controls:

- Part Number:** A text input field with a red 'X' icon to its left.
- Revision:** A text input field.
- Description:** A text input field.
- Inactive:** A checkbox.
- Navigation Tabs:** 'Engineering' (selected), 'Notes', 'MRP Planning', 'Inventory Codes', 'Part Costs', and 'Statistics'.
- Stock UOM:** A text input field with a red 'X' icon to its left.
- Density Code:** A text input field.
- Weight:** A text input field.
- Dimension:** A text input field.
- Special Storage:** A checkbox.
- Shelf Life:** A text input field containing the value '0.00'.
- User Defined 1:** A text input field.
- User Defined 2:** A text input field.
- Graphic Path:** A text input field.
- Show Graphic:** A button next to the 'Graphic Path' field.
- Buttons:** 'OK' and 'Close' buttons at the bottom right.

1. Enter a unique Part Number, according to your numbering conventions.
2. Enter a Revision indicator, if needed.
3. Enter a Description for the part.
4. If this part is for engineering purposes only at this time, check the Inactive box.
5. Enter a weight for one stocking unit of this part, if needed.
6. Enter the Dimensions for one stocking unit of this part, if needed.
7. Select Special Storage, if required.
8. Enter the Shelf Life in days, if required.
9. In the User Defined fields, you can enter up to ten digits of your choice. You can use these fields in custom queries and reports.
10. Enter the path to any graphic you have stored in the system for this part. If you know the path, type it in; or click the Graphic Path hyperlink to browse for the path. You can then click Show Graphic to display the image.
11. When you have finished adding a part or block of parts, do one of the following:
  - Click Save to save your settings and leave the form open.
  - Click Add to open another blank Part Master data entry form.
  - Click OK to save your entries and exit the form.
  - Click Close to exit the form without saving.

*TIP:*

**ENTER MINIMAL INFORMATION UNTIL YOUR CONFIGURATION IS LOCKED DOWN**

*Your engineering department might go through a number of iterations before designs are validated and parts are approved. It makes sense to enter just the "bare bones" until the design is locked down. As long as there are no invalid icons on the Part Master data entry form, you have entered the minimum amount of data to create a valid record. You can add MRP, Inventory, and Costing data later. The Inactive flag will prevent the part from appearing on queries for "All" parts, you must use the query button and select the "Obsolete Only" query.*

### Notes Tab

Click the Notes tab to add any additional information about the part. You can add unlimited text here, including text cut and pasted from other Windows programs or text files.

### MRP Planning, Inventory Codes, Part Costs and Statistics Tabs

Information used for MRP Planning, Inventory, Part Costs, and Statistics is not normally entered or used until the Bill of Materials and Product structures have been finalized.

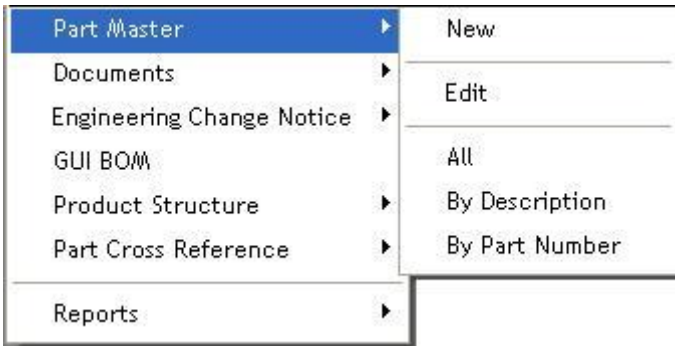
You'll find detailed information about entering information in these tabs in the Inventory Control>Part Maintenance section.

## Accessing Part Master data

After parts are added to the system, Alliance/MFG gives you a number of ways to access the data.

### From the Products Menu

The main menu is the first access level. From here you can go straight to a blank form to enter new parts, edit existing part records, or use predefined queries to locate specific records.



### From the Part Master View

Once parts are entered into the system, you can use the Part Master View to access all product related data in every other table in the system that contains a part. Just highlight a record in the view and click on the related record in the sidebar.





From here you can directly access all Part Cross References, ECN's, Documents, and Inventory Quantities for the selected part. If the part is a component, you can display all occurrences of this part in all assemblies (Where-Used View). If the part is an assembly or subassembly, you can display all of its components (Product Structure/BOM View).

After MRP, Inventory, and Costing data has been added to the Part Master record, you can access additional tables via the sidebar. (See the Inventory Control, Part Maintenance section for more information.)



## Documents

You can associate any number of documents to a part number. For example, you may have a schematic, design drawing, specification, manufacturers product information sheets—any number of documents related to parts in your system. Alliance/MFG gives you a place to organize this information, assign a Document ID, note the current location and revision numbers, and record effective dates. At a minimum, you must enter a Part Number and Document ID to create a valid record.

### Creating New document information

#### Documents Tab

Select Products>Documents>New to open a blank Part Documents data entry form.

1. Enter a part number. The Revision and Stock UOM will display for the part selected.
2. Enter a Document ID. This can be any combination of up to 15 characters.
3. Enter Optional information as required:
4. Click the Document Path hyperlink to define a document location.

You can open the document in its native program if the program is installed on your computer. Click Show Document to open the file.

**Description** - Enter a description of the document.

**Document Location** - Enter the document storage/retrieval location.

**Document Revision** - Enter a Document Revision number.

**Document Size** - Enter the drawing size, or create a size code that users can readily recognize.

**Job Number** - If the part is associated with a particular job, you can attach the job number to the document record. Enter the number or click the Job Number hyperlink to select one from the Job Number list.

**ECN Number** – Documents are often generated or revised as part of the ECN process. Enter the appropriate ECN number or click the ECN Number hyperlink to choose one for the ECN List.

**Effective and Obsolete Dates** – Use the calendar boxes to enter Effective and Obsolete dates for the document.

**Notes Tab**

Click the Notes tab to add any additional information about the part. You can add unlimited text here, including text cut and pasted from other Windows programs or text files.

When you are finished, do one of the following:

- Click Save to save your settings and leave the form open.
- Click Add to open another blank data entry form.
- Click OK to save your entries and exit the form.
- Click Close to exit the form without saving.

**To edit a Part Document record:**

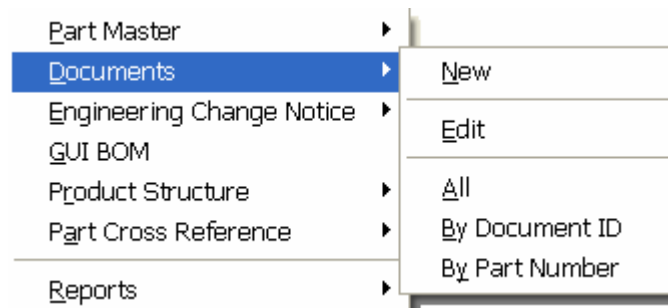
Select Products>Documents>Edit and enter the Document ID to open the Part Document data entry form for the document selected. Change the information in the fields as required, and click OK, Save, or Close as needed.

**Accessing Part Documentation Data**

Once you create part document records, Alliance/MFG gives you several ways to access the data.

**From the Products Menu**

The main menu is the first access level. From here you can go straight to a blank Documents data entry form to enter new document information, edit existing document information, or use a predefined **query** A function that can be customized to search for and extract records from a database to create a subset of records that match specific criteria. and wild cards to locate a specific record.



**From the Documents View**

The records displayed in the Part Documents View depend on the query you select.

Part Number	Document ID	Description	Rev	Location	Size	ECN Number	Effective Date	Obsolete Date
1	B-01	B-01A-S	Schematic B-01, rev A	A	Dr.1	A		
2	B-02	B-02A-S	Schematic B-02, rev A	A	Dr.1	A		
3	BP-1	BP-1A-S	Schematic BP-1, rev A	A	Dr.1	A		
4	BP-2	BP-2A-S	Schematic BP-2, rev A	A	Dr.1	A		
5	BP-3	BP-3A-S	Schematic BP-3, rev A	A	Dr.1	A		
6	BP-4	BP-4A-S	Schematic BP-4, rev A	A	Dr.2	A	ECN9701	3/1/2002
7	BP-4	BP-4B-S	Schematic BP-4, rev B	B	Dr.1	A	ECN9701	3/1/2002
8	BP-5	BP-5A-S	Schematic BP-5, rev A	A	Dr.1	A		
9	BP-6	BP-6A-S	Schematic BP-6, rev A	A	Dr.1	A		
10	BPP-100	BPP-100A-S	Schematic BPP-100, rev A	A	Dr.4	D	ECN9804	4/13/2003
11	BPP-100	BPP-100B-S	Schematic BPP-100, rev B	B	Dr.3	D	ECN9804	4/13/2003
12	BPP-200	BPP-200A-S	Schematic BPP-200, rev A	A	Dr.4	D	ECN9805	4/13/2003
13	BPP-200	BPP-200B-S	Schematic BPP-200, rev B	B	Dr.3	D	ECN9804	4/13/2003
14	C-01	C-01B-S	Schematic C-01, rev B	B	Dr.2	A	ECN9803	4/13/2003
15	C-01	C-01C-S	Schematic C-01, rev C	C	Dr.1	A	ECN9803	4/13/2003

From here you can add, edit, or delete a record; or via the sidebar you can drill down or access related data; preview or print a report.

## Engineering Change Notices (ECN)

Maintaining precise records of engineering process and design modifications is important to preserving the integrity of your parts database and the quality of your finished product. Because manufacturing involves constant flux—product designs are changed, suppliers discontinue lines or go out of business, components are refined, materials are substituted—a means of tracking these changes is an essential part of an efficient manufacturing system.

With the ECN feature, you can record the progress of parts through the normal design-to-manufacturing release, as well as track modifications to design specifications, assemblies, or components in your database. Additionally, you could identify parts in which defects have been discovered and stop production or shipments, or both.

### Creating New ECN information

Select Products>Engineering Change Notice>New (or Click Add>New Record) to open a blank Engineering Change Notice data entry form. Enter an ECN Number or Name.

#### ECN Tab

1. Enter an ECN Classification Code.
2. The ECN Date will default to “today.” You can use the calendar box to assign another date, if needed.
3. Enter the Employee ID for the ECN originator.

#### Notes Tab

1. Enter any notes related to the ECN. These will print on any reports generated for the ECN. Notes could include modification or rework instructions, release notes, or specifications.

#### ECN Parts Tab

The ECN Parts tab displays Parts defined in the ECN. From here you can add, edit, or delete ECN Part information.

1. Click Add to open the ECN Parts data entry form. The ECN number continues to display at the top of the form.

1. Enter the part number or click the hyperlink to select one from the Part Master View.
2. Enter a phrase describing the change or action required.
3. Add additional text describing the details of the change or background information.
4. Click OK. The new part is added to the body of the Engineering Change Notice form.
5. When you are finished, do one of the following:
  - Click Save to save your entries and leave the form open.
  - Click Add to open another new ECN Parts data entry form.
  - Click OK to save your entries and exit the Engineering Change Notice form.
  - Click Close to exit without saving.

**To edit an ECN Number**

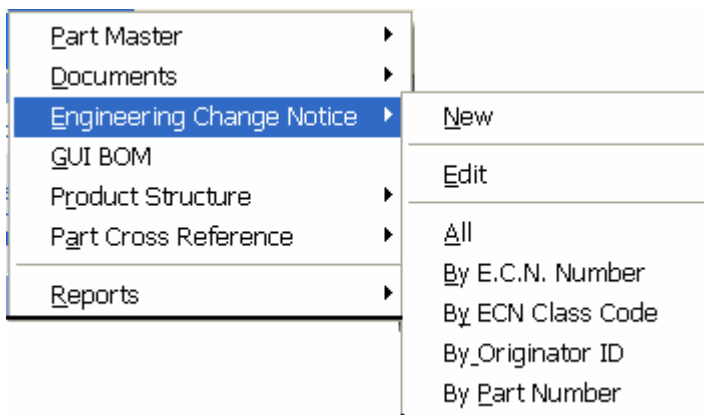
1. Select Products>Engineering Change Notice>Edit and enter an ECN number to open the ECN Notice data entry form for that record.
2. Edit the information in the fields as required, then click Save, OK, or Close as required.

**Accessing ECN Data**

Once you have enter ECN's records into the system, Alliance/MFG gives you a number of ways to access the data.

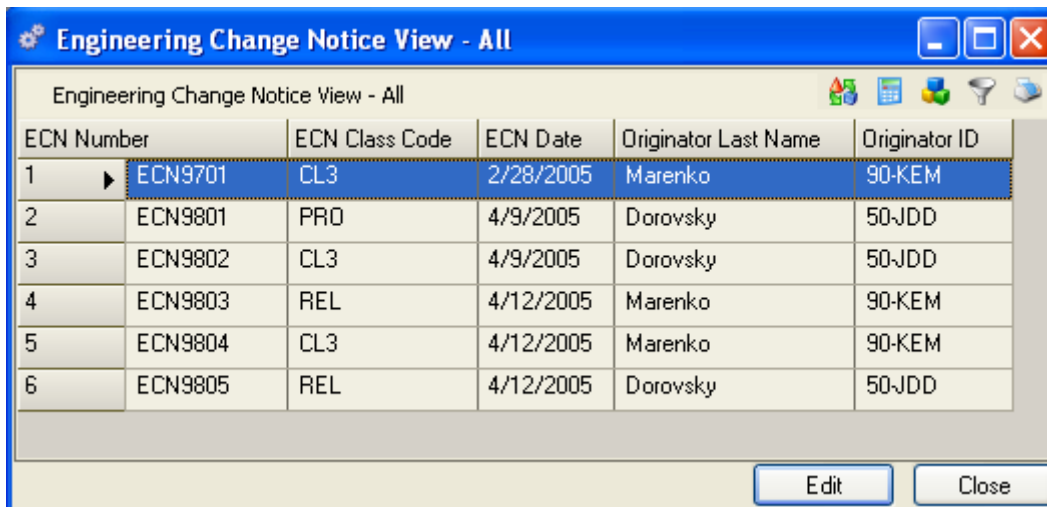
**From the Products Menu**

The main menu is the first access level. From here you can go straight to a blank Documents data entry form to enter new document information, edit existing document information, or use a predefined query and wild cards to locate a specific record.



**From the Engineering Change Notice View**

Records displayed in the Engineering Change Notice View depend on the query you select.



From here you can add, edit, or delete a record; or via the sidebar you can drill down or access related data; preview or print a report.

## GUI BOM

### Graphical User Interface

After you have entered all parts into the Part Master you can use them to create your product structures (Bills of Materials), that is, an assembly made up of components and/or subassemblies. You can select parts from the Part Master and assign them to an assembly using the Product Structure data entry form, or you can drag-and-drop parts into a graphical structure using the GUI BOM. Once you have created a product structure, you can view it either from the GUI BOM or the Product Structure View list. Each method is described in the following sections.

NOTE:

*The GUI BOM work area is a place to drag and drop parts from a part master list or view to create your Product Structures, rather than by manually entering the parts into a data entry screen to create your Product Structures.*

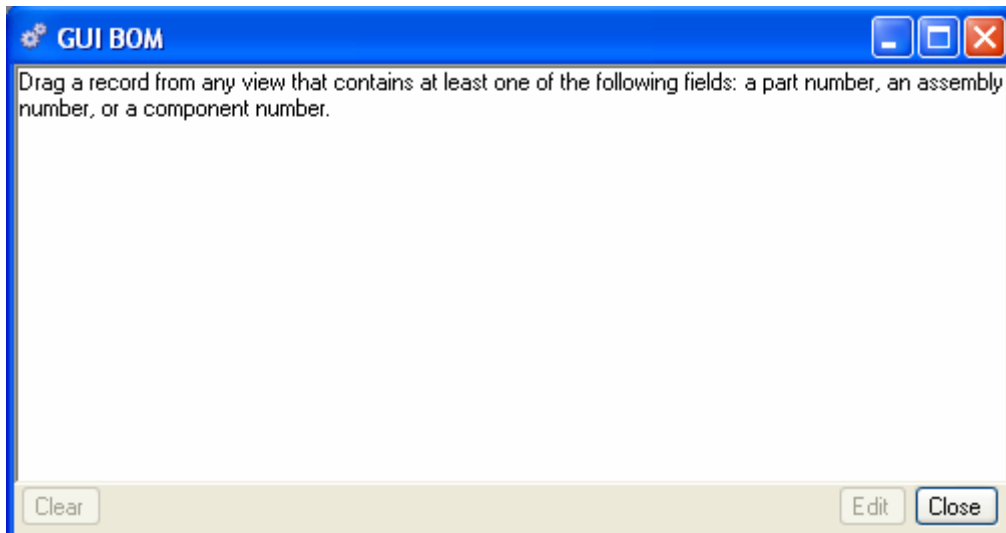
ALSO NOTE:

*A BOM is Bill of Materials, a Product Structure is a Bill of Materials, an assembly that has components is a Bill of Materials.*

### Creating a new Bill of Materials using the GUI BOM

The Graphical User Interface Bill of Materials (GUI BOM) is a single-paned window (work area) where you can view, create and modify a bill of materials. You can add parts to a structure, edit quantities, maintain effective or obsolete dates and other information. The work area is drag and drop.

Select Products>GUI BOM to open a blank GUI BOM work area window.



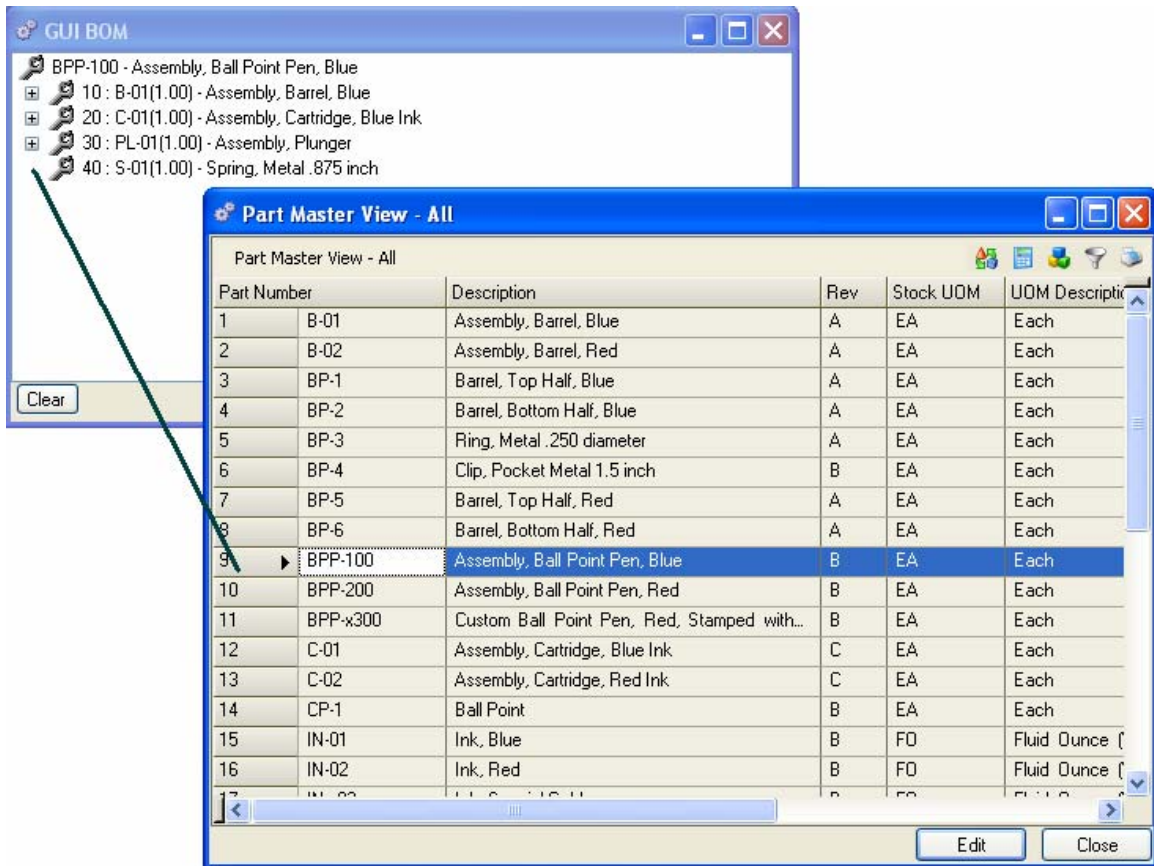
Select Products > Part Master, then select ALL, or use a query to narrow the parts list You may drag a part number to the GUI BOM work area from any view containing part numbers.



The screenshot shows a software window titled "Part Master View - All". It contains a table with the following data:

Part Number	Description	Rev	Stock UOM	UOM Description	Density Code
1	B-01 Assembly, Barrel, Blue	A	EA	Each	
2	B-02 Assembly, Barrel, Red	A	EA	Each	
3	BP-1 Barrel, Top Half, Blue	A	EA	Each	
4	BP-2 Barrel, Bottom Half, Blue	A	EA	Each	
5	BP-3 Ring, Metal .250 diameter	A	EA	Each	RING1
6	BP-4 Clip, Pocket Metal 1.5 inch	B	EA	Each	
7	BP-5 Barrel, Top Half, Red	A	EA	Each	
8	BP-6 Barrel, Bottom Half, Red	A	EA	Each	
9	BPP-100 Assembly, Ball Point Pen, Blue	B	EA	Each	
10	BPP-200 Assembly, Ball Point Pen, Red	B	EA	Each	
11	BPP-x300 Custom Ball Point Pen, Red, Stamped with...	B	EA	Each	
12	C-01 Assembly, Cartridge, Blue Ink	C	EA	Each	
13	C-02 Assembly, Cartridge, Red Ink	C	EA	Each	
14	CP-1 Ball Point	B	EA	Each	
15	IN-01 Ink, Blue	B	FO	Fluid Ounce (Volu...	
16	IN-02 Ink, Red	B	FO	Fluid Ounce (Volu...	
17	IN-x03 Ink, Special Gold	B	FO	Fluid Ounce (Volu...	
18	PL-01 Assembly, Plunger	A	EA	Each	
19	PL-1 Tube, Upper molded plastic, 1.750 inches lo...	B	EA	Each	
20	PL-2 Tube, Lower molded plastic, .375 inches long	B	EA	Each	

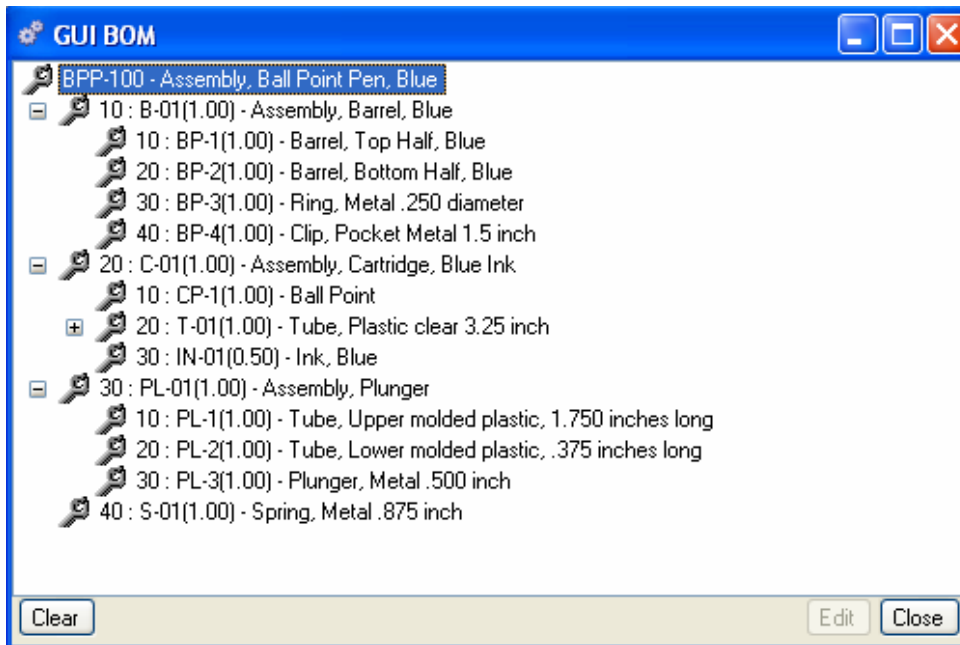
1. Highlight the part number you want to drag to the work area. The part can be an assembly or a component.
2. Using the mouse, drag the part number to the open work area. It will display at the top of the work area.



If the part is an assembly, its components will be displayed. A plus sign will indicate additional levels of subassemblies or components.

Click on the plus sign to expand the structure and display these elements.

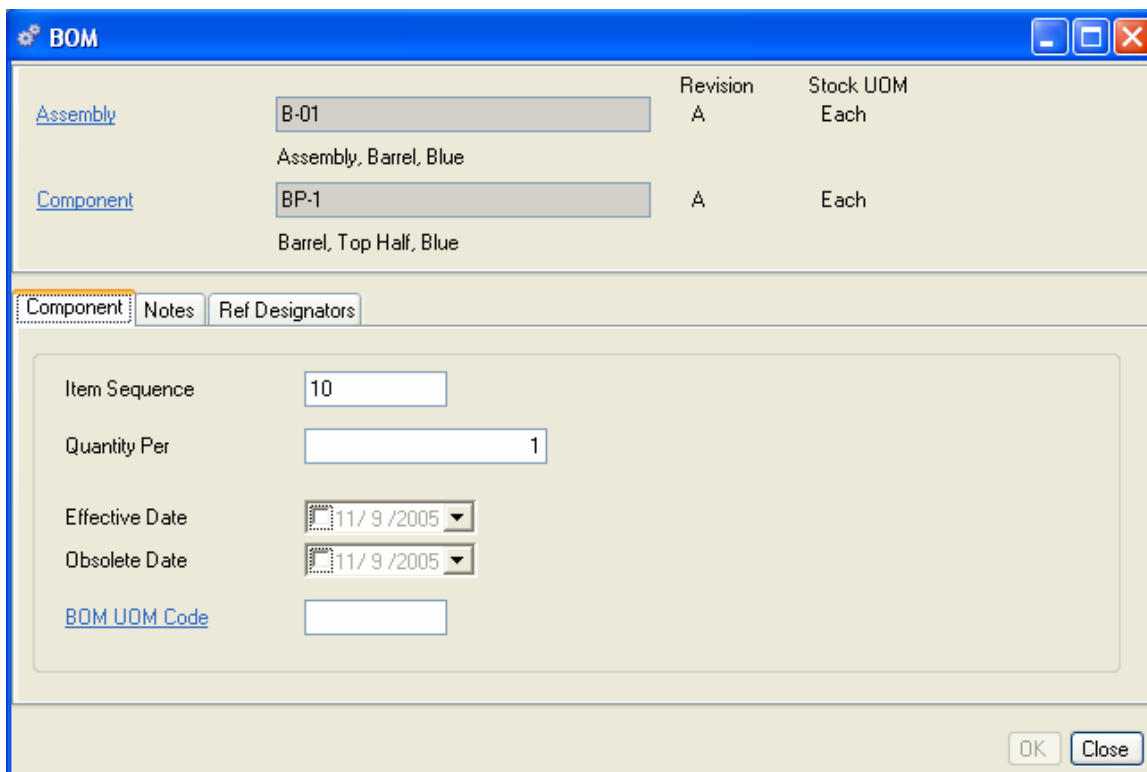
Click on the minus sign to collapse the structure.



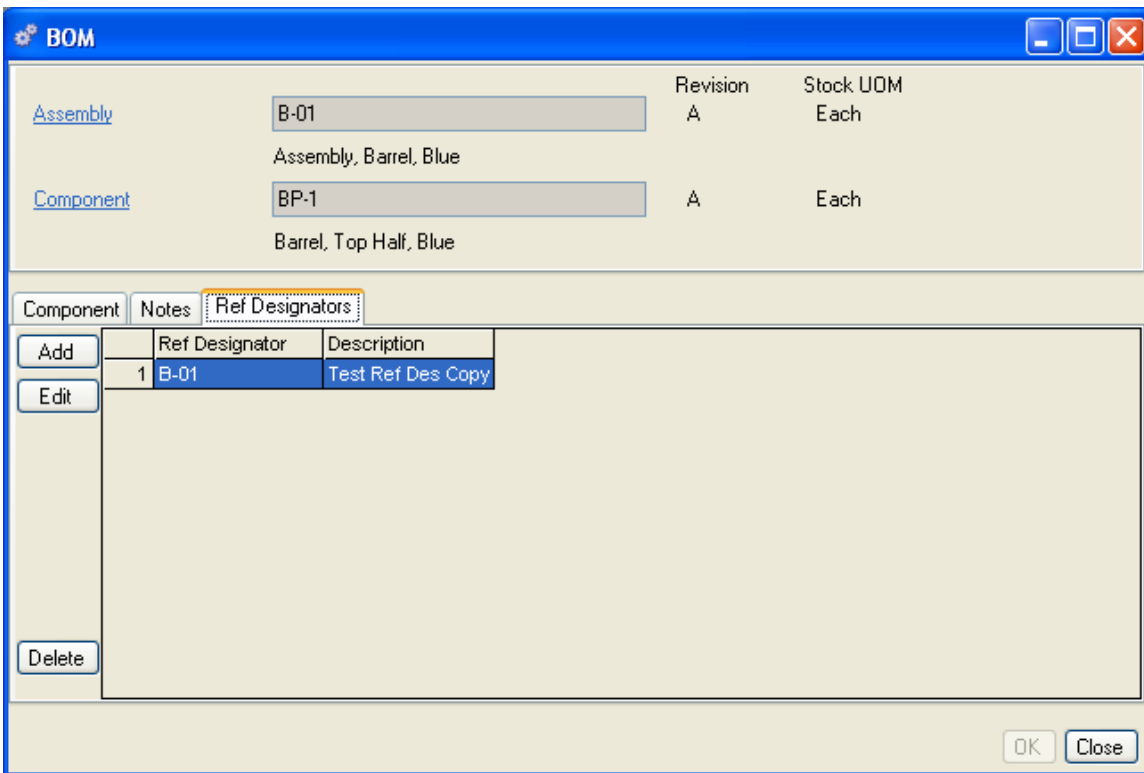
You can drag additional parts or subassemblies into the structure until you have the entire structure defined. Do not drag a part off of the work area, to remove a component, highlight the component in the product structure and click on the Delete Button.

**To Edit a Product Structure Record from the GUI BOM**

In the work area, highlight a component of an assembly and click on the Edit Button to open the BOM Edit window. All existing field values will be displayed in the Component Tab.



1. The assembly the part belongs to and the component part number display at the top of the window along with their revisions.
2. Enter/change the Item Sequence.
3. Enter/change the quantity (per) of this part needed to complete one assembly.
4. Enter/change the BOM UOM code, if different from the Stock UOM.
5. Enter/change the Effective Date (the date you want the system to begin planning for this part).
6. Enter an Obsolete if needed. (The date you want the system to discontinue planning for this part.)
7. Click on the Notes Tab to enter any notes you want associated with the part.
8. When you are satisfied with the structure you have created, click Save to save your structure.
9. Click on the Ref Designators Tab to enter any reference designators or notes you want associated with the component. This is normally used to identify like parts on a drawing or BOM when more than one (1) per is used on an assembly.



**CAUTION**

*If you add, modify or delete a component of an assembly, that change becomes permanent to the assembly and also applies wherever that assembly is used within all product structures.*

## Product Structure

After you have entered all parts into the Part Master you can use them to create your product structures (Bills of Materials), that is, an assembly made up of components and/or subassemblies. You can select parts from the Part Master and assign them to an assembly using the Product Structure data entry form, or you can drag-and-drop parts into a graphical structure using the GUI BOM. Once you have created a product structure, you can view it either from the GUI BOM or the Product Structure View list. Each method is described in the following sections.

*NOTE:*

*The GUI BOM work area is a place to drag and drop parts from a part master list or view to create your Product Structures, rather than by manually entering the parts into a data entry screen to create your Product Structures.*

*ALSO NOTE:*

*A BOM is Bill of Materials, a Product Structure is a Bill of Materials, an assembly that has components is a Bill of Materials.*

### Creating a New Bill of Materials Using the Product Structure

One approach to creating a product structure begins with the lowest level subassemblies and builds to the top level assembly. The following instructions use this model. If all part numbers for raw materials, subassemblies and assemblies have been entered in your Part Master, you are ready to begin.

#### **Define all sub-assemblies and components in the structure**

Select Products>Product Structure>New, to open a blank BOM data entry form. At a minimum, you must enter an Assembly, a Component and a Quantity Per to create a valid BOM record.

1. Enter the Assembly part number. The parts description will display below the part number.
2. Enter a component part number. The parts description will display below the part number field.

### Components Tab

1. Enter an item sequence number for this component. It is a good idea to enter component numbers that allow you some capability to add/insert additional items later. For example, use item numbers such as 10, 20, and 30 rather than 1, 2, and 3.
2. Enter the quantity of this component used in creating one of this assembly.
3. Enter the effective date to begin planning for this part in MRP (optional). MRP will plan immediately if this field is left blank.
4. If you are phasing in a new part with a different number, you can specify an obsolete date for the old part to exclude it from planning on a specific date.
5. Enter the BOM UOM Code for this part used in manufacturing this assembly if it differs from the parts stocking UOM. Enter a code or click the BOM UOM hyperlink to select one from the UOM Code table. If you leave this field blank, the stock UOM will be used.

#### NOTE:

*The system won't allow you to enter a duplicate part in a product structure, or use a subassembly within itself. If you enter a duplicate number by mistake, the green arrows will change to red icons and the error message "Record already exists" will display in the tool tip (to display tool tip error messages, hold the mouse cursor over the red icon).*

**Note Tab**

Enter unlimited notes relevant to this part in this assembly.

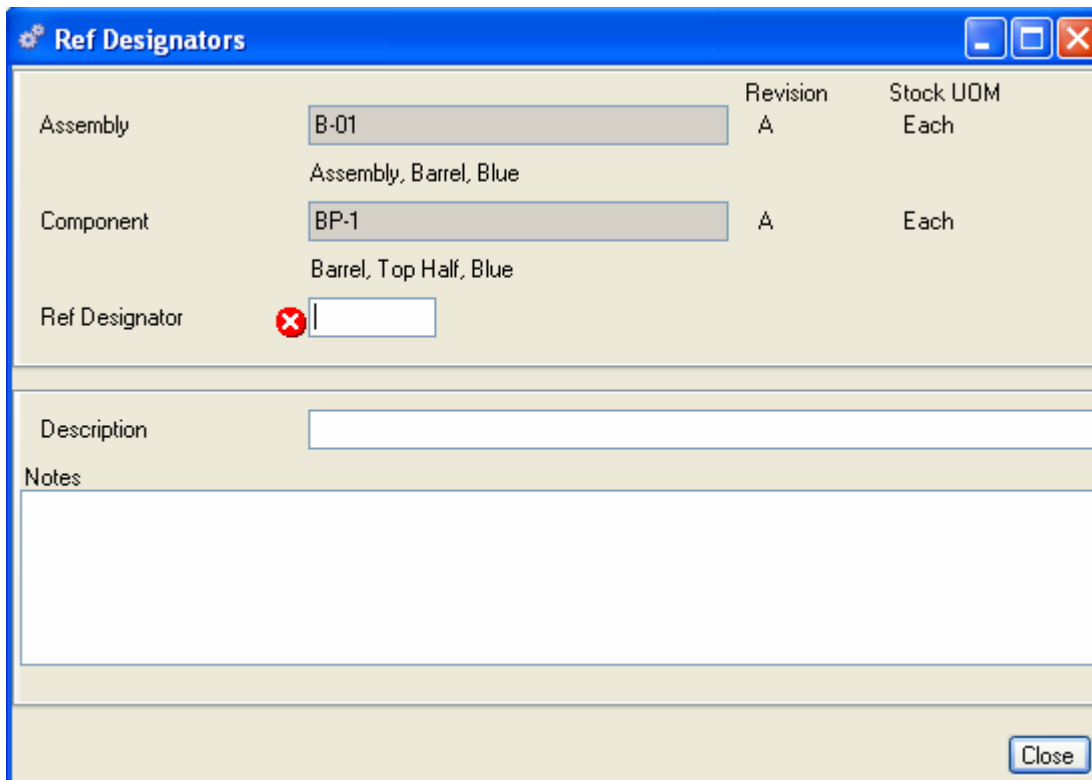
**Ref Designators Tab**

A reference designator where a component is located on a drawing or in assembly instructions, and can be used for material preparation, insertion, and/or lead forming information.

You can create virtually unlimited reference designators for every component/assembly relationship in your product structure. For example, if you create a circuit board that calls out three of switch “A” and three of switch “B”; the reference designator for switch “A” could be S1, S2, and S4, as positions on the circuit board; the reference designator for switch “B” could be positions S3, S5, and S6. Or, you could enter unlimited text instructions in the Notes field such as, “all leads must be tinned before insertion.”

**Adding a Reference Designator to a component record**

Click the Ref Designator tab. A list of any reference designators created for the component displays.



1. Click Add to open a blank Reference Designator dialog box.
2. Enter a code or drawing reference designator.
3. Enter a description of the reference designator, if needed.
4. In the Notes area, enter a detailed instruction for the reference designator, if needed. The code, description and notes will print in the BOM with References Report.

5. Click Close to exit the Reference Designator tab and return to the BOM data entry form, then do one of the following:

Click Save to save your entries and leave the form open.

Click Add to add another assembly/component.

Click OK to save your entries and exit the form.

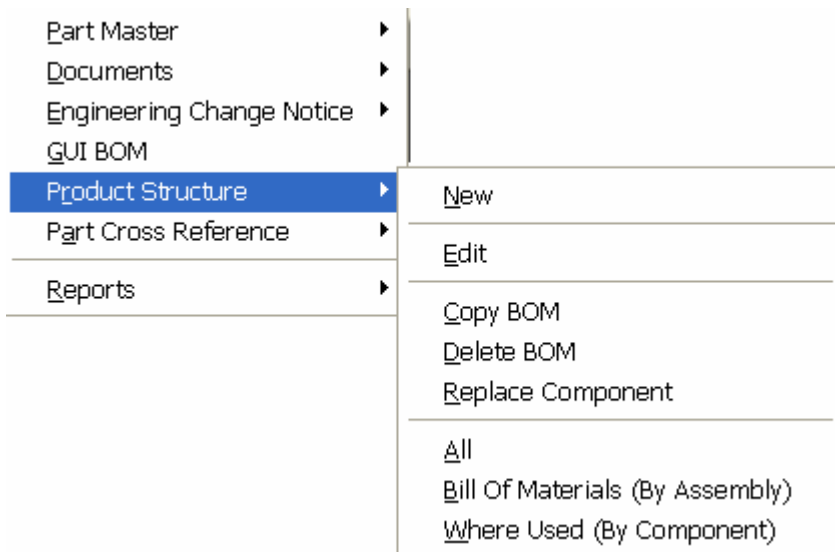
Click Close to exit without saving. (Previously saved entries will be saved.)

## Accessing Product Structure data

After parts are entered in the Product Structure forms, either from Product Structure or GUI BOM, Alliance/MFG gives you a number of options for accessing the data.

### From the Products Menu

The main menu is the first access level. From here you can go straight to a blank Product Structure data entry form, edit existing product structures, or see a list of all product structures. You can copy a BOM, globally replace a component, or execute a Where Used search by using a predefined query.



### From the Product Structure (BOM) View

The records displayed in the Product Structure (BOM) View depend on the query you select.



Item	Quantity	Component	Quantity Per	BOM UOM Code	Component Description	Assembly	Assembly Description
1	10	BP-1	1.00	EA	Barrel, Top Half, Blue	B-01	Assembly, Barrel, Blue
2	20	BP-2	1.00	EA	Barrel, Bottom Half, Blue	B-01	Assembly, Barrel, Blue
3	30	BP-3	1.00	EA	Ring, Metal .250 diameter	B-01	Assembly, Barrel, Blue
4	40	BP-4	1.00	EA	Clip, Pocket Metal 1.5 inch	B-01	Assembly, Barrel, Blue
5	10	BP-5	1.00	EA	Barrel, Top Half, Red	B-02	Assembly, Barrel, Red
6	20	BP-6	1.00	EA	Barrel, Bottom Half, Red	B-02	Assembly, Barrel, Red
7	30	BP-3	1.00	EA	Ring, Metal .250 diameter	B-02	Assembly, Barrel, Red
8	40	BP-4	1.00	EA	Clip, Pocket Metal 1.5 inch	B-02	Assembly, Barrel, Red
9	10	B-01	1.00	EA	Assembly, Barrel, Blue	BPP-100	Assembly, Ball Point Pen, Blue
10	20	C-01	1.00	EA	Assembly, Cartridge, Blue Ink	BPP-100	Assembly, Ball Point Pen, Blue
11	30	PL-01	1.00	EA	Assembly, Plunger	BPP-100	Assembly, Ball Point Pen, Blue
12	40	S-01	1.00	EA	Spring, Metal .875 inch	BPP-100	Assembly, Ball Point Pen, Blue
13	10	B-02	1.00	EA	Assembly, Barrel, Red	BPP-200	Assembly, Ball Point Pen, Red
14	20	C-02	1.00	EA	Assembly, Cartridge, Red Ink	BPP-200	Assembly, Ball Point Pen, Red
15	30	PL-01	1.00	EA	Assembly, Plunger	BPP-200	Assembly, Ball Point Pen, Red

From here you can add, edit, or delete records; or via the sidebar you can drill down or access all data related to assemblies and components (part numbers) in the system; preview or print any BOM related reports.

### Copy BOM

Often components in one BOM are similar to components in another. You can copy components from one assembly to another using the Copy BOM Query. Once the items are copied, you can then edit the BOM for minor differences before saving.

#### To Copy Components from one BOM to another

Select Products>Product Structure>Copy BOM. The Copy Product Structure query opens.

The 'Copy BOM' dialog box contains two text input fields labeled 'From' and 'To'. Below these fields is a large, empty rectangular area, likely a list or preview of the copied items. At the bottom of the dialog are two buttons: 'Copy' and 'Close'.

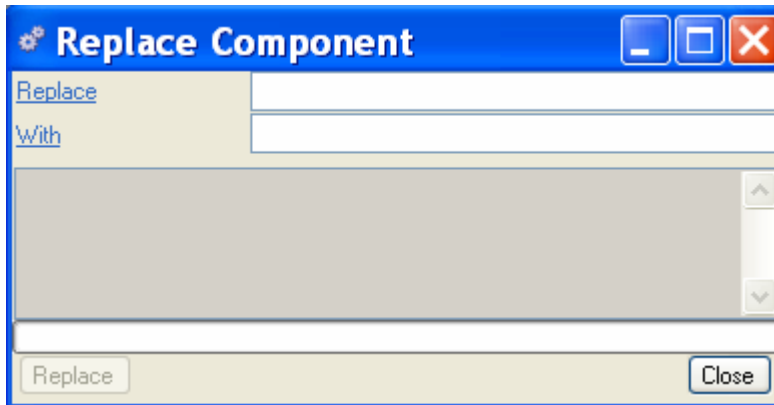
1. In the From field, enter a part number to copy.
2. In the To field, enter a part number to copy to.
3. Click Copy.

## Replace Component

You may have occasion to replace a component in all BOM's. Use the Replace Component query to select the component to replace and the part to replace it with.

### To Replace Components in a BOM

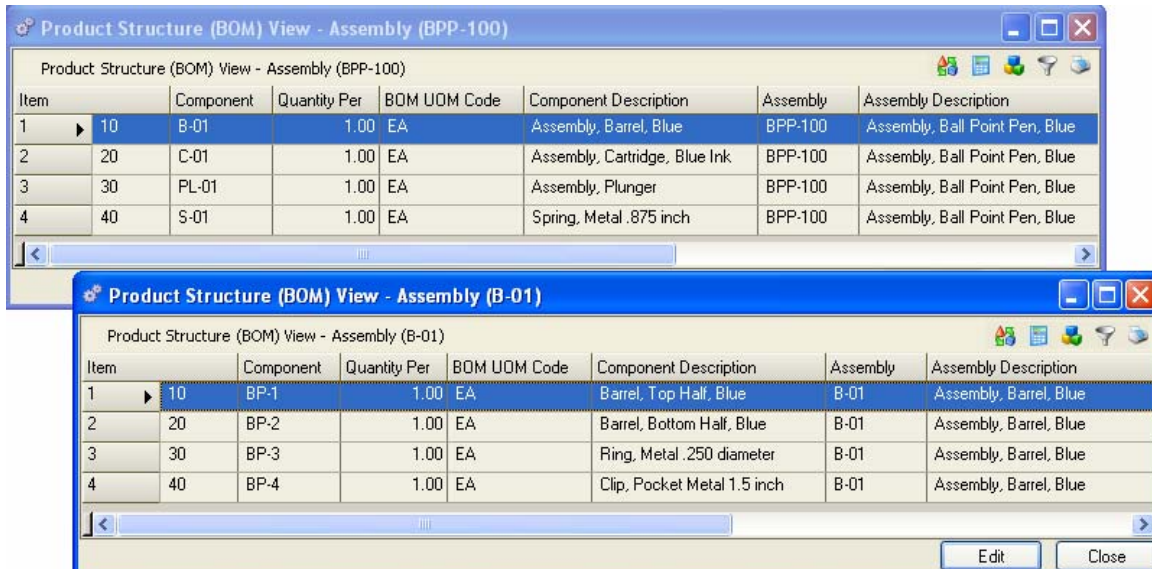
Select Products>Product Structure>Replace Component. The Replace Product Structure query opens.



1. In the Replace field, enter a component to replace.
2. In the With field, enter a component to replace it with.
3. Click Replace. Note: Always use this feature with caution; once the replace button is clicked the action cannot be stopped until completed.

### Viewing a sample Product Structure

Using examples from the Pen Database, you can look at the product structure for BPP-100, Assembly, Barrel, Blue.



1. In the Part Master View list, select BPP-100, then via the sidebar, click Product Structure (BOM) View. The Product Structure (BOM) View list shows the parts and subassemblies that make up Assembly BPP-100 (a finished product). This view tells you that there are four items in the assembly and how many of each item is used in the assembly.
2. Click on Item Sequence 10, component B-01, then via the sidebar select Component BOM View, to drill down or view the components for that subassembly, you may continue to drill down through all levels of a product structure. In this example, all second level components are raw materials, and no additional drill down is necessary.

### **CAUTION !**

*If you add, modify or delete a component of an assembly, that change becomes permanent to the assembly and also applies wherever that assembly is used within all product structures.*

## Part Cross Reference

You can relate your part numbers to OEM, customer, and supplier part numbers. You can also attach helpful purchasing information such as Supplier Prices, Supplier Currency, Priority, Supplier Lead Times, and check whether or not the supplier is an approved source. Every part can have an unlimited number of cross reference part numbers and descriptions. Customer and Supplier cross references can be printed on Purchase Orders and Sales Orders.

### Creating a new Cross Reference

Select Product>Part Cross Reference>New from the main menu, or click Add New from the Cross Reference View. A blank Part X-Reference data entry form opens.

<a href="#">Part Number</a>	BP-1	Revision	A	Stock UOM	Each
	Barrel, Top Half, Blue				
Part Cross Reference	AVI564				
<a href="#">Supplier/Customer ID</a>	ASSMB				
Description: Pantone 286C, Top Barrel					
Approved Source	<input checked="" type="checkbox"/>	Supplier Rating	1.00		
Supplier Leadtime	4.00	User Defined 1			
Price	0.05	User Defined 2			
<a href="#">Currency Code</a>	US				

1. Enter a part number or click the hyperlink to choose one from the Part Master View. The Revision and Stock UOM display from the Part Master record for the part.
2. Enter a Part Cross Reference to your part. This can be any combination of numbers or characters.
3. Enter the Supplier ID for the Part Cross Reference number.
4. In the lower half of the window, enter a description for the cross reference.
5. Select Approved Source if this supplier has been approved for this part.
6. Enter a Supplier Lead Time.
7. Enter the suppliers Price.
8. Enter or select the suppliers Currency Code. The Purchase Order currency is defaulted from the Suppliers Currency Code. If the Part Cross Reference currency code entered here is different from the purchase orders Currency Code, the PO line item price will be set to zero (0).

9. Enter a Supplier Rating, if desired.
10. Enter any additional codes or references in the User Defined fields.
11. When you have completed your entries, do one of the following:

Click Save to save your entries and leave the form open.

Click Add to continue to add new cross references.

Click OK to save your entries and exit the window.

Click Close to exit the window without saving.

### Accessing Part Cross Reference Data

Once your part cross references are created, Alliance/MFG gives you a number of options for accessing the data.

#### From the Products Menu

The main menu is the first access level. From here you can go straight to a blank Cross Reference data entry form, edit an existing cross reference, or use a predefined to locate specific records.

#### From the Part Cross Reference View

The records displayed in the Part Cross Reference View depend on the query you select.

Part Number	Cross Reference	Description	Supplier/Custo	Approved Source	Supplier Price	Leadtime	Currency Code
1	BP-1	AVI564	Pantone 286C, Top Barrel	ASSMB	<input checked="" type="checkbox"/>	\$0.05	4 US
2	BP-1	KIJ86HJ	Top Barrel	CASTL	<input checked="" type="checkbox"/>	\$0.06	7 US
3	BP-1	PL05-286	Top Barrel	OASIS	<input checked="" type="checkbox"/>	\$0.06	5
4	BP-2	AVI563	Pantone 286C, Bottom Barrel	ASSMB	<input type="checkbox"/>	\$0.05	4 US
5	BP-2	MJI86BJ	Bottom Barrel	CASTL	<input checked="" type="checkbox"/>	\$0.06	7
6	BP-2	PL15-286	Bottom Barrel	OASIS	<input checked="" type="checkbox"/>	\$0.06	5 US
7	BP-3	25674	Ring	PSLND	<input checked="" type="checkbox"/>	\$0.02	4
8	BP-3	S1064L3	Ring	REBDN	<input checked="" type="checkbox"/>	\$0.02	5
9	BP-4	25705	Ring	PSLND	<input checked="" type="checkbox"/>	\$0.02	4
10	BP-4	S2946B4	Ring	REBDN	<input checked="" type="checkbox"/>	\$0.03	5
11	BP-5	AVI572	Pantone 186C, Top Barrel	ASSMB	<input checked="" type="checkbox"/>	\$0.05	4 US
12	BP-5	KII86HJ	Barrel Top	CASTL	<input checked="" type="checkbox"/>	\$0.06	7
13	BP-5	PL08-186	Top Barrel	OASIS	<input checked="" type="checkbox"/>	\$0.06	5
14	BP-6	AVI571	Pantone 186C, Bottom Barrel	ASSMB	<input checked="" type="checkbox"/>	\$0.00	4 US
15	BP-6	MII86BJ		CASTL	<input checked="" type="checkbox"/>	\$0.00	7
16	BP-6	PL18-186		OASIS	<input checked="" type="checkbox"/>	\$0.00	5
17	BPP-100	1-UNR-AA		FENCO	<input checked="" type="checkbox"/>	\$0.00	0
18	BPP-x300	300MC800	McLaren Part Number	MCLAR	<input checked="" type="checkbox"/>	\$0.00	0 US
19	C-01	1wQ676		BLAIR	<input type="checkbox"/>	\$0.00	7
20	C-01	778JUN3		MRKPH	<input type="checkbox"/>	\$0.00	10

From here you can add, edit, or delete a record; or via the sidebar you can drill down or access related data; preview or print a report.

## Products Reports

The following reports are available from the Products menu. You can preview or print a report from a predefined query, or create a custom query to display specific information in an Alliance/MFG standard format. For more information about Alliance/MFG reports, see the Technical Reference.

**Bill of Materials**

**BOM with References**

**Costed BOM – Pending Costs**

**Costed BOM – Standard Costs**

**Engineering Change Notice**

**Indented BOM**

**Indented Costed BOM**

**Parallel Indented Costed BOM**

**Part Master List**

**Part Cross References**

**Where Used**

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# Working with Demand



## Demand Menu Functions

This section describes how to maintain your customers and contacts, create and maintain forecasts, create, maintain and *release The authorization to produce or ship material that has already been ordered.* blanket/contract orders, enter and ship sales orders, invoice customers for shipments; and how to track discrete costs through the system using the *Job Master Maintains a Job Number and description for each job being tracked as a discrete cost entity throughout the system and lets you view details associated with that job..*

### Creating Demand in your System

Alliance/MFG is designed around the concept of "Supply and Demand." The customer orders and forecasts you create are the "demand" that, through the action of running and responding to MRP, generate purchase orders and work orders (the supply) in the system.

Tasks described in this section assume familiarity with the basic use of Alliance/MFG data lists, data entry forms, dialog boxes, queries, and finding and sorting features. If you need more information about how to use these features, review the System Overview section.

## Customers

Alliance/MFG gives you a variety of fields to use when creating your customer records. In addition to basic information such as billing and shipping address, terms, and contact information; you can assign credit limits, hold shipments, and apply three different sales discount types. You can access sales order, invoice, and shipment activity for a customer, and drill down from any of these to get more detail.

### Creating New Customer Information

Enter a customer record for each customer you sell to. If you have not yet defined codes related to customers; such as FOB, Region, Terms, Discounts, Ship Via, and Currency Codes; you should complete this task before entering customer records (Review the Setting Up Your Company section if you need more information.)

#### Adding a Customer record

Select Demand>Customers>New from the main menu to open a blank

At a minimum, you must enter a Customer ID and Customer Name to create a valid record.

#### LINK NOTE:

*If you use an Alliance Accounting Link, this code and name may need to match the record in your accounting package.*

#### Customer Tab

1. Enter a date. The system will default to the current date; however, you can use the calendar box to select a different date.



2. Enter a Credit Limit, if needed. This entry is optional and for information only. If you track this information, you could apply ship holds as necessary.
3. Select the Ship Hold Flag to prevent a sales order shipment for a customer. This flag will override the "Sales Order" Ship Hold flag on an individual sales order for the customer. (A Ship Hold applied on an individual Sales Order for a customer without a "customer" Ship Hold will only prevent shipment of that order.) Once a customer Ship Hold is applied, all sales orders placed for that customer will automatically be on Ship Hold Status.
4. Enter the Salespersons ID. All sales orders generated for this customer will be linked to this Salesperson ID. You can override this setting from the Sales Order data entry form.
5. You can enter a up to 10-characters in the User Defined field for any additional code, number, or item you wish the system to display. You can query on this field, or include it on Customer Reports.
6. Enter a VAT Registration Number if you're part of the European Economic Community. This number is used in Intrastat Reporting to track Value Added Tax payments and receipts.
7. Enter a VAT Branch ID.
8. Enter the URL of the customer's website or a path to a document or contract you want to associate with this customer.

**NOTE:**

*For more information about setting up Intrastat Reporting, see the Setting Up Your Company (ICN Codes, ICN Rates, Region/Country Codes), and the Inventory Control, Intrastat Reporting sections.*

**Notes Tab**

Enter unlimited notes into the customer record. Type into the body or copy/paste from another Windows program or text file.

**Default Codes Tab**

Enter the customer's default codes. These codes will default values to new customer sales orders.

1. Enter an FOB code. (This field will default to the FOB Code field on the Sales Order data entry form.) The code name will display next to the field.
2. Enter a Region code. (This field will default to the Region code field on the Sales Order data entry form.) This information is also used with Intrastat Reporting. The code name will display next to the field.
3. Enter a Terms code. (This field will default to the Terms Code field on the Sales Order data entry form.) The code name will display next to the field.
4. Enter a Ship Via code. (This field will default to the Ship Via Code field on the Sales Order data entry form.) The code name will display next to the field.
5. Enter a Currency code. (This field will default to the Currency Code field on the Sales Order data entry form.) The code name will display next to the field.

### Discount Type Tab

You can assign a customer one of three price discount types; None, Discount %, or Quantity Discounts. This discount will be automatically calculated and applied to all new customer sales orders. You can override this discount if you wish. The discount is applied after the quantity field is entered on the sales order line item. Discount % and Customer Discount Levels must exist in your codes tables so you can enter or select them here. For more information about creating and applying these codes, see the [Codes](#) section, and Setting up Customer Discounts.

The screenshot shows a software window titled "Customers" with a blue header bar. Below the header, there are two rows of input fields: "Customer ID" with the value "AASIC" and "Active Flag" with a checked checkbox. The second row contains "Customer Name" with the value "AASI Co., Inc.". Below these fields is a tabbed interface with five tabs: "Customer", "Notes", "Default Codes", "Discount Type" (which is selected and highlighted in orange), and "Addresses". The "Discount Type" tab contains a "Price Discount Type" dropdown menu set to "Quantity Discounts". Below this are two fields: "Price Code" (which is disabled) and "Customer Discount Level" (set to "RESLR"). Under "Customer Discount Level", there is a hyperlink "Resellers w/Agreements". At the bottom right of the window are "OK" and "Close" buttons.

1. Select a Price Discount Type from the drop-down list. The Price Code or Customer Discount Level fields are enabled depending on your selection. If you select None, you are finished with this tab. If you select Discount %, the Price Code field is enabled; see Step 2. If you select Quantity Discounts, the Customer Discount Level field is enabled; see Step 3.
2. Discount % - Enter the discount code in the field or select from the Price Code hyperlink.
3. Quantity Discounts - Enter the customer level in the field or select from the Customer Discount Levels hyperlink.

### Addresses Tab

You will enter customer address information via the Addresses tab. You can assign as many customer bill to and ship to addresses as needed. If you only define one (1) Ship To Address and one (1) Bill To Address these values will default to new sales orders for that customer.

The screenshot shows the 'Customers' window with the 'Addresses' tab selected. The customer information is as follows:

Customer ID	AASIC	Active Flag	<input checked="" type="checkbox"/>
Customer Name	AASI Co., Inc.		

The 'Addresses' tab contains a table with the following data:

Address ID	Bill To Flag	Ship To Flag	City	State	Zip Code
1 000001	Yes	Yes	Deerfield Bea	FL	33442

Buttons for 'Add', 'Edit', and 'Delete' are visible on the left side of the table. The 'Add' button is highlighted. At the bottom right, there are 'OK' and 'Close' buttons.

#### Adding an Address ID

In the Addresses tab, click Add to open a blank Customer Address data entry form.

The screenshot shows the 'Customer Address' window with the 'Addresses' tab selected. The customer information is as follows:

Customer ID	AASIC	Bill To Flag	<input checked="" type="checkbox"/>
Address ID	000001	Ship To Flag	<input checked="" type="checkbox"/>

The 'Addresses' tab contains the following data entry fields:

Address Line 1	19923 Lamolita		
Address Line 2			
Address Line 3			
Address Line 4			
City	Deerfield Beach		
State	FL	Zip Code	33442
Country	USA	Postal	
Tax Code	NON	0.00	Non-Taxable

A 'Close' button is located at the bottom right of the window.

1. Enter an Address ID at the top of the form. You could use “Ship To” or “Bill To”, an abbreviated city or location, or a store # or ID.
2. Both the Ship To and Bill To flags default as checked, if this is OK move to the Address Tab, or uncheck if incorrect.
3. Enter up to four address lines for this ID.
4. Enter the City, State, Zip Code, Country, and Postal code, as needed.
5. Enter a Tax Code. This will be the default tax rate for taxable items on sales orders with this address.
6. When you are finished, do one of the following:
  - Click the Contacts tab to add contact information for this address.
  - Click Close. The Address is added to the body of the Customers Addresses tab.
  - Click Add to enter additional addresses as required.

**Adding Contact Information**

Click the Contacts tab.

The screenshot shows a window titled "Customer Address" with a blue header. It contains input fields for "Customer ID" (AASIC) and "Address ID" (000001), and checkboxes for "Bill To Flag" and "Ship To Flag", both of which are checked. Below these fields are two tabs: "Addresses" and "Contacts". The "Contacts" tab is active and displays a table with the following data:

	Address ID	Contact ID	Name	Phone 1	Fax 1	Email Address
1	000001	00001	Tullio Merolla	(954) 956-1574	(954) 497-4641	
2	000001	00002	Caroline Totarc		(954) 497-4641	

Buttons for "Add", "Edit", "Delete", and "Close" are visible in the interface.

1. Click the Add button to open a blank enter form.
2. Enter a Contact ID at the top of the form. This could be the contact’s initials, first name, or simply a number. If you define a single ShipTo Address with a single Ship To Contact, and a single Bill To Address with a single Bill To Contact, these values will default to new sales orders for that customer.

3. Enter the Contact Name, Phone and Fax numbers, and e-mail address, if applicable.
4. Click the Notes tab to enter any additional information you wish to store in the system about the contact.
5. Click close to return to the Customer form and click OK or Save to save your entries.

## Accessing Customer Data

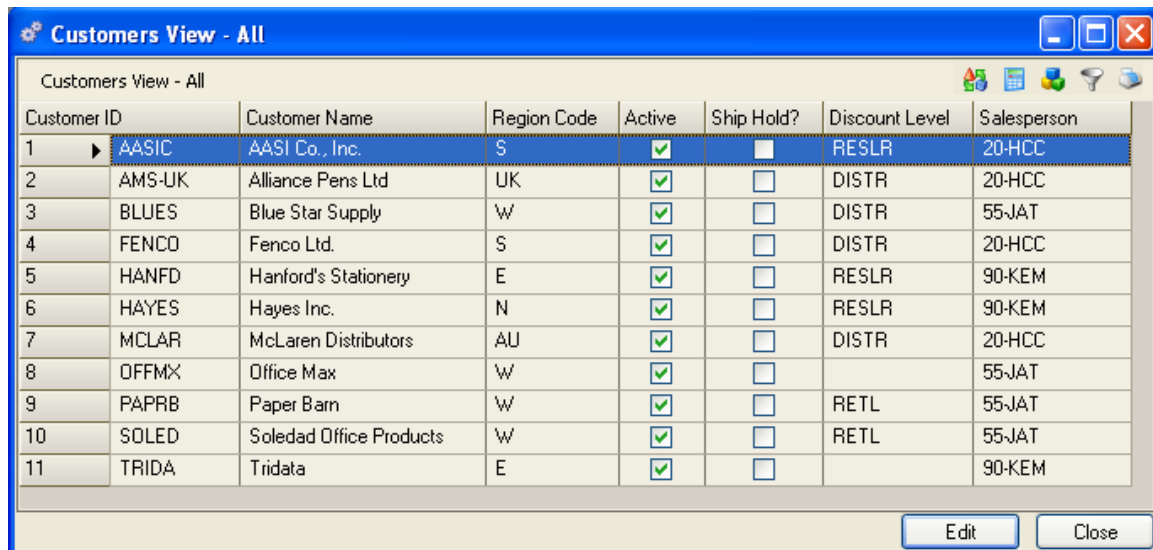
Once customers are added to the system, Alliance/MFG gives you a number of ways to access the data.

### From the Demand Menu

Select Demand>Customers from the main menu. From here you can use the submenus to go straight to a blank data entry form to enter new customer records, edit existing records; or use predefined queries and wild cards to locate specific records.

### From the Customer View

The records displayed in the Customer View depend on the query you select.



The screenshot shows a window titled "Customers View - All" with a table of customer data. The table has columns for Customer ID, Customer Name, Region Code, Active status, Ship Hold?, Discount Level, and Salesperson. The first row is highlighted in blue.

Customer ID	Customer Name	Region Code	Active	Ship Hold?	Discount Level	Salesperson	
1	AASIC	AASI Co., Inc.	S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	RESLR	20-HCC
2	AMS-UK	Alliance Pens Ltd	UK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DISTR	20-HCC
3	BLUES	Blue Star Supply	W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DISTR	55-JAT
4	FENCO	Fenco Ltd.	S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DISTR	20-HCC
5	HANFD	Hanford's Stationery	E	<input checked="" type="checkbox"/>	<input type="checkbox"/>	RESLR	90-KEM
6	HAYES	Hayes Inc.	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	RESLR	90-KEM
7	MCLAR	McLaren Distributors	AU	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DISTR	20-HCC
8	OFFMX	Office Max	W	<input checked="" type="checkbox"/>	<input type="checkbox"/>		55-JAT
9	PAPRB	Paper Barn	W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	RETL	55-JAT
10	SOLED	Soledad Office Products	W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	RETL	55-JAT
11	TRIDA	Tridata	E	<input checked="" type="checkbox"/>	<input type="checkbox"/>		90-KEM

At the bottom right of the window, there are "Edit" and "Close" buttons.

From here you can add, edit, or delete a record; or via the sidebar you can drill down or access related data; preview or print a report.

## Forecasts

Forecasting is a powerful production management tool that projects expected demand over a predetermined planning period. With forecasting, you can create a demand on the manufacturing process based on anticipated seasonal orders. For example, if you know from experience that December is an exceptionally large month and you have had trouble meeting orders in the past because of inadequate supplies, you may want to enter a “holiday forecast” to help prepare for the anticipated surge in demand.

### Overview

MRP recommendations based on forecasted demand represent an accurate picture of what you can expect and what you must purchase or manufacture to meet your anticipated demand.

You can prepare multiple “what if” forecast scenarios and analyze their impact on the system. For example, you could create three forecasts for a product, each for a different quantity, all with the same dates. Run MRP three times, each time with a different forecast included in the calculation. From the results, you can easily see where the process is compromised, select the forecast that best suits your needs, and proceed.

This section gives you the basic ground rules for forecasting, briefly describes the use of time fences in forecasting, and tells you how to create and maintain forecasts in Alliance/MFG.

#### Ground Rules for Forecasting

- Forecasts within the time fence parameter are ignored
- All past due forecasts are ignored
- All open sales orders lines that have scheduled ship dates within the forecast period will consume the forecast
- If sales order quantities exceed forecast quantities within the forecast period, the system plans for the greater quantity

### Using a Time Fence

A **time fence** is a date or period of time that indicates to MRP that forecasts within this period should be ignored and only actual sales orders should be planned. For example, if you forecast 100 of part A for the 6th, with a time fence of 3, on and after the third, MRP will ignore the forecast. A time fence defines a time boundary inside which the forecast will be ignored and only actual sales orders will be used for planning. The boundary is set based on the forecast period end date. By accurately defining your time fence, you can reallocate inventory planned for, but not consumed.

### Creating and Maintaining Forecasts

Forecasts affect MRP the same way sales orders affect MRP, except that no customer information is entered. Parts entered in forecasts are normally finished products, spare parts, or repair items. When you enter a forecast, you can choose to include it or exclude it from an MRP calculation.

#### To create a forecast:

Select Demand>Forecasts>New from the main menu to open a blank Forecast data entry form.

1. Enter a Forecast ID.
2. Enter the forecast information in the tabs as described in the following paragraphs.

The screenshot shows the 'Forecast' dialog box with the 'Forecast' tab selected. The 'Forecast ID' is '3rdQtr2000'. The 'Employee ID' is '20-HCC' with the name 'Confrey, Heather C' next to it. The 'Origination Date' is '10/21/2005'. The 'Include in MRP Calculations' checkbox is unchecked, with the text 'No' next to it. There are 'OK' and 'Close' buttons at the bottom right.

### Forecast Tab

1. Enter an Employee ID.
2. Select an Origination date from the Calendar box.
3. Select Include in MRP Calculation if you wish your forecast to be considered in MRP planning. (The space bar toggles this selection on and off.)

### Notes Tab

Enter unlimited notes about the forecast.

### Forecast Parts Tab

Click the Part Numbers tab to open the Forecast Parts data entry form.

The screenshot shows the 'Forecast' dialog box with the 'Forecast Parts' tab selected. The 'Forecast ID' is '3rdQtr2000'. There are 'Add', 'Edit', and 'Delete' buttons on the left. A table with two columns, 'Part Number' and 'Actual Sales Time Fence', contains two rows of data. The first row is highlighted in blue.

	Part Number	Actual Sales Time Fence
1	BPP-100	30
2	BPP-200	30

There are 'OK' and 'Close' buttons at the bottom right.

1. The Forecast ID displays at the top of the form.
2. Click Add to enter a part number and time fence. The Forecast Parts data entry form opens.
3. In the Sales Horizon tab, enter the number of days from the end of the forecast period the forecast should be ignored

**Forecast Parts**

Forecast ID: 3rdQtr2000

Part Number: BPP-100  
Assembly, Ball Point Pen, Blue

Sales Horizon: Forecast Quantity

Actual Sales Time Fence: 30

Close

Example: For your September Forecast, starting on the 1st and ending on the 30th, you forecast sales of 50 units. In your business you estimate that if sales haven't been booked by the 20th of the month, they will probably not happen that month. Set your time fence at 10 days. When MRP is run on the 20th (or after), if you have only booked 40 sales the system will ignore the forecast and free up that inventory to be used somewhere else.

**Forecast Quantity Tab**

**Forecast Parts**

Forecast ID: 3rdQtr2000

Part Number: BPP-100  
Assembly, Ball Point Pen, Blue

Sales Horizon: Forecast Quantity

	Quantity ID	Forecast Start Date	Forecast End Date	Forecast Quantity
Add	1	11/30/2005	12/25/2005	10,000.00
Edit	2	12/28/2005	1/29/2006	11,000.00
Delete	3	2/1/2006	2/26/2006	12,000.00

Close

1. In the Forecast Quantity tab, click Add to open the Forecast Quantity data entry form.



2. Enter Start and End dates for the forecast. The forecast demand for inventory will be planned for the start date.
3. Enter a Forecast Quantity. The forecast quantity will be consumed (reduced by) all sales order lines with scheduled ship dates that fall within the date range.
4. When you are finished, do one of the following:

Click Close to save your entries and return to the Forecasts Parts form.

Click Add to open a blank Forecast Parts data entry form and create forecasts for a different part number, repeating the previous steps.

### Accessing Forecast Data

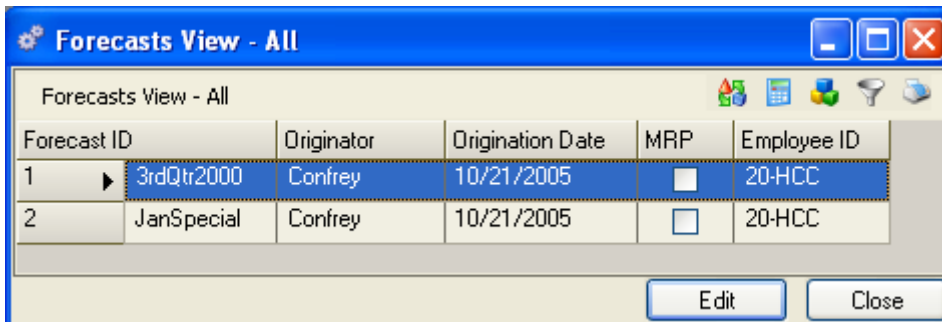
Once forecasts are added to the system, Alliance/MFG gives you a number of ways to access the data.

#### From the Demand Menu

The main menu is the first access level. From here you can go straight to a blank data entry form to create a new forecast, edit existing forecasts, or use a predefined and wild cards to locate a specific record.

#### From the Forecast View

The records displayed in the Forecast View depend on the query you select.



From here, you can add, edit, or delete a record; or via the sidebar you can drill down or access related data; preview or print a report.

## Quotations

The Quotations function allows you to create and maintain unlimited quotes for a customer or prospective customer. Enter as much or as little information as you need. When and if the order is awarded, you may convert the quotation into an actual customer order to be included in the MRP calculation as demand for a product or service. Quotations will require a valid part number and customer when converted to a sales order, until then you may keep related information in a notes field, if desired. If the quote is for a prospective customer and you don't wish to enter all prospects into your customer file, just keep the information in the quotes Notes field and only add the prospect if you actually get the order.

### Creating a Quote

Select Demand>Quotations>New, to open a blank Quotation data entry form.

### Entering Quotation Information

The Quote data entry form opens at the Order tab. Header information will remain in view as you work your way through the tabs. As quotation line items are entered, the Quote Total amount value will display at the bottom of the form.

The screenshot shows a software window titled "Quotation" with a blue header bar. The window contains several input fields and buttons. At the top left, there is a "Quote Number" field with the text "1:[Auto Nu" and a "Create Sales Order" button. Below this is a "Customer ID" field, which is currently empty, and a "Customer Defaults" button. To the right of the "Customer ID" field is a "Scheduled Ship Date" dropdown menu showing "12/27/2005" and a "Create" button. Below these fields are three tabs: "Order", "Lines", and "Notes". The "Order" tab is selected and active. Under the "Order" tab, there are several fields: "Expiration Date" (12/27/2005), "Salesperson" (SUPERVISOR), "Currency Code", "Currency Rate" (1), and "User Field 1". To the right of these fields are four more fields: "Bill To Address", "Bill To Contact", "Ship To Address", and "Ship To Contact". At the bottom of the window, there is a "Quote Total Amount" field showing "\$0.00". In the bottom right corner, there are "OK" and "Close" buttons.

### Header Information

1. If you specified auto numbering in your Company Preferences, the next incremental quotation number will be entered automatically when you save the order, otherwise you must enter a unique quotation number.
2. Enter a Customer ID. The customer name displays below the field.

- Customer Defaults Button - When you select a Customer ID, default customer information such as Currency Code, Salesperson ID, Bill To and Ship To Address values are defaulted from the Customer record to the new quote. You may change the default values as needed. If you make changes, then decide to return to defaults, simply click the Customer Defaults button to refresh.

**Order Tab**

- Enter a quote Expiration Date, this date will determine if the quote is open or closed. If the date is less than today the quote will be considered closed.
- Enter the Employee ID of the salesperson to be referenced with the order. The employee name displays below the field. This value will default if set up on the customer record otherwise the login user id will be defaulted.
- Enter a valid currency code. The exchange rate will be displayed.
- If there is only one customer Bill To, Ship To, Bill To Contact and Ship To Contact these values will default from the customer record. If there is no customer record, do not enter these fields.

The screenshot shows a 'Quotation' window with the following fields and values:

- Quote Number:** QT05120001
- Customer ID:** AASIC (Customer: AASI Co., Inc.)
- Customer Defaults:** Button
- Create Sales Order:** Button
- Scheduled Ship Date:** 12/27/2005
- Expiration Date:** 1 /31/2006
- Salesperson:** 20-HCC (Name: Confrey, Heather C)
- Currency Code:** US (Label: US Dollars)
- Currency Rate:** 1
- User Field 1:** (Empty)
- Price Discount Type:** 2 - Quantity Discount (Code: RESLR)
- Bill To Address:** 000001 (Location: Deerfield Beach, FL)
- Bill To Contact:** 00001 (Name: Tullio Merolla, Phone: (954) 956-1574)
- Ship To Address:** 000001 (Location: Deerfield Beach, FL)
- Ship To Contact:** 00002 (Name: Caroline Totaro)
- Quote Total Amount:** \$0.00

**Lines Tab**

The lines tab gives you access to line item detail including line number, cross reference, part number, quantity, price and tax information. From here you can edit existing line items or add new ones. The Quote Detail data entry form contains two tabs, line and notes. The form opens at the Line tab, and displays the Quotation Number, Customer ID, Customer Discount Type and Line Number in the header. Here you may enter detailed information about the part quoted; including the quantity, price, discount given and any tax information. At a minimum you must enter a part number and quantity to create a valid line record. If there is no part number, you may use the Line Notes Tab to enter a description of the item being quoted and any additional required information.

The screenshot shows a software window titled "Quotation". At the top, there are fields for "Quote Number" (QT05120001) and "Customer ID" (AASIC), with a "Customer Defaults" button. To the right, there is a "Create Sales Order" section with a "Scheduled Ship Date" dropdown set to 12/27/2005 and a "Create" button. Below this is a tabbed interface with "Order", "Lines", and "Notes" tabs. The "Lines" tab is active, displaying a table with the following data:

	Line Number	Part Number	Quantity	Price	Extended Amount	Sales UOM
1	001	BPP-100	100.00	\$1.25	\$125.00	EA
2	002	BPP-100	500.00	\$1.15	\$575.00	EA
3	003	BPP-100	1,000.00	\$1.13	\$1,125.00	EA
4	004	BPP-100	2,500.00	\$1.05	\$2,625.00	EA

At the bottom of the window, the "Quote Total Amount" is displayed as \$4,450.00. On the left side of the table, there are "Add", "Edit", and "Delete" buttons. At the bottom right, there are "OK" and "Close" buttons.

Click the Add button on the left side of the form to open the Quotation Detail data entry form.

Quote Detail			
Quote Number	QT05120001	Line Number	001
Customer ID	AASIC	Price Discount Type	2 - Quantity Discount RESLR
<div style="display: flex; border-bottom: 1px solid black;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">Line</div> <div style="border: 1px solid black; padding: 2px;">Notes</div> </div>			
Part X Reference	<input type="text"/>		
Part Number	BPP-100	Assembly, Ball Point Pen, Blue	
Quantity	100.00	Discount %	0.00
Price	\$1.25	List Price	\$1.25
Taxable Flag	<input checked="" type="checkbox"/>	Tax Code	NON 0.00
Sales UOM	EA	Stock UOM	EA
User Defined 1	<input type="text"/>		
User Defined 2	<input type="text"/>		
		<div style="border: 1px solid black; padding: 5px;"> <b>Line Amounts</b>            Extended Price \$125.00            Base Tax \$0.00            Line Subtotal \$125.00         </div>	
<input type="button" value="Close"/>			

1. Enter a cross-reference to the customer's part number if required. If only one (1) customer cross reference exists for the part number entered and it is checked as an Approved Source, the cross reference field will be defaulted. (Optional field)
2. Enter the part number. The part number will default if you entered a Part Cross Reference above.
3. Enter the quantity ordered for this line item.
4. Enter the unit price. If the customer record is set up for a discount, that discount will be applied automatically, or you can manually enter the customer price. The list price for the part will be displayed for information only.
5. If this line item is taxable, select the **Taxable Flag** A check box used to turn sales tax on or off. . If the part taxable flag is set up in the Part Master this flag will be defaulted to True. Enter a Tax Code. If the part taxable flag and tax code are set up in the Part Master this value will be defaulted.
6. If the Sales UOM is different than the Stocking UOM, enter the sales UOM code.
7. The Line Amounts box displays the line item price multiplied by the quantity as the Line Amount, adds any Base Tax applied, then computes the Line Subtotal.

### Line Notes Tab

The line notes tab can be used in lieu of entering a part number or to hold additional information about that line.

**NOTE:**

*All data in both the header and the line notes fields print on the Quotation Report. DO NOT enter sensitive data or data not meant to be viewed by your customers. If you need to enter sensitive data, first modify the Quotation Report to disable the printing of these fields.*

The screenshot shows a window titled "Quote Detail" with a blue header bar. Below the header, there are four input fields: "Quote Number" with the value "QT05120001", "Line Number" with "001", "Customer ID" with "AASIC", and "Price Discount Type" with "2 - Quantity Discount". To the right of the "Price Discount Type" field is the text "RESLR". Below these fields are two tabs: "Line" and "Notes", with "Notes" being the active tab. The main content area of the window contains the text: "Blue Ball Point Pens Quantity 1 - 100 \$1.25 Each, Quantity 101 - 500 \$1.15 Each, Quantity 501 - 1,000 \$1.10". A "Close" button is located in the bottom right corner of the window.

### Notes Tab

If you do not intend to create line items and/or part numbers you may use the notes tab on the quotation header to define the quote details. Nothing else is needed until you are awarded the quote and intend to convert it to a customer sales order.

## Sales Orders

Sales orders are the primary demand that drives the system. Once sales orders are entered into the system, MRP will use the part numbers, quantities, required dates, and planning codes to plan material requirements and create planned orders. (Planned sales orders, closed sales orders and sales order line items marked “closed” do not generate demand.) The system also uses customer and sales order data to create reports, shipping documents and invoices.

Sales order entry, blanket orders, customers, shipments, invoices, and returns are all maintained through the Demand menu.

If you have not yet defined customers and codes related to customers such as FOB, Region, Terms, Ship Via, and Currency Codes; you should complete this task before to entering sales orders.

### Creating a sales order

There are two methods for maintaining and entering sales orders in Alliance/MFG, *Advanced* and *Easy Entry*. The *Advanced* method gives you more capabilities and additional field selections without having to toggle between screens to enter alternative data or change default values. On the other hand, if your customers can be set up with standard default values and only basic data is required, the *Easy Entry* method might save you entry time and efforts. You can toggle from the *Advanced* method to the *Easy Entry* method by clicking on the [Easy Entry](#) hyperlink in the upper right hand corner of the entry screen, you may also toggle back to the *Advanced* screen using the [Advanced](#) hyperlink.

Select Demand>Sales Orders>New, to open a blank Sales Order data entry form. The last type of entry screen (Advanced or Easy Entry) used will open. The Advanced method is detailed below and the Easy Entry method will be described at the end of this section. Blanket or Contract Orders, which can also be used to create sales orders, are discussed later in this section.

The Advanced Sales Order data entry form opens at the Order tab. **Header** A record containing common, constant, or identifying information for a group of records which follows. information will remain in view as you work your way through the tabs. As sales order line items are entered, the Sales Order Total amount and the Total Remaining value display at the bottom of the form.

#### Sales Order Header

1. If you specified auto numbering in your Company Preferences, the next incremental sales order number will be entered automatically when you save the order, otherwise you must enter a unique sales order number.
2. Enter a Customer ID. The customer name displays below the field.

3. Customer Defaults Button - When you select a Customer ID, default information such as Terms, Ship Via and FOB values are defaulted from the Customer record. If you make changes, then decide to return to defaults, simply click the Customer Defaults button to refresh.
4. The Status is automatically defaulted to Firm when creating a new sales order. If the sales order is created from a Blanket Order the status will be defaulted to Planned. Caution, Planned sales orders are considered in MRP calculations but CANNOT be shipped until changed to Firm. See Blanket Orders later in this chapter.
5. When entering a new sales order, the Closed box should be unchecked. You can return to select the Closed check box when the order is shipped or close it automatically from the Shipping transaction form.
6. Select the Ship Hold box to prevent this order from shipping. If Ship Hold? has been applied on the customer record, the customer record status will override this entry.

The screenshot shows the 'Sales Orders' application window. At the top, the title bar reads 'Sales Orders'. Below the title bar, there are several input fields and controls:

- Sales Order:** SO00080001
- Status:** Firm (dropdown menu)
- Customer ID:** TRIDA
- Closed:**
- Ship Hold?:**
- Customer Defaults:** A button labeled 'Customer Defaults' with 'Tridata' displayed below it.

Below these fields is a tabbed interface with four tabs: 'Order', 'Customer', 'Lines', and 'Notes'. The 'Order' tab is currently selected. The 'Order' tab contains the following fields:

- Order Date:** 10/26/2005 (calendar icon)
- Date Required:** 2/25/2006 (calendar icon)
- Date Promised:** 12/27/2005 (calendar icon)
- Ordered By:** Bill
- Customer PO:** PO9900201
- Attention:** Bill
- Department Code:** COGS
- Blanket Order Number:** (empty field)
- Salesperson:** 5000
- Quote Number:** (empty field)
- Job Number:** Confrey, Heather C
- Order Type:** FAX
- Class Code:** (empty field)
- User Field 1:** (empty field)
- Entered By:** SUPERVISOR

At the bottom of the window, there is a summary section:

- SO Total Amount:** \$808.13
- SO Remaining Amount:** \$808.13

At the bottom right corner, there are 'OK' and 'Close' buttons.

### Order Tab

1. Order Date - The Order Date defaults to "today's" date, or you can use the calendar box to specify a different date.
2. Date Required - The Date Required defaults to "today's" date, or you can use the calendar box to specify a different date. This is the date MRP will plan to ship the order on. Activate the date by checking the checkbox.
3. Date Promised - The Date Promised defaults to "today's" date, or you can use the calendar box to specify a different date. This is the date you promised the customer to deliver on. This date in for information only, it is NOT used by MRP.



4. Department Code - The Department Code value will default if set up in Company Preferences or you may enter a Department Code. The department account number displays below the code field. This should be the department associated with the GL account for this order (normally COGS).
5. Salesperson - Enter the Employee ID of the salesperson to be referenced with the order. The employee name displays below the field. This value will default if set up on the customer record.
6. Job Number - If you wish to use the Job Tracking feature, enter the job number. The Job Number description displays below the field.
7. Class Code - The Class Code is for QuickBooks accounting link use See your QuickBooks accounting link Help File or Users Guide.
8. Ordered By - You may enter the name of the customer contact or the person placing the order.
9. Customer PO - You may enter the Customer PO number. This information is optional; however, if you use it, you can access sales orders for this customer PO using the predefined queries on the Sales Orders submenu.
10. Attention - An entry in the Attention field will be printed on the Alliance/MFG shipping documents.
11. Blanket Order - You may enter a Blanket Order number. If this SO was created from a Blanket/Contract Order this field will be defaulted.
12. Quote Number - Enter a quote number, if applicable.
13. Order Type - Enter Phone, FAX, EDI, or another method to denote how the order was placed.
14. Entered By - The Entered By field value will default to the user login id.
15. SO Total Amount and SO Remaining Amount are system calculated values.

**Customer Tab**

When you select a customer in the SO Header, the system defaults the customer's code data. You may change the data if required. Code descriptions display below the fields.

1. Enter a Terms code or accept this customers default entry.
2. Enter a Region code or accept this customers default entry.
3. Enter an F.O.B. code or accept this customers default entry.
4. Enter a Ship Via code or accept this customers default entry.
5. Enter the Currency Code or accept this customers default entry. This currency and exchange rate will be displayed when you print the sales order report. The Conversion Rate will display based on the rate entered in the Currency Code Table.
6. Enter a Bill To Address ID or accept this customers default entry.
7. Enter a Bill To Contact or accept this customers default entry.
8. Enter a Ship To Address ID or accept this customers default entry.
9. Enter a Ship To Contact or accept this customers default entry.
10. Enter a Document Path if you are referencing a drawing, contract or other document (This field is for internal use only and will not print on the sales order).

**NOTE:**

*If the Ship To Address or shipping method has changed you may update the SO line items tax code by pressing the Update Tax (Upd. Tax) button.*

## Lines tab

The sales order lines tab gives you access to line item detail on the sales order including line number, part, quantity, and tax information.

From here you can edit existing line items or add line items.

SO Line	Closed Flag	Part Number	Scheduled Ship Date	Quantity Ordered	Sales UOM	Quantity Shipped
1 001	No	BPP-100	2/25/2006	200.00		0.00
2 002	No	BPP-100	3/28/2006	200.00		0.00
3 003	No	BPP-100	4/28/2006	200.00		0.00

SO Total Amount: \$808.13      SO Remaining Amount: \$808.13

Click the Add button on the left side of the form to open the Sales Order Detail data entry form.

### NOTE:

*The New and Copy New buttons on the toolbar are for creating another sales order, not adding a line item.*

1. The SO Detail data entry form contains two tabs. The form opens at the Line tab, and displays the SO Number, Customer ID, and SO Line in the header. Enter detailed information about the part ordered; including the quantity, scheduled ship date, and tax information. At a minimum you must enter a part number and quantity to create a valid record.
2. Enter a cross-reference to the customer's part number if required. If only one (1) customer cross reference exists for the part number entered and it is checked as an Approved Source, the cross reference field will be defaulted. (Optional)
3. Enter the part number. The part number will default if you entered a Part Cross Reference above.

**Sales Order Detail**

SO Number: SO00080001    SO Line: 001    Price Discount Type: [ ]  
 Customer ID: TRIDA    Blanket Order Line: [ ]

Line: More Notes

Part X Reference: [ ]    Customer Line: [ ]  
 Part Number: BPP-100    Assembly, Ball Point Pen, Blue

Quantity Ordered: 200.00    Discount %: 0.00  
 Customer Price: \$1.25    List Price: \$1.25

Taxable Flag:     Tax Code: SB    7.75  
 Sales UOM: [ ]    Stock UOM: EA

Scheduled Ship Date: 2 / 25 / 2006  
 Closed Flag:

**Line Amounts**

Extended Price	\$250.00
Base Tax	\$19.38
Line Subtotal	\$269.38

Close

1. Enter the quantity ordered for this line item and sales UOM.
2. The customer price will default from the customer part cross-reference.

**NOTE:**

*If the part cross reference currency code does not match the sales order currency code the price will be set to zero (0).*

If no part cross reference exists for this customer the price will default from the part master List Price. If the customer record is set up for a discount, that discount will be applied automatically, or you can manually enter the customer's price. The list price for the part will be displayed for information only.

**NOTE:**

*If the customer's currency code is different from your base currency code and the exchange rate is greater than 1.0, the Exchange Price field will be displayed. You may enter a fixed exchange price and Alliance will convert this amount to your base currency using the currency exchange rate table.*

1. If this line item is taxable, select the Taxable Flag. If the part taxable flag is set up in the Part Master this flag will be defaulted to True.
2. If you select Taxable, enter a Tax Code. If the part taxable flag and tax code are set up in the Part Master this value will be defaulted.
3. If the Required Date was entered on the sales order header that value will be defaulted to the Scheduled Ship Date; however, you can override it on a line item basis if you wish. Use the calendar box to select a different date.

4. Check the Closed? box if this line item is closed. MRP will only plan open line items. Closing an order on the Sales Order header will automatically close all line items, regardless of whether this box is checked.
5. The Line Amounts box displays the line item value multiplied by the quantity as the Line Amount, adds any Base Tax applied, then computes the Line Subtotal.

### More Tab

Click the More tab to enter additional line information such as Product Class Code and any multi-tiered tax values.

**Sales Order Detail**

SO Number: SO00080001    SO Line: 001    Price Discount Type:   
 Customer ID: TRIDA    Blanket Order Line:

Line    More    Notes

Product Class Code:   
 Class Code:

Tax on Tax 2:     Tax Code 2:     0.00  
 Tax on Tax 3:     Tax Code 3:     0.00

Line Amounts

Base Tax	\$19.38	User Defined 2	<input type="text"/>
Subtotal	\$269.38	User Defined 1	<input type="text"/>
2nd Tax	\$0.00	Last Ship Date	
3rd Tax	\$0.00	Quantity Shipped	0.00
Line Total	\$269.38	Quantity Returned	0.00

Close

The system will apply the Base Tax rate by default. However, you can enter 2nd and 3rd Tax Rates in the appropriate fields to apply multi-tiered (compound) tax rates. To apply these taxes, do one or both of the following:

#### NOTE:

*You must select the Taxable Flag in the Line Tab to enable the multi-tier tax fields on the More Tab.*

Select the *Tax on Tax 2* checkbox to apply a second tax amount to the original subtotal (quantity x price plus tax), enter the second Tax Code you wish to apply.

Or leave the *Tax on Tax 2* checkbox empty to apply a second tax amount to the original quantity x price only (the no tax on tax option).

Select the *Tax on Tax 3* checkbox to apply a third tax amount to the original subtotal (quantity x price plus tax), enter the third Tax Code you wish to apply.

Or leave the *Tax on Tax 3* checkbox empty to apply a third tax amount to the original quantity x price only (again the no tax on tax option).

The Line Amounts box will display the Base Tax from the previous tab, compute a subtotal, then compute and add a 2nd and 3rd tax as applicable to compute the Extended price for this line item.

1. Last Ship Date – Displays the last ship date for this line item.
2. Quantity Shipped – Displays all quantity shipped against this line item.
3. Quantity Returned – Displays all quantity returned for this line item.
4. When you have finished entering or editing line items, do one of the following:

Click Save to save all entries and leave the form open.

Click OK to save all entries and exit the Sales Orders data entry form.

Click Close to exit the form without saving any entries not saved previously.

### **Using the Easy Entry Sales Order method**

There are two methods for maintaining and entering sales orders in Alliance/MFG, *Advanced* and *Easy Entry*. If your customers can be set up with standard default values and most of the time only basic data is required, the *Easy Entry* method might save you entry time and efforts.

Select Demand>Sales Orders>New, to open a blank Sales Order data entry form. The last type of entry screen (Advanced or Easy Entry) used will open. You can toggle from the Advanced method to the Easy Entry method by clicking on the Easy Entry hyperlink in the upper right hand corner of the entry screen, you can also toggle to the Advanced screen using the Advanced hyperlink. The Easy Entry method is detailed below and the Advanced method is described at the beginning of this section.

**Sales Orders** \_ □ ×

## Sales Order Advanced

Sales Order Number S000080001	Order Date 10/26/2005	Customer ID TRIDA
----------------------------------	--------------------------	----------------------

**Bill To:** Tridata  
121 Market Ave.  
Pittsburgh, PA 15222

**Ship To:** Tridata  
121 Market Ave.  
Pittsburgh, PA 15222

**Contact:** Michael Lallen (412) 462-4515

**Contact:** Sarah Ben

**Notes**

Closed <input type="checkbox"/>	Terms Net Amt Due in 30 Days	Ship Via UPS Red - Next Day	FOB Shipping Dock	Currency US
Customer PO P09900201	Sales Person 20-HCC	Quote Number	Job Number	Required Date 2/25/2006

Line	Part Number	Description	Quantity	UOM	Reqd Date	Price	Ext Price
<New>							

SO Total Amount    \$0.00                      SO Remaining Amount    \$0.00

The Easy Entry Sales Order data entry form opens. All information entered will remain in view as you work your way through the form. As sales order line items are entered, the Sales Order Total amount and the Total Remaining value display at the bottom of the form.

#### Entering Sales Order Header Information

1. If you specified auto numbering in your Company Preferences, the next incremental sales order number will be entered automatically when you save the order, otherwise you must enter a unique sales order number.
2. The Order Date defaults to "today's" date, or you can use the calendar box to specify a different date.
3. Enter a Customer ID or click on the Customer ID hyperlink to select from your customer table. When you enter a Customer ID, default customer information such as Terms, Ship Via and FOB codes are defaulted from the customer record to the sales order, additionally, if you defined a single ShipTo Address with a single Ship To Contact, and a single Bill To Address with a single Bill To Contact, these values will also default to a new sales order. If the values did not default click on the hyperlink to select them from their appropriate tables.
4. To enter sales order notes click on the Notes hyperlink, enter your notes and click the Close button. The first line of the notes will be visible on the sales order.
5. When entering a new sales order, the Closed box will normally be clear. You can return to select this box when the order is shipped or you may close it from the Shipping transaction form.
6. Enter a Terms code or accept this customer's default entry.

7. Enter an F.O.B. code or accept this customer's default entry.
8. Enter a Ship Via code or accept this customer's default entry.
9. Enter the Currency Code or accept this customer's default entry. When you print the sales order report, this currency and exchange rate will be displayed. The Currency Rate will calculate and display based on the conversion rate between your base company currency code and the customer currency code.
10. Enter the Customer PO number. This information is optional; however, if you use it, you can access sales orders for this customer using the predefined queries on the Sales Order submenu.
11. Enter the Employee ID of the salesperson associated with the order. This value will default if set up on the customer record.
12. Enter a quote number, if applicable. If you are creating a quote, mark the order Closed to prevent it from creating demand until it is a firm sales order.
13. If you wish to use the Job Tracking feature, enter the Job Number or click on the Job Number hyperlink to select from your Job table.
14. Enter the date the customer requests the completed order. The Required Date defaults to "today's" date, or you can use the calendar box to specify a different date. If you enter a date here it will automatically default to all line items.

**NOTE:**

If you make changes to defaulted fields, then decide to return to default values, simply click the Advanced hyperlink, click the Customer Defaults button to refresh the default values, then click the Easy Entry hyperlink to return to this form.



## Adding a new Sales Order Line item

**Sales Orders** \_ □ ×

## Sales Order Advanced

Sales Order Number SO00080001	Order Date 10/26/2005	Customer ID TRIDA
----------------------------------	--------------------------	----------------------

Bill To: Tridata  
121 Market Ave.  
Pittsburgh, PA 15222

Contact: Michael Lallen (412) 462-4515

Notes:

Ship To: Tridata  
121 Market Ave.  
Pittsburgh, PA 15222

Contact: Sarah Ben

Closed <input type="checkbox"/>	<u>Terms</u> Net Amt Due in 30 Days	<u>Ship Via</u> UPS Red - Next Day	<u>FOB</u> Shipping Dock	<u>Currency</u> US
<u>Customer PO</u> PO9900201	<u>Sales Person</u> 20-HCC	<u>Quote Number</u>	<u>Job Number</u>	<u>Required Date</u> 2/25/2006

Line	Part Number	Description	Quantity	UOM	Reqd Date	Price	Ext Price
▼ 001	BPP-100	Assembly, Ball Point Pen, B	200.00		2/25/2006	\$1.25	\$269.38
▼ 002	BPP-100	Assembly, Ball Point Pen, B	200.00		3/28/2006	\$1.25	\$269.38
▼ 003	BPP-100	Assembly, Ball Point Pen, B	200.00		4/28/2006	\$1.25	\$269.38
▼	<New>						

Notes
\$808.13
SO Remaining Amount
\$808.13

Advanced

Delete

---

MRP Detail

Inventory Summary

1. Tab into or click in the Part Number field, enter a part number or click on the ellipse button to select one from the part master table. The part description will default from the Part Master table.
2. Enter the quantity ordered for this line item in the sales UOM. As soon as you leave the quantity field the customer's price will be calculated based on the customer's part cross-reference and/or discount codes if applicable.
3. If the Sales UOM is different than the Stocking UOM, enter the sales UOM code.
4. Enter the date the customer requests the completed order. The Required Date defaults to "today's" date, or you can use the calendar box to specify a different date. If you entered a date in the sales order header it will automatically default to all line items.
5. The Extended Price field is automatically calculated by multiplying the line item price by the quantity then adding any base tax applied.
6. If you have correctly entered your line items a green "+" will be displayed in the Line field (the green plus sign will change to a line number when the record is saved. If any field is invalid a red "X" will be displayed in the Line field and the invalid field will display a red background, the Save and OK buttons will be disabled.

7. Click on the down arrow in the Line field to add notes to that line item, toggle to the Advanced Line Item entry form for that line item, delete that line item or to view the MRP Action screen or Inventory Lots screen for that part number.

Click Save to save all entries and leave the form open.

Click OK to save all entries and exit the Sales Orders data entry form.

Click Close to exit the form without saving any entries not saved previously.

**NOTE:**

*The fields shown below are part of the complete sales order record even though they are not displayed on the Easy Entry form. Some of these fields may default from related tables. They can be viewed, entered and edited by clicking on one of the Advanced hyperlink toggles. If one of these fields is invalid the Save and OK buttons will be disabled and the record cannot be saved.*

**Advanced Sales Order fields not displayed**

**Sales Order Header**

1. Department code, the departments account number will display below this field. This should be the department associated with the GL account for this order (usually COGS). This value will default if set up in Company Preferences.
2. Ordered By, the name of the customer contact or the person placing the order. (Optional)
3. Attention, an entry in this field will be printed on the shipping documents. (Optional)
4. Order Type, enter Phone, FAX, EDI, Blanket, or another method to indicate the order type. (Optional)
5. User Field 1, (Optional)
6. Ship Hold, select the Ship Hold box to prevent this order from shipping. If Ship Hold? has been applied on the customer record, the customer record entry will override this entry.
7. Class Code, the Class Code is for QuickBooks accounting link use. See your QuickBooks accounting link Help File or Users Guide.
8. Document Path, you may enter a Document Path if you are referencing a drawing, contract or other document (This field is for internal use only and will not print on the sales order).

**Sales Order Line Item**

1. Part X Reference, enter a cross-reference to the customer's part number if needed. If only one (1) customer cross reference exists for the part number entered and it is checked as an Approved Source, the cross reference field will be defaulted.(Optional)
2. Part number, the part number will default if you entered a Part Cross Reference above.
3. Taxable Flag, if the part taxable flag is set up in the Part Master this flag will be defaulted to True. The Tax Code can be defaulted from either the customers ship to address record or the part master record.
4. Closed? Check the box if this line item is closed. MRP will only plan open line items. Closing an order on the Sales Order header will automatically close all line items, regardless of whether this box is checked.

**Sales Order Line More Tab**

5. The system will apply the Base Tax rate by default. However, you can enter 2nd and 3rd Tax Rates in the appropriate fields to apply multi-tiered (compound) tax rates. To apply these taxes, do one or both of the following:
6. Select the Tax on Tax 2 checkbox to apply a second tax amount to the original subtotal (quantity x price plus tax), enter the second Tax Code you wish to apply. Or leave the Tax on Tax 2 checkbox empty to apply a second tax amount to the original quantity x price only (the no tax on tax option).
7. Select the Tax on Tax 3 checkbox to apply a third tax amount to the original subtotal (quantity x price plus tax), enter the third Tax Code you wish to apply. Or leave the Tax on Tax 3 checkbox empty to apply a third tax amount to the original quantity x price only (again the no tax on tax option).

Click Save to save all entries and leave the form open.

Click OK to save all entries and exit the Sales Orders data entry form.

Click Close to exit the form without saving any entries not saved previously.

**Accessing Sales Order Data**

Once sales orders are added to the system, Alliance/MFG gives you a number of ways to access the data.

**From the Demand Menu**

Select Demand>Sales Orders from the main menu. From here you can go straight to a new, blank Sales Order data entry form, edit an existing sales order, or use predefined queries and wild cards to locate specific records.

**From the Sales Order View**

The records displayed in the Sales Order View depend on the query you select.

Sales Order	Closed Flag	Customer ID	Ship Hold?	Required Date	Customer PO	Order Date	Job Number	Sales Person
1	<input type="checkbox"/>	TRIDA	<input type="checkbox"/>	2/25/2006	PO9900201	10/26/2005		20-HCC
2	<input type="checkbox"/>	SOLED	<input type="checkbox"/>	12/13/2005		10/26/2005		20-HCC
3	<input type="checkbox"/>	PAPRB	<input type="checkbox"/>	10/26/2005	Verbal	10/26/2005	M2000	90-KEM
4	<input type="checkbox"/>	MCLAR	<input type="checkbox"/>	11/13/2005		10/26/2005		20-HCC
5	<input type="checkbox"/>	MCLAR	<input type="checkbox"/>	12/13/2005		10/26/2005		20-HCC
6	<input type="checkbox"/>	BLUES	<input type="checkbox"/>	1/18/2006		10/26/2005		20-HCC
7	<input type="checkbox"/>	OFFMX	<input type="checkbox"/>	2/7/2006	99876543	10/26/2005	M2000	90-KEM
8	<input type="checkbox"/>	FENCO	<input type="checkbox"/>	12/30/2005		10/26/2005	FEN-105	20-HCC
9	<input checked="" type="checkbox"/>	HANFD	<input type="checkbox"/>	11/29/2005	Verbal	10/26/2005		90-KEM
10	<input type="checkbox"/>	FENCO	<input type="checkbox"/>	12/9/2005	20059984	11/7/2005		20-HCC
11	<input type="checkbox"/>	OFFMX	<input type="checkbox"/>	11/25/2005	PO0599372	11/7/2005		20-HCC

From here you can add, edit, or delete a record; or via the sidebar you can drill down or access related data; preview or print a report.

## Blanket Orders

The Alliance/MFG Blanket Order feature provides the tools for managing quantities and scheduling shipments originating from a contract. The Blanket order defines the contracted quantity and rests atop the Sales Order, effectively controlling the “Firming” and “Release” of the scheduled shipments. The shipping schedule may or may not be agreed to in advance (Firm), it may be updated as the dates move in on the planning horizon and additional information about actual requirements is known. The existing sales order in Alliance essentially stays the same, with a few additional fields required by the blanket order. Customer defaults, contract pricing and billing information will automatically default from the blanket order to each sales order created. You may enter different Ship To information for each firm release (sales order) as needed. You can create both planned and firm shipment schedules (sales orders), the only difference is you cannot ship a planned shipment (sales order). Planned sales orders created from blanket orders are not ignored by MRP. If you want to plan material for the entire contract quantity, you must create either Firm or Planned Shipments (sales orders) for the entire blanket order quantity. As you manage the blanket order shipment quantities and dates, MRP will manage the material plan accordingly. The blanket order will contain summary information for quantity, price, firm orders, planned orders, shipped, past due, returned and allocations remaining.

### Creating a Blanket or Contract Order

Select Demand>Blanket Orders>New, to open a blank Blanket Order data entry form. When creating a blanket or contract order you will normally go through the same steps as when creating a sales order.

The Blanket Order data entry form opens at the Order tab. Header information will remain in view as you work your way through the tabs. As order line items are entered additional summary information will display at the bottom of the form.

Order	Customer	Lines	Notes
Order Total		\$0.00	Firm Total \$0.00

### Blanket Order Header

1. If you specified auto numbering in your Company Preferences, the next incremental blanket order number will be entered automatically when you save the order, otherwise you must enter a unique blanket order number.
2. Enter a Customer ID. The customer name displays below the field.
3. Customer Defaults Button - When you select a Customer ID, default information such as Terms, Ship Via and FOB values are defaulted from the Customer record. If you make changes, then decide to return to defaults, simply click the Customer Defaults button to refresh.

4. When entering a new blanket order, the Closed box should be unchecked. You can return to select this box when the entire contract order is shipped.

**Order Tab**

1. The Order Date defaults to “today’s” date, or you can use the calendar box to specify a different date.
2. Enter the name of the customer contact or the person placing the order.
3. Enter the Customer PO number. This information is optional; however, if you use it, you can access sales orders for this customer PO using the predefined queries on the Blanket Orders submenu.
4. Enter the Employee ID of the salesperson to be referenced with the order. The employee name displays below the field. This value will default if maintained in the customer record.
5. If you wish to use the Job Tracking feature, enter the job number. The Job Number description displays below the field.
6. The Date Required defaults to “today’s” date, or you can use the calendar box to specify a different date. This is the date MRP will plan to ship the order on. Activate the date by checking the checkbox.
7. Enter a Ship Via code or accept this customers default entry.
8. Enter a Ship To Address ID or accept this customers default entry. This field will only default if a single Ship To address is maintained for this customer. Right click to view All ship to addresses for this customer.
9. Enter a Ship To Contact or accept this customers default entry. This field will only default if a single Ship To Contact is set up for this address. Right click to view All ship to contacts for this ship to address.
10. An entry in the Attention field will be printed on the shipping documents.
11. The Create Sales Order check box is used to create Planned and Firm sales orders. The use of this Create button will be discussed as the final step of the Blanket Order section.

**Blanket Order Header**

Blanket Order Number: B005000001 Closed

[Customer ID](#): AASIC AASI Co., Inc.

Order Customer Lines Notes

Order Date: 12/27/2005

Ordered By: Caroline

Customer PO: PO2006891

[Salesperson](#): 20-HCC  
Confrey, Heather C

[Job Number](#):

[Create Sales Order](#)

Date Required: 12/27/2005

[Ship To Address](#): 000001  
Deerfield Beach  
FL

[Ship To Contact](#): 00002  
Caroline Totaro

[Ship Via Code](#): UPS

Attention: Caroline

Order Total: \$0.00      Firm Total: \$0.00

**Customer Tab**

When you select a customer in the Blanket Order Header, the system defaults customer's data. You may change the data if required. The code descriptions display below the code fields.

**Blanket Order Header**

Blanket Order Number: B005000001 Closed

[Customer ID](#): AASIC AASI Co., Inc.

Order **Customer** Lines Notes

<a href="#">Terms Code</a> : N30 Net Amt Due in 30 Days	<a href="#">Bill To Address</a> : 000001 Deerfield Beach FL
<a href="#">Region Code</a> : S Southern US	<a href="#">Bill To Contact</a> : 00001 Tullio Merolla (954) 956-1574
<a href="#">F.O.B. Code</a> : SD Shipping Dock	<a href="#">Department Code</a> : COGS 5000
<a href="#">Currency Code</a> : US US Dollars	User Field 1: <input type="text"/>
Currency Rate: <input type="text" value="1"/>	Entered By: SUPERVISOR

Price Discount Type: 2 - Quantity Discount RESLR

Order Total: \$0.00      Firm Total: \$0.00

1. Enter a Terms code or accept this customer's default entry.
2. Enter a Region code or accept this customer's default entry.
3. Enter an F.O.B. code or accept this customer's default entry.
4. Enter the Currency Code or accept this customer's default entry. This currency and exchange rate will be displayed when you print the sales order report. The Conversion Rate will display based on the rate entered in the Currency Code Table.
5. Enter a Bill To Address ID or accept this customers default entry.
6. Enter a Bill To Contact or accept this customers default entry.
7. This should be the department associated with the GL account for this order (usually COGS). This value will default if set up in Company Preferences or you may enter a Department Code. The department account number displays below the field.
8. Entered By will default to the user login id.

### Lines tab

The blanket order lines tab gives you access to line item detail including line number, part, quantity, and tax information. From here you can edit existing line items or add line items.

Click the Add button on the left side of the form to open the Blanket Order Detail data entry form.

The BO Detail data entry form contains three tabs. The form opens at the Line tab, and displays the BO Number, Customer ID, and BO Line in the header. Enter detailed information about the part ordered; including the quantity, scheduled ship date, and tax information. At a minimum you must enter a part number and quantity to create a valid record.

**Blanket Order Detail**

Blanket Order Number: BD05000001      Blanket Order Line: 001  
 Customer ID: AASIC      Price Discount Type: 2 - Quantity Discount      RESLR

Line    More    Notes

Part X Reference: [ ]      Customer Line: [ ]  
 Part Number: BPP-100      Assembly, Ball Point Pen, Blue  
 Quantity Ordered: 100,000.00      Discount %: 0.10  
 Customer Price: \$1.13      List Price: \$1.25

Taxable Flag:       Tax Code: NON      0.00  
 Sales UOM: EA      Stock UOM: EA  
 Closed Flag:

**Line Amounts**

Extended Price	\$112,500.00
Base Tax	\$0.00
Line Subtotal	\$112,500.00

Close

1. Enter a cross-reference to the customer's part number if required. If only one (1) customer cross reference exists for the part number entered and it is checked as an Approved Source, the cross reference field will be defaulted. (Optional)
2. Enter the part number. The part number will default if you entered a Part Cross Reference above.
3. If the Sales UOM is different than the Stocking UOM, enter the sales UOM code.
4. Enter the contract quantity ordered for this line item and sales UOM.
5. The customer price will default from the customer part cross-reference. If the customer record is set up for a discount, that discount will be applied automatically, or you can manually enter the customer price. The list price for the part will be displayed for information only.
6. If this line item is taxable, select the Taxable Flag. If the part taxable flag is set up in the Part Master this flag will be defaulted to True.
7. If you select Taxable, enter a Tax Code. If the part taxable flag and tax code are set up in the Part Master this value will be defaulted.
8. Enter a Sales UOM Code if different from the Stocking UOM Code. The stocking UOM is also displayed.



9. Check the Closed Flag box if this line item is closed. Closing an order from the Blanket Order header will automatically close all blanket order line items, regardless of whether this box is checked. This flag will NOT affect sales orders created from this blanket order, sales orders must be closed separately.
10. Enter a customer line number if desired.
11. The Line Amounts box displays the line item value multiplied by the quantity as the Line Amount, adds any Base Tax applied, then computes the Line Subtotal.

**NOTE:**

*If the customer's currency code is different from your base currency code and the exchange rate is not 1.0, the Exchange Price field will be displayed. You may enter a fixed exchange price and Alliance will convert this amount to your base currency using the currency exchange rate table.*

**More Tab**

Click the More tab to enter additional line information such as Product Class Code and any multi-tiered tax values.

**Blanket Order Detail**

Blanket Order Number: BO05000001      Blanket Order Line: 001  
 Customer ID: AASIC      Price Discount Type: 2 - Quantity Discount      RESLR

Line    More    Notes

Product Class Code: BPP100    100 Series

User Defined 1:       Tax on Tax 2:

User Defined 2:       Tax Code 2:       0.00

Blanket Order Summary

Last Ship Date	
Planned Shipments	0.00
Past Due	0.00
Total Shipped	0.00
Total Returned	0.00
Total Firmed	0.00
Allocations Remaining	100,000.00

Tax on Tax 3:

Tax Code 3:       0.00

Line Amounts

Base Tax	\$0.00
Subtotal	\$112,500.00
2nd Tax	\$0.00
3rd Tax	\$0.00
Line Total	\$112,500.00

Close

**NOTE:**

*You must select the Taxable Flag in the Line Tab to enable the multi-tier tax fields on the More Tab.*

You can enter 2nd and 3rd Tax Rates in the appropriate fields to apply multi-tiered (compound) tax rates. To apply these taxes, do one or both of the following:

Select the Tax on Tax 2 checkbox to apply a second tax amount to the original subtotal (quantity x price plus tax), enter the second Tax Code you wish to apply.

Or leave the Tax on Tax 2 checkbox empty to apply a second tax amount to the original quantity x price only (the no tax on tax option).

Select the Tax on Tax 3 checkbox to apply a third tax amount to the original subtotal (quantity x price plus tax), enter the third Tax Code you wish to apply.

Or leave the Tax on Tax 3 checkbox empty to apply a third tax amount to the original quantity x price only (again the no tax on tax option).

1. The Line Amounts box will display the Base Tax from the previous tab, compute a subtotal, then compute and add a 2nd and 3rd tax as applicable to compute the Extended price for this line item.
2. The Blanket Order Summary box will display the current status of this line for this blanket order.
3. Last Ship Date – Displays the last ship date for this line item.
4. Past Due - Displays Total Quantity Remaining for open Firm sales orders with past due Required Dates
5. Total Shipped – Displays the total quantity shipped against this BO line item.
6. Total Returned – Displays the total quantity returned for this BO line item.
7. Planned Shipments - Displays the Total Quantity Ordered for Planned sales orders plus the Total Firmed for all Firm sales orders
8. Total Firmed - Displays the Total Order Quantity for open Firm sales orders or net Quantity Shipped for closed Firm sales orders
9. Allocations Remaining - Balance of the contract order not planned or firming (Ignored by MRP)
10. When you have finished entering or editing line items, do one of the following:
  - Click the Save button on the toolbar to save all entries and leave the form open.
  - Click Close to exit the line item form and return to Blanket Order form, then either
  - Click OK to save all entries and exit the Blanket Orders data entry form.
  - Click Close to exit the form without saving any entries not saved previously.

## **Creating Scheduled Shipments (Sales Orders) from Blanket Orders**

You may create as many scheduled shipments (sales orders) as required to consume the entire contract order quantity. If the quantities and required dates are known, create Firm Sales Orders, if the required dates, quantities or ship to locations are not known, but you want to plan materials, create Planned Sales Orders (you will have to establish via your “Best Guess” or a tentative shipping schedule, both the required date and quantity for MRP to plan with).

### **From the Demand Menu**

Select Demand>Blanket Orders from the main menu. From here you can go straight to a new blank Blanket Order data entry form, edit an existing blanket order, view open blanket orders, or use predefined queries and wild cards to locate specific blanket orders.

**Example:**

1. In our example below the quantities and required dates are known for the next quarter only, the balance is subject to minor changes. We will create three (3) Firm sales orders and the balance as quarterly Planned sales orders.
2. Select the blanket order you wish to schedule.
3. Review the BO Order Tab to insure the Required Date is set for the first Sales Order Ship Date and that the Ship To Address is correct (You may ship to multiple locations, warehouses, etc.). Click the Create Sales Order check box at the top right side of the form, then click the Create button.
4. The system will automatically create a Planned Sales Order and default the majority of information from the blanket order.
5. If a Promised Date exists, check the box and enter it (informational only). This is normally the required date (Ship Date) plus any transit time. For Firm orders change the Status from Planned to Firm.
6. Verify the information in both the Order Tab and Customer Tab is accurate.

**Blanket Order Header**

Blanket Order Number: BO05000001

Status: Closed

---

**Sales Orders**

Sales Order: 1:[Auto Nu]      Status:  Planned  Firm  Easy Entry

Customer ID:  AASIC      Closed:  Ship Hold?

Customer Defaults: AASI Co., Inc.

Order:     Customer:     Lines:     Notes:

Order Date: 12/27/2005      Ordered By:  Caroline

Date Required:  1/13/2006      Customer PO:  PO2006891

Date Promised:  1/13/2006      Attention:  Caroline

Department Code: COGS      Blanket Order Number:  BO05000001

Salesperson: 20-HCC, Confrey, Heather C      Quote Number:

Job Number:       Order Type:

Class Code:       User Field 1:

Entered By: SUPERVISOR

SD Total Amount: \$0.00      SD Remaining Amount: \$0.00

OK    Close

Click on the Line Tab and enter the first shipment quantity. Verify the rest of the information on the Lines Tab is accurate. Click on the More Tab to enter additional taxes or the Notes Tab to enter Notes (Notes will not be automatically defaulted or copied by the system). Click on the Close button, Click on the OK button to save the sales order.

**Sales Order Detail**

SO Number: SO05120001    SO Line: 001    Price Discount Type: 2 - Quantity Discount    RESLR  
 Customer ID: AASIC    Blanket Order Line: 001

Line    More    Notes

Part Reference: [ ]    Customer Line: [ ]  
 Part Number: BPP-100    Assembly, Ball Point Pen, Blue  
 Quantity Ordered: 10,000.00    Discount %: 0.10  
 Customer Price: \$1.13    List Price: \$1.25

Taxable Flag:     Tax Code: NON    0.00  
 Sales UOM: EA    Stock UOM: EA  
 Scheduled Ship Date: 1/13/2006  
 Closed Flag:

**Line Amounts**  
 Extended Price: \$11,250.00  
 Base Tax: \$0.00  
 Line Subtotal: \$11,250.00

Close

The system will return you to the Blanket Order you started from, continue to create additional firm and planned orders as required. Remember to change the Required Date and Ship To Address as needed before pushing the Create button and the Promise Date and Status before saving the order.

To review the orders you have created and view the current status of the contract/blanket order, click on the Lines Tab, Edit and then the More Tab.

**Blanket Order Detail**

Blanket Order Number: B005000001    Blanket Order Line: 001  
 Customer ID: AASIC    Price Discount Type: 2 - Quantity Discount    RESLR

Line    More    Notes

Product Class Code: BPP100    100 Series  
 User Defined 1: [ ]    Tax on Tax 2:   
 User Defined 2: [ ]    Tax Code 2: [ ]    0.00  
 Tax on Tax 3:   
 Tax Code 3: [ ]    0.00

**Blanket Order Summary**

Last Ship Date	
Planned Shipments	100,000.00
Past Due	0.00
Total Shipped	0.00
Total Returned	0.00
Total Firmed	30,000.00
Allocations Remaining	0.00

**Line Amounts**  
 Base Tax: \$0.00  
 Subtotal: \$112,500.00  
 2nd Tax: \$0.00  
 3rd Tax: \$0.00  
 Line Total: \$112,500.00

Close

To view a list of all the sales orders created from this blanket order, click on Sales Orders (All) in the Related Views section of the Sidebar.

**Sales Orders View - By Blanket Order (BO0500001)**

Sales Orders View - By Blanket Order (BO0500001)

Sales Order	Closed Flag	Customer ID	Ship Hold?	Required Date	Customer PD	Order Date	Job Number	Sales Person	Salesperson
1	<input checked="" type="checkbox"/>	AASIC	<input checked="" type="checkbox"/>	2/17/2006	PD2006891	12/27/2005		20-HCC	Confrey
2	<input type="checkbox"/>	AASIC	<input type="checkbox"/>	3/17/2006	PD2006891	12/27/2005		20-HCC	Confrey
3	<input type="checkbox"/>	AASIC	<input type="checkbox"/>	4/14/2006	PD2006891	12/27/2005		20-HCC	Confrey
4	<input type="checkbox"/>	AASIC	<input type="checkbox"/>	7/14/2006	PD2006891	12/27/2005		20-HCC	Confrey
5	<input type="checkbox"/>	AASIC	<input type="checkbox"/>	10/13/2006	PD2006891	12/27/2005		20-HCC	Confrey
6	<input type="checkbox"/>	AASIC	<input type="checkbox"/>	1/13/2006	PD2006891	12/27/2005		20-HCC	Confrey

Buttons: Edit, Close

You may also print the Blanket Order Summary Report, linked in the Sidebar or from the Demand>Reports menu.

**Blanket Order Summary - By Blanket Order Number**

Blanket Order Summary

Blanket Order Number	Closed	Customer ID	Order Date	Required Date
BO0500001	No	AASIC	12/27/2005	10/13/2006

Line	001	Customer Line	Closed	No	Quantity Ordered	100,000.00	
Part Number	BPP-100	Customer Price	\$1.13				
Part Description	Assembly, Ball Point Pen, Blue	List Price	\$1.25				
Part X-Reference		Allocations Remaining	0.00				
		Planned	Shipped	Returned	Past Due	Firm	Last Ship Date
Quantity	100,000.00	0.00	0.00	0.00	0.00	30,000.00	
Price	\$112,500.00	\$0.00	\$0.00	\$0.00	\$0.00	\$33,750.00	

Sales Order#	Line	Status	Closed	Order Qty	Shipped Qty	Returned Qty	Scheduled Ship Date	Last Ship Date	SO Price
SO05120001	001	Firm	No	10,000.00	0.00	0.00	1/13/2006		\$1.13
SO05120002	001	Firm	No	10,000.00	0.00	0.00	2/17/2006		\$1.13
SO05120003	001	Firm	No	10,000.00	0.00	0.00	3/17/2006		\$1.13
SO05120004	001	Planned	No	30,000.00	0.00	0.00	4/14/2006		\$1.13
SO05120005	001	Planned	No	30,000.00	0.00	0.00	7/14/2006		\$1.13
SO05120006	001	Planned	No	10,000.00	0.00	0.00	10/13/2006		\$1.13

Buttons: Print, Close

## Shipments and Returns

### Sales Order Shipments

The Alliance/MFG shipments feature is flexible and easy to use. You can ship all lines or a single line item on a sales order, and you can invoice a customer for the sales order shipment. Mark the order closed or leave it open, depending on how much of the order is shipped. Once a sales order is shipped, you can also return individual line items from a customer and issue credit memo's. If you created sales orders from Blanket Orders, you can only ship Firm Sales Orders, not Planned Orders.

#### Shipping a Sales Order

Select Demand>Sales Order Shipments to open a SO Shipments transaction form. You can ship detail line items from this form. For a new shipment, the lines in the Header of this screen will be empty. As you fill in the sales order number and ship from this sales order, the shipment information displays in the body of the Shipments Tab.

#### Creating a Sales Order Shipment

1. Enter a Sales Order number or right click on the SO Number hyperlink for predefined queries.
2. The Ship Date will default to "today's" date. You can use the calendar box to change it if required. Both the entered Ship Date and the actual transaction date will be recorded in the Transaction Log.
3. The Entered By field defaults from the system Login. The system also generates a Transaction Group number for each shipment transaction to identify record specific transactions.

4. You can assign this shipment to a new invoice number or add it to an existing one. (See Invoicing a Customer later in this section for more information.) If you selected Invoice Required in your Company Preferences, you must complete the header portion of the invoice prior to shipping the order.

The screenshot shows the 'SO Shipments' window with the following header information:

- SO Number: SO00080001 (checked)
- Entered By: SUPERVISOR
- TRIDA
- Tran Group: -1
- Ship Date: 12/28/2005
- IV Number: 1:[Auto Nu] (with New, Edit, Remove buttons)

The 'Sales Order Detail' tab is active, showing a table with the following data:

	SO Line	Part Number	Scheduled	Remaining	Shipped	Ordered	Returned	PartXReference
Add	1	001	BPP-100	2/25/2006	200.00	0.00	200.00	0.00
Edit	2	002	BPP-100	3/28/2006	200.00	0.00	200.00	0.00
Delete	3	003	BPP-100	4/28/2006	200.00	0.00	200.00	0.00

Buttons on the left: Add, Edit, Delete, All, Ship Line. Buttons at the bottom right: OK, Close.

### Selecting Items for Shipment

All sales order line items are displayed on the SO Detail Tab. You can ship all lines or select a line item for shipment.

- To ship all lines on the sales order, click the All button on the left side of the form. The available inventory for all line items will display in the Quantity Shipped column. The Remaining column will show any balances that were not available for shipment.
- To ship individual line items, highlight the line item you wish to ship, and click Ship Line button. All available stock for the line item selected will display in the Quantity Shipped column. The Remaining column will show any balance not available for shipment.

#### NOTE:

*An invalid icon may appear on the Shipments tab to remind you that you must perform an additional action to complete the shipment; for example, if you have specified Require Invoices in Company Preferences, you must create an invoice before you can complete the transaction.*

You can continue to select lines and ship them. When you are finished, click on the Shipments tab. The body of the form will show the quantities shipped and the stockrooms and locations the stock came from.

**SO Shipments**

SO Number:  Entered By:   
 TRIDA Tran Group:   
 Ship Date:   
 IV Number:

Sales Order Detail  
  Shipments  
  Notes

	SO Line	Quantity	Part Number	Stockroom Code	Location Code	SN/Lot Number
<input type="button" value="Add"/>	1	200.00	BPP-100	PENS	100	FEN-105
<input type="button" value="Edit"/>	2	200.00	BPP-100	PENS	100	FEN-105
	3	200.00	BPP-100	PENS	100	FEN-105

At this point, you can create the invoice, fill in the Bill of Lading, Carrier, and so on. (See Creating and Editing an Invoice, later in this section for more information.)

You can also edit the quantities, stockroom, and location at your discretion; click Apply, and then print shipping documents.

**Editing the Shipment**

You can edit the quantity shipped and the stockroom and location on a line item in the SO Shipments data entry form.

In the Shipments tab, select the line you wish to edit and click Edit. The Shipments data entry form opens for the line item selected.

**Shipments**

SO Number:   
 SO Line:  Closed Flag:   
 Part Number:

Stockroom Code:  Finished Goods - Pens  
 Location Code:   
 SN/Lot Number:   
 Job Number:   
 Quantity:    
 Actual Catch Weight:   
 Tran Info:



1. You can edit the Stockroom, Location, and quantity; add an SN/Lot Number or Job Number; or enter up to 60 characters of your choice in the Tran Info field. If the part master Require SN/Lot Number field is checked you will be required to enter a lot or serial number. Additionally, if the part master record contains a Catch Weight and Catch Weight UOM, you will be required to weigh the shipment.
2. When you are satisfied with your shipment, click Close to save your entries and return to the Sales Order Shipments tab.
3. When you are satisfied with the line items in the shipments data entry form, you are ready to create an invoice. (See Invoicing a Customer, for more information.)
4. When you have finished adding shipments and creating invoices from the Shipment form, do one of the following:

Click Apply so save your entries and leave the form open.

Click OK to save your entries and exit the form.

Click Close to exit the form without saving any entries not applied or saved.

## RETURNING A CUSTOMER ORDER

The Alliance/MFG returns feature is flexible and easy to fit to your particular needs. You can return all lines or a single line item on a sales order, and you can issue a credit memo to a customer for all or a single line item or quantity of the sales order. If the sales order has been marked “closed,” you must open it to receive returns, and issue a credit memo against it.

### Creating a Sales Order Return

Select Demand>Sales Orders>Return a Customer Order to open the Returns data entry form. For a new shipment, the lines in the Header of this screen will be empty. As you fill in the sales order number and return from this sales order, the return information displays in the body of the SO Returns Tab.

**To Create the Sales Order Return**

1. Enter the Sales Order Number for the item you wish to return.
2. The Return Date will default to “today’s” date. You can use the calendar box to change it at your discretion.
3. The Entered By defaults to the workstation Login ID.
4. Enter the Credit Memo Number by clicking on the New Button.

You can assign this return to a new credit memo number or add it to an existing one. (See Creating a Credit Memo for a Customer later in this section for more information.)

**Selecting Items for Return**

1. All sales order line items are displayed on the SO Detail Tab. You can return all lines or select one line item for shipment.
2. Click the All button on the left side of the form. The returned quantities will display in the Quantity Returned column.  

or
3. Select the item you wish to return, and click the Return Line button on the left side of the form. The returned quantity will display in the Quantity Returned column.
4. You can continue to select and return lines. When you are finished, click the SO Returns tab. The body of the tab will show the quantities returned and the stockrooms and locations the stock will be returned to.

NOTE:

*You can return a partial quantity on a line item. See Editing the Return in the following section.*

The screenshot shows a software window titled "Returns". At the top, there are standard window control buttons (minimize, maximize, close). Below the title bar, there are several input fields and buttons:

- SO Number:** A text box containing "S000080001" with a green checkmark icon to its left.
- Return Date:** A date picker showing "12/28/2005".
- Entered By:** A text box containing "SUPERVISOR".
- Credit Memo Number:** A text box containing "1:[Auto Number]".
- Tran Group:** A text box containing "-1".
- Buttons: "New", "Edit", and "Remove".

Below the form fields, there are three tabs: "Sales Order Detail", "SO Returns", and "Notes". The "SO Returns" tab is selected and highlighted. Underneath the tabs is a table with the following columns: "SO Line", "Quantity", "Part Number", "Stockroom Code", "Location Code", and "SMLot Number".

SO Line	Quantity	Part Number	Stockroom Code	Location Code	SMLot Number
1	200.00	BPP-100	PENS	100	

On the left side of the table, there are buttons: "Add" (with a plus icon), "Edit", and "Delete". At the bottom right of the window, there are "OK" and "Close" buttons.

At this point, you can create the credit memo, and exit the returns transaction form. You can return later to fill in the Bill of Lading, Carrier, and other optional information. (See Creating a Customer Credit Memo later in this section for more information.)

### Editing a Returned Line

You can edit the quantity returned and the stockroom and location on a line item in the Returns data entry form.

In the SO Returns tab, select the line you wish to edit and click the Edit button on the left side of the form. The SO Returns data entry form opens for the line item selected.

SO Returns	
SO Number	S000080001
SO Line	001
Part Number	BPP-100
Closed Flag	<input checked="" type="checkbox"/>
Stockroom Code	PENS Finished Goods - Pens
Location Code	100
SN/Lot Number	
Job Number	
Quantity	200.00
Actual Catch Weight	0.00
Tran Info	

1. The SO number, SO line item, and Part Number display in the SO Returns header.
2. You can edit the Stockroom, Location, and quantity; add an SN/Lot Number or Job Number; or enter up to 60 characters of your choice in the Tran Info field. If the part master Require SN/Lot Number field is checked you will be required to enter a SN/Lot number. Additionally, if the part master record contains a Catch Weight and Catch Weight UOM, you will be required to weigh the return.
3. When you are satisfied with your edits, click Close to save your entries and return to the Sales Order Returns tab.
4. When you are satisfied with the line items in the Returns transaction form, you are ready to create a credit memo, if required. (See Issuing a Customer Credit Memo, for additional Information.)
5. When you have finished adding returns and creating credit memos from the sales order, do one of the following:
  - Click Apply to save your entries and leave the form open.
  - Click OK to save your entries and exit the data entry form.
  - Click Close to exit the data entry form without saving any entries not applied or saved.

## Invoicing and Credit Memos

### INVOICING A CUSTOMER

Invoices can be created and printed when the shipment transaction is performed. You can add Bill of Lading, Carrier and Tracking number information as required.

If you wish to enforce invoice creation at each shipment transaction, you must specify Require Invoices in your company Preferences setup. (See Chapter 3: Setting Up Your Company, Preferences.)

#### Creating and Editing an Invoice

You can create a new invoice from the main menu at any time, or you can create an invoice at the time of shipment from the Shipment transaction form.

##### Create an Invoice from the SO Shipments Transaction Form

In the SO Shipments Header, click the Edit button next to the Invoice field to add information to a new invoice for the line items selected. If you specified auto numbering in your Company Preferences, the system will apply the next sequential invoice numbers according to your numbering format. If not, enter a unique invoice number in the field.

If you wish to add this shipment to an existing invoice, click the IVNumber Hyperlink to select an existing invoice. The Invoice Number and current invoice amount will display in the header, along with the SO number and Customer ID.

#### Logistics Tab

The Invoice data entry form opens at the Logistics tab where you can add the Bill of Lading, Carrier, Tracking number and Freight amount. Two User fields are also available to add more detail, and you can click the Notes tab to enter any additional information. If the bill of lading and carrier information is not available at the time the shipment transaction is performed, you can open this invoice later and add the information. Click Close to return to the Invoice form.

**Invoice**

Invoice Number: 1000000002      Invoice Amount: \$808.13

SO Number: S000080001      Customer ID: TRIDA

Logistics | Notes | **Invoice Detail**

Shipment Date: 12/28/2005

Bill of Lading:

Carrier: FEDEX

Tracking Number: FX1233998700P88TC

Freight Amount: \$19.95

User Defined 1:

User Defined 2:

Number of Pieces: 3

Weight: 2 lbs

OK    Close

**Invoice Detail tab**

Click the Invoice Shipment tab to add or edit line items on the invoice.

**Invoice**

Invoice Number: 1000000002      Invoice Amount: \$808.13

SO Number: S000080001      Customer ID: TRIDA

Logistics | Notes | **Invoice Detail**

Invoice Line	Part Number	Quantity	Price	Line Total
1 001	BPP-100	200.00	\$1.25	\$269.38
2 002	BPP-100	200.00	\$1.25	\$269.38
3 003	BPP-100	200.00	\$1.25	\$269.38

Buttons: Add, Edit, Delete

OK    Close

Click Close to save your entries and return to the Sales Order Shipments data entry form.

## Accessing Invoice Information

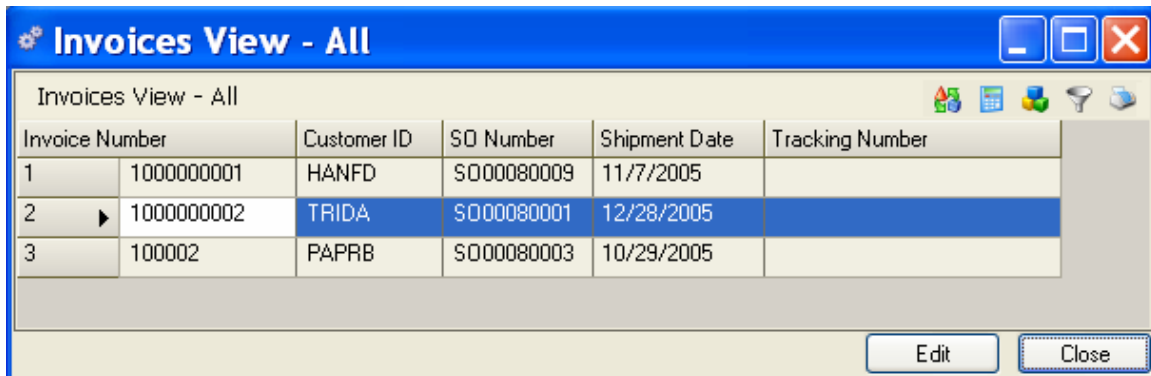
Once invoices are created, Alliance/MFG gives you several ways to access the data.

### From the Demand Menu

Select Demand>Invoices to access the Invoices submenu. From here you can go straight to a blank invoices data entry form to create a new invoice, or use a predefined query and wild cards to find the invoice you want.

### From the Invoices View

The records displayed in the Invoices View depend on the query you select.



The screenshot shows a window titled "Invoices View - All" with a table containing the following data:

Invoice Number	Customer ID	SO Number	Shipment Date	Tracking Number
1	1000000001	HANFD	SO00080009	11/7/2005
2	1000000002	TRIDA	SO00080001	12/28/2005
3	100002	PAPRB	SO00080003	10/29/2005

At the bottom of the window, there are "Edit" and "Close" buttons.

From here you can add, edit or delete a record; drill down or access related data; preview or print a report.

## Issuing a Customer Credit Memo

### To Issue a Credit Memo:

Enter the information in the tabs as described in the following sections.

#### Sales Order Detail Tab

On a SO Return, click the New button next to the Credit Memo field to add a new credit memo. The Credit Memo data entry form opens at the Logistics Tab.

1. In the header, enter a unique number for the credit memo.
2. The Customer ID will display for the line item selected.
3. Enter the sales order number you wish to issue the credit memo for.
4. Enter an invoice number.
5. The Return date defaults to "today," however, you can change it at your discretion.
6. Optional Fields - Enter the Bill of Lading, Carrier, Tracking Number, any user define information, Freight Amount, and number pieces in the shipment, as required.

**Credit Memo Detail Tab**

The line item detail from the return displays in the Credit Memo Detail tab.

	Credit Memo Line	Part Number	Quantity	Price	Line Total	SO Number	SO Line
1	001	BPP-100	200.00	\$1.25	\$250.00	SO00080001	001

You can accept the information as is, or you can add or edit from here. For example, you may want to adjust the quantity or price of the credit being issued.

Click Add or Edit as required to open the Credit Memo Detail data entry form.

The screenshot shows a window titled "Credit Memo Detail" with a blue header bar. Below the header, there are two tabs: "Credit Memo Detail" (selected) and "Tax Codes/Rates". The header section displays the following information:

Credit Memo Number	CM05000001		
Credit Memo Line	001	Line Total	\$250.00

The main content area of the "Credit Memo Detail" tab shows the following details for a credit memo line:

Part Number	BPP-100
	Assembly, Ball Point Pen, Blue
SO Line	001
Sales UOM	EA
Quantity	200.00
Actual Catch Weight	0.00
Catch Weight UOM	
Price	\$1.25

A "Close" button is located in the bottom right corner of the window.

The Credit Memo Detail header displays the credit memo number and line in the header. The Credit Memo Detail tab displays the Part Number and description along with the original sales order line item and quantity.

### Tax Codes and Rates Tab

Click the Tax Codes/Rates tab to review tax information. The Tax Summary displays the calculated results.



The screenshot shows a window titled "Credit Memo Detail" with a blue header. Below the header, there are fields for "Credit Memo Number" (CM05000001) and "Credit Memo Line" (001). To the right, "Line Total" is \$269.38. Below this, there are two tabs: "Credit Memo Detail" and "Tax Codes/Rates". The "Tax Codes/Rates" tab is active, showing a form with the following fields:

- Taxable Flag:
- Base Tax Code: SB
- Base Tax Rate: 7.75
- Tax Flag 2:
- Tax Code 2: [empty]
- Tax Rate 2: 0
- Tax Flag 3:
- Tax Code 3: [empty]
- Tax Rate 3: 0

To the right of these fields is a "Tax Summary" box with the following data:

----Tax Summary----	
Base Tax	\$19.38
Subtotal	\$269.38
Tax Second Tier	\$0.00
Tax Third Tier	\$0.00

At the bottom right of the window is a "Close" button.

### Completing the Credit Memo

When you have completed your entries, click Close to return to the Credit Memo data entry form, and do one of the following:

- Click Apply to save your entries and leave the form open.

- Click Add to enter additional Credit Memo lines.

- Click Close to exit the data entry form without saving your entries (no credit memo will be created).

- Click OK to save your entries and exit the data entry form.

## JOB MASTER

When you enter a specific job number on a sales order, MRP will order discrete purchases and plan discrete work orders for that job number. As the parts required to complete the sales order move through the system, all costs for parts with the assigned job number will be tracked and totaled.

If you apply Job Tracking to products with complicated, multilevel BOM's, or to a large number of orders, MRP Action Parts could easily generate an overwhelming number of discrete orders that may be difficult for a small manufacturer's staff to process.

### **Job Master Tracking setup involves other functions**

1. Create Job Numbers using the Job Master feature.
2. Assign the Order Method Code to the parts you wish to track in the Part Maintenance, MRP tab: Job Tracking, Plan by Job.
3. Enter the Job Number on the Sales Orders you wish to track.
4. Run MRP.

When you view MRP Action Parts, you can select Job Tracking to display only those jobs that have tracking numbers assigned.

### **You can apply job tracking in a number of ways:**

- Track costs for a unique order or part.
- Run a periodic job tracking to compare actual costs to your cost estimates.
- Track accumulated costs for parts ordered on a specific contract.

Once Job numbers are created, parts coded OMC "J" and Sales Orders with Job Numbers will be tracked. For example, when you place multiple sales orders totaling 100 for a part number that has been assigned the OMC "J," all 100 of the requirements are considered in MRP planning; however, if 20 of those requirements have also been associated with a specific job number, MRP will break the 20 job-ordered units into separate purchase orders and work orders. All the costs associated with that job number can then be tracked through the Job Master feature.

### **Creating Job Numbers in the Job Master**

You can create unlimited job numbers in the system. You must first create a job number and then in the Part Master, MRP tab, assign "Job Tracking, plan by job" as the Order Method Code.

When you enter a sales order for an item you want tracked by job number, enter the job number on the Maintain Sales Order data entry form, Order button tab. Alliance/MFG will now discreetly track all costs associated with that job number.

Once sales orders, purchase orders, or work orders are created with the job number, the Job Master shows the progressive costs.

### **Viewing Accumulated Costs in the Job Master**

Select Demand>Job Master to open the Job Master View. Select a Job Number and click Edit to open the Job Master for Job Number selected.

The Job Master displays the job number and description (as entered in the Job Master data entry form). You can enter information in two User Defined fields and also indicate if this particular job number is closed.

The Job Master is divided into three sections: Sales Orders, Purchase Orders, and Work Orders.

The screenshot shows the 'Job Master' window with the following details:

- Job Number: FEN-105
- Description: Fenco Custom Job
- User Defined 1: (empty)
- User Defined 2: (empty)
- Closed Flag:

Sales Orders		Purchase Orders		Work Orders	
Total Ordered	\$11,250.00	Total Ordered	\$0.00	Total Issues	\$0.00
Total Shipped	\$3,300.00	Total Receipts	\$0.00	Non-Job Issues	\$0.00
Total Returned	\$0.00	Total Returns	\$0.00	Total Labor	\$0.00
SO Net Amount	\$3,300.00	PO Net Amount	\$0.00	Value Added	\$0.00
		Total Issues	\$0.00		
		Non-Job Issues	\$0.00		

The Sales Order column displays the dollar values of Total Ordered, Total Shipped, Total Returned, and Sales Order Net Amount for any parts in the system assigned to the selected job number. The Purchase Order and Work Order columns will remain empty until actual purchase orders and work orders have been created.

As purchase orders and work orders are created, their associated costs display in the appropriate column. When a purchase order is created, the dollar amount will display under Total Ordered. When the purchase order is received, costs will be reflected under Total Receipts (dollar value received), Total Returns (dollar value returned to vendors), and Purchase Order Net Amount (dollar value of what you received, less any return value). In the preceding sample, you can see the value of sales orders assigned to this job number; only \$10 worth of parts assigned to this job number have been orders and received on POs; no work orders have yet been created or completed against this job number.

From here via the sidebar you can drill down or access related data; preview or print a report.

## Demand Reports

The following reports are available from the Demand menu. You can preview or print a report from a predefined query, or create a custom query to display specific information in an Alliance/MFG standard format. For more information about Alliance/MFG reports, see the Technical Reference.

**Acknowledgment**

**Past Due Shipments**

**Bookings Report**

**Blanket Order**

**Blanket Order Summary**

**Contact List**

**Customer List**

**Forecast**

**Invoice**

**Job Summary**

**Shipments By Date**

**Pick List**

**Quotation**

**Sales Order**

**SO List by Customer**

**SO List by Part Number**

# Working with Supply



## Supply Menu functions

Alliance/MFG is designed around the concept of "Supply and Demand." Purchase Orders and Work Orders become the "supply" that MRP recommends based on sales orders and forecasts that are the "demand" in the system. This chapter describes how to maintain your suppliers and any part cross references to your supplier's parts. Additionally, you will learn how to enter and receive purchase orders, return a purchase order; and enter and complete work orders and perform backflushing.

## Suppliers

Alliance/MFG gives you a wide variety of options to create your supplier records. You can enter basic information such as your company account number with this vendor; their address and contact information; terms, ship via, FOB, Region, and Currency codes; and supply a VAT ID and Registration number, if doing business in Europe. You can also enter any part cross references to the supplier's parts. Once added to the system, you can access supplier information from the main menu and submenus, or from the Supplier View list. From here you can access purchase order and shipment activity for a supplier, see what POs are past due, and drill down from any of these to get more detail.

Tasks described in this chapter assume familiarity with the basic use of Alliance/MFG data lists, data entry forms, dialog boxes, queries, and finding and sorting features. If you need more information about how to use these features, review Chapter 2: System Overview.

### Entering New Supplier Information

Enter a record for every supplier you purchase from. If you have not yet defined codes related to suppliers such as FOB, Region, Terms, Ship Via, and Currency, you should complete this task before beginning to enter supplier records.

Select Supply>Suppliers>New to open a blank Supplier data entry form.

The screenshot shows a window titled "Suppliers" with a blue header bar. The form contains the following fields and controls:

- Supplier ID: Text box containing "ASSMB".
- Supplier Name: Text box containing "Assembly Tech. Co., Inc. (ATC)".
- Active Flag: A checkbox with a green checkmark.
- Navigation tabs: "Suppliers" (selected), "Notes", "Default Codes", and "Supplier Address".
- Date Added: A date picker showing "2 /26/2003".
- Company Account: Text box containing "97451".
- VAT Branch ID: Empty text box.
- VAT Registration Number: Empty text box.
- Web Page: Text box with a blue "Web Page" link and an "Open" button.
- Buttons: "OK" and "Close" at the bottom right.

**To enter a new supplier:**

1. Enter a Supplier ID.
2. Enter the Supplier Name.
3. Select the Active Flag box if this is a current supplier.
4. Enter the information in the tabs as described in the following sections.

### Supplier Tab

1. The system will default to today's date; however, you can use the calendar box to select a different date.
2. If you're part of the European Economic Community, enter the VAT Branch ID. This is used in Intrastat Reporting to track Value Added Tax payments and receipts.
3. Enter the VAT Registration number. This is used in Intrastat Reporting to track Value Added Tax payments and receipts.
4. Enter the URL of the supplier's website or a path to a document or contract you want to associate with this supplier.

#### NOTE:

*For more information about setting up Intrastat Reporting, see Chapter 3: Setting Up Your Company (ICN Codes, ICN Rates, Region/Country Codes), and Chapter 8: Inventory Control, Intrastat Reporting.*

### Notes Tab

Enter unlimited notes into the supplier record. Type in the body or copy/paste from another windows program or text file.

### Default Codes Tab

These are the codes that will default to purchase orders created for this supplier, they can be changed or over ridden.

The screenshot shows a software window titled "Suppliers" with a blue header. Below the header, there are two rows of input fields: "Supplier ID" with the value "ASSMB" and an "Active Flag" checkbox which is checked; "Supplier Name" with the value "Assembly Tech. Co., Inc. (ATC)". Below this is a tabbed interface with four tabs: "Suppliers", "Notes", "Default Codes" (which is selected and highlighted in orange), and "Supplier Address". Under the "Default Codes" tab, there are several fields: "Terms Code" (210), "Ship Via Code" (FX), "AP Hold Flag" (unchecked checkbox), "FOB Code" (SD), "Region Code" (W), "Currency Code" (US), and "Exchange Rate" (1.00). There is also a "User Defined" field which is empty. At the bottom right of the window are "OK" and "Close" buttons.

1. Enter a Terms code. This code will default to the Terms Code field on the Purchase Order form. The code description will display next to the field.

2. Enter a Ship Via code . This code will default to the Ship Via Code field on the Purchase Order form. The code description will display next to the field.
3. Select the Active Flag box if this is a current supplier. This is information only.
4. Enter an FOB code. This code will default to the FOB Code field on the Purchase Order form. The code description will display next to the field.
5. Enter a Region code. This code will default to the Region code field on the Purchase Order form. This information is also used with Intrastat Reporting. The code description will display next to the field.
6. Enter a Currency code . This code will default to the Currency Code field on the Purchase Order form. The code description will display next to the field.
7. You can enter up to 10-characters in the User Defined field for any additional code, number or item you wish the system to display on Supplier Reports, Purchase Orders, and Receipts from this supplier.

### Supplier Address Tab

All supplier address information is displayed in the Supplier Address tab. From here you can Add, Edit, or Delete supplier address information. You may enter as many supplier addresses as are required.

	Address ID	Address Line 1	Address Line 2	City	State	Zip Code	Postal
1	000001	12708 Foothill		Panorama City	CA	91412	
2	000002	4570 University City Blvr		San bernadino	CA	95302	

#### To enter address lines:

1. In the Supplier Addresses tab, click Add on the left side of the form to open a blank Supplier Address data entry form.
2. Here you will enter an Address ID and any contacts you wish to identify for this address. The Supplier Address form opens at the Addresses tab.



3. Enter an Address ID at the top of the form. This might be "INV" for the invoice address, or a store number or ID for example.

The screenshot shows a web form titled "Supplier Address". At the top, there are two input fields: "Supplier ID" containing "ASSMB" and "Address ID" containing "000001". Below these are two tabs: "Addresses" (which is selected) and "Contacts". The "Addresses" tab contains several input fields: "Address Line 1" (12708 Foothill), "Address Line 2", "Address Line 3", and "Address Line 4". Below these are "City" (Panorama City), "State" (CA), "Zip Code" (91412), "Country", "Postal", and "Tax Code" (CA). A "Close" button is located at the bottom right of the form.

### Addresses Tab

1. Enter up to four address lines for this ID.
2. Enter the City, State, Zip Code, Country, and Postal code if required.
3. Enter a Tax Code or click the hyperlink to choose from the Tax Code list.
4. Click Close. The Address is added to the body of the Suppliers Addresses tab.
5. Continue to click Add and enter additional Address IDs and addresses, as required.
6. Select a line and click Edit to change the information on a **line item** One item on a customer order or purchase order, regardless of quantity. .
7. Select a line and click Delete to delete an address ID.

### Contacts Tab

In the Supplier Address form, click the Contacts tab. Any existing contacts will display in the body of the tab.

The screenshot shows the 'Supplier Address' window. At the top, there are input fields for 'Supplier ID' (ASSMB) and 'Address ID' (000001). Below these are two tabs: 'Addresses' and 'Contacts'. The 'Contacts' tab is active, displaying a table with the following data:

	Supplier ID	Contact ID	Name	Phone 1	Phone 2	Fax 1	Fax 2	E-Mail
1	ASSMB	Contact_AGBIP_1	Rick Garloch	(818) 706-0999				garloch@atc.tech

Buttons for 'Add', 'Edit', and 'Delete' are visible on the left side of the table. A 'Close' button is at the bottom right.

1. Click Add. The Supplier Contacts data entry form opens at the Contacts tab.
2. In the Contacts tab, enter the Contact ID, Name, Phone and Fax (either formatted or not formatted), and enter an e-mail address, if available.
3. Click the Notes tab to enter any additional information about the contact you wish to store in the system.
4. Click Close to exit the form and return to the Supplier Address data entry form.
5. You can continue to add as many Contacts as required.

The screenshot shows the 'Supplier Contacts' window. At the top, there are input fields for 'Supplier ID' (ASSMB) and 'Contact ID' (with a red 'x' icon). Below these are two tabs: 'Contacts' and 'Notes'. The 'Contacts' tab is active, displaying a form with the following fields:

- Address ID: 000001
- Name: [Empty text box]
- Phone 1: [Empty text box]
- Phone 2: [Empty text box]
- Fax 1: [Empty text box]
- Fax 2: [Empty text box]
- E-Mail: [Empty text box]

A 'Close' button is located at the bottom right.

When you are finished, do one of the following:

Select a line and click Edit to change the information on a line item.

Select a line and click Delete to delete a contact ID.

Click Close to return to the Suppliers data entry form. Saving changes to the supplier will save your address and contact data.

### Accessing Supplier data

Once suppliers are added to the system, Alliance/MFG gives you a number of ways to access the data.

#### From the Supply Menu

Select Supply>Suppliers from the main menu. From here you can go straight to a blank data entry form to enter new supplier records, edit existing records; or user predefined queries and wild cards to locate specific records.

#### From the Supplier View

Records displayed in the Supplier View depend on the record you select.

Supplier ID	Active	Supplier Name	Dur Account No.	Region Code	AP Hold Flag	Notes
1	<input checked="" type="checkbox"/>	Assembly Tech. Co., Inc. (ATC)	97451	W	<input type="checkbox"/>	
2	<input checked="" type="checkbox"/>	Blair and Sons	357	W	<input type="checkbox"/>	
3	<input checked="" type="checkbox"/>	Castle Processing	009755124	E	<input type="checkbox"/>	
4	<input checked="" type="checkbox"/>	Gold's Ink	ALLPENLTD	W	<input type="checkbox"/>	
5	<input checked="" type="checkbox"/>	Market Phase	APL-5671	N	<input type="checkbox"/>	
6	<input checked="" type="checkbox"/>	Norton Manufacturing	612-7814	W	<input type="checkbox"/>	
7	<input checked="" type="checkbox"/>	Oasis Plastics	52223-APL	W	<input type="checkbox"/>	
8	<input checked="" type="checkbox"/>	Office Max	93101	W	<input type="checkbox"/>	This is a note
9	<input checked="" type="checkbox"/>	PSLND, Inc.	4871	E	<input type="checkbox"/>	
10	<input checked="" type="checkbox"/>	Rebbon	1726	E	<input type="checkbox"/>	
11	<input checked="" type="checkbox"/>	Triphase Products	1270-920	E	<input type="checkbox"/>	

From here you can add, edit, or delete a record, or via the sidebar you can drill down or access related data; preview or print a report.

## Purchase Orders

You can enter purchase orders in the system as desired, or you can run MRP and respond to Planned Orders based on demand. Alliance/MFG also provides a means to create a purchase order to send to a supplier for a subcontracted service; either on a regular basis, or to handle a temporary production overload. All purchase orders in the system can be entered or accessed from the Supply>Purchase Order menu.

### Entering a New Purchase Order

There are two methods for maintaining and entering purchase orders in Alliance/MFG, Advanced and Easy Entry. The Advanced method gives you more capabilities and field selections. On the other hand, if your suppliers can be set up with standard default values and only basic data is required, the Easy Entry method might save you entry time and efforts. You can toggle from the Advanced method to the Easy Entry method by clicking on the Easy Entry hyperlink in the upper right hand corner of the entry screen, you may also toggle back to the Advanced screen using the Advanced hyperlink.

Select Supply>Purchase Orders>New, to open a blank Purchase Order data entry form. The last type of entry screen (Advanced or Easy Entry) used will open. The Advanced method is detailed below and the Easy Entry method will be described at the end of this section. The form opens at the Order tab, where you'll enter general information. When the PO is complete, the total value will display at the bottom of the form.

#### Advanced Method

**Purchase Order** Easy Entry

Purchase Order: P000080002  
 Supplier ID: ASSMB Supplier Defaults Entered By: SUPERVISOR  
 Assembly Tech. Co., Inc. (ATC) Closed Flag:

Order | Supplier | Lines | Notes

Order Date: 8/28/2003  
 Required Date: 8/11/2003

Order Type:   
 Requisition Number:   
 PO Placed With:   
 User Defined:   
 AP Hold Flag:   
 Currency Code: US US Dollars  
 Exchange Rate:

Department Code: PURCH  
 3000

Requested By: SUPERVISOR  
 Supervisor, Created by MFG

Buyer Code: 55-JAT  
 Tierney, Julie A

Class Code:

PO Total Amount: \$9,200.00      PO Remaining Amount: \$4,600.00

OK Close

**To Complete the Purchase Order Header:**

1. If you specified Auto-Generate in your Company Preferences settings, the new PO number will display once you have entered and saved the information, otherwise you can enter a unique Purchase Order number here.
2. Enter or select a Supplier ID.
3. If you make changes to Supplier default information, you can click Supplier Defaults to restore the defaults.
4. The Entered By field defaults from the systems Login ID.
5. When entering a new order, the Closed Flag should be clear. You can select it later when the PO is received.

**Order Tab**

1. The Order Date will default to “today’s date,” or you can use the calendar box to select a date.
2. Enter the Required Date (the delivery date). This is the date MRP will use in planning, the parts leadtime should include transit and receiving times and the supplier should plan the shipment in time to satisfy this date.
3. Enter the Department account to which the purchase order is assigned.
4. Enter the part requesters Employee ID.
5. Enter the buyer’s Employee ID. The employee’s ID will appear on the hyperlink list only if “Purchase Orders” was selected in their Employee Record.
6. The Class Code field is for future use by QuickBooks accounting links.
7. Enter an Order Type: Phone, Fax, blanket, EDI, or other, at your discretion.
8. Enter a requisition number, if used.
9. Enter the name of the person with whom you placed the order.
10. Enter up to 10 characters in the User-Defined field, as required. This information will be displayed on the Purchase Order and can be used in custom queries.
11. Enter a Currency Code for the order or accept the Suppliers default entry.
12. Exchange Rate defaults based on the Currency Code entry (previous step).
13. Once all part information is entered, the PO Total Amount will display at the bottom of the form.
14. When you have completed the information, do one of the following:
  - Click OK to save your header and entries and exit the form.
  - Click Save on the toolbar to save your entries and move to another tab or leave the form open.
  - Click Close to exit the window without saving your entries.

LINK NOTE:

*If you use an Alliance/MFG Accounting Link, you should choose the department associated with Accounts Payable. (The department code will default from the AP Account you specified in your Company Preferences.)*

**Supplier Tab**

Enter general information such as supplier payment terms, region, ship via, and FOB in the Supplier tab.

**Purchase Order**

Purchase Order: PO00080002 [Easy Entry](#)

Supplier ID: ASSMB [Supplier Defaults](#) Entered By: SUPERVISOR

Assembly Tech. Co., Inc. (ATC) Closed Flag:

Order | **Supplier** | Lines | Notes

Terms Code: 210  
2% in 10 Days, Net 30

Region Code: W  
Western US

F.O.B. Code: SD  
Shipping Dock

Ship Via Code: FX  
Fed-X Overnight

Document Path:  [<Open>](#)

Bill To Address: 93101  
Santa Barbara CA USA

Ship To Address: 93116  
Goleta CA USA

Supplier Address: 000001  
Panorama City CA

Supplier Contact:

PD Total Amount: \$9,200.00 PD Remaining Amount: \$4,600.00

[OK](#) [Close](#)

1. The Payment Terms default from the Supplier record. You can select or enter a different code to override the default.
2. The Region code defaults from the Supplier record. You can select or enter a different region to override the default.
3. The FOB code defaults from the Supplier record. You can select or enter a different FOB code to override the default.
4. Enter a Ship Via code to indicate the shipment method.
5. Enter a Document Path if you are referencing a drawing, contract or other document (This field is for internal use only and will not print on the purchase order).
6. The billing address will default to the one entered in Company Name/Address and indicated in Preferences. You can enter a different address if you wish.

7. The delivery address will default to the one entered in Company Name/Address and indicated in Preferences. You can enter a different address if you wish. The default shipping address is the one entered in Company Name/Address and indicated in Preferences.
8. Enter a Supplier Address ID.
9. The Currency Code defaults from the Currency Code list, but can be overridden. (All costs on a purchase order will be entered in your base currency; this exchange rate is used for report printouts only.)
10. Select the A/P Hold box to indicate the supplier is on payment hold. (This field is information only.)
11. When you have completed the information, do one of the following:
  - Click Save on the toolbar to save your settings and leave the form open.
  - Click OK to save your entries and exit the form.
  - Click Close to exit the window without saving.

**Lines Tab**

Once line items are added to the PO, the line item detail is displayed in the Lines tab. Columns display the Required Date, Quantity Received, Job Number, Quantity Ordered, Part Number, PO Price, and Kit Part Flag. From here you can Add, Edit, or Delete line items using the buttons on the left of the form. (The Add button on the toolbar opens a new PO data entry form.)

Order	Supplier	Lines	Notes	PO Line	Part Number	Kit Part Flag	PO Unit Price	Quantity Ordered	Quantity Received	Quantity RTV	Required Date	
				1	001	CP-1	No	\$0.23	20,000.00	20,000.00	0.00	10/9/2005

PO Total Amount: \$4,600.00      PO Remaining Amount: \$0.00

**Adding Purchase Order Details**

You can add or edit individual items on the Purchase Order. Select a line and click the Add or Edit buttons on the left side of the Purchase Order data entry form to access the Purchase Order Detail form. In the Line tab of the PO Detail form, you can edit required dates, part numbers, supplier cross references, quantities, tax information or assign a job number; and in the More tab, you can enter any additional tax information and see the cumulative quantities received, returned, or released for this PO.

**To add a PO line item:**

From the Purchase Order Lines tab, click Add on the left of the form. The Purchase Order Detail form opens at the Line tab. Enter the details as described in the following paragraphs.

The screenshot shows the 'Purchase Order Detail' window. At the top, the PO Number is 'P005110004' and the PO Line is '003'. There is a 'Closed Flag' checkbox which is currently unchecked. Below this is a tabbed interface with 'Line', 'More', and 'Notes' tabs. The 'Line' tab is active and contains several input fields: 'PartXReference' (empty), 'Part Number' (CP-1), 'Quantity Ordered' (20,000.00), 'PO Unit Price' (\$0.03), 'Taxable Flag' (unchecked), 'Required Date' (11/28/2005), 'Ball Point' (empty), 'Purchase UOM' (EA), 'Stock UOM' (EA Each), 'Base Tax Code' (SB 7.75), 'Revision' (B), and 'Job Number' (empty). There are also two sub-sections: 'Subcontract PO Item' with 'Kit Part Flag' (unchecked), 'Start Date' (7/18/2006), and 'Start Quantity' (0.00); and 'Line Amounts' with 'Non Tax Total' (\$600.00), 'Base Tax' (\$0.00), and 'Subtotal' (\$600.00). A 'Close' button is located at the bottom right.

**Line Tab**

The header displays the current PO number and the PO Line field displays the next line item available.

1. The Part Cross-Reference (PartXReference) is the number used by your supplier or OEM to refer to the part. Enter the cross reference, if the cross reference is associated with a part, your part number will be defaulted by the system. The suppliers price associated with the X-Reference will also default. If you enter your part number first, click the Part X-Reference hyperlink to query the X-Reference View for existing cross references to that part.
2. Enter a part number or use the hyperlink to select a part from the Part Master View. These parts must have an Inventory Source Code of "Buy part," "Subcontract", "Free/bulk," or "Non-stock," and have a valid department code. The part description will display beneath the part number field.
3. The required date defaults from the PO Header; however, you can change it if needed. Use the calendar box to select a different date.
4. Enter a quantity.
5. The default unit price is the price from the supplier cross-reference above. If no supplier cross-reference exists the Default PO Cost from the Inventory Record Part Costs Tab will be used.



6. If the line item is a subcontract part and you supply the components, select the Kit Part Flag. This flag indicates component material will be sent to the subcontractor for assembly or service. See Subcontract PO Kitting in the Kitting and DeKitting chapter for information on kitting.

**NOTE:**

*If the part cross reference currency code does not match the purchase order currency code the price will be set to zero (0).*

7. If the supplier currency code is different from your base currency code and the exchange rate is greater than 1.0 the Exchange Price field will be displayed. You may enter a fixed exchange price and Alliance will convert this amount to your base currency using the currency exchange rate table.
8. Select the Taxable flag
9. If you select the Taxable Flag, the Base Tax Code field is enabled. Enter a Base Tax Code or click the hyperlink to select one from the Base Tax Code View.
10. Enter the purchase unit of measure for the part or use the hyperlink to choose from the Unit of Measure View. The Purchase UOM may be different from the Stocking UOM. If a Purchase UOM Code is entered in the Part Master, it will automatically default here.
11. The Part Revision number defaults from the Part Master record.
12. The unit of measure used to stock the part defaults from the Part Master record.
13. If you use Job Tracking, enter a Job Number. Parts must have been assigned an OMC of "Job Tracking" to use this feature.
14. The Line Amounts box summarizes the Non-Tax Total, Base Tax, and Subtotal for this line item.
15. When you have completed the information, do one of the following:
  - Click Save on the toolbar to save your settings and move to the next tab.
  - Click OK to save your entries and exit the form.
  - Click Close to exit the window without saving.

**NOTE:**

*You must select the Taxable Flag in the Line tab to enable multi-tier tax fields on the More tab.*

**More Tab**

Click the More tab to enter options for multi-tiered taxing and alternative accounts.

**Purchase Order Detail**

PO Number: P000080002      PO Line: 001

Line    More    Notes

DepartmentCode: PROTO    1600

Class Code: [ ]

Tax on Tax 2:       Tax Code 2: [ ]    0.00

Tax on Tax 3:       Tax Code 3: [ ]    0.00

User Defined 1: [ ]      User Defined 2: [ ]

Extended Price		Transaction Summary	
Non Tax Total	\$4,600.00	Last Receipt Date	
Base Tax	\$0.00	Quantity Received	20,000.00
Subtotal	\$4,600.00	Quantity RTV	0.00
2nd Tax	\$0.00	Quantity Released	0.00
3rd Tax	\$0.00		
Line Total	\$4,600.00		

Close

**NOTE:**

*To use this function, you must set up a non-inventory stockroom and locations in your Stockroom table.*

16. You can specify a receiving department code separately from that specified in the Inventory record. For example, you may want to specify a separate department/account for non-inventory items. When this item is received, it will bypass the default stockroom and transact to the department indicated here.
17. Select the Taxable Flag if you need to apply multi-tiered or compound taxes. The default tax applied on the line tab will be the Base Rate. However, by entering 2nd and 3rd Rates, you can apply multi-tiered taxing. Checking the Tax on tax 2 or Tax on tax 3 check boxes will determine whether to apply the additional tax to the lines original Non-Tax Total (quantity x price) or to the lines original Subtotal (quantity x price + base tax)
18. On the Line Tab you entered a Base Tax code or used the hyperlink to select from the Tax Code table. The Base Tax amount is calculated based on the tax rate (Displayed next to the base tax code).
19. Select the Tax on Tax 2 checkbox to apply a second Tax Rate to the original subtotal (quantity x price plus taxes). Select the second Tax Code you wish to apply. Leave the Tax on Tax 2 checkbox empty to apply a second tax rate to the original non-tax total (quantity x price).
20. Select the Tax on Tax 3 checkbox to apply a third Tax Rate to the original subtotal (quantity x price plus taxes). Select the third Tax Code you wish to apply. Leave the Tax on Tax 3 checkbox empty to apply a third tax rate to the original non-tax total (quantity x price).

21. Enter up to 10 characters in the User-defined fields. This information will be displayed on the Purchase Order detail and can be used in custom queries.
22. The Line Amounts box summarizes and displays the Non-tax Total, Base Tax, Subtotal; the 2nd and 3rd taxes, and the Extended Price.
23. The Quantity Received, Last Receipt Date, Quantity RTV (returned to vendor), and any Quantity Released are displayed in the right side of the tab. These provide a cumulative transaction history for the line item.

**NOTE:**

*These multi-tiered and compound tax rates will not apply to most US businesses; they are intended for use in countries with multiple taxes, such as Canada's GST.*

**PURCHASING NON-INVENTORY PARTS**

You may wish to use Alliance/MFG to track non-inventory parts purchases, such as tools, office supplies, and miscellaneous items that you may not want on your Part and Inventory Masters. Here's one way to do it:

Create a part number such as "NON-INV," in your part and inventory masters with an ISC of "Non-stock" and an OMC of "Manual". Create a non nettable Stockroom for non-stock items. One for each category of parts (i.e. office supplies, services, etc.).

When you write a purchase order for a non-inventory part, use this part number in the part number field. Enter the item you are actually purchasing in the X-Reference part or memo field.

Fill in the quantity and price. The printed purchase order will show both the part "NON-INV" and your X-Reference descriptive information. You don't need to set up the part in the X-Reference table but you can.

On the line item More tab, enter the non-inventory stockroom. When received, the PO will be transferred directly to that department, bypassing the inventory default stockroom.

**Accessing Purchase Order data**

Once purchase orders are added to the system, Alliance/MFG gives you a number of ways to access the data.

**From the Supply Menu**

The main menu is the first access level. From here you can go straight to a blank data entry form to enter new purchase orders, edit existing POs, or use a predefined query and wild cards to locate specific records.

**From the Purchase Order View**

The records displayed in the Purchase Order View depend on the query you select.

Purchase Order	Closed	Buyer	Buyer Code	Order Date	Required Date	Supplier ID	Requested By	Requisition Number
1 PO00080001	<input checked="" type="checkbox"/>	Tierney	55-JAT	10/26/2005	10/23/2005	MRKPH	SUPERVISOR	MRP
2 PO00080002	<input checked="" type="checkbox"/>	Tierney	55-JAT	10/26/2005	10/9/2005	ASSMB	SUPERVISOR	
3 PO00080003	<input type="checkbox"/>	Tierney	55-JAT	10/28/2005	10/29/2005	ASSMB	20-HCC	MRP
4 PO00080004	<input checked="" type="checkbox"/>	Marenko	90-KEM	10/28/2005	10/29/2005	GOLDS	20-HCC	MRP
5 PO00080005	<input type="checkbox"/>	Hailey	80-EMH	10/29/2005	10/29/2005	REBDN	55-JAT	MRP
6 PO00080006	<input checked="" type="checkbox"/>	Hailey	80-EMH	10/29/2005	11/12/2005	PSLND	55-JAT	MRP
7 PO00080008	<input type="checkbox"/>	Marenko	90-KEM	10/29/2005	11/13/2005	TRIPH	80-EMH	MRP
8 PO00080009	<input type="checkbox"/>	Hailey	80-EMH	10/29/2005	11/13/2005	PSLND	80-EMH	
9 PO00080010	<input type="checkbox"/>	Hailey	80-EMH	10/29/2005	11/10/2005	CASTL	80-EMH	
10 PO00080011	<input checked="" type="checkbox"/>			10/29/2005	11/26/2005	MRKPH		
11 PO05110001	<input type="checkbox"/>			11/7/2005	11/29/2005	GOLDS		
12 PO05110002	<input type="checkbox"/>	Tierney	55-JAT	11/7/2005	11/28/2005	NORTN	50-JDD	
13 PO05110003	<input type="checkbox"/>	Tierney	55-JAT	11/7/2005	11/28/2005	BLAIR	50-JDD	
14 PO05110004	<input type="checkbox"/>	Tierney	55-JAT	11/7/2005	11/28/2005	NORTN	SUPERVISOR	

From here you can add, edit, or delete a record; or via the sidebar you can drill down or access related data; preview or print a report.

**Easy Entry Purchase Order Method**

There are two methods for maintaining and entering purchase orders in Alliance/MFG, Advanced and Easy Entry. If your suppliers can be set up with standard default values and most of the time only basic data is required, the Easy Entry method might save you entry time and efforts.

Select Supply>Purchase Orders>New, to open a blank Purchase Order data entry form. The last type of entry screen (Advanced or Easy Entry) used will open. You can toggle from the Advanced method to the Easy Entry method by clicking on the Easy Entry hyperlink in the upper right hand corner of the entry screen, you can also toggle to the Advanced screen using the Advanced hyperlink. The Easy Entry method is detailed below and the Advanced method is described at the beginning of this section.

**Purchase Order** Advanced

**Exact Software**

PO Number: PO00080003    Order Date: 10/28/2005    Supplier ID: ASSMB

Supplier Address: Assembly Tech. Co., Inc. (ATC)  
12708 Foothill  
Panorama City, CA 91412

Ship To: Alliance Pens, Int'l  
225 S. La Palma Dr.  
Goleta, CA 93116

Contact: Rick Garloch (818) 706-0999

Notes:

Closed   
 Terms: 2% in 10 Days, Net 30   
 Ship Via: Fed-X Overnight   
 FOB: Shipping Dock   
 Currency: US

Requested By: 20-HCC   
 Buyer Code: 55-JAT   
 Order Type: Verbal   
 Requisition Number: MRP   
 Required Date: 10/29/2005

Line	Part Number	Description	Quantity	UOM	Reqd Date	Price	Ext Price
001	BP-1	Barrel, Top Half, Blue	4,000.00		10/29/2005	\$0.05	\$200.00
002	BP-5	Barrel, Top Half, Red	4,000.00		10/29/2005	\$0.05	\$200.00
004	BP-6	Barrel, Bottom Half, Red	9,000.00		10/29/2005	\$0.05	\$450.00
005	BP-1	Barrel, Top Half, Blue	4,504.00		11/8/2005	\$0.05	\$225.20
006	BP-5	Barrel, Top Half, Red	4,000.00		10/21/2005	\$0.05	\$200.00
007	BP-5	Barrel, Top Half, Red	4,000.00		11/29/2005	\$0.05	\$200.00
008	BP-6	Barrel, Bottom Half, Red	4,000.00		11/29/2005	\$0.05	\$200.00
009	BP-2	Barrel, Bottom Half, Blue	4,000.00		12/5/2005	\$0.05	\$200.00
010	CP-1	Ball Point	10.00	PK	12/5/2005	\$30.00	\$300.00
011	BP-1	Barrel, Top Half, Blue	6,801.00		11/29/2005	\$0.05	\$340.05
<New>							

PO Total Amount: \$2,515.25   
 PO Remaining Amount: \$1,240.05

OK Close

The Easy Entry Purchase Order data entry form opens. All information entered will remain in view as you work your way through the form. As purchase order line items are entered, the Purchase Order Total amount and the Total Remaining value display at the bottom of the form.

**To enter Purchase Order Header Information:**

24. If you specified auto numbering in your Company Preferences, the next incremental purchase order number will be entered automatically when you save the order, otherwise you must enter a unique purchase order number.
25. The Order Date defaults to "today's" date, or you can use the calendar box to specify a different date.
26. Enter a Supplier ID or click on the Supplier ID hyperlink to select from your supplier table. When you enter a Supplier ID, default supplier information such as Terms, Ship Via and FOB codes are defaulted from the supplier record to the purchase order, additionally, if you defined a single Supplier Address with a single Supplier Contact, these values will also default to a new purchase order. If the values did not default click on the hyperlink to select them from their appropriate tables.
27. To enter purchase order notes click on the Notes hyperlink, enter your notes and click the Close button. The first line of the notes will be visible on the purchase order form.

28. When entering a new purchase order, the Closed box will normally be clear. You can return to select this box when the order is received or you may close it from the Receiving transaction form.
29. Enter a Terms code or accept this supplier default entry.
30. Enter an F.O.B. code or accept this supplier default entry.
31. Enter a Ship Via code or accept this supplier default entry.
32. Enter the Currency Code or accept this supplier default entry. When you print the purchase order report, this currency and exchange rate will be displayed. The Currency Rate will calculate and display based on the conversion rate between your base company currency code and the supplier currency code.
33. Enter the Employee ID of the person requesting the order.
34. Enter the Employee ID of the buyer associated with the order.
35. Order Type, enter Phone, FAX, EDI, Blanket, or another method to indicate the order type.
36. If you wish to assign a requisition number enter it here.
37. Check the box and enter the Required Date (the delivery date). This is the date MRP will use in planning, the parts leadtime should include transit and receiving times and the supplier should plan the shipment in time to satisfy this date. If you enter a date here it will automatically default to all line items.

**NOTE:**

*If you make changes to defaulted fields, then decide to return to default values, simply click the Advanced hyperlink, click the Customer Defaults button to refresh the default values, then click the Easy Entry hyperlink to return to this form.*

To add a new purchase order line item:

Closed <input type="checkbox"/>		Terms 2% in 10 Days, Net 30	Ship Via Fed-X Overnight	FOB Shipping Dock	Currency US		
Requested By 20-HCC	Buyer Code 55-JAT	Order Type Verbal	Requisition Number MRP	Required Date 10/29/2005			
Line	Part Number	Description	Quantity	UOM	Reqd Date	Price	Ext Price
▼ 001	BP-1	Barrel, Top Half, Blue	4,000.00		10/29/2005	\$0.05	\$200.00
▼ 002	BP-5	Barrel, Top Half, Red	4,000.00		10/29/2005	\$0.05	\$200.00
▼ 004	BP-6	Barrel, Bottom Half, Red	9,000.00		10/29/2005	\$0.05	\$450.00
▼ 005	BP-1	Barrel, Top Half, Blue	4,504.00		11/8/2005	\$0.05	\$225.20
▼ 006	BP-5	Barrel, Top Half, Red	4,000.00		10/21/2005	\$0.05	\$200.00
▼ 007	BP-5	Barrel, Top Half, Red	4,000.00		11/29/2005	\$0.05	\$200.00
▼ 008	BP-6	Barrel, Bottom Half, Red	4,000.00		11/29/2005	\$0.05	\$200.00
▼ 009	BP-2	Barrel, Bottom Half, Blue	4,000.00		12/5/2005	\$0.05	\$200.00
▼ 010	CP-1	Ball Point	10.00	PK	12/5/2005	\$30.00	\$300.00
▼ 011	BP-1	Barrel, Top Half, Blue	6,801.00		11/29/2005	\$0.05	\$340.05
▼	<New>						
Notes		\$2,515.25	PO Remaining Amount	\$1,240.05			
Advanced							
Delete							
MRP Detail							
Inventory Summary							

1. Tab into or click in the Part Number field, enter a part number or click on the ellipse button to select one from the part master table. The part description will default from the Part Master table.
2. Enter the quantity required for this line item in the purchase UOM. As soon as you leave the quantity field the price will be defaulted based on the Part Master Default PO Cost.
3. If the Purchase UOM is different than the Stocking UOM, enter the purchase UOM code.
4. Enter the Required Date (the delivery date). This is the date MRP will use in planning, the parts leadtime should include transit and receiving times and the supplier should plan the shipment in time to satisfy this date. If you entered a date in the purchase order header it will automatically default to all line items.
5. The Extended Price field is automatically calculated by multiplying the line item price by the quantity then adding any base tax applied.

If you have correctly entered your line items a green "+" will be displayed in the Line field (the green plus sign will change to a line number when the record is saved. If any field is invalid a red "X" will be displayed in the Line field and the invalid field will display a red background, the Save and OK buttons will be disabled.

Click on the down arrow in the Line field to add notes to that line item, toggle to the Advanced Line Item entry form for that line item, delete that line item or to view the MRP Action screen or Inventory Lots screen for that part number.

When you have finished entering the line items do one of the following;

- Click Save to save all entries and leave the form open.
- Click OK to save all entries and exit the Purchase Order data entry form.
- Click Close to exit the form without saving any entries not saved previously.

**NOTE:**

*The fields shown below are part of the complete purchase order record even though they are not displayed on the Easy Entry form. Some of these fields may default from related tables. They can be viewed, entered and edited by clicking on one of the Advanced hyperlink toggles. If one of these fields is invalid the Save and OK buttons will be disabled and the record cannot be saved.*

**Advanced Purchase Order fields not displayed on the Purchase Order Header**

1. Department code, the departments account number will display below this field. This should be the department associated with the GL account for this order (usually AP). This value will default if set up in Company Preferences.
2. PO Placed With, the name of the supplier contact or the person taking the order. (Optional)
3. User Defined (Optional)
4. Order Type, enter Phone, FAX, EDI, Blanket, or another method to indicate the order type. (Optional)
5. User Field 1, (Optional)

**Advanced Purchase Order fields not displayed on the Purchase Order Line Item**

1. Sub-Contract Kit Part Flag, Start Quantity, and Start Date.
2. Part X Reference, enter a cross-reference to the supplier's part number if needed. If only one (1) supplier cross reference exists for the part number entered and it is checked as an Approved Source, the cross reference field will be defaulted.(Optional)
3. Part number, the part number will default if you entered a Part Cross Reference above.
4. Taxable Flag, if the part taxable flag is set up in the Part Master this flag will be defaulted to True. The Tax Code can be defaulted from the Company>Preferences default PO Tax Code.

**Advanced Purchase Order fields not displayed on the Purchase Order Line Item More Tab**

1. The More tab is used to enter additional line information such as alternate Department Code or any multi-tiered tax values.
2. The system will apply the Base Tax rate by default, if the part is checked Taxable in the Part Master. However, you can enter 2nd and 3rd Tax Rates in the appropriate fields to apply multi-tiered (compound) tax rates. To apply these taxes, do one or both of the following:

Select the Tax on Tax 2 checkbox to apply a second tax amount to the original subtotal (quantity x price plus tax), enter the second Tax Code you wish to apply.

Or leave the Tax on Tax 2 checkbox empty to apply a second tax amount to the original quantity x price only (the no tax on tax option).

Select the Tax on Tax 3 checkbox to apply a third tax amount to the original subtotal (quantity x price plus tax), enter the third Tax Code you wish to apply.

Or leave the Tax on Tax 3 checkbox empty to apply a third tax amount to the original quantity x price only (again the no tax on tax option).



## Purchase Order Receipts

### Receiving Purchase Orders

Once purchase orders are entered in the system, you have several options for accessing a purchase order, and viewing purchase order information such as receipt history, past due orders, and all POs not received.

You can receive all lines or a single line item on a purchase. Mark the order “closed” or leave it open, depending on how much of the order is received. Once a purchase order is received, you can also return items received from a supplier. (If the purchase order has been marked “closed,” you must open it to return parts to a supplier.)

### Purchase Order Receipts

Select Supply>Receive a Purchase Order. A blank form is displayed.

The screenshot shows a software window titled "PO Receipts". At the top, there are standard window controls (minimize, maximize, close). Below the title bar, there are several input fields: "PO Number" (with a red 'X' icon), "Receipt Date" (set to 12/29/2005), "Close Purchase Order" (checkbox), "Entered By" (SUPERVISOR), and "Tran Group" (-1). Below these fields are three tabs: "PO Details", "Receipts", and "Notes". The "PO Details" tab is selected and contains buttons for "Add", "Edit", "Delete", "All", and "Receive Line". The main content area of the "PO Details" tab displays "No records found". At the bottom right of the window are "OK" and "Close" buttons.

Enter a PO number. The Purchase Order receipts entry form opens at the PO Details tab. From here you can receive detail lines or optionally Edit a line item on the purchase order. If any line items have been received on this purchase order, the receipt information will display in the body of this tab.

**PO Receipts**

PO Number: PO00080003 Entered By: SUPERVISOR  
 Receipt Date: 12/29/2005 Tran Group: -1  
 Close Purchase Order:

PO Line	Part Number	Remaining	Quantity Ordered	Quantity Received	Quantity RTV	Required Date	PartXReference
1 001	BP-1	0.00	4,000.00	4,000.00	0.00	10/29/2005	AVI564
2 002	BP-5	0.00	4,000.00	4,000.00	0.00	10/29/2005	AVI572
3 004	BP-6	0.00	9,000.00	9,000.00	0.00	10/29/2005	AVI571
4 007	BP-5	4,000.00	4,000.00	0.00	0.00	11/29/2005	AVI572
5 008	BP-6	4,000.00	4,000.00	0.00	0.00	11/29/2005	AVI571
6 009	BP-2	4,000.00	4,000.00	0.00	0.00	12/5/2005	AVI563
7 010	CP-1	10.00	10.00	0.00	0.00	12/5/2005	
8 011	BP-1	6,801.00	6,801.00	0.00	0.00	11/29/2005	AVI564

**Creating and printing a PO Receipt:**

1. After you enter a PO number the Entered By defaults from the user Login.
2. The Receipt Date will default to "today's" date. You can use the calendar box to change it. Both receipt date and transaction date will be saved as part of the transaction.
3. You may either receive each line separately or All Lines. If you receive a line the following screen will be displayed. You may change the Stockroom, Location, Job Number, or quantity. You may also add a Lot or Serial Number.
4. In the case below two "Caution" triangle displayed, if you hold the mouse cursor over the triangle the message will be displayed Ex. "Total receipt quantity is more than the order quantity".
5. Click the Close button to receive another line.

**Receipts**

PO Number: PO00080003 Part Number: BP-2  
 PO Line: 009 Closed Flag:

Stockroom Code: RAW Raw Materials/Purchased Parts  
 Location Code: 100  
 SN/Lot Number:   
 Job Number:   
 Quantity Received: 5,000.00

Total Receipt quantity is more than the order quantity

Tran Info:

When you are finished receiving items, click Save on the toolbar, a Transaction Group is system generated and includes all items selected for this receipt, you may now print a PO receipt by selecting PO Receipts from the Related Reports section of the sidebar.

### Reviewing PO Receipts on the PO Detail Tab

**Purchase Order** PO00080003 Easy Entry

Supplier ID: ASSMB  Entered By: SUPERVISOR  
 Assembly Tech. Co., Inc. (ATC) Closed Flag:

Order	Supplier	Lines	Notes
<input type="button" value="Add"/>			
<input type="button" value="Edit"/>			
<input type="button" value="Delete"/>			

PO Total Amount: \$2,515.25      PO Remaining Amount: \$1,040.05

All purchase order line items are displayed in the body of the tab by PO Line, Part Number, Quantity Received (if any), and Quantity Ordered. Any quantity returned against the purchase order will also be displayed. You can receive all lines or select one line item for receipt.

#### To Receive All Lines on a Purchase Order

1. In the PO Details tab, click All on the left side of the form. Check marks will appear next to all lines to indicate lines that have changed, for example, a quantity has been entered in the Quantity Received column. You can also edit the quantities, and stockroom and location at your discretion. (See Editing PO Receipts for Receive All)
2. You may change information on the original purchase order, if needed. In the PO Details tab, select a line item and click Edit on the left side of the window. The Purchase Order data entry form opens, from here, you can edit the information you wish, click Closed to return to the PO Receipts form. Check the Close PO box if you consider this PO complete.
3. If you click Save on the toolbar, a Transaction Group is system generated and includes all items selected for receipt, you may now print a PO receipt by selecting PO Receipts from the Related Reports section of the sidebar.
4. Click OK, Save, or Close as required.

#### To Receive a single line on a Purchase Order:

1. In the PO Details tab, select a line item and click Receive Line. You can edit the quantities, job #, serial/lot #, stockroom and location at your discretion. A check mark appears next to the line to indicate a change has occurred.

2. Continue to receive individual lines, as needed. Check the Close PO box if you consider this PO complete.
3. When you are finished, click Save on the toolbar, a Transaction Group is system generated and includes all items selected for receipt, you may now print a PO receipt by selecting PO Receipts from the Related Reports section of the sidebar.

**Editing the PO Receipts for Receive All transactions**

In the Receipts tab, select the line you wish to edit and click Edit on the left side of the form. The Receipts transaction form opens for the line item selected.

The screenshot shows a software window titled "Receipts" with a blue header bar. The window contains a form with the following fields and values:

- PO Number: PO00080003
- Part Number: BP-5
- PO Line: 007
- Closed Flag:
- Stockroom Code: RAW
- Location Code: 100
- SN/Lot Number: (empty)
- Job Number: (empty)
- Quantity Received: 4,000.00 (with a green checkmark to its left)
- Tran Info: (empty)

At the bottom right of the form is a "Close" button.

1. The PO number, PO line item, and Part Number display in the PO Receipts **header** A record containing common, constant, or identifying information for a group of records which follows. .
2. You can edit the Stockroom Location, and quantity; add an SN/Lot Number or Job Number; or enter up to 60 characters of Tran Info; at your discretion.
3. When you are satisfied with your edits, click Close to save your entries and return to the Purchase Order Receipts tab.
4. When you have finished receiving shipments, do one of the following:

Click Save on the toolbar, a Transaction Group is system generated and includes all items selected for receipt, you may now print a PO receipt by selecting PO Receipts from the Related Reports section of the sidebar.

Click OK to save your entries and exit the form.

Click Close to exit the form without saving any entries not applied or saved.

## Purchase Order Returns

### Returning Purchase Orders

You may have occasion to return parts to a supplier after they have been received. Alliance/MFG gives you several ways to access purchase orders for return. You can select Supply>Return a Purchase Order from the main menu and use the hyperlink to select a PO. You can also select PO Return from the Purchase Order View. You have the option to edit PO line items before returning them, and once you tag a line for return, you can edit the stockroom, location, SN/Lot number or quantity for the items returned.

### Creating a Purchase Order Return

Select Supply>Return a Purchase Order from the main menu, or select a PO line in the Purchase Order View and click PO Returns in Related Edit on the sidebar to open the return transaction form for that PO. The Purchase Order Return form opens at the PO Details tab.

The screenshot shows the 'PO Returns' window with the following fields and table:

PO Number: PO00080003  
 Entered By: SUPERVISOR  
 Return Date: 12/29/2005  
 Tran Group: -1

PO Details | PO Returns | Notes

	PO Line	Part Number	Remaining	Quantity RTV	Quantity Ordered	Quantity Received
✓ 1	001	BP-1	0.00	4,000.00	4,000.00	4,000.00
2	002	BP-5	4,000.00	0.00	4,000.00	4,000.00
3	004	BP-6	9,000.00	0.00	9,000.00	9,000.00
4	005	BP-1	4,504.00	0.00	4,504.00	4,504.00
5	006	BP-5	4,000.00	0.00	4,000.00	4,000.00
6	007	BP-5	4,000.00	0.00	4,000.00	4,000.00
7	008	BP-6	0.00	0.00	4,000.00	0.00
8	009	BP-2	0.00	0.00	4,000.00	0.00
9	010	CP-1	0.00	0.00	10.00	0.00
10	011	BP-1	0.00	0.00	6,801.00	0.00

Buttons: Add, Edit, Delete, All, Return Line, OK, Close

If you access PO Returns from main menu, the body of the tab is empty. You can select a PO by entering the number if you know it; or use the hyperlink to select one from the predefined queries. If you access the form from the Purchase Order View, line items for the selected PO display in the body of the tab.

The PO Returns header displays the PO Line, Part Number, Quantity Remaining, Quantity Returned to Vendor, the total Quantity Ordered, and the total Quantity Received to date.

1. Enter the PO number you want to return. (If you opened this form from the PO View, the selected PO number will display.)
2. The part number displays from the PO Header.
3. The Return Date defaults to "today's" date. You can use the calendar box to change it, at your discretion.

4. A Transaction Group is system generated for all items selected for return when you click Save or OK.

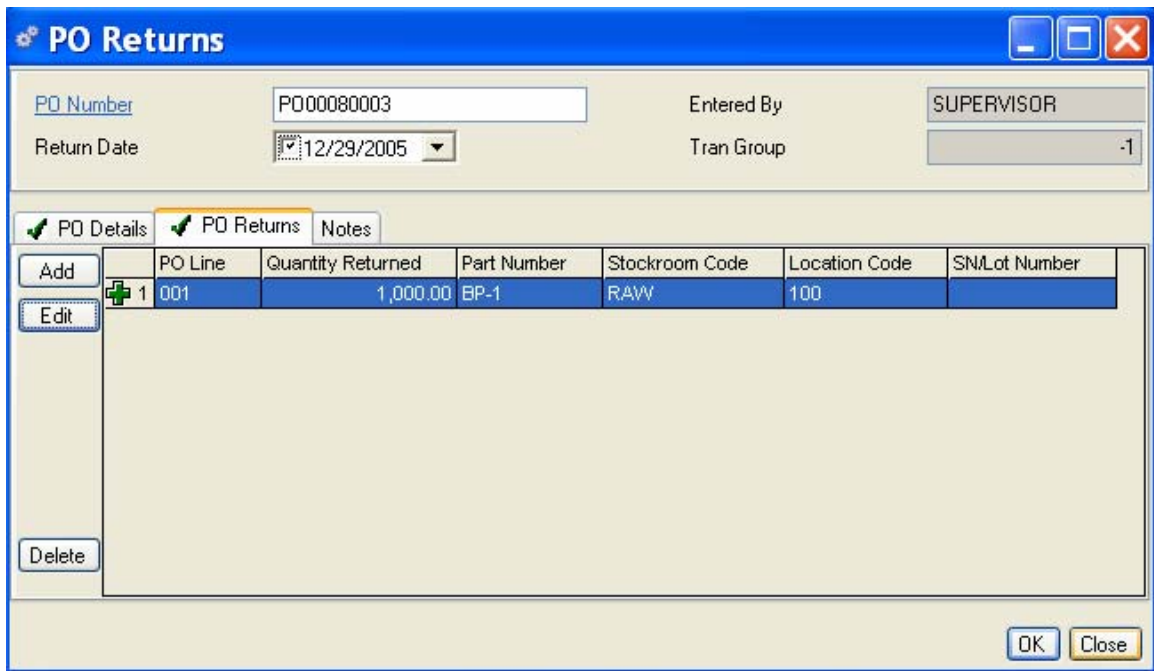
**To return all items on a purchase order:**

Click All on the left side of the form to return all lines. Check marks indicate items selected for return. You can edit individual line items as needed from the PO Returns tab.

**Editing PO Returns**

From the PO Returns tab, you can Add, Edit or Delete individual line items.

Select a line and click Edit to open the PO Returns form.



1. From here, you can edit the Stockroom, Location, and quantity; or add an SN/Lot Number or Job Number at your discretion.
2. Click Add on the toolbar to open a blank Returns form and enter the information required.

**To return a line item on a PO:**

Click Return Line. The Returns form automatically opens for the line items selected.

**Returns**

PO Number: PO00080003      Part Number: BP-1

PO Line: 001      Closed Flag:

Stockroom Code: RAW      Raw Materials/Purchased Parts

Location Code: 100

SN/Lot Number:

Job Number:

Quantity Returned:  1,000.00

Tran Info:

Close

1. Click Close to accept the return as is, or edit the fields as required, then click Close. Remember to uncheck the Closed Flag if you intend to receive the item again.
2. You can continue to select items to return and edit as required. No actions will take affect until you click Save or OK.
3. When you are satisfied with your selections, click OK to complete the transactions and return to the Purchase Order Returns tab.
4. When you have finished returning items, do one of the following:
  - Click Save on the toolbar to save your entries and leave the form open.
  - Click OK to save your entries and exit the form.
  - Click Close to exit the form without saving any entries not applied or saved.

## Work Orders

Work orders are an internal authorization to manufacture parts on the shop floor. Alliance/MFG gives you the tools you need to create, kit, relieve shortages, and add, edit, or delete items from work order kits as required, and complete work orders. You can run MRP and create work orders in response to Planned Orders based on actual demand; or you can enter work orders into the system manually.

### Creating Work orders

Determine that you need to manufacture a given part. Either run MRP and respond to planned orders, or create work orders manually as they are required.

5. Schedule a work order and create a work order traveler. A WO traveler is a report listing the steps and routing required to assemble or produce the scheduled item. Labor Routers are maintained in CRP>Labor Routers. Scheduling a MRP Planned Order or creating a manual WO change the WO status to a "Firm" work order.
6. **Release** The authorization to produce or ship material that has already been ordered. and kit the work order. This will "move" the required components from stockroom inventory to Work in Process (WIP). Print a pick list first, if desired.
7. If a required component has insufficient inventory available, the system will automatically create a shortage (shortages are displayed on the Required Tab of the WO Kits transaction form and are written to the Shortages file). When short components are received into stock, a notice will be displayed prompting you to relieve (issue) the shortages to the WO.
8. After all work on the Work Order is finished, complete the work order and move the finished assembly quantity into stock. There are three methods for completing work orders; Standard, Serialized and Backflushing.

### Status Code - Firm vs. Released

A **Firm** Order is a planned order that has been converted to a firm work order, "locking in" dates and quantities. The order may have been scheduled manually or as a result of an MRP run; however, it has not yet been kitted or released to the shop floor for production. The MRP calculation considers these work orders and explodes their component requirements where necessary. These orders will appear on the Work Orders View list; the released quantities will be "0."

A **Released** Order is a work order that is ready to build, has had parts issued to it (kitted), and has been sent to production. After the work order is released, the MRP calculation will no longer plan to order components for that work order. After the work order is kitted, the quantity released will display in the Released column of the Work Order View. When all quantities for the work order have been kitted, (no shortages remain) the Released quantity and the Required quantity will be the same.

For more information about how MRP creates Planned Orders for components on work orders, see the Material Requirements Planning section.



## Entering New Work Orders

Select Supply>Work Orders>New to open a blank Work Order data entry form. Enter the information in the WO header, and continue to fill in the tab information as described in the following sections. The header information will continue to display as your work your way through the tabs.

### To Complete the Work Order Header:

1. If you specified Auto-Generate in your Company Preferences settings, the new WO number will display once you have entered and saved the information, otherwise you can enter a unique work order number.
2. The Entered by defaults from the Login ID.
3. Leave the Closed Flag blank when entering a new work order. (MRP will not plan for the order after it is closed.)

### Detail Tab

4. Enter a part number. The part must have been entered in Inventory Maintenance and coded with an Inventory Source Code of "Make Part" or "Phantom Part" and have a valid manufacturing department.
5. Enter the quantity needed at start to yield the quantity required. When MRP plans a work order, this will be the required quantity multiplied by the yield factor for the part, indicated on the Part Master. If the work order is scheduled via the MRP Action Parts form, the Start Quantity will be generated by the system from on the order method code setting specified for this part in the Part Maintenance function. (See Chapter 8: Part Maintenance for more information about Order Method Codes.)

6. Enter the quantity required to meet planning requirements.
7. The quantity released is generated by the system when items are kitted.
8. The total number of completed items on the work order is displayed as generated by the system.
9. Displayed from the Part Master record. You can override it, at your discretion.
10. Displayed from the Part Master record.
11. Enter a priority code, at your discretion. (Reference only, based on priority code policies you determine.)
12. You can enter up to 10 characters in the User-Defined field. No calculations will be based on information in this field; however, the information will be printed on Work Order Travelers.
13. If you use Job Tracking, enter a job number.

The screenshot shows a software window titled "Work Orders". At the top, there are fields for "Work Order Number" (WO05110005) and "Closed Flag" (unchecked). Below this is "Entered By" (SUPERVISOR) and "Supervisor, Created by MFG". The main area has two tabs: "Detail" (selected) and "Notes". Under "Detail", there are several rows of data:

Part Number	B-01	Job Number	
Assembly, Barrel, Blue			
Quantity To Start	9,800.00	Start Date	11/30/2005
Quantity Required	9,800.00	Required Date	12/13/2005
Quantity Released	0.00	Released Date	
Quantity Completed	0.00	Standard Hours	98.00
Work Order UOM	EA Each	Total WIP Issues	\$0.00
Stock UOM	EA Each	Total Scrap	\$0.00
Priority	Normal order	Total Labor	\$0.00
User Defined 1			

At the bottom right of the window are "OK" and "Close" buttons.

14. The Start Date is generated by the system. (Date on which component items were planned.)
15. The Required Date is generated by the system. (Date on which the work order is required.)
16. The Release Date is displayed by the system. (Date on which component items were released/kitted.)
17. Standard Hours are displayed based on labor hours required to produce the part (specified in the Part Master).

18. Total WIP Issues, Total Scrap, and Total Labor applied to this work order display in the lower right corner of the form. These provide work order history for the work order.

19. When you have completed entering the information, do one of the following:

Click OK to save your entries and exit the Work Orders form.

Click Save on the toolbar to save your entries and continue adding work orders.

Click Add on the toolbar to create another work order.

Click Close to exit the work order form without saving.

**Notes Tab**

Enter any notes you would like to include about this work order. These will print on any work order documents.

**Accessing Work Order Data**

Once work orders are added to the system, Alliance/MFG gives you a number of ways to access the data.

**From the Supply Menu**

Select Supply>Work Orders from the main menu. From here you can go straight to a blank data entry form to enter a new work order, edit existing records; or use predefined queries and wild cards to locate specific records.

**From the Work Orders View**

The records displayed in the Work Orders View depend on the query selected.

WD Number	Closed Flag	Part Number	Quantity To Start	Quantity Released	Quantity Required	Quantity Completed	Start Date	Required Date	Released Date
1	<input type="checkbox"/>	B-01	5,100.00	5,100.00	5,100.00	0.00	10/21/2005	11/7/2005	10/29/2005
2	<input type="checkbox"/>	B-02	10,000.00	10,000.00	10,000.00	3,000.00	10/24/2005	11/8/2005	11/18/2005
3	<input checked="" type="checkbox"/>	T-01	10,000.00	10,000.00	10,000.00	10,000.00	10/27/2005	10/28/2005	10/29/2005
4	<input type="checkbox"/>	B-01	2,000.00	2,000.00	2,000.00	0.00	11/8/2005	11/22/2005	11/18/2005
5	<input type="checkbox"/>	BPP-100	5,000.00	5,000.00	5,000.00	0.00	11/8/2005	11/22/2005	11/22/2005
6	<input type="checkbox"/>	BPP-200	5,000.00	0.00	5,000.00	0.00	11/9/2005	11/22/2005	
7	<input type="checkbox"/>	B-02	3,790.00	0.00	3,790.00	0.00	11/30/2005	12/13/2005	
8	<input type="checkbox"/>	B-01	9,800.00	0.00	9,800.00	0.00	11/30/2005	12/13/2005	

From here you can add, edit or delete a work order; or via the sidebar you can drill down or access related data; preview or print a report.

## Work Order Release Manager

The Work Order Release Manager is a decision-assistant tool that allows users to dynamically test pick open work orders and selectively release them to production based on the feedback provided by the Release Manager. As orders are included/excluded and release quantities are increased/decreased the impact on inventory, customer requirements and potential short falls can be displayed, reviewed and adjusted to maximize potential production quantities and customer satisfaction. You can now answer the question "What can I produce NOW - TODAY ?"

### Determining Work Order Release Quantities

Select Supply>Work Order Release Manager to display the Work Order Release Manager View.

#### Work Order Tab

All "Open" work orders; Firm MRP work orders that have not yet been released, or released work orders that have been only partially released, will be displayed.


Status	WO Number	Part Number	Include?	Max Build	Qty To Release	Qty Remaining	Start Date	Required Date
1	WD06070005	BPP-100	<input type="checkbox"/>		0	5000	11/23/2005	12/8/2005
2	WD06070008	BPP-200	<input type="checkbox"/>		0	5000	11/29/2005	12/12/2005
3	WD05110005	B-01	<input type="checkbox"/>		0	9800	11/30/2005	12/13/2005
4	WD06070001	B-01	<input type="checkbox"/>		0	200	11/30/2005	12/13/2005
5	WD06070010	T-01	<input type="checkbox"/>		0	10000	12/2/2005	12/5/2005
6	WD06070002	B-01	<input type="checkbox"/>		0	2500	12/6/2005	12/19/2005

Status	Part Number	Description	Qty Required	Qty On Hand	Qty Remaining	Stock UOM

The default sort order is by the Work Order Start Date. If the WO Start Date is your main priority for scheduling production then you can start the test picking process by clicking the *Qty*

*Remaining*  button for a Work Order.

The Qty Remaining column is the total quantity remaining to be released for the work order selected. Clicking this  button will automatically check the "Include?" checkbox and also copy and enter the Qty Remaining amount into the *Qty To Release* column.

#### Test Picking Component Parts

If you do this by Start Date, for each work order in the list, the Release Manager will also calculate and display the *Max Build* quantity for each work order and display a "Flag" in the Status field (the column to the left of the WO Number in the view). A **Green Check** indicates all parts required to kit the work order *Max Build* quantity are available. The kit list for the work order highlighted in the top half of the view is displayed in the bottom half of the view. The current on-hand inventory position of the component parts is displayed.

**Work Order Release Manager**

Work Orders | Affected Parts

All Open Work Orders

Status	WO Number	Part Number	Include?	Max Build	Qty To Release	Qty Remaining	Start Date	Required Date
1	✓ WO00080003	B-02	<input checked="" type="checkbox"/>	2210	2210	2210	10/24/2005	11/8/2005
2	▶ ✓ WO05110001	B-01	<input checked="" type="checkbox"/>	2000	2000	2000	11/8/2005	11/22/2005
3	WO05110002	BPP-100	<input type="checkbox"/>			5000	11/8/2005	11/22/2005
4	WO05110003	BPP-200	<input type="checkbox"/>		0	5000	11/9/2005	11/22/2005

Kit list for selected work order

Status	Part Number	Description	Qty Required	Qty On Hand	Qty Remaining	Stock UOM
1	▶ ✓ BP-1	Barrel, Top Half...	2000	4999	2999	EA
2	✓ BP-2	Barrel, Bottom H...	2000	12900	10900	EA
3	✓ BP-3	Ring, Metal .250...	2000	10000	5790	EA
4	✓ BP-4	Clip, Pocket Met...	2000	10000	5790	EA

**Affected Parts Tab**

Click on the Affected Parts Tab to display a combined list of all parts required for all "Included" work orders. The complete current on-hand inventory position of the component parts is displayed.

**Work Order Release Manager**

Work Orders | Affected Parts

Parts required by selected orders

Status	Part Number	Part Description	Qty On Hand	Qty Expected	Qty Remaining	Total Qty Required	Stock UOM	Total Issues
1	▶ ✓ BP-3	Ring, Metal .250...	10000	0	5790	4210	EA	4210
2	✓ BP-4	Clip, Pocket Met...	10000	0	5790	4210	EA	4210
3	✓ BP-5	Barrel, Top Half...	4310	0	2100	2210	EA	2210
4	✓ BP-6	Barrel, Bottom H...	5210	0	3000	2210	EA	2210
5	✓ BP-1	Barrel, Top Half...	4999	0	2999	2000	EA	2000
6	✓ BP-2	Barrel, Bottom H...	12900	0	10900	2000	EA	2000

Work Orders that will kit the selected part

WO Number	Assembly	Start Date	Issue Qty	
1	▶ WO00080003	B-02	10/24/2005	2210
2	WO05110001	B-01	11/8/2005	2000

Click on the Work Orders Tab to return to the Release Manager.

**Release Manager indicates sufficient quantities available**  (All Green checks)

**In this example:** WO00080003 for part B-02 has Qty Remaining of 2210. Clicking the button in the Qty Remaining column will enter 2210 in the Qty To Release, it will also check the Include? box and calculate the Max Build quantity (reviews the current on-hand balances for all required BOM components), which in this case is 2210. Next, WO05110001 for part B-01 has Qty Remaining of 2000. Clicking the button in the Qty Remaining column will enter 2000 in the Qty To Release, check the Include? box and calculate the Max Build quantity. The Release manager again reviews the current on-hand balances for all required BOM components on all "Included?" work orders.

Green checks indicate all required parts are available for all included work orders, you can release and build both of these work orders now, today!

If you have completed the work order test pick function and want to release the work order(s), click on the Save button in the Toolbar. Clicking the Save button does several things.

1. Validate the Qty To Release does not exceed the Max Build quantity for all Included Work Orders
2. Create a Planned Issues list (allocation or shortage list) for each work order released
3. Releases the "Included" Work Orders

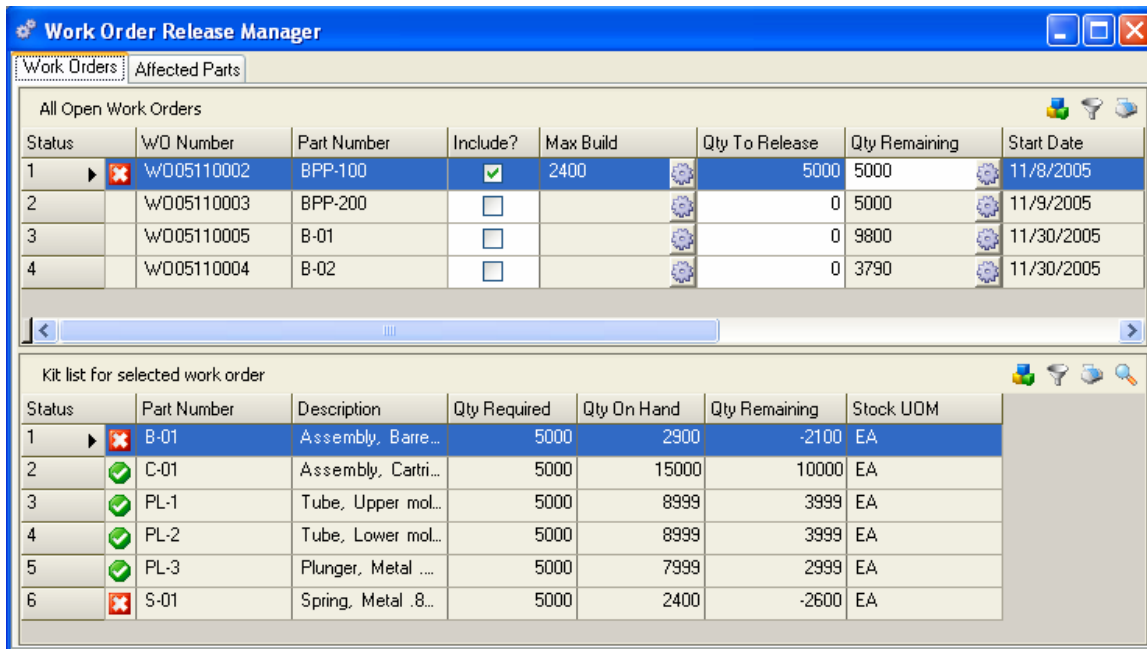
You may now print Pick Lists and WO Travelers and Kit the released work orders.

NOTE:

*Additionally the Alliance/MFG RDC Kitting transaction will allocate the Planned Issues lists created by the Release Manager to Hand Held Devices used for Remote Data Collection. Contact Account Management or visit the Exact Alliance Customer Portal for additional details on Alliance/MFG Remote Data Collection.*

**Release Manager indicates insufficient quantities available  (at least one Red box )**

If the release manager has displayed a Red X (actually a red box with a white X) on a selected work order, it indicates there are insufficient component inventories to satisfy the full Qty To Release. When this occurs the Max Build quantity will be calculated and displayed. The kit list for the highlighted work order is displayed in the bottom half of the Release Manager window.



The screenshot shows the 'Work Order Release Manager' window. The top section, 'All Open Work Orders', contains a table with the following data:

Status	WO Number	Part Number	Include?	Max Build	Qty To Release	Qty Remaining	Start Date
1	WO05110002	BPP-100	<input checked="" type="checkbox"/>	2400	5000	5000	11/8/2005
2	WO05110003	BPP-200	<input type="checkbox"/>		0	5000	11/9/2005
3	WO05110005	B-01	<input type="checkbox"/>		0	9800	11/30/2005
4	WO05110004	B-02	<input type="checkbox"/>		0	3790	11/30/2005

The bottom section, 'Kit list for selected work order', shows a table for work order B-01:

Status	Part Number	Description	Qty Required	Qty On Hand	Qty Remaining	Stock UOM
1	B-01	Assembly, Barre...	5000	2900	-2100	EA
2	C-01	Assembly, Cartri...	5000	15000	10000	EA
3	PL-1	Tube, Upper mol...	5000	8999	3999	EA
4	PL-2	Tube, Lower mol...	5000	8999	3999	EA
5	PL-3	Plunger, Metal ...	5000	7999	2999	EA
6	S-01	Spring, Metal .8...	5000	2400	-2600	EA

In this example there are two parts with insufficient inventory on-hand to build the work order quantity of 5,000. B-01 has 2900 parts in stock available to be pulled and S-01 has 2400 available. The Max Build quantity is calculated and displayed as 2400 in the top half of the Release Manager window.

If you decide that the entire quantity of 5000 is still required to satisfy a requirement (customer order or other internal priority) you can investigate further.

Highlight component part B-01, the Sidebar displays a link to the Component MRP, click on that Related View link. The MRP Detail for part B-01 is displayed.

MRP Detail View - By Part and Job (B-01, )									
Part Number	B-01		Assembly, Barrel, Blue						
Job Number			ISC M		DMC P				
Quantity On Hand	2,900.00		Order Multiple		1.00				
Safety Stock	0.00		Yield Factor		100				
Order Qty	1.00		Lead Time		10				
	Action	Start Date	Date Required	Reference	Start Quantity	Quantity Required	Balance	Post Type	Pegging
1		10/21/2005	11/7/2005	WO00080002	5,100.00	5,100.00	8,000.00	Firm WO	
2			11/8/2005	WO05110002		-5,000.00	3,000.00	Planned Kit	BPP-100
3		11/8/2005	11/22/2005	WO05110001	2,000.00	2,000.00	5,000.00	Firm WO	
4			11/23/2005	0000000001		-5,000.00	0.00	Planned Kit	BPP-100
5		11/30/2005	12/13/2005	WO05110005	9,800.00	9,800.00	9,800.00	Firm WO	
6			12/14/2005	0000000006		-4,800.00	5,000.00	Planned Kit	BPP-x300
7			12/14/2005	0000000002		-5,000.00	0.00	Planned Kit	BPP-100
8	Create	12/6/2005	12/19/2005	0000000010	2,500.00	2,500.00	2,500.00	Planned WO	
9			12/20/2005	0000000007		-2,500.00	0.00	Planned Kit	BPP-x300
10	Create	12/29/2005	1/12/2006	0000000011	1,000.00	1,000.00	1,000.00	Planned WO	
11			1/13/2006	0000000008		-1,000.00	0.00	Planned Kit	BPP-x300
12	Create	3/31/2006	4/13/2006	0000000012	5,000.00	5,000.00	5,000.00	Planned WO	
13			4/14/2006	0000000003		-5,000.00	0.00	Planned Kit	BPP-100

The first row lists a past due work order for a quantity of 5100, after checking with either the planner or foreman for that department they indicate that a quantity of 2500 will be completed into stock today. Close the MRP Detail View for B-01.

Click on the Affected Parts Tab of the Release Manager, enter 2500 in the Qty Expected column for part B-01.

Highlight part S-01, the Sidebar displays a link to the Component MRP, click on that Related View link. The MRP Detail for part S-01 is displayed. The first row lists a past due PO for a quantity of 15,600 with a reschedule action of Move In displayed (this indicates that MRP notified the buyer/planner to expedite this PO). A quick check with buyer indicates the entire 15,600 parts are in receiving and will be available soon. Close the MRP Detail View for S-01. Enter 15,600 in the Qty Expected column for part S-01 in the Release Manager.

Work Order Release Manager - Affected Parts

Parts required by selected orders

Status	Part Number	Part Description	Qty On Hand	Qty Expected	Qty Remaining	Total Qty Required	Stock UOM
1	B-01	Assembly, Barre...	2900	2500	400	5000	EA
2	C-01	Assembly, Cartri...	15000	0	10000	5000	EA
3	PL-1	Tube, Upper mol...	8999	0	3999	5000	EA
4	PL-2	Tube, Lower mol...	8999	0	3999	5000	EA
5	PL-3	Plunger, Metal ...	7999	0	2999	5000	EA
6	S-01	Spring, Metal .8...	2400	15600	13000	5000	EA

Work Orders that will kit the selected part

WD Number	Assembly	Start Date	Issue Qty
1	W005110002 BPP-100	11/8/2005	5000

The red check boxes displayed on parts B-01 and S-01 are replaced with Yellow caution icons . This indicates you are "Expecting" these parts and are planning to release the work order for BPP-100 at the full quantity of 5,000.

Click on the Work Orders Tab. The Max Build quantity for BPP-100 is now displayed as 5,000 and the inventory status for the two component parts have been updated.

Work Order Release Manager - Work Orders

All Open Work Orders

Status	WD Number	Part Number	Include?	Max Build	Qty To Release	Qty Remaining	Start Date
1	W005110002	BPP-100	<input checked="" type="checkbox"/>	5000	5000	5000	11/8/2005
2	W005110003	BPP-200	<input type="checkbox"/>		0	5000	11/9/2005
3	W005110005	B-01	<input type="checkbox"/>		0	9800	11/30/2005
4	W005110004	B-02	<input type="checkbox"/>		0	3790	11/30/2005

Kit list for selected work order

Status	Part Number	Description	Qty Required	Qty On Hand	Qty Remaining	Stock UOM
1	B-01	Assembly, Barre...	5000	2900	400	EA
2	C-01	Assembly, Cartri...	5000	15000	10000	EA
3	PL-1	Tube, Upper mol...	5000	8999	3999	EA
4	PL-2	Tube, Lower mol...	5000	8999	3999	EA
5	PL-3	Plunger, Metal ...	5000	7999	2999	EA
6	S-01	Spring, Metal .8...	5000	2400	13000	EA



NOTE:

*The actual inventory balance has NOT been altered, the Qty Expected is only reflected and utilized in the Release Manager. The actual transactions, a Work Order Completion for B-01 and a Purchase Order Receipt for S-01 will update the stockroom on-hand balance when the transactions are actually performed.*

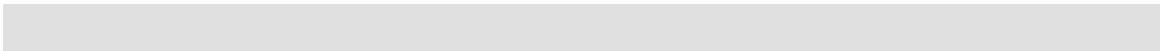
If you finished test picking orders, click the Save button in the Toolbar. Clicking the Save button does several things.

1. Validate the Qty To Release does not exceed the Max Build quantity for all Included Work Orders
2. Create a Planned Issues list (allocation or shortage list) for each work order released
3. Releases the "Included" Work Orders

You may now print Pick Lists and WO Travelers and Kit the released work orders.

NOTE:

*Additionally the Alliance/MFG RDC Kitting transaction will allocate the Planned Issues lists created by the Release Manager to Hand Held Devices used for Remote Data Collection. Contact Account Management or visit the Exact Alliance Customer Portal for additional details on Alliance/MFG Remote Data Collection.*



## Kitting and Dekitting

Alliance/MFG gives you complete control over work order and sub-contract purchase order kitting. Each is described in detail in the following sections.

### Work Order Releasing and Kitting

Component on-hand inventory is calculated with each work order released, which gives you the option to “test pick” multiple work orders until the inventory is consumed. Test picking can be done here or by using the Release Manager. You can release and kit one component line or all lines exactly as displayed; you can release and kit a partial quantity, or you can release more than the required quantity.

You can add work orders, change release quantities, and make any adjustments you wish until you are satisfied with the results, then click Save or OK to save your entries and release the work orders to WIP (production).

Select Supply>Kitting from the main menu. From here, you have the option to kit or test pick a work order or a subcontract PO.

#### To Kit a Work Order:

Select Supply>Kitting>Work Order to open a blank WO Kits transaction form.

#### Required/Short Tab

The WO Kits transaction form opens at the Required/Short tab. If you accessed this form from the Work Order View, the selected WO displays in the WO Number field; otherwise, enter the work order you wish to kit.

Once you select a work order, the Assembly, Description and any quantity already released display in the header, along with the Quantity To Start, Quantity Required, and the Start and Required dates. The Kit Date defaults to “today’s” date. You can use the calendar box to select a different date if you wish. The system will explode the current BOM to list the parts needed to complete the work order.

You can kit the entire quantity released or change it, kit all lines on the work order, or just kit one line, as needed.

Enter a quantity to release. The system will explode the current BOM to list the parts needed to complete the work order. You can add, edit and delete requirements/shortages to the WO if needed. The system will adjust quantities as you kit. The actual kitting won’t be applied until you click Save on the toolbar or the OK button. This allows you to “test pick” different orders until you are satisfied.

**WO Kits**

WO Number:  WO05110003      Entered By: SUPERVISOR  
 Tran Group: -1

Assembly: BPP-200      Assembly, Ball Point Pen, Red

Quantity Released:  5,000.00  
 Quantity To Start: 5,000.00      Start Date: 11/9/2005  
 Quantity Required: 5,000.00      Required Date: 11/22/2005  
 Qty to Release:        Kit Date:

Required/Short    WIP Issues    Notes

	Part Number	Quantity	UOM Code
<input checked="" type="checkbox"/>	1 B-02	5,000.00	EA
<input checked="" type="checkbox"/>	2 C-02	5,000.00	EA
<input checked="" type="checkbox"/>	3 PL-1	5,000.00	EA
<input checked="" type="checkbox"/>	4 PL-2	5,000.00	EA
<input checked="" type="checkbox"/>	5 PL-3	5,000.00	EA
<input checked="" type="checkbox"/>	6 S-01	5,000.00	EA

Buttons: Add, Edit, Delete, All, Kit Line, OK, Close

**To Kit All Lines:**

1. Click All to kit the entire work order. Quantities kitted complete will change to “0” on the Required/Short Tab and the issued quantities will be listed on the WIP Issues Tab, the default stockroom and locations will be relieved first, if insufficient inventory is available in the default stockroom and location, the system will continue to pick from other “Nettable” stockrooms and locations until the entire requirement is satisfied.
2. When you change a quantity, a check mark indicates a change has occurred. If you add to the release quantity from the WO header, additional components may be added to the required list. A plus sign next to the line indicates the system added these components.
3. When you have finished kitting, do one of the following:

Click the WIP Issues tab to review the stockrooms and locations, or change quantities, stockrooms, or locations.

Click the Add button on the left side of the tab to add a part/**shortage** An amount by which an order is deficient. . (See Adding to Shortages in the next section.)

Click OK to accept the kit and exit the WO Kits data entry form.

Click Save on the toolbar to kit this work order and leave the form open.

Click Add on the toolbar to kit another work order.

**To kit a single line:**

1. Select the line you wish to kit. You can kit a partial quantity, or modify the release quantity as described earlier. Click on the Kit Line button. A pop-up window will display the stockroom and location being relieved.

The screenshot shows a 'Kitting' window with the following fields and values:

WO Number	W005110003	
Part Number	B-02	
UOM Code	EA	
Stockroom Code	SA-1	Sub-Assemblies
Location Code	100	
SN/Lot Number		
Job Number		
Quantity	4,210.00	Each
Tran Info		

You may change the stockroom and/or location if required. Quantities kitted complete will change to "0" on the Required/Short Tab and the issued quantities will be listed on the WIP Issues Tab.

When you have finished kitting, do one of the following:

Click the WIP Issues tab to review or edit the stockrooms, locations, or change quantities.

Click OK, Add, Save as needed.

**NOTE:**

**CURRENT BILL OF MATERIALS**

*Because bills of materials change from time to time, the system recognizes the Current Bill of Materials at the time of the kitting transaction. If you kit a WO on Monday, add a part to the BOM on Tuesday, then DeKit the work order on Wednesday, the system will DeKit according to the BOM configuration when the kitting transaction took place.*

**WIP Issues Tab**

After you select items to kit, click WIP Issues to see what departments and stockrooms the system will issue the components from. You can add more items if you have a new requirement, or select a line and click Edit to change a quantity, stockroom, or location.

**WO Kits**

WO Number: ✓ WO05110003      Entered By: SUPERVISOR  
 Tran Group: -1

Assembly: BPP-200      Assembly, Ball Point Pen, Red

Quantity Released: ✓ 5,000.00  
 Quantity To Start: 5,000.00      Start Date: 11/9/2005  
 Quantity Required: 5,000.00      Required Date: 11/22/2005  
 Qty to Release: ✓ 5,000.00      Kit Date: 12/29/2005

Required/Short    **WIP Issues**    Notes

	Part Number	Quantity	UOM Code	Stockroom Code	Location Code	SN/Lot Number	Job Number
1	B-02	4,210.00	EA	SA-1	100		
2	C-02	5,000.00	EA	SA-2	100		
3	PL-1	5,000.00	EA	RAW	100		
4	PL-2	5,000.00	EA	RAW	100		
5	PL-3	5,000.00	EA	RAW	100		
6	S-01	2,400.00	EA	RAW	100		

Buttons: Add, Edit, Delete, OK, Close

When you click Save or OK, the system generates a Transaction Group number to associate with the kitting transactions completed.

**Adding to or Editing Shortages**

You may have occasion to add or edit a shortage to a work order kit. You can do this quickly from the WO Kits, Required/Short tab data entry form.

2. Click the Add or Edit button on the left side of the Required/Short tab. The Work Order Shortages data entry form opens.

3. The WO Number and component part number display as selected in the WO Kits form. The Transaction date defaults to “today,” however, you can change it if required.
4. To create a new shortage enter the component part number required.
5. Enter a quantity for the total new or edited shortage.
6. Click Close to save the entry and return to the Required/Short tab. The quantity is added. Click OK, Add, Save as needed.

**NOTE:**

*If some parts are unavailable, the amount remaining unreleased will continue to appear in the Required/Short tab as a shortage. MRP will continue to consider these quantities in planning, and they will appear on the shortage report against the work order.*

## Work Order Dekitting

It may become necessary to remove components from a kit; for example, you may discover that a batch of components parts is defective. You can dekit them to a scrap stockroom and create a shortage so MRP will re-plan their requirements. Or, you may decide to reduce or cancel (Un-Release) the work order, dekit the components and return them to inventory. If you have kitted a work order but have not yet clicked Save or OK you are free to change quantities and dekit at your discretion. However, if you have already accepted the kit (clicked Save or OK), you must dekit as a separate transaction.

Select Supply>Dekitting. From here you have the option to dekit a subcontract PO item, or a work order. The Dekit window will open to the WIP Issues tab, access any items that have been kitted to the work order, and perform a dekit as described in the following sections.

**To Dekit a work order:**

Select Supply>Dekitting>Work Order. The WO Dekit transaction form opens.

Issue ID	Part Number	Release Qty	Scrapped	UOM Code	SNLot Number	Job Number	Stockroom	Location Code
1	B-02	4,210.00	0.00	EA			SA-1	100
2	C-02	5,000.00	0.00	EA			SA-2	100
3	PL-1	5,000.00	0.00	EA			RAW	100
4	PL-2	5,000.00	0.00	EA			RAW	100
5	PL-3	5,000.00	0.00	EA			RAW	100
6	S-01	2,400.00	0.00	EA			RAW	100

1. Enter a work order number. The Quantity Released to the work order will display on the header.
2. You can dekit any amount of the Released quantity that has not been received or completed to inventory. Enter a quantity in the Reduce Release Quantity By field. The Quantity Released will change accordingly.

#### Using the Un-Release Order button

The Un-Release Order button acts differently, depending on the quantity entered in the Release Quantity By field and the original work order quantity released.

Adjusted work order quantity equals zero - When the quantity entered in the Reduce Release Quantity By field equals the original work order released quantity, this action will remove ALL issues and ALL shortages. The only exception would be issues that contain scrapped parts; which must be retained to preserve the scrap cost on the work order.

Adjusted work order quantity is greater than zero - When the work order quantity released is greater than zero after being adjusted by the value entered in the Reduce Release Quantity By field, this action will use the current exploded bill of materials to get a list of requirements for the Reduce Quantity By value. First, it will remove any shortages up to the amount required by the exploded bill. After shortages are removed, issues will be dekitted.

For example: You enter a "Reduce release qty by" for 100 units of a part that has component C1. Component C1 has a shortage of 75 units and an issued line of 200 units. The shortage of 75 units will be marked for deletion and 25 units of the issued line will be dekitted, leaving 175 units issued.

#### WIP Issues Tab

In the WIP Issues tab, click All to dekit all lines, or select a line and click Dekit Line to dekit one line at a time.

WO DeKits

WO Number: WO05110003 Entered By: SUPERVISOR

Reduce release qty by: 0.00 Un-Release Order

Quantity Released: 5,000.00

Dekit Date: 7/24/2006

WIP Issues WO DeKits Shortages Notes

Issue ID	Part Number	Release Qty	Scrapped	UOM Code	SN/Lot Number	Job Number
1	B-02	0.00	0.00	EA		
2	S-01	0.00	0.00	EA		
3	C-02	0.00	0.00	EA		
4	PL-1	0.00	0.00	EA		
5	PL-2	0.00	0.00	EA		
6	PL-3	0.00	0.00	EA		

OK Close

### WO Dekit Tab

In the WO Dekit tab, you can review, change, or delete the quantity, stockroom, location, SN/Lot Number or Scrap the part. Each dekit is assigned a unique Issue ID number to track issues that would otherwise be identical.

#### To Edit lines in the dekit:

3. In the WO Dekit tab, select the line you wish to edit.
4. Click Edit on the left side of the tab to open the WO Dekit form. From here, you can edit the Stockroom, Location, SN/Lot Number, Job Number, enter up to 60 characters of Tran Info; or Quantity; tag the dekit for a shortage or to scrap.
5. Select Create Shortage if you want MRP to plan to replace the dekkitted parts. It is not necessary to use this feature when you use the Un-Release button on the WO Dekit form (see the next section).



WO DeKits

WO Number: W005110003      Part Number: B-02

Issue ID:  ✓ ⓘ

---

Stockroom Code:

Location Code:  Sub-Assemblies

SN/Lot Number:

Job Number:

Quantity:  Each ✓

Create Shortage?  ✓

Scrap Part?

Tran Info:

Close

1. Select Scrap Part to flag the system to associate the cost of the scrapped part to this particular work order. You can dekit a part to scrap and specify a location without checking this box; however, the cost of scrap will not be tracked to this particular work order.
2. Click Close to accept the dekit and return to the WO DeKit tab. Click OK, Add, Save as needed.

## Dekitting Parts to Scrap

You have the ability to dekit components to scrap and create replacement requirements (shortages). For example, if you know a particular component is defective, you can dekit the affected work order assigning the components to a stockroom designated for scrap and create shortages to replace the components.

### To dekit a part to scrap:

1. In the WO DeKit tab, select a line and click Edit.
2. The WO DeKit form opens for the Issue ID selected in the tab.
3. Select the Stockroom location for scrapped items.
4. Select the Location for the scrapped item.
5. Edit the quantity if needed. From here, you can edit the Stockroom, Location, SN/Lot Number, Job Number, or Quantity.
6. Select Create Shortage if you want MRP to plan to replace the dekked parts. It is not necessary to use this feature when you use the Un-release button on the WO DeKit form (see the following section).
7. Select Scrap Part to flag the system to associate the cost of the scrapped part to this particular work order. You can dekit a part to scrap and specify a location without checking this box; however, the cost of scrap will not be tracked to this particular work order.

- Click Close to accept the dekit and return to the WO Dekit tab. Click OK, Add, Save as needed.

### Working with Sub-contract Purchase Orders

Alliance/MFG gives you control over sub-contract purchase order kitting. If you supply parts to your suppliers this section will explain sub-contract PO kitting. The PO line item to be kitted must have an ISC of Subcontract Part and should have a department with a subcontract WIP account number assigned. You can kit one line or all lines exactly as displayed; you can also kit or release a partial quantity. A temporary on-hand inventory quantity is calculated with each order released, which gives you the option to “test pick” multiple orders until all inventory is consumed. You can add orders, change released quantities, and make any adjustments you wish until you are satisfied with the results, then click Save or OK to save your entries and issue the parts to the sub-contract PO (SC WIP).

When components are available to be sent to the supplier, you are ready to kit the work order. Select Supply>Kitting from the main menu. From here, you have the option to kit a subcontract PO or a work order.

#### To Kit a Subcontract PO:

Select Kitting>Subcontract PO Item to open a blank PO Kits transaction form.

The screenshot shows the 'PO Kits' window with the following fields and values:

PO Number		Entered By	SUPERVISOR
PO Line		Tran Group	-1
Assembly			
Quantity Released			
Start Quantity		Start Date	
Quantity Required		Required Date	
Qty to Release	0.00	Kit Date	7/18/2006

Below the fields are tabs for 'Required/Short', 'PIP Issues', and 'Notes'. The 'Required/Short' tab is active, showing buttons for 'Add', 'Edit', 'Delete', and 'All'. The main area displays 'No records found'. At the bottom right are 'OK' and 'Close' buttons.

#### Required/Short Tab

The PO Kits transaction form opens at the Required/Short tab. If you accessed this form from the Purchase Order View, the selected PO displays in the PO Number field; otherwise, enter the purchase order number you wish to kit. Enter the PO Line Item you wish to kit.

Once you select a PO and Line, the Assembly, Description and any quantity previously released display in the header, along with the Start Quantity, Quantity Required, and the Start and Required dates. The Kit Date defaults to “today’s” date. You can use the calendar box to select a different date if you wish. The system will explode the current BOM to list the parts needed to complete the work order.

The screenshot shows the 'PO Kits' window with the following fields and values:

- PO Number: P005110004
- Entered By: SUPERVISOR
- PO Line: 004
- Tran Group: -1
- Assembly: C-01, Assembly, Cartridge, Blue Ink
- Quantity Released: 110.00 (with a green checkmark)
- Start Quantity: 110.00
- Start Date: 7/18/2005
- Quantity Required: 100.00
- Required Date: 11/28/2005
- Qty to Release: 110.00 (with a green checkmark)
- Kit Date: 7/18/2006 (with a calendar icon)

Below the header, there are tabs for 'Required/Short', 'PIP Issues', and 'Notes'. The 'Required/Short' tab is active, showing a table with the following data:

	Part Number	Quantity	UOM Code
+	1 CP-1	110.00	EA
+	2 T-01	110.00	EA

Buttons for 'Add', 'Edit', 'Delete', and 'All' are located to the left of the table. 'OK' and 'Close' buttons are at the bottom right.

You can kit the entire quantity released or change it, kit all components on the line, or just kit selected items to the line, as needed. When you click Save or OK, the system generates a Transaction Group number to associate with the multiple kitting transactions completed.

#### To Kit All components to the Line:

1. Enter a quantity to release. The system will explode the current BOM to list the parts needed to complete the kit. You can add, edit and delete requirements/shortages to the PO if needed. The system will adjust quantities as you kit. The actual kitting won't be applied until you click Save on the toolbar or the OK button. This allows you to “test pick” different orders.
2. Click All to kit the entire quantity of all components. Quantities kitted complete will change to “0” on the Required/Short Tab and the issued quantities will be listed on the PIP Issues Tab, the default stockroom and locations will be relieved first, if insufficient inventory is available in the default stockroom and location, the system will continue to pick from other “Nettable” stockrooms and locations until the entire requirement is satisfied.
3. When you change a quantity, a check mark indicates a change has occurred. If you add to the release quantity from the PO line item, additional components may be added to the required list. A plus sign next to the line indicates the system added these components.

#### To kit a single component to the line:

1. In the PO Kits transaction form, enter a PO Number to kit.

- Select the line you wish to kit. You can kit a partial quantity, or modify the release quantity as described earlier. Click Kit Line. A pop-up window will display the stockroom and location being relieved. You may change the stockroom and/or location if required. Quantities kitted complete will change to "0" on the Required/Short Tab and the issued quantities will be listed on the PIP Issues Tab.

**PIP Issues Tab**

After you select items to kit, click PIP Issues to see what departments and stockrooms the system will issue the stock from. From here, you can add more items if needed, or select a line and click Edit to change a quantity, stockroom, or location.

**PO Kits**

PO Number: P005110004 Entered By: SUPERVISOR  
 PO Line: 004 Tran Group: -1  
 Assembly: C-01 Assembly, Cartridge, Blue Ink  
 Quantity Released: 110.00  
 Start Quantity: 110.00 Start Date: 7/18/2005  
 Quantity Required: 100.00 Required Date: 11/28/2005  
 Qty to Release: 110.00 Kit Date: 7/18/2006

Required/Short PIP Issues Notes

	Part Number	Quantity	UOM Code	Stockroom Code	Location Code	SN/Lot Number	Job Number
1	CP-1	110.00	EA	RAW	100		
2	T-01	110.00	EA	SA-1	100		

Buttons: Add, Edit, Delete, OK, Close

When you have finished kitting, do one of the following:

- Click the Add button on the left side of the tab to add a part or create a shortage. (See Creating Shortages in the next section.)
- Click OK to accept the kit and exit the PO Kits data entry form.
- Click Save on the toolbar to kit this order and leave the form open.
- Click Add on the toolbar to kit another purchase order.

**NOTE:**

**CURRENT BILL OF MATERIALS**

*Because bills of materials change from time to time, the system recognizes the Current Bill of Materials at the time of the kitting transaction. If you kit a WO on Monday, add a part to the BOM on Tuesday, then DeKit the work order on Wednesday, the system will DeKit according to the BOM configuration when the kitting transaction took place.*

## Creating Shortages

You may have occasion to create or add a shortage to a purchase order kit. You can do this quickly from the PO Kits, Required/Short tab data entry form.

Click the Add button on the left side of the Required/Short tab. The PO Shortages entry form opens.

1. The PO Number, Line Number default from the PO Kit screen. The Transaction date defaults to "today," however, you can change it.
2. Enter a Part number, quantity and UOM for the shortage.
3. Click Close to save the entry and return to the Required/Short tab. The shortage is added. Click OK, Add, Save as needed.

### NOTE:

*If some parts are unavailable, the amount remaining unreleased will continue to appear in the Required/Short tab as a shortage. MRP will continue to consider these quantities in planning, and they will appear on the shortage report against the work order.*

## Dekitting Sub-contract Purchase Orders

It may become necessary to remove components from a kit; for example, you may discover that a batch of components parts are defective. You can dekit them to a scrap stockroom and create a shortage so MRP will plan their requirements. Or, you may decide to dekit components and return them to inventory. If you have kitted a purchase order but have not yet clicked Save or OK you are free to change quantities and dekit at your discretion. However, if you have already accepted the kit (clicked on Save or OK), you must dekit as a separate transaction.

Select Supply>Dekitting. From here you have the option to dekit a subcontract PO item, or a work order. The PO Dekit window will open to the PIP Issues tab, access any items that have been kitted to the order, and perform a dekit as described in the following sections.

**To dekit a Purchase order line:**

Select Supply>Debiting>Sub-contract PO Item. The PO Debit transaction form opens.

The screenshot shows a window titled "PO Debits" with a blue header bar. Below the header, there are several input fields and buttons. The fields include "PO Number" (empty), "Entered By" (SUPERVISOR), "PO Line" (empty), "Tran Group" (-1), "Reduce release qty by" (0.00), "Quantity Released" (empty), and "Debit Date" (7/24/2006). There is a "Partial Debit" button next to the "Reduce release qty by" field. Below these fields, there are four tabs: "PIP Issues", "PO Debits", "Shortages", and "Notes". Under the "PIP Issues" tab, there are two buttons: "All" and "Debit Line". The main area of the window displays "No records found". At the bottom right, there are "OK" and "Close" buttons.

1. Enter a purchase order and line number. The Quantity Released to the order will display.
2. You can dekit any amount of the Released quantity that has not been received or completed to inventory. Enter a quantity in the Reduce Release Quantity By field. The Quantity Released will change accordingly.

**Using the Un-Release Order button**

The Un-Release Order button acts differently, depending on the quantity entered in the Release Quantity By field and the original order quantity released.

Adjusted order quantity equals zero - When the quantity entered in the Reduce Release Quantity By field equals the original order released quantity, this action will remove ALL issues and ALL shortages. The only exception would be issues that contain scrapped parts; which must be retained to preserve the scrap cost on the order.

Adjusted order quantity is greater than zero - When the order quantity released is greater than zero after being adjusted by the value entered in the Reduce Release Quantity By field, this action will use the current exploded bill of materials to get a list of requirements for the Reduce Quantity By value. First, it will remove any shortages up to the amount required by the exploded bill. After shortages are removed, issues will be dekitted.

**PIP Issues Tab**

In the PIP Issues tab, click All to dekit all components, or select a component and click Debit Line to dekit one item at a time.

**PO Dekits**

PO Number: PO05110004 Entered By: SUPERVISOR  
 PO Line: 002 Tran Group: -1  
 Reduce release qty by: 0.00 Partial Dedit  
 Quantity Released: 110.00  
 Dedit Date: 7/24/2006

PIP Issues PO Dekits Shortages Notes

	Issue ID	Part Number	Release Qty	Scrapped	UOM Code	SN/Lot Number	Job Number	Department Code
All	1	CP-1	110.00	0.00	EA			RAWV
Dedit Line	2	T-01	110.00	0.00	EA			SA-1

OK Close

### PO Dekits Tab

In the PO Dekits tab, you can review, change, or delete the quantity, stockroom, location, SN/Lot Number or Scrap the part. Each dekit is assigned a unique Issue ID number to track issues that would otherwise be identical.

#### To Edit lines in the dekit:

In the PO Dekits tab, select the component you wish to edit.

**PO Dekits**

PO Number: PO05110004 Part Number: T-01  
 PO Line: 002  
 Issue ID: 2

Stockroom Code: SA-1  
 Location Code: 100 Sub-Assemblies  
 SN/Lot Number:  
 Job Number:  
 Quantity: 110.00 Each  
 Create Shortage?   
 Scrap Part?   
 Tran Info:

Close

1. Click Edit on the left side of the tab to open the PO Dekits form. From here, you can edit the Stockroom, Location, SN/Lot Number, Job Number, or Quantity; tag the dekit for a shortage or to scrap.

2. Select **Create Shortage** if you want MRP to plan to replace the dekkitted parts. It is not necessary to use this feature when you use the **Un-Release** button on the **PO Dekits** form (see the next section).
3. Select **Scrap Part** to flag the system to associate the cost of the scrapped part to this particular order. You can dekit a part to scrap and specify a location without checking this box; however, the cost of scrap will not be tracked to this particular purchase order.
4. Click **Close** to accept the dekit and return to the **PO Dekits** tab. Click **OK**, **Add**, **Save as needed**.

### **Dekitting Parts to Scrap**

You have the ability to dekit components to scrap and create replacement requirements (shortages). For example, if you are notified that a component is defective, you can dekit the affected sub-contract order assigning the component to a stockroom designated for scrap and create shortages to replace the components.

#### **To dekit a part to scrap:**

1. In the **PO Dekits** tab, select a component and click **Edit**.
2. The **PO Dekits** form opens for the **Issue ID** selected in the tab.
3. Select the **Stockroom** location for scrapped items.
4. Select the **Location** for the scrapped item.
5. Edit the quantity if needed. From here, you can edit the **Stockroom**, **Location**, **SN/Lot Number**, **Job Number**, or **Quantity**.
6. Select **Create Shortage** if you want MRP to plan to replace the dekkitted parts. It is not necessary to use this feature when you use the **Un-release** button on the **PO Dekits** form.
7. Select **Scrap Part** to flag the system to associate the cost of the scrapped part to this particular purchase order. You can dekit a part to scrap and specify a location without checking this box; however, the cost of scrap will not be tracked to this particular work order.
8. Click **Close** to accept the dekit and return to the **PO Dekits** tab. Click **OK**, **Add**, **Save as needed**.

### **Processing Scrap**

There are four basic ways to handle **WO** and **SCPO** scrap. They can be used to handle different situations.

1. Dekit components to a scrap stockroom. Optionally, relocate inventory from the scrap department to an expense account upon disposal. By dekitting the components you will remove them from **WIP**. By relocating to an expense account you can make the corresponding adjustment to your accounting package.
2. Dekit components to a scrap stockroom and choose the **"Scrap Part"** checkbox on the dekit detail screen. This will work like option #1 but will continue to track the cost of scrapped components to the work order.
3. Complete finished goods to a scrap stockroom (later moving this inventory to an expense account). By completing units to a scrap stockroom you will reduce **WIP** and still be able to track the scrap expense.



4. Only complete finished goods (without scrap). This will leave all scrap expenses in WIP. You can periodically print the WIP report to get the current cost of WIP. You can then make an accounting journal entry to balance the WIP. The difference between the Alliance/MFG WIP and the accounting package WIP can be moved to a Material Usage Variance Account (expense account).


Options 1 and 2 will track scrap at Component Cost only, while options 3 and 4 will include labor and burden. Some consideration to how far along in the manufacturing process the scrap is occurring is useful.

Choosing the best options really depends on your situation. The following questions may help you determine the best route:

- Will you re-issue material to replace scrapped components? If so then you should choose options 1 or 2.
- Are components being scrapped? Or are fully built assemblies (containing all components) being scrapped? If only components are being scrapped then options 1 or 2 should be used. For assemblies you should use 3 or 4.
- Do you need to track the costs of scrapped components (e.g. Job Costing)? If so you should choose option 2.
- Are variable quantities used? (e.g. mixing variable amounts of chemicals). If so then option 4 will probably work best.

A variance adjustment is probably needed for any situation where: 1) a dekit has occurred but no material has been issued to replace it, and the order is completed at the full quantity, OR 2) a Kit was made for the full amount, but the Completion was made for a partial amount of the released quantity (and the WO has been closed).

---



## Work Order Completions

There are three (3) methods for performing work order completions within Alliance/MFG. Standard and Serialized method of completions are described in this section. Work Order [Backflushing](#) methods are described in the following section.

### Standard Work Order Completions

To Complete a Work Order using the Standard method:

You can perform either a full or a partial **completion** A transaction that is used to record the number of items completed against a specific work order and that are now available to inventory. of a work order. You may only perform completions against a work order that has been Released to production. Releasing a work order involves the act of **kitting** The process of removing components of an assembly from the stock room and sending them to the assembly floor as a kit of parts to make a work order's demanded assembly. This action may take place automatically whenever a full set of parts is available and/or it may be done only upon authorization by a designated person. /issuing components to the manufacturing department of the work order.

Select Supply>Complete a Work Order to open a WO Completions form (opens at the Completed tab).

Field	Value
WO Number	WO00080003
Part Number	B-02
Close Order	<input type="checkbox"/>
Entered By	SUPERVISOR
Tran Group	-1
Date Completed	7/24/2006
Quantity Required	10,000.00
Quantity Released	10,000.00
Total Qty. Completed	5,000.00
Qty Completed	1000
Stockroom	SA-1
Location Code	100
SN/Lot Number	
Job Number	
EA	
Tran Info	

5. Enter a WO Number or select one using the WO Number hyperlink. When you enter a WO, the part number displays in the header along with the Quantity Required, Quantity Released, and Default Stockroom and location, SN/Lot and Job Number, if applicable.
6. In the Completions tab, enter a valid Quantity completed; that is, the quantity cannot be greater than was released.
7. The completion transaction will now be listed when you select WO Completions View.
8. You can change the stockroom and location, if needed.
9. Click the Notes tab to enter any additional information.

10. When you are finished, do one of the following:

Click Save on the toolbar to save your entries and leave the form open.

Click Add on the toolbar to complete another work order.

Click OK to save your entries and exit the form.

Click Close to exit the form without saving any entries not applied or saved.

## Serialized Work Order Completions

**To Complete a Work Order using the Serialized method:**

If Finished Goods or Sub-assemblies manufactured in-house are serialized (unique Serial Numbers assigned to each Quantity of One completed), the "Serialize Work Order Completions" process can be used. This will allow you to generate individual Work Order completions for a quantity of one (1) and to automatically generate and assign Serial Numbers to those individual completions.

NOTE:

Average Costing methodology does not allow for Partial Completions against a Work Order. Because the "Serialize Work Order Completions" function is by its nature generating multiple Partial Completions, it cannot be used when Average Costing is selected in Preferences. The screen will be available, but results will not be able to be saved. Additionally, Unit of Measure conversion will not work with the Serialize WO Completions function. At the time "Save" or "OK" is pressed, any UOM conversions will cause the transaction to error out with the message "UOM Conversions Exist".

To insure that all transactions for a part number include a Serial/Lot number go to the Part Master>Inventory Codes tab.

The screenshot shows the 'Part Master' window with the following details:

- Part Number:** BPP-200
- Revision:** B
- Description:** Assembly, Ball Point Pen, Red
- Inactive:**
- Tabs:** Engineering, Notes, MRP Planning, **Inventory Codes** (selected), Part Costs, Statistics
- Commodity Code:** F/G
- Finished Goods:**  **Require SN/Lot:**
- Pur/Mfg UQM:** EA
- Each:** Each
- SN Format:**
- Product Class Code:** BPP200
- 200 Series:** 200 Series
- Average Catch Weight:** 0.00
- System Used On Code:** RP
- RED PEN:** RED PEN
- Catch Weight UQM:**
- Product Discount Code:** BPP
- Ball Point Pens:** Ball Point Pens
- ICN Code:**
- ABC:** A - Highest Relative Value
- Standard Hours:** 0.01
- Buttons:** OK, Close

11. Check the Require SN/Lot checkbox.
12. You may also specify the SN/Lot Format. This can be any combination of letters and numbers up to 10 characters. Any part of a date (Month, Year, Day) may be included in the auto-generation by entering \*M, \*Y, or \*D in any combination. Sequential numbering fills in the remaining numbers. For example, the serial number SN03091847, would be the 47th serial number automatically generated on September 18, 2003 in the format "SN\*Y\*M\*D".
13. If you do not wish to use 10 characters, enter your preferred format, then insert "#" for the number of characters you wish to use. The system will increment those numbers. In the example, the system has been set up to create serial numbers with a four-digit number that increments by 1.

#### Select Supply>Serialize Work Order Completions

The screen contains three sections. The top section displays the work order and selected work order information; the middle section defines the quantity to complete, the serial number format, default SN/Lot Information and other common work order completion fields; the bottom section will display the serialized results in a list format, with buttons along the left side of the screen to add, edit or delete the records in the view, (much as other Transaction detail screens).

**WO SN Completions**

WO Number  Quantity Required

Close Order  Quantity Released

Part Number  Total Qty. Completed

---

Quantity

SN Format

Starting Number  First Serial Number

Stockroom  Last Serial Number

Location  Date Completed  Default SN/Lot Info

Job Number  Generate Completions

Add

Edit

Delete

No records found

OK Close

### Work Order Section

14. Enter a WO Number or select one using the WO Number hyperlink. When you enter a WO, the part number displays in the header along with the Quantity Required, Quantity Released.
15. Click the Close Order checkbox if you wish to close the order with the completion. The work order selected for generating completions will be automatically closed if the completed quantity is equal to or greater than the required quantity.

### NOTE:

The total quantity being completed will be validated at the time the transaction is "Saved" to allow for generating additional serial numbers. Many companies keep track of their serial numbers in a Log Book or spreadsheet (highly recommended). When serial numbers from this Log are used, they are marked off in the log book. If a serial number becomes unusable due to a damaged tag or another reason, then the next sequential serial number can be assigned. Alliance/MFG allows you to generate more serial numbers than are needed, and only validates the total quantity to complete at the time the transaction is applied, to allow you a method of handling this situation.

WO Number	WO05110003	Quantity Required	5,000.00
Close Order	<input type="checkbox"/>	Quantity Released	5,000.00
Part Number	BPP-200	Total Qty. Completed	0.00
Quantity	20	First Serial Number	SN06000121
SN Format	SN06#####	Last Serial Number	SN06000140
Starting Number	121	Date Completed	7/24/2006
Stockroom	PENS	Default SN/Lot Info	
Location	100	Generate Completions	
Job Number			

Add

Edit

Delete

No records found

OK Close

### Generate Completions Section

The Default Stockroom, Location, and Job Number, are displayed in the Generate Completions section, you may override these fields if needed.

16. Enter the number of serial numbers to generate in the Quantity field. No validation to the released or required quantities will exist here to allow you to generate serial numbers for more than the completed quantity, perhaps as a result of damaged serial number tags. The value of this field will reset to zero (0) after the "Generate Completions" button is pressed. At the time the Completion is saved, the quantity being completed will be validated, as mentioned above.
17. The SN Format field defaults to the Serial Number Format on the Part Master record for the Part Number on the Work Order. You can override this if needed.
18. Enter the Starting Number. Must be greater than zero (0). The value of this field will increment itself by one (1) after the "Generate Completions" button is pressed. As soon as at least one completion line is created (either manually or by pressing the "Generate Completions" button), the Work Order Number field will become disabled.
19. Date Completed, defaults to "Today's Date". You can override the date if needed.
20. The First Serial Number and Last Serial Number will be displayed.
21. Click on the Default SN/Lot Info button to open the SN/Lot Information screen. You can default an Expiration Date, Warranty Date, Maintenance Date or Notes for each of the SN/Lot Numbers to be generated. This step must be performed prior to step 7 below for any notes or dates to be included with the SN/Lot records. When you are finished click Close.

The screenshot displays the 'WO SN Completions' application window. A modal dialog box titled 'SN/Lot Information' is open in the foreground. The dialog box has two tabs: 'SN/Lot Information' (selected) and 'Notes'. The 'SN/Lot Information' tab contains the following fields:

- Part Number:** BPP-200
- Assembly:** Assembly, Ball Point Pen, Red
- SN/Lot Number:** Auto Assign
- Expiration Date:** 7/24/2006
- Maintenance Date:** 7/24/2006
- Warranty Date:** 11/24/2006

The background window shows a list of completion records. The visible portion of the list includes:

WO Number	Quantity	SN/Lot Number
	5,000.00	
	5,000.00	
	0.00	
		SN06000121
		SN06000140

Below the list, there is a 'Generate Completions' button and a 'Default SN/Lot Info' button with a green checkmark. The dialog box has a 'Close' button at the bottom right.

Click on the Generate Completions button to generate new Work Order Completion records for a quantity of one (1) each, up to the total number of completions entered in the quantity field above. In this example we entered "25" and pressed the "Generate Completions" button, 25 separate records are created and listed in the serialized results section, appearing much like line items or other types of detail records. After the completions list is built, the "Quantity" field, will reset to zero (0) and the "Start Number" field will increment itself by one (1) greater than the ending serial number.

**WO SN Completions**

WO Number: W005110003      Quantity Required: 5,000.00  
 Close Order:       Quantity Released: 5,000.00  
 Part Number: BPP-200      Total Qty. Completed: 20.00 ✓

Quantity: 0  
 SN Format: SN06#####      First Serial Number:   
 Starting Number: 141      Last Serial Number:   
 Stockroom: PENS      ✓ Default SN/Lot Info  
 Location: 100      Date Completed: 7/24/2006  
 Job Number:   
 Generate Completions

	SN/Lot Number	Stockroom	Location Code	Job Number
1	SN06000121	PENS	100	
2	SN06000122	PENS	100	
3	SN06000123	PENS	100	
4	SN06000124	PENS	100	
5	SN06000125	PENS	100	
6	SN06000126	PENS	100	
7	SN06000127	PENS	100	
8	SN06000128	PENS	100	
9	SN06000129	PENS	100	
10	SN06000130	PENS	100	

OK Close

**Serialized Results Section**

If a serialized completion needs to be added, changed or deleted the three buttons on the left side of the Serialized Results section are enabled as needed.

The **Add** button, will create a new serialized completion with the Work Order Number field (“WO Number”) disabled and un-editable. In all other ways it functions the same as the standard Work Order Completions screen.

The **Edit** button, will open the selected serialized completion in the standard Work Order Completion transaction screen. It functions the same as the standard Work Order Completions screen.

The **Delete** button, will delete the selected serialized completion record from the list.

If you are not sure one of the steps above was performed correctly, click on the Close button to discard the results and start over.

When you are finished, do one of the following:

- Click Save on the toolbar to save your entries and leave the form open. If you did not generate serial numbers for the entire quantity completed, you may continue by starting again at step 1 above.
- Click Add on the toolbar to perform serialized completions for another work order.
- Click OK to save your entries and exit the form.
- Click Close to exit the form without saving any entries not applied or saved.



## Processing Scrap

There are four basic ways to handle WO and SCPO scrap. They can be used to handle different situations.

22. Debit components to a scrap stockroom. Optionally, relocate inventory from the scrap department to an expense account upon disposal. By debiting the components you will remove them from WIP. By relocating to an expense account you can make the corresponding adjustment to your accounting package.
23. Debit components to a scrap stockroom and choose the "Scrap Part" checkbox on the debit detail screen. This will work like option #1 but will continue to track the cost of scrapped components to the work order.
24. Complete finished goods to a scrap stockroom (later moving this inventory to an expense account). By completing units to a scrap stockroom you will reduce WIP and still be able to track the scrap expense.
25. Only complete finished goods (without scrap). This will leave all scrap expenses in WIP. You can periodically print the WIP report to get the current cost of WIP. You can then make an accounting journal entry to balance the WIP. The difference between the Alliance/MFG WIP and the accounting package WIP can be moved to a Material Usage Variance Account (expense account).

Options 1 and 2 will track scrap at Component Cost only, while options 3 and 4 will include labor and burden. Some consideration to how far along in the manufacturing process the scrap is occurring is useful.

Choosing the best options really depends on your situation. The following questions may help you determine the best route:

26. Will you re-issue material to replace scrapped components? If so then you should choose options 1 or 2.
27. Are components being scrapped? Or are fully built assemblies (containing all components) being scrapped? If only components are being scrapped then options 1 or 2 should be used. For assemblies you should use 3 or 4.
28. Do you need to track the costs of scrapped components (e.g. Job Costing)? If so you should choose option 2.
29. Are variable quantities used? (e.g. mixing variable amounts of chemicals). If so then option 4 will probably work best.

A variance adjustment is probably needed for any situation where: 1) a debit has occurred but no material has been issued to replace it, and the order is completed at the full quantity, OR 2) a Kit was made for the full amount, but the Completion was made for a partial amount of the released quantity (and the WO has been closed).

### NOTE:

When you are completing a work order in either of the methods described above, you will receive a warning if an open shortage exists for that work order. This is a reminder to resolve any shortages prior to completing the work order.

## Backflushing

Backflushing differs from standard WO completions in that you do not need to create, release and kit a work order prior to the backflushing step. Backflushing provides a method for quickly and easily consuming component inventory at the time completions for the assembly are performed. Only the quantity of components required to complete a specific number of an assembly are consumed out of Inventory On Hand.

### Backflushing Work Order Completions

Backflushing is performed through Supply>Backflush Work Order Completions. This option will open a window that will manage all the processes required for backflushing, including the creation of the Work Order, Kitting the Work Order, and Completing the Work Order. The screen is divided into three sections. At each stage of the process, you have the option to edit the details for that step, should you need to, or simply allow each step to be processed without alteration. Backflushing will automatically create the two (2) separate transactions (KIT, CMP) and write them to the Alliance Transaction Log for processing through your accounting link.

NOTE:

If your company creates and uses work orders but you wish to Backflush rather than releasing, kitting and completing your work orders, you may select a work order via the Work Order Number hyperlink. See the Work Order Number paragraph below for details. You will not be able to take advantage of the Backflush Save All button.

### The Work Order

When the backflush screen is opened a new blank work order will be created in the background. If you don't have security rights to update the WO Required Date, WO Part Number, or WO Quantity fields you won't be able to create a work order or perform the backflush function.

#### Work Order Number

When Auto-Numbering WO is on, but the work order has not been saved the typical "1: Auto Nu" will be displayed in the Work Order Number field. When auto-numbering is off you will be required to enter a new WO number.

Once the work order has been saved the work order number currently being completed will be displayed.

The hyperlink can be used to select an existing work order. By default the hyperlink will open the Work Order View using the “By Firm WOs” query. Right mouse click will also offer the “All” and “By Part Number” queries. Selecting an existing work order via the hyperlink will also act like the work order has been saved and the backflush button will be disabled (see saving a work order below).

### Part Number

If a work order has not been saved or selected you can enter or change the part number.

The hyperlink will open the Part Master View using the “Is Makeable” query by default. Right mouse click will offer the following additional queries: All, By Part Number, By Description.

### Quantity Completed

Values entered into this field will be automatically entered into the Quantity To Start field on the Work Order created in the background. All field values entered into this screen will be automatically entered into the Work Order screen. Likewise, entering a value into the work order screen created above will update the backflush screen. The WO screen is available to view or edit from the Edit Work Order button.

Once you have entered valid data in these fields you may either click on the Backflush (Save All) button or perform each step manually. The manual option allows you to edit the individual steps if necessary.

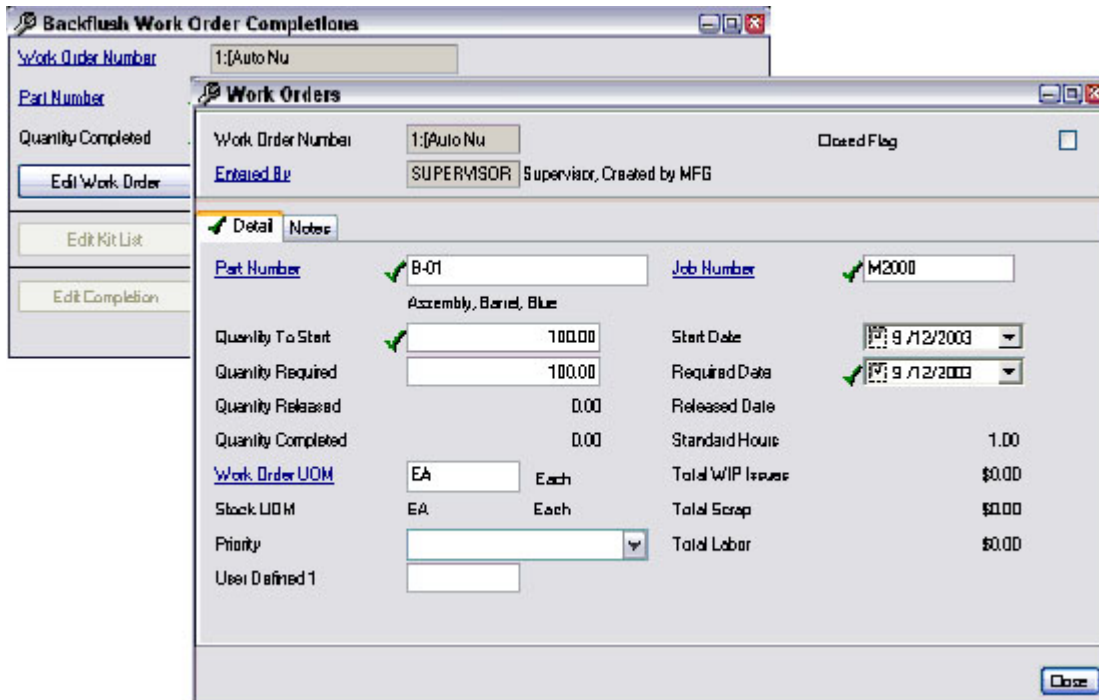
## To manually backflush a Work Order

### Backflush Screen

The backflush screen has three sections; the Work Order section, the Kit List section and the Completion section. Each section allows you to view, edit and save the changes prior to the next step. If you did not select an existing WO via the hyperlink or do not need to edit any section use the Backflush Save All button to save steps.

### Edit Work Order

Prior to saving, kitting and completing the work order you can edit the work order. This can be handy when extra information needs to be added (e.g. Job Number or Notes). Click the Edit Work Order button to open the Work Order Header screen. After the work order has been saved, the button text will change to View Work Order.



### Save Work Order

The Save Work Order button saves the work order, all existing Alliance/MFG work order validation will apply.

If the save fails, a message will be displayed stating the error condition. A red X icon will appear next to the button indicating there is a problem. Hold the mouse cursor over the icon to view the error. Once successfully saved the Save Work Order button will be disabled. The text “Created Successfully” will be displayed in the Work Order section. If an attempted save work order fails the text “Update failed” will appear.



### Building the kit list

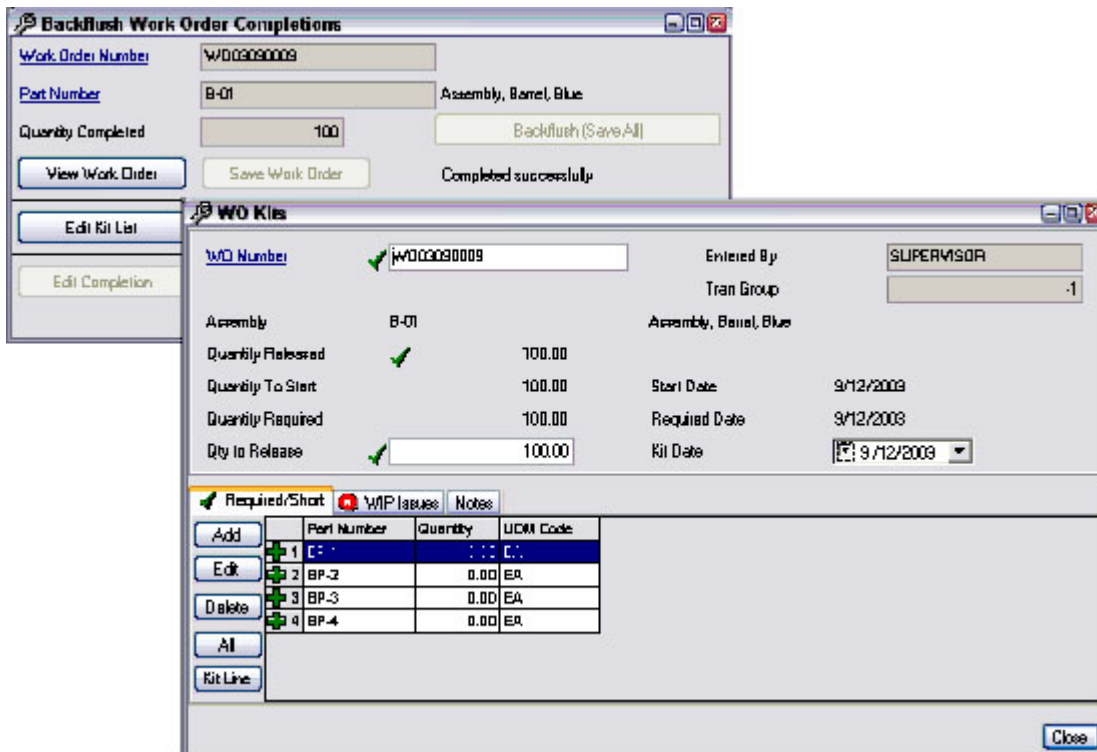
When you successfully save a Work Order or when an existing work order is selected via the WO Number hyperlink, a WO Kit List will be created and automatically kitted in the background.

NOTE:

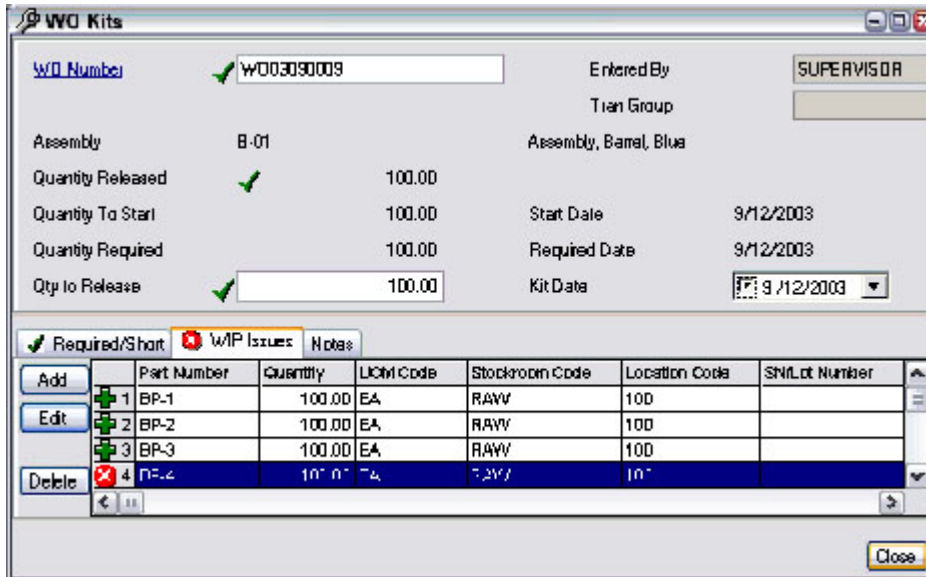
*Backflushing does not use the existing Alliance/MFG Work Order Kit All algorithm. The existing Work Order "Kit All" algorithm will search all nettable stockrooms to find available inventory. If insufficient inventory is found, the Kit All routine will create a shortage. This is not done under the backflushing routine. The backflush procedure assumes that if you are backflushing, you have sufficient component inventory to pull and if not it is an exception and needs to be reviewed. The backflush routine will automatically kit all lines, pulling inventory from the components default stockroom/location only. If insufficient inventory exists in the default location a red X will be displayed in the Kit List section. You will not be able to proceed. You will need to click on the Edit Kit List button and manually pull inventory from another location for all component items indicated with a red X next to that line. You may delete a component line, but deleting a component with insufficient inventory will create a shortage.*

**Edit Kit List**

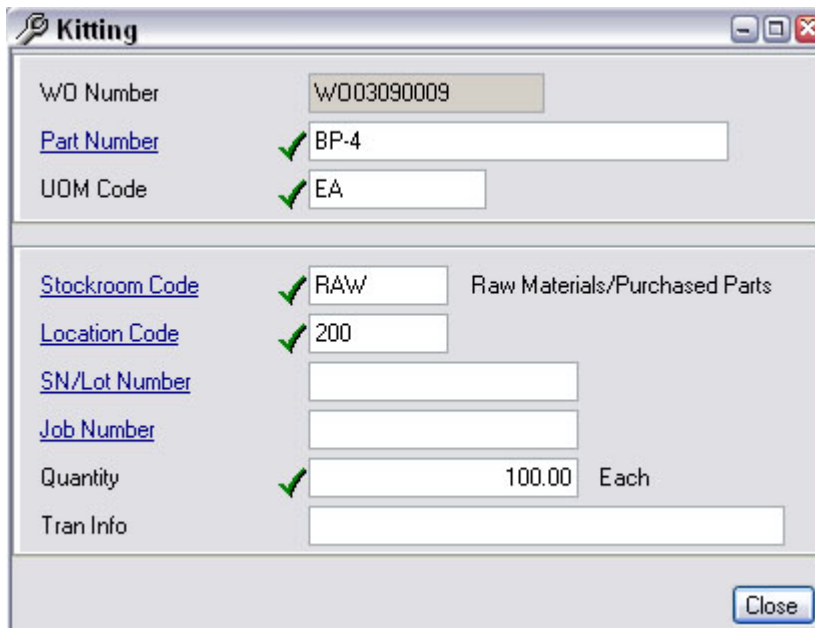
The Edit Kit List button will be enabled whenever a work order has been saved or an existing work order has been selected via the hyperlink. Click on the Edit Kit List button to open the normal Alliance/MFG kitting screen. You can modify the issue list by adding new components, placing parts on short, or pulling inventory from an alternate location. Once a kit has been successfully saved the button caption will change to View Kit List.



**Modifying the Kit List**



Pulling inventory from an alternate location.



**Save Kit List**

The Save Kit List will attempt to save the existing kit all existing Alliance/MFG work order kitting validation will apply. If the kit list is very large a status bar will display indicating the progress.

If the save kit list is successful then the button will be disabled and the message "Kitted Successfully" will be displayed in the Kit List section. If the attempted save fails the message "Update failed" will appear along with a message box stating the problem.

**Building the Completion**

After the kit has been saved the work order completion will be created in the background.

Backflush Work Order Completions		
Work Order Number	W003090017	
Part Number	B-01	Assembly, Barrel, Blue
Quantity Completed	100	Backflush (Save All)
<input type="button" value="View Work Order"/>	<input type="button" value="Save Work Order"/>	Created Successfully
<input type="button" value="View Kit List"/>	<input type="button" value="Save Kit List"/>	Kitted Successfully
<input type="button" value="Edit Completion"/>	<input type="button" value="Save Completion"/>	
		<input type="button" value="Close"/>

### Edit Completion

The Edit Completion button will be enabled after the work order kit has been successfully saved. Click the Edit Completion button to open the normal Alliance/MFG completion screen. You can add additional information to the completion (e.g. Job Number, Stockroom, Location, Lot Number or Notes), or change the completion quantity before saving if necessary.

NOTE:

*If you change the completion quantity to less than the Backflush Quantity Completed it is assumed you did not complete all of the units previously kitted. The excess material kitted will be left in WIP.*

Once a completion has been successfully saved the button caption will change to View Completion.

### Save Completion

The Save Completion button will attempt to save the existing completion. If the save is successful then the button will be disabled and the message "Completed Successfully" will appear. If the save fails the message "Update failed" will appear along with a message box stating the problem.

Backflush Work Order Completions		
Work Order Number	W003090017	
Part Number	B-01	Assembly, Barrel, Blue
Quantity Completed	100	Backflush (Save All)
<input type="button" value="View Work Order"/>	<input type="button" value="Save Work Order"/>	Created Successfully
<input type="button" value="View Kit List"/>	<input type="button" value="Save Kit List"/>	Kitted Successfully
<input type="button" value="View Completion"/>	<input type="button" value="Save Completion"/>	Completed Successfully
		<input type="button" value="Close"/>

NOTE:

By default the work order will be closed by the backflush completion screen since the user is fully completing the order. Partial completions are not allowed in backflushing.

**Backflush (Save All)**

Clicking the Backflush (Save All) button will automatically perform each step: Create and Save the Work Order, Create and Save the Kit List and then Create and Save the Completion.

When Auto-Numbering WO is on, but the work order has not been saved the typical “1: Auto Nu” will be displayed in the Work Order Number field. When auto-numbering is off you will be required to enter a new WO number. Enter a valid part number (ISC = Make or Phantom) or click on the part number hyperlink to select one. Enter the quantity being completed. The WO required date will be defaulted to the current system date.

If any one of the three Save updates fail, the backflush process will stop. You will have to make corrections and manually continue the process. An error message will be displayed indicating any invalid condition.

<b>Backflush Work Order Completions</b>		
Work Order Number	WO03090017	
Part Number	B-01	Assembly, Barrel, Blue
Quantity Completed	100	Backflush (Save All)
View Work Order	Save Work Order	Created Successfully
View Kit List	Save Kit List	Kitted Successfully
View Completion	Save Completion	Completed Successfully
Close		



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## Supply Reports

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The following reports are available from the Supply menu. Predefined queries are available on submenus (indicated by arrows). You can preview or print a report from a predefined query, or create a custom query to display specific information in an Alliance/MFG standard format. For more information about Alliance/MFG reports, see the Technical Reference.

**Open PO Line Items**

**Past Due PO Receipts**

**PO List by Part**

**PO List by Supplier**

**PO Totals Graph**

**Purchase Commitment**

**Purchase Order**

**Part Cross Reference**

**Production Schedule**

**Pick List**

**Subcontract PO Issues**

**Supplier List**

**WO Traveler**



# Material Requirements Planning



## MRP Menu functions

This chapter explains how to use the Alliance/MFG Material Requirements Planning (MRP) function. Once you have set up and entered all of your parts, BOM's, suppliers and customers, verified your inventory accuracy and entered forecasts or customer orders, you will want to know what you need to order and build to meet your customers' demands. The MRP function will help you achieve this goal.

## Calculating MRP

### MRP Overview

Material Requirements Planning provides your company with a time-phased material plan. MRP examines information from many sources as it undertakes the complex calculations to deliver your planning solutions.

First, MRP analyzes what is required and when (Demand). It considers all existing independent demands (sales orders, forecasts, safety stocks) and dependent demands (work order and subcontract PO component requirements, together with any existing shortages.)

Next, it takes a detailed look at your current inventory and on order position (Supply) by reviewing all nettable stockroom inventories, existing purchase open orders, work-in-process, and the quantities and due dates associated with these parts. MRP also considers the ordering “rules” attached to these parts. (Ordering rules are maintained in the Part Master for each part in the system.)

**Using this information, MRP calculates how long it will take to:**

**Receive components**

**Manufacture subassemblies**

**Build the finished products**

After you run MRP, the MRP Action Parts list includes suggested actions based on existing and planned orders. Planned orders are “suggested” orders generated by the MRP calculation.

Planned orders are created dynamically each time you run MRP. MRP will also suggest scheduling changes for existing orders if the delivery dates are out of phase. Each time you create firm/released work orders and schedule POs, the next MRP run will again recommend makes, buys and reschedules, level-by-level, based on the current information.

*NOTE:*

*The Alliance/MFG MRP calculation is always a total regeneration of the plan based on the current information in the system. It is not a “net change” since the last run of the calculation program.*

**MRP is at a minimum a four-step process:**

- 1 CALCULATE MRP** – Run the MRP calculation for all product structure levels or top level products only.
- 2 MRP ACTION PARTS** - Review the items that require action as a result of running the MRP calculation.
- 3 SCHEDULE** – Create new orders or reschedule existing orders based on MRP recommendations.
- 4 CALCULATE MRP AGAIN** – Run the MRP calculation again to reflect the impact of your changes to the system and make any adjustments.

## Calculating MRP

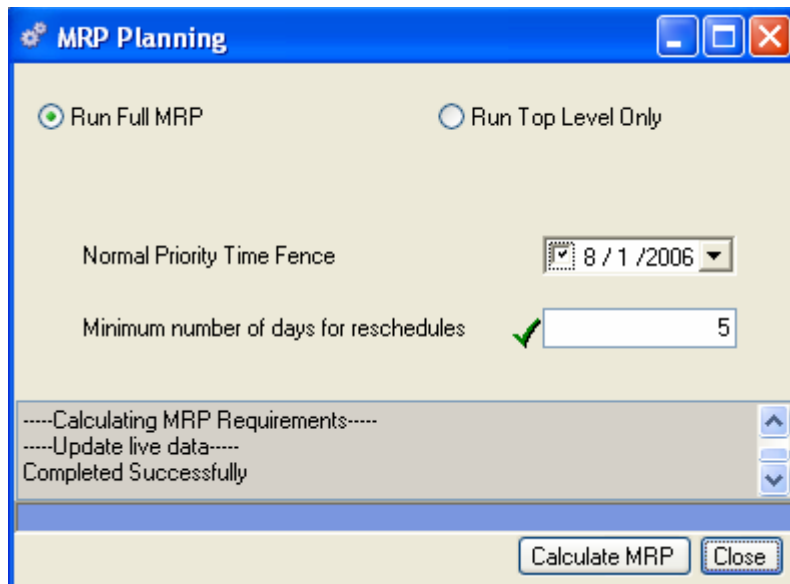
You have two options when you run MRP: Run a full MRP on all product structure levels throughout the system, or Run a top-level MRP for finished products only. The top-level option can provide a quick overview of your current production's ability to deliver existing customer order requirements. MRP will assign priority codes for you to act upon based on established time fences, part master ordering rules and requirement due dates. You can then review and process your MRP Action Parts list by priority code and schedule or change dates as required, addressing the highest priority first (most critical is actually lowest value). (See Reviewing MRP Results and Priority Codes later in this section.)

## Running MRP

MRP is a static system: When you create POs and WOs, or reschedule existing orders, you must rerun the MRP calculation to reflect the impact of your changes. Each calculation is completely regenerative; it considers all transactions, not simply the net changes since the last MRP run.

### To Calculate MRP:

Select MRP>Calculate MRP to open the MRP Planning dialog box.



Select **Full MRP** to calculate all product structure levels; or select **Top Level Only** to calculate MRP for finished products only.

**Establish the Normal Priority Time Fence** - MRP output is categorized into units of work to be done on the basis of priority. The Normal Priority Time Fence is a limiting date that defines the end of a time period for current planning. This time fence is based on the start date of the order (start in current period vs. start in a future period). MRP suggested orders with a planned start date between the day you calculate MRP and this "Normal" date will be given a priority code of "3". These orders are considered to be "within the current time fence," and are candidates for conversion to Firm PO's or Firm WO's (a PO placed with a supplier or a WO scheduled to start in production). All planned orders with a start date greater than this date (future orders) will be given a Priority Code of "6". See Priority Codes later in the MRP Action Parts section for more information about priority codes.

The system default date for the normal priority fence is one week (7 days) ahead. You may want to establish your normal priority fence differently, depending on how frequently you calculate MRP, or according to other factors that influence your production schedule.

**Minimum number of days to reschedule** - This parameter establishes the minimum number days that MRP will use to generate Reschedule messages (Priority = 4). This will help reduce the erroneous “move it in 1 day, then move it out 1 day” messages and will also aid in limiting your re-scheduling efforts with suppliers and production. For example, if you set the minimum number of work days for reschedule to “5,” there will be no reschedules messages of less than five work days generated. An exception to this is late orders, if an order will be late (could impact production schedules or customer shipments), MRP will generate an Expedite notice (Priority = 5).

**CAUTION!**

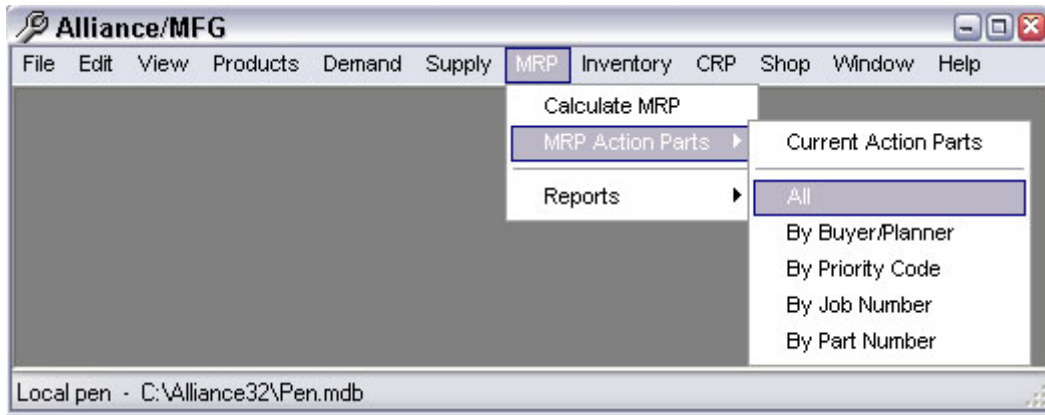
*When MRP recommends rescheduling a firm Work Order, it will continue to plan the components on the current WO start date until you reschedule the order, including both start and complete dates, and subsequently rerun MRP.*

## MRP Action Parts

After you run MRP, the MRP Action Parts list includes suggested actions based on existing and planned orders. Planned orders are “suggested” orders generated by the MRP calculation.

Planned orders are created dynamically each time you run MRP. MRP will also suggest scheduling changes for existing orders if the delivery dates are out of phase. Each time you create firm/released work orders and schedule POs, the next MRP run will again recommend makes, buys and reschedules, level-by-level, based on the current information.

After you calculate MRP, Alliance/MFG gives you several options to access the results. Select MRP>MRP Action Parts to review MRP recommendations.



## Reviewing MRP Action Parts

The records displayed in the MRP Action Parts View depend on the query you select. Select MRP>MRP Action Parts>Current Action Parts (only those with current or past due action recommendations), or MRP Action Parts>All (all parts regardless of action), or By Part Number, or By Buyer/Planner, or By Job Number or use a predefined query and wild cards to locate specific action parts. In the following example, we selected the MRP Action Parts All query to open the list.

The screenshot shows the 'MRP - All' window with a table of action parts. The table has columns for Priority, Part Number, ISC, OMC, Employee ID, Last Name, and Description. The data is as follows:

Priority	Part Number	ISC	OMC	Employee ID	Last Name	Description
1	3 TR-01	B	P	50-JDD	Dorovsky	Tubing, Clear Plastic, Full Roll
2	4 B-01	M	P	55-JAT	Tierney	Assembly, Barrel, Blue
3	4 S-01	B	P	50-JDD	Dorovsky	Spring, Metal .875 inch
4	6 B-02	M	P	55-JAT	Tierney	Assembly, Barrel, Red
5	6 BP-1	B	P	50-JDD	Dorovsky	Barrel, Top Half, Blue
6	6 BP-2	B	P	50-JDD	Dorovsky	Barrel, Bottom Half, Blue
7	6 BP-3	B	P	50-JDD	Dorovsky	Ring, Metal .250 diameter
8	6 BP-4	B	P	50-JDD	Dorovsky	Clip, Pocket Metal 1.5 inch
9	6 BPP-100	M	P	55-JAT	Tierney	Assembly, Ball Point Pen, Blue
10	6 BPP-200	M	P	55-JAT	Tierney	Assembly, Ball Point Pen, Red
11	6 BPP-x300	M	J	55-JAT	Tierney	Custom Ball Point Pen, Red, Stamped with G...
12	6 C-01	S	P	90-KEM	Marenko	Assembly, Cartridge, Blue Ink

The MRP Action Parts View displays the following information:

**Priority** - Displays the MRP Priority Code for the line item (Priority Codes 1-7). MRP Action Parts lists are displayed in Priority Code sequence by default; however, you can click on column headers to change the sort order.

**Part Number** - Part number of item requiring MRP action.

**ISC** - Inventory Source Code (Make or Buy from the Part Master).

**OMC** - Order Method Code (How to order/build from the Part Master).

**Employee ID** – The Buyer/Planner Employee ID.

**Last Name** - Name of employee responsible for make/buy decisions for this part (A buyer/planner can be associated with a commodity code which can be assigned to individual or groups of parts in the Part Master).

**Description** - Part Master description of the part.

**Department Code** – Part Master department number associated with the part.

**Stockroom Code** – Part Master default stockroom assigned to the part.

**Commodity Code** – Part Master commodity code assigned to the part.

### Priority Codes Definitions

If more than one (1) MRP Action item is generated for a given part number, the priority code displayed in the action parts list is the highest priority (lowest number = most critical) generated during the MRP calculation for that part.

NOTE:

*Priority Codes 1 and 2 are the most urgent; however, it is possible for additional priority codes (other actions) to exist for part numbers assigned priority codes 1, 2, or 3. Be sure to review all MRP suggestions for each part.*

**1 = Past Due** - The completion date for a recommended order is prior to the MRP run date (urgent, this part should have already been received into inventory) .

**2 = Past Due** - The start date for a recommended order is prior to the MRP run date (urgent, this part should have already been started in production or ordered from a supplier).

**3 = Within Normal Fence** - The start date for the recommended order is normal or current (within the MRP “Normal Time Fence” you established above). You should be scheduling these orders to start in the current scheduling period.

**4 = Reschedule** - This order is out of phase and requires rescheduling: either a move-in, a move-out, or a delete. You may limit the number of reschedule messages (Priority = 4) generated by establishing a Minimum number of days to Reschedule during MRP.

**5 = Expedite** - This order’s required date is within the parameter for skipping a reschedule (minimum number of days to reschedule), but the order will be late and should be expedited.

**6 = Future** - Start date is beyond the current period (future start) and no action need be taken at this time.

**7 = No Action Required** - No action required at this time. The part has no MRP activity in the current schedule, the part’s existing schedule is in phase, the recommended action is to skip a minor reschedule, or lastly the part has an OMC of Manual (Do not plan in MRP). Note: Do not plan in MRP does NOT mean do not review, requirements may exist for this part.



**MRP Action Details**

Highlight a part in the MRP Action Parts View then press the Enter key or double click to open the MRP Detail View.

In addition to the information displayed on the MRP Detail View, the header displays part inventory information including the Job Number (if any), quantity on hand when MRP was run, any safety stock defined for the part, any specific order quantity and/or order multiple, scrap or yield factor, and the manufacturing or procurement lead time.

Note:

The safety stock for parts with the Inactive flag set will appear and be treated as zero (0) by the MRP calculation.

Part Number		B-01		Assembly		Barrel, Blue	
Job Number		ISC M		OMC		P	
Quantity On Hand		2,900.00		Order Multiple		1.00	
Safety Stock		0.00		Yield Factor		100	
Order Qty		1.00		Lead Time		10	

	Action	Start Date	Date Required	Reference	Start Quantity	Quantity Required	Balance	Post Type	Pegging
1	Move In	10/24/2005	11/8/2005	WO00080002	5,100.00	5,100.00	8,000.00	Firm WO	
2			11/8/2005	WO05110002		-5,000.00	3,000.00	Planned Kit	BPP-100
3		11/8/2005	11/22/2005	WO05110001	2,000.00	2,000.00	5,000.00	Firm WO	
4			11/23/2005	0000000001		-5,000.00	0.00	Planned Kit	BPP-100
5	Create	11/30/2005	12/13/2005	0000000009	9,800.00	9,800.00	9,800.00	Planned WO	
6			12/14/2005	0000000006		-4,800.00	5,000.00	Planned Kit	BPP-x300
7			12/14/2005	0000000002		-5,000.00	0.00	Planned Kit	BPP-100
8	Create	12/6/2005	12/19/2005	0000000010	2,500.00	2,500.00	2,500.00	Planned WO	
9			12/20/2005	0000000007		-2,500.00	0.00	Planned Kit	BPP-x300
10	Create	12/29/2005	1/12/2006	0000000011	1,000.00	1,000.00	1,000.00	Planned WO	
11			1/13/2006	0000000008		-1,000.00	0.00	Planned Kit	BPP-x300
12	Create	3/31/2006	4/13/2006	0000000012	5,000.00	5,000.00	5,000.00	Planned WO	
13			4/14/2006	0000000003		-5,000.00	0.00	Planned Kit	BPP-100

The MRP Detail View grid contains information in the following columns:

**Action - There are five (5) types of MRP Action:**

1. **Blank** - No action required
2. **Delete** - The current MRP plan does not require this order
3. **Create** - MRP recommends a new PO or WO should be created. Examine the Start Date to see when; the Schedule button will be activated if the item is highlighted. See Scheduling purchase orders and work orders from MRP, later in this chapter
4. **Move In** - MRP recommends a reschedule, the recommended move in to date will appear in the Move Date column; the Schedule button will be activated if the item is highlighted. See Scheduling purchase orders and work orders from MRP, later in this chapter

5. **Move Out** - MRP recommends a reschedule, the recommended move out to date will appear in the Move Date column; the Schedule button will be activated if the item is highlighted. See Scheduling purchase orders and work orders from MRP, later in this chapter

**Start Date** - Date on which order is scheduled to begin (based on lead time offset from required date, and on your company's Holiday Schedule). On Demand grid lines that subtract material from inventory, such as kitting a Work Order or shipping a Sales Order, this field will be blank.

**Required Date** - Date that the order is required by or scheduled to be completed by based on MRP.

**Move To** – The date MRP recommends an order be rescheduled to.

**Reference/Reference Line** - Work Order, Sales Order, Purchase Order, or MRP Planned Order. Reference Number. The MRP Planned Order Reference is a unique sequential number assigned by MRP. The number "000000001" represents the first planned order generated by MRP during this MRP calculation.

**Start Quantity** - Quantity based on the ordering rules established in the inventory record for the product and/or calculated by MRP. (The quantity required is multiplied by the yield factor.)

**Required Quantity** - Quantity required calculated from MRP demand (independent or dependent). The calculation uses the appropriate ordering rules from the inventory record.

**Balance** - The quantity available on that date should all MRP actions be implemented. If safety stock is used, this will be the quantity available on that date less the safety stock. (Note: Safety stock will not be deducted until the current period/date).

**Pegging** - The dependent demand part number (next level sub-assembly or assembly ) that created the requirement.

**Part Number** - The part number involved with the action.

**Job Number** - The job number involved with the action.

**Post Type** - There are eleven (11) MRP Post Types:

1. Firm PO, an open purchase order (Supply).
  2. Firm WO, an open work order that has been released (Supply).
  3. WO Shortage, a work order kit requires this part (Demand).
  4. PO Shortage, a sub-contract purchase order kit requires this part (Demand).
  5. Sales Order, an open sales order requirement (Demand).
  6. Forecast, a forecast requirement (Demand).
  7. Currently not used.
  8. Planned PO, an MRP recommended purchase order (Planned Supply).
  9. Planned WO, an MRP recommended work order (Planned Supply).
  10. Planned Kit, an MRP recommended order kit (Planned Dependent Demand).
  11. Safety Stock, an inventory replenishment requirement (Demand).
-

## Scheduling PO's & WO's from MRP

Alliance/MFG makes it easy to schedule POs and WOs directly from the MRP Detail View without having to navigate through the menu system to the Supply function.

### Scheduling Purchase Orders and Work Orders from MRP

Select a part from the MRP>MRP Action Parts form, double click to display the MRP Detail View, then simply select a "Create" line recommended for scheduling and click the Schedule button.

or

At the MRP>MRP Action Parts form, use the Query button in the toolbar to filter the planned purchase orders for a particular Buyer/Planner ID. Then select a part from the MRP Action Parts form, double click to display the MRP Detail View, then simply select a Create line recommended for scheduling and click the Schedule button.

The MRP Action Parts scheduling form opens for the part selected. The options available depend on whether you are creating a Work Order or a Purchase Order.

#### Schedule a Purchase Order from MRP Detail View

Alliance/MFG gives you lots of flexibility when scheduling purchase orders from the MRP Detail View. You can decide whether to use the dates and quantities suggested by MRP, to edit the planned orders, or combine quantities and dates based on your knowledge, experience and the current plan. You may also select a supplier (see Part Cross Reference, Chapter 4, Products), display a list of that supplier's open purchase orders and then decide whether to create a new purchase order or add a line item to an existing open order.

#### MRP Action Parts Purchase Order:

1. Select a planned order for a part from the MRP Action Parts list.
2. Click Schedule to open the MRP Action parts form for the part selected.

The screenshot shows the 'MRP Action Parts' window. The main form contains the following fields:

- Part Number: BP-1
- Description: Barrel, Top Half, Blue
- Supplier/OEM Part #: [Empty text box]
- Supplier ID: [Empty text box]
- Add to PO: [Empty text box]
- Stock UOM: EA
- Purchase UOM: [Empty text box]
- Quantity: 0.00
- Required Date: 2/29/2000

A 'Schedule Selected Lines' dialog box is open, displaying a table of required dates and quantities:

Required Date	Required Quar
2/16/2006	10,000.00
3/16/2006	30,000.00
6/15/2006	30,000.00
9/14/2006	10,000.00

Buttons for 'Create PO' and 'Close' are visible at the bottom of the main form.

The Part Number and description display at the top of the form.

From here you can either add the requirements to any existing PO or create a new one.

### To create a new PO:

1. In the Schedule Selected Lines box, select the Planned Order quantity you wish to schedule as one PO line item. If you wish to combine two or more quantities, hold down the shift key and highlight all lines to be combined. If you don't want to schedule all the recommended quantity, change the quantity in the Quantity box, the Required Quantity will display the quantity remaining to be scheduled, which may then be added as a second line item with a different delivery date or purchased from another supplier.
2. Enter a Supplier/OEM part number or click the hyperlink to choose one from the list. If no Supplier/OEM part number exists for this part, click the Supplier ID hyperlink to choose a supplier from the list.
3. Click the Create PO button at the bottom of the form to create a new PO.

### To add to an existing PO:

1. In the Schedule Selected Lines box, select the Planned Order quantity you wish to schedule as one PO line item. If you wish to combine two or more quantities, hold down the shift key and highlight all lines to be combined. If you don't want to schedule all the recommended quantity, change the quantity in the Quantity box, the Required Quantity will display the quantity remaining to be scheduled, which may then be added as a second line item with a different delivery date or purchased from another supplier.
2. Enter a Supplier/OEM part number or click the hyperlink to choose one from the list. If no Supplier/OEM part number exists for this part, click the Supplier ID hyperlink to choose a supplier from the list.
3. Click the Add to PO hyperlink to open the Purchase Order View listing all open POs for that supplier.
4. When you reference an existing PO in the Add to PO field, the Create PO button changes to Update PO. Click the Update PO button, the Purchase Order form for that PO will be displayed.
5. Either way, a purchase order form for the part selected will open. Add any additional information required and adjust the due dates as required. Verify the Purchase UOM is correct. Save the information just as if you were creating or editing a PO from the Supply menu. (See Supply, Purchase Orders)
6. You can continue to select lines from the Schedule Selected Lines box and update or create new POs until you have taken all the actions necessary. To complete the purchase order, do one of the following:

Click Save on the toolbar to save the purchase order and leave the form open.

Click OK to accept the new purchase order as is, exit the form and return to MRP.

Click Close to exit the form without saving.

Click Close to exit the MRP Action Parts form. From here, you can do one of the following:

1. Select another MRP item and continue to schedule POs (or WOs).
2. Click Close to exit the MRP Detail View.

### Schedule a Work Order from MRP Detail

Work orders can be scheduled from planned orders. You decide whether to use the dates and quantities suggested by MRP or enter your own specific quantities and dates.

### **MRP Action Parts Work Order:**

1. Select a planned order from the list. The Schedule button is activated on the bottom of the Action Parts dialog box.
2. Click the Schedule button to open the Work Order data entry form. If you have Auto Number set as a Preference, the Work Order Number will fill in with the next generated number when you click Save or OK.
3. The WO Detail tab data will default from the line item selected on the MRP Detail View.
4. To finish the work order, do one of the following:
  - Click Save on the toolbar to save the work order and leave the WO form open.
  - Click OK to accept the new work order as is and return to the MRP Detail View form to continue scheduling this part.
  - Click Close to exit the WO form without saving.

To exit the MRP Detail View form click Close From here, you can do one of the following:

1. Select another MRP item and continue to schedule POs (or WOs).
2. Click Close to exit the MRP Action Parts form.

### **Reschedule**

#### **Reschedule a PO or WO from the MRP Action Parts screen:**

Work orders and Purchase Orders can be rescheduled directly from the MRP Action Parts screen. You must decide whether to use the dates suggested by MRP or enter your own specific dates. If you do not use the dates suggested by MRP, the next time MRP is calculated the order will receive the same reschedule message if it is still required. You must notify the buyer/planner at the requirement level if you are unable to meet the suggested date.

#### **To reschedule an order from the MRP Action Parts form:**

1. Highlight the order in the list. The Schedule button is activated on the bottom of the Action Parts dialog box.
2. For a Work Order, click the Schedule button to open the order's data entry form.
3. For a Purchase Order, click the Schedule button to open the order's data entry form. Select the PO Lines tab, and then click the Edit button to open the correct PO line item.
4. The proposed reschedule dates will be defaulted to the orders date fields.
5. To finish rescheduling the order, do one of the following:
  - Click Save on the toolbar to save the order and leave the form open.
  - Click OK to accept the new order as is and return to the MRP Action Parts form to continue scheduling this part.
  - Click Close to exit the form without saving.

Click Close to exit the MRP Detail View form. From here, you can do one of the following:

1. Select another MRP item and continue to schedule POs (or WOs).
2. Click Close to exit the MRP Action Parts form.

### **Demand Pegging**

#### **Using Pegging to review the MRP Action for the Demand**

NOTE:

Alliance/MFG uses single-level pegging to facilitate the audit trail that identifies the origin of a given requirement.

Highlight a row with a Post Type of Planned Kit, the Pegging column displays the origin (Demand) part number of the requirement.

**MRP Detail View - By Part and Job (B-01, )**

Part Number B-01 Assembly, Barrel, Blue  
 Job Number ISC M OMC P  
 Quantity On Hand 2,900.00 Order Multiple 1.00  
 Safety Stock 0.00 Yield Factor 100  
 Order Qty 1.00 Lead Time 10

Action	Start Date	Date Required	Reference	Start Quantity	Quantity Required	Balance	Post Type	Pegging
1 Move In	10/24/2005	11/8/2005	W000080002	5,100.00	5,100.00	8,000.00	Firm W/O	
2		11/8/2005	W005110002		-5,000.00	3,000.00	Planned Kit	BPP-100
3	11/8/2005	11/22/2005	W005110001	2,000.00	2,000.00	5,000.00	Firm W/O	
4		11/23/2005	0000000001		-5,000.00	0.00	Planned Kit	BPP-100
5 Create	11/30/2005	12/13/2005	0000000009	9,800.00	9,800.00	9,800.00	Planned W/O	
6		12/14/2005	0000000006		-4,800.00	5,000.00	Planned Kit	BPP-x300
7		12/14/2005	0000000002		-5,000.00	0.00	Planned Kit	BPP-100
8 Create	12/6/2005	12/19/2005	0000000010	2,500.00	2,500.00	2,500.00	Planned W/O	
9		12/20/2005	0000000007		-2,500.00	0.00	Planned Kit	BPP-x300
10 Create	12/29/2005	1/12/2006	0000000011	1,000.00	1,000.00	1,000.00	Planned W/O	

Schedule Close

To review the MRP Action View for the origin (Demand) part number, go to the Sidebar and click on MRP By Pegging.

**Alliance/MFG**

File Edit Products Demand Supply MRP Inventory CRP Shop Favorites Window Help

Related Links: View Links (MRP By Assembly, MRP By Pegging), Edit Links (Job Master, Part Maintenance, Purchase Order, Sales Order, Work Order)

**MRP Detail View - By Part and Job (B-01, )**

Assembly, Barrel, Blue  
 ISC M OMC P  
 2,900.00 Order Multiple 1.00  
 0.00 Yield Factor 100  
 1.00 Lead Time 10

Date Required	Reference	Start Quantity	Quantity Required	Balance	Post Type	Pegging
11/8/2005	W000080002	5,100.00	5,100.00	8,000.00	Firm W/O	
11/8/2005	W005110002		-5,000.00	3,000.00	Planned Kit	BPP-100
11/22/2005	W005110001	2,000.00	2,000.00	5,000.00	Firm W/O	
11/23/2005	0000000001		-5,000.00	0.00	Planned Kit	BPP-100
12/13/2005	0000000009	9,800.00	9,800.00	9,800.00	Planned W/O	
12/14/2005	0000000006		-4,800.00	5,000.00	Planned Kit	BPP-x300
12/14/2005	0000000002		-5,000.00	0.00	Planned Kit	BPP-100
12/19/2005	0000000010	2,500.00	2,500.00	2,500.00	Planned W/O	
12/20/2005	0000000007		-2,500.00	0.00	Planned Kit	BPP-x300
1/12/2006	0000000011	1,000.00	1,000.00	1,000.00	Planned W/O	

Close

New Pen Local - C:\Program Files\Alliance\MFG\NewPen.mdb

The MRP Action Parts view for the Demand part number is displayed. You are now able to review and decide if the entire requirement quantity is actually needed or is a lot size (build quantity) and could perhaps be reduced.

**MRP Detail View - By Part Number (BPP-100)**

Part Number	BPP-100	Assembly, Ball Point Pen, Blue	
Job Number		ISC M	OMC P
Quantity On Hand	2,000.00	Order Multiple	1,000.00
Safety Stock	0.00	Yield Factor	100
Order Qty	5,000.00	Lead Time	10

	Action	Start Date	Date Required	Reference	Start Quantity	Quantity Required	Balance	Post Type
1			11/13/2005	SO00080004		-500.00	1,500.00	Sales Order
2		11/8/2005	11/22/2005	WO05110002	5,000.00	5,000.00	6,500.00	Firm WO
3			11/25/2005	SO05110002		-5,000.00	1,500.00	Sales Order
4	Create	11/23/2005	12/8/2005	0000000001	5,000.00	5,000.00	6,500.00	Planned WO
5			12/9/2005	SO05110001		-2,500.00	4,000.00	Sales Order
6			12/13/2005	SO00080002		-500.00	3,500.00	Sales Order
7			12/13/2005	SO00080005		-500.00	3,000.00	Sales Order
8			12/16/2005	SO05110001		-2,500.00	500.00	Sales Order
9	Create	12/14/2005	12/29/2005	0000000002	5,000.00	5,000.00	5,500.00	Planned WO

Schedule Close

**IMPORTANT MRP TIP:**

*Because MRP is a powerful dynamic planning tool, Firm WOs should be scheduled only as they are about to be sent to the factory floor. This is a function of the "Normal Time Fence", and requires careful attention when establishing your MRP policies and procedures. This will allow MRP to generate new planned orders and minimize the need to reschedule released work orders. It is important to process all deletes and reschedules first, then rerun MRP, continue this process level by level until the action item list is free of deletes and reschedules, the last step is to create new WOs and POs. Remember, if you cannot satisfy a required date, you must inform the buyer/planner of the part creating the demand.*

## MRP Reports

Material Requirements Planning reports can be printed at any time; however, they will reference the last MRP calculation. For accurate reporting, it is advisable to calculate MRP and then request relevant reports. Use the standard reports available from the Reports menu, or create a custom query. For more information about Alliance/MFG reports and custom queries, see the Alliance/MFG Technical Reference. Standard reports available from the MRP menu are:

**Exception Report**

**Manual Parts List**

**Planned Orders**

**PO Commitment Graph**

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# Inventory Control



## Inventory Menu Functions

### Inventory Control Overview

Alliance/MFG Inventory Control tracks stock information about all of your parts. Initially, parts are entered in the system by Engineering or those responsible for product design and bills of material. Once entered part records are available to the Inventory Control functions via the Inventory>Part Maintenance menu. Here you can assign manufacturing information, track serial/lot numbers, enter and update part costs, perform product structure cost roll ups; and perform physical inventory counts and ABC analysis. The Inventory Control menu contains all the tools you need to maintain detailed information about stock, quantities on hand, ordering, and manufacturing information; and perform miscellaneous inventory transactions at your discretion.

Order methods, inventory source codes, lead times, order quantities, order multiples, safety stock, and yield factors entered in the MRP Planning tab of the Part Maintenance data entry form give MRP the information it needs to plan to meet your demands on time. Assign various categories to parts, such as Commodity Codes, Departments and Stockrooms, and ABC codes in the Inventory Codes tab.

Once your system is up and running, you can access statistical information about every part in the system from the Part Master Statistics tab.

Tasks described in this section assume familiarity with the basic use of Alliance/MFG data lists, data entry forms, dialog boxes, queries, and finding and sorting features. If you need more information about how to use these features, review System Overview.

## Part Maintenance

Inventory Part Maintenance defines additional information about your parts manufacturing attributes. From here you can enter codes and parameters that affect MRP Planning; assign product revenue codes, and alternate unit of measures; calculate lead times, maintain cost information; and review part statistics such as when a part was added to inventory, the date of the last cost revision, and year-to-date usage.

### Maintaining Part Information

Select Inventory>Part Maintenance>Edit and enter a part number to open the Part Master data entry form for the part. The Part Number displays in the header, along with the revision and description entered with the part number. The Engineering Tab contains the initial data set up by your product designer/engineers. If information on the Engineering Tab needs to be completed, see Setting Up Your Products>Part Master for details.

Part Maintenance information is added in the MRP Planning, Inventory Codes, and Part Costs tabs. Enter information in the fields as described in the following sections.

### MRP Planning Tab

#### MRP Required Fields

The MRP calculation uses information entered here to determine what type of order to recommend when it encounters demand for the part—either a purchase order, work order, or subcontract purchase order. You must enter an Inventory Source Code and an Order Method Code if you want MRP to plan for this part. The default inventory source code is “Buy” and the default planning method is “Include in MRP”. Click the down arrow next to the field to select another option.

Part Master

Part Number: B-01 Revision: A

Description: Assembly, Barrel, Blue Inactive:

Engineering Notes **MRP Planning** Inventory Codes Part Costs Statistics

Inventory Source Code: Make Part Order Method Code: Include in MRP Calculations

Department Code: SUBS Sub-Assemblies Work In Process

Stockroom Code: SA-1 Sub-Assemblies

Location Code: 100

Kit From Stockroom:

Kit From Location:

Lead Time: 10.00 Yield Factor: 100.00

Order Quantity: 1.00 Order Multiple: 1.00

Costing EOQ: 0.00 Safety Stock: 0.00

OK Close

**Inventory Source Code (ISC)**

The Inventory Source Code identifies which parts you will make, which parts you will buy, and which parts are phantom assemblies (make-ons), bulk and non-inventory items. The MRP calculation uses this information to determine what type of order to recommend when it has unsatisfied demand for the part.

Part Master

Part Number: B-01 Revision: A

Description: Assembly, Barrel, Blue Inactive:

Engineering Notes **MRP Planning** Inventory Codes Part Costs Statistics

Inventory Source Code: Make Part Order Method Code: Include in MRP Calculations

Department Code: SUBS Sub-Assemblies Work In Process

Stockroom Code: SA-1 Sub-Assemblies

Buy Part

Free/Bulk Stock

**Make Part**

Non-Stock Part

Phantom Part

Subcontract Part

**ISC Code Definitions**

**Buy Part** - Purchased parts

**Free/Bulk Stock** - A buy part that is a component on a BOM and included in MRP planning, but not issued via work order kitting. These stock items are typically issued to the floor via a Misc Issue in bulk. For example, a bin of insulation material or a bucket of nuts/bolts/screws could be coded Free/Bulk Stock because they are used on numerous parts but not generally kitted individually on each work order.

**Make Part** – Components manufactured or assembled in house.

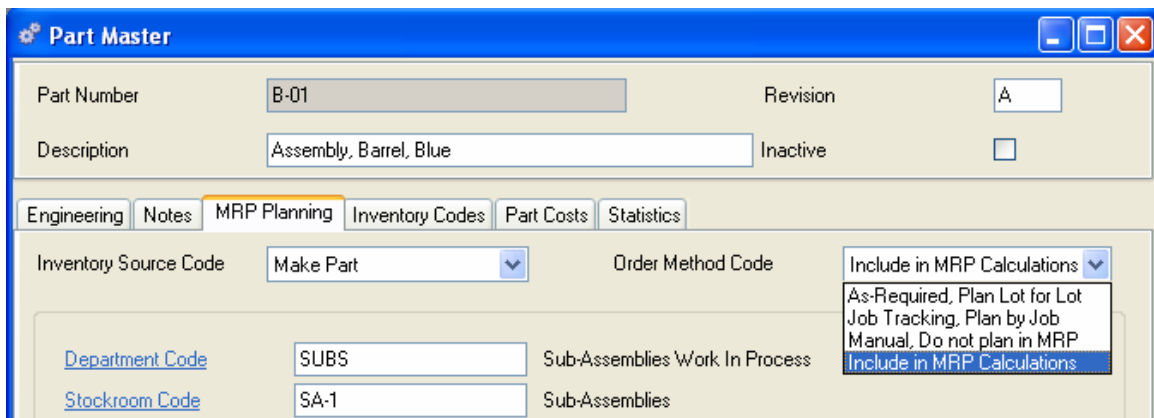
**Non-Stock Part** - Items not part of normal production stock (office supplies, expense, capital items). These items would not be considered in MRP planning.

**Phantom Part** - Blow Through/Make on items - Not planned or stocked; when these parts have demand, MRP plans their components. (For more information about Phantom parts, see Chapter 4: Products.)

**Subcontract Part** – These parts are typically purchased on a PO. They may have a BOM and be kitted then sent out for assembly or they may require an added service, such as plating, machining, and so on.

**Order Method Code (OMC)**

The Order Method Code determines how MRP includes a part in the planning schedule or whether to consider the part in its calculation at all. Click the down arrow next to the field to select an option.



**OMC Code Definitions**

**As Required, Plan Lot for Lot** - Uses the order quantity as a lot size. For example, if your order quantity is 100, and you need 90, MRP will recommend an order of 100; if you need 105, MRP will recommend two orders of 100 each.

**Job Tracking, Plan by Job** - MRP generates discrete POs and plans discrete WOs for parts required by sales orders assigned a Job Number. Each Job number will generate a unique set of MRP action items and a summary action item will be created for all non-job activity. Job tracking uses order quantity and order multiple to determine planned orders. (See MRP Planning for more information about accessing MRP Actions for Job coded parts.)

**Manual, Do not plan in MRP** – These orders will appear on MRP, but no automatic action will be taken. Be sure to review all manual parts.

**Include in MRP Calculation** - Uses all ordering rules and quantities to determine planned orders. Review each quantity field below to determine how each will affect the number of orders and order sizes generated.

NOTE:

*If you are importing your parts to reduce your initial setup time. The Import/Export routine requires a single digit code for both ISC and OMC. The codes are listed below:*

<u>ISC Codes</u>	<u>OMC Codes</u>
<b>B = Buy</b>	<b>A = As Required (Lot for Lot)</b>
<b>F = Free</b>	<b>J = Job Tracking</b>
<b>M = Make</b>	<b>M = Manual, Do not plan</b>
<b>N = Non-stock</b>	<b>P = Include in MRP</b>
<b>P = Phantom</b>	
<b>S = Subcontract</b>	

MRP requires additional information to plan your parts correctly, minimally this includes a Department, a Stockroom, a Location, a purchase or manufacturing Lead Time, and an Order Quantity.

**LINK NOTE:**

If you use an Accounting Link, refer to your Link documentation before setting up departments, stockrooms, accounts and locations.

**Department Code**

A department identifies a specific cost center in the manufacturing process. Each department number is assigned a corresponding General Ledger account number. Manufactured parts are usually assigned a department number that represents a work in process cost center; purchased parts do not require a department code unless they are "Subcontract Parts" that have component material kitted and sent to the supplier for processing/assembly. Enter the Department number, the department description will display to the right of the code.

**Stockroom and Location**

Each and every Alliance/MFG inventory transaction such as a PO Receipt or PO Return, a WO Kit or Dekit, a WO Completion, a WO Backflush, or a SO Shipment or SO Return use stockrooms and locations to track inventory movement in the system. All part numbers must be assigned a stockroom, and a location within that stockroom, to describe its physical warehouse location. You can also set up corresponding General Ledger accounts for each stockroom. Once a code selected and entered the description of the stockroom and location will display to the right of the codes.

**Kit From Stockroom and Location**

You can also assign a default "Kit From Stockroom" and "Kit From Location" separate from their default "Stockroom" and "Location", which are used for receiving and completion transactions. The "Kit From..." defaults are used in Backflushing, Work Order Kitting, and Sub-Contract PO Kitting to control where Inventory is pulled from. Inventory will pull in the following sequence when these fields are filled out:

1. Job-assigned material
2. Kit-from Stockroom and Location
3. Ignore all other inventory

If the "Kit From..." fields are left blank, Kitting will behave as normal.

## **Lead Time**

MRP uses this number to calculate the number of working days needed to process and receive or manufacture parts to meet a required date. For example, if you specify a 10 day lead time for a part, MRP will create a work order or purchase order with a suggested start date 10 working days prior to the required date. Be sure to include order processing, transit, inspection and dock to stock times in this number.

### **Defining Lead Times**

Lead Time is one of the most critical pieces of information used in the MRP calculation. A lead time must be defined in the Part Master for every part in the system. The lead time determines the date MRP recommends you start orders for required parts. For example, if your company manufactures Red Widgets, you might use lead times as shown in the following product structure:

Red Widget: ISC: Make Part, Lead Time 5

Red Paint: ISC: Buy Part (1 per Red Widget), Lead Time 3

Widget: ISC: Make Part (2 per Red Widget), Lead Time: 6

Wood: ISC Buy Part (2 per Widget, or 4 per Red Widget), Lead Time: 3

You need not account for the lead times of component materials when determining the lead time for manufactured parts (all parts carry their own lead time); the MRP calculation accumulates and offsets lead times automatically. In the example below, the lead time for the Red Widget is five days. This is the number of days it takes to make Red Widgets assuming the component parts (the paint and widgets) are in stock.

MRP uses backward scheduling. Therefore, it subtracts the lead time from the required date to determine the start date for an order, calculating only the days your company is scheduled to be open (as established in your Company Preferences and Calendar).

### **For Example:**

You receive an order for 100 Red Widgets due to ship on Monday, July 21, 200X. Assume that you have zero inventory on-hand and an Order Quantity of one for each part. You run the MRP calculation.

MRP would plan an order for Red Widgets to be completed Friday, July 18th (one production day before it is scheduled to ship) and subtracts the lead time: 5 days. MRP will calculate the start date of the work order to be Monday, July 14th.

Because it is a Make part, MRP then explodes the Red Widgets Bill of Materials and determines that you need to have 100 units of Red Paint available for use on Monday, July 14th (the day the Work Order will begin). Because it is a buy part, MRP will suggest a Purchase Order for 100 units due Friday, July 11, and will recommend you place the order on Wednesday, July 9th: 3 day lead time. MRP also determines that you need 200 widgets ready for use on Monday, July 14 (MRP utilizes the quantity per on the BOM of the assembly). It again calculates the required date as Friday, July 11th, then backs off by the lead time to Friday, July 4th, 6 day lead time. MRP recommends the start date on the July 3rd, because the 4th is in the company calendar as a holiday, (Remember, the MRP calculation counts production days only). Finally, it determines that you need 400 pieces of wood, and recommends a Purchase Order that starts on Monday, June 30, with a required/due date of Wednesday, July 2nd. The following calendar illustrates this by date.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29	30	July 1	2	3	4	5
	PO Start, 400 Wood		PO Required, 400 Wood	WO Start 200 Widgets	CLOSED (Holiday)	
6	7	8	9	10	11	12
			PO Start, 100 Red Paint		WO Required, 200 Widgets PO Required, 100 Red Paint	
13	14	15	16	17	18	19
	WO Start, 100 Red Widgets				<u>WO REQUIRED, 100 RED WIDGETS</u>	

In summary, lead time should be calculated from the moment the requirement is recognized to the time the parts are available for use in the stockroom. Lead time therefore includes administration time, process and manufacturing time, in-transit time, and inspection time.

**MRP Optional Fields**

**Order Quantity**

The order quantity is the minimum number of parts you want to order. This may vary part-by-part, depending on your purchasing and manufacturing requirements. For example, you might get the best price for ordering springs in lots of 100,000. This is where you configure your ordering rules to help you take advantage of this price break.

If the OMC for this part is set to either Include in MRP Calculations or Job Tracking, Plan by Job, MRP will recommend this quantity as a minimum order whenever this part is ordered. For example, if you require 900 parts but you enter 100,000 in this field as your order quantity, MRP will recommend a planned order for 100,000. MRP only recommends, you may override MRP and order 900 or any other quantity. If the part is still in an ordering position (negative availability) the next time MRP is run, it will recommend another order.

If the OMC for this part is set to As Required, Plan Lot-for-Lot, MRP will recommend orders in lot sizes equivalent to the order quantity. For example, if you need 900, and your order quantity is 1000, MRP will recommend 1000. If you need 1200, MRP will recommend two orders for 1000 each.

This quantity is based on the stocking unit of measure.

### Costing EOQ

This field allows you to separate the “Order Quantity” value for Material Planning from the calculation of Setup Cost per Unit. For example, you may wish to have MRP always recommend exact quantities to match demand by setting your “Order Quantity” to one, while amortizing the Setup Cost across an average production lot size of 200 units.

### Yield Factor

The percentage **yield** The ratio of usable output completed from a process to the materials input to the process. Yield is usually expressed as a percentage and may be in terms of total input or of a specific raw material. (or loss) for a part. MRP multiplies the quantity required for a part by yield factor to calculate the **start quantity** The required quantity multiplied by the scrap factor (yield). . The default is 100 (100%), MRP plans for the exact amount. For example, if you must start 200 to complete 150, enter 133 in this field. (This number must be greater than or equal to 100.) To determine the factor, divide the quantity to start by the required quantity, and convert to a percentage.

### Order Multiple

Every order of this part must be a multiple of this number. For example, if you can only buy eggs by the dozen, every egg order must have an order multiple of 12.

### Safety Stock

The number of parts you keep on-the-shelf as a cushion (in the Stocking UOM). MRP considers forecasts, sales orders and safety stock when calculating demand. When a parts inventory falls below the specified safety stock quantity, MRP recommends a planned order to replenish the safety stock. This entry can also be used as a reorder point if you add lead time coverage to the safety stock quantity.

### **CAUTION!**

***Safety stocks distort MRP priorities and increase inventory; use them sparingly!  
For parts with the Inactive flag on the safety stock will appear and be treated as zero (0) by the MRP calculation.***

Remember, MRP is your tool, not your master. Its ultimate goal is to keep both costs and inventory low; however, you are always free to modify and/or interpret its recommendations. For more information see Material Requirements Planning.

### Inventory Codes Tab

You can further define parts in inventory by applying additional codes in the Inventory Codes tab. For example, you can apply a Product Class code to a part and assign a general ledger account to track revenue and expense information. Or you can assign an ABC code to define the part value relative to other parts in the system via the ABC analysis. The following paragraphs describe how each code is utilized by Alliance to help you control your parts.



**Part Master**

Part Number: BPP-100      Revision: B

Description: Assembly, Ball Point Pen, Blue      Inactive:

Engineering   Notes   MRP Planning   **Inventory Codes**   Part Costs   Statistics

Commodity Code: F/G      Finished Goods      Require SN/Lot:

Pur/Mfg UOM: EA      Each      SN Format: \*Y\*M\*D#####

Product Class Code: BPP100      100 Series      Average Catch Weight: 0.00

System Used On Code: BP      BLUE PENS      Catch Weight UOM:

Product Discount Code: BPP      Ball Point Pens

ICN Code:

ABC: A - Highest Relative Value      Standard Hours: 0.01

OK      Close

### Commodity Code

Commodity codes categorize your parts by related type. Depending on how you set up your commodity codes, you associate a buyer/planner with that commodity. For example, if one buyer purchases all machined parts, assign a commodity code for the buyer associated to those parts. Now you can display MRP Action parts by Buyer/Planner.

### Pur/Mfg UOM

If you purchase or manufacture in a different unit of measure than the stocking unit of measure, enter the alternative here. MRP uses this unit of measure to compute the number of parts required when generating work orders and purchase orders. You must have defined a UOM conversion between this UOM and the Stocking UOM in your Company Preferences and in your Codes Tables. See Setting up your Company for more information.

### Product Class Code

The product class code can be used to assign General Ledger accounts to part numbers for reporting or tracking the revenue/expense accounts for this part when it is shipped.

#### LINK NOTE:

*If you use an accounting link, this information will be passed through the link. Enter a Product Class Code, or use the hyperlink to choose from Product Class Code list.*

### System Used On Code

You can categorize parts by product line. This data is not used in any MRP calculation; it simply provides an additional way to group or identify your parts. For example, if you manufacture red and blue pens, you can separate parts used on red pens from parts used on blue pens and view data separately for each.

### Product Discount Code

The **Product Discount Code** Assigns a price type and description to a specific part for list price discount application. in combination with the Customer Discount Level will be used in establishing your Price Break Structures. You can apply different discounts for red pens versus blue pens on a per customer per order quantity basis. See Setting up your Company>Codes for more information.

### ICN Code

If you use Intrastat Reporting Tracks, use this field to define ICN material type for this part. This information will then be used for Intrastat Reporting features.

### ABC Classification

You can assign an ABC classification here, or if you run an ABC Analysis, the system will update it. When you run the ABC analysis, Alliance can classify your parts in relative value of importance according to the value category/type you assign.

### Require SN/Lot

To insure that all transactions for a part number include a Serial/Lot number, check the Require SN/Lot checkbox. You may also specify the SN/Lot Format. This can be any combination of letters and numbers up to 10 characters. Any part of a date (Month, Year, Day) may be included in the auto-generation by entering \*M, \*Y, or \*D in any combination. Sequential numbering fills in the remaining numbers.

For example, the serial number SN03091847, would be the 47th serial number automatically generated on September 18, 2003 in the format "SN\*Y\*M\*D".

If you do not wish to use 10 characters, enter your preferred format, then insert "#" for the number of characters you wish to use. The system will only increment that number of characters.

### Average Catch Weight

Enter the average weight of the product when shipped in the Catch Weight UOM. The sales order shipping transaction screen will require the shipping clerk to enter the actual weight of the shipment. This average weight will be used to calculate the actual cost of the shipment when variable weight products are shipped.

### Catch Weight UOM

Enter the Catch Weight UOM. The sales order shipping screen will require the shipping clerk to enter the actual weight of the shipment in this unit of measure.

The actual catch weight when compared to the average catch weight will be used to calculate the actual cost of the shipment when variable weight products are shipped.

### Standard Hours

Enter the number of hours required to produce one unit of this part. This cost can be maintained and updated via your Labor Router and the Update Labor Standards feature.

## Part Costs Tab

The Parts Costs Tab will be detailed in the Cost Maintenance section.

## Statistics Tab

The Statistics tab displays up to date information about this part. From here you can quickly see who entered the part into the system and when; the date of the last cost revision, the date of the last cycle count, and the date of the last transaction; and the quantity on hand, the quantity on order, and promised sales. The net year-to-date usage of the part is calculated using Misc. Issues, WO Kits and Dekits, PO Kits and Dekits, SO Shipments and Returns.

The screenshot shows the 'Part Master' window with the 'Statistics' tab selected. The window title is 'Part Master'. The top section contains the following fields:

- Part Number: B-01
- Revision: 1
- Description: Assembly, Barrel, Blue
- Inactive:

Below the fields are several tabs: Engineering, Notes, MRP Planning, Inventory Codes, Part Costs, and Statistics (selected). The main area displays two tables of statistics:

Entered By	90-KEM
Date Created	8/27/1999
Date of Last Cost Revision	8/31/2003 9:24:05 AM
Date of Last Cycle Count	12/8/2002
Date of Last Transaction	12/8/2002

Year-To-Date Usage	8,500.00
Quantity On Hand	2,900.00
Quantity On Order	5,100.00
Promised Sales	0.00

At the bottom right of the window are 'OK' and 'Close' buttons.

## Accessing Part Maintenance Data

Once all part and inventory information is entered into the system, Alliance/MFG gives you several options for accessing the data.

### From the Inventory Menu

Select Inventory>Part Maintenance from the main menu. From here you can use the submenus to go straight to a blank data entry form to enter new part information, edit existing data; or use predefined queries and wild cards to locate specific records.

### Part Maintenance View

Records displayed in the Part Maintenance View depend on the menu option you select.

From here you can add, or delete a record, or via the sidebar or Links button you can edit, drill down or access related data; such as the cost of parts, where a part is used in production; or preview or print a report.

Sorting and Finding Part Maintenance records – If your parts list is large, it may be helpful to sort the list. Click in a column header to sort by the information in that column. Click the Filter button in the top of the view to activate an incremental filter/find search on the list. You may perform a filter on any column, the specific record or range of records will display as you type.

### **Accessing Inventory On Hand Data**

If the Part Maintenance view is currently open, click on the appropriate sidebar related link. From either the Inventory Summary or Inventory Details Menu select *View All Inventory*.



## Inventory Summary

The Inventory Summary menu provides a summarized view of all part numbers in inventory, along with their Part Number, Quantity, Stockroom, Nettable and Quarantine Flags. From here you can select a part number and drill down to inventory details such as serial, lot and job numbers, or view maintenance, expiration and warranty dates. To drill down to inventory details double click on a summary line or click the Edit button.

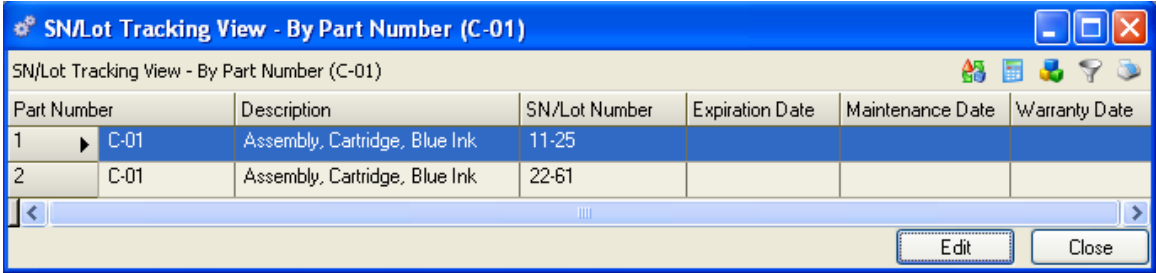
### Inventory Summary Menu

The Inventory Summary menu provides a summarized view of all part numbers in inventory, along with their Part Number, Quantity, Stockroom, Nettable and Quarantine Flags.



Part Number	Part Description	Total Quantity	Stockroom	Nettable?	Quarantine?
1	B-01 Assembly, Barrel, Blue	2,900.00	SA-1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	B-02 Assembly, Barrel, Red	4,210.00	SA-1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	BP-1 Barrel, Top Half, Blue	3,999.00	RAW	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	BP-2 Barrel, Bottom Half, Blue	12,900.00	RAW	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	BP-3 Ring, Metal .250 diameter	10,000.00	RAW	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	BP-4 Clip, Pocket Metal 1.5 inch	10,000.00	RAW	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	BP-5 Barrel, Top Half, Red	8,310.00	RAW	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	BP-6 Barrel, Bottom Half, Red	5,210.00	RAW	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	BPP-100 Assembly, Ball Point Pen, Blue	1,600.00	PENS	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10	BPP-200 Assembly, Ball Point Pen, Red	1,000.00	PENS	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11	C-01 Assembly, Cartridge, Blue Ink	15,000.00	SA-2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12	C-02 Assembly, Cartridge, Red Ink	6,200.00	SA-2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13	CP-1 Ball Point	15,000.00	RAW	<input checked="" type="checkbox"/>	<input type="checkbox"/>

From here you can select a part number and drill down to inventory details such as serial, lot and job numbers, or view maintenance, expiration and warranty dates. To drill down to inventory details double click on a summary line or click the Edit button.



Part Number	Description	SN/Lot Number	Expiration Date	Maintenance Date	Warranty Date
1	C-01 Assembly, Cartridge, Blue Ink	11-25			
2	C-01 Assembly, Cartridge, Blue Ink	22-61			

## Inventory Details

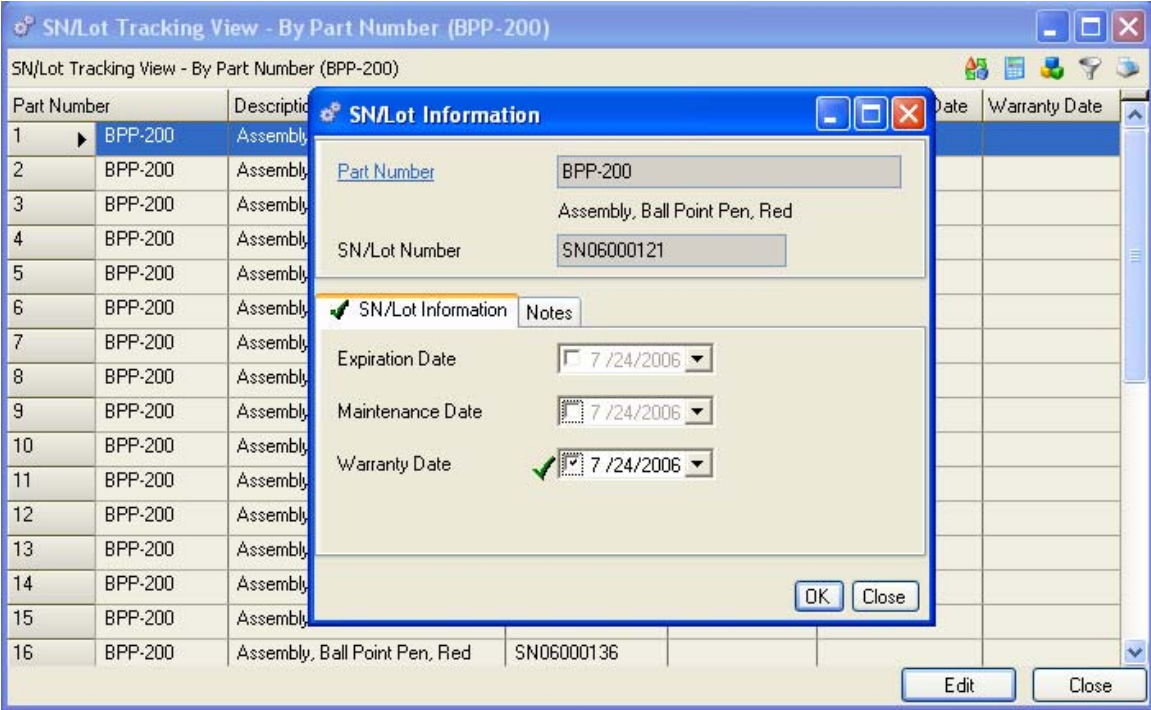
The Inventory Details function provides access to all part quantities in stock, along with their Department, Stockroom, Location, Serial Number, Lot Number, Cost and Job Number information. All information is displayed in the Inventory Lots View list. This menu selection also gives you access to the Misc. Issue, Misc. Receipt, and Relocate Inventory transactions.

### Inventory Details Menu

The Inventory Details menu provides a view of all part quantities in stock, along with their Stockroom, Location, Serial Number, Lot Number, Expiration Date, Job Number and Cost information.

Part Number	Part Description	Quantity	Stockroom	Location	Cost	SN/Lot Number	Job Number
1	B-01 Assembly, Barrel, Blue	2,900.00	SA-1	100	\$0.23		
2	B-02 Assembly, Barrel, Red	6,200.00	SA-1	100	\$0.23		
3	BP-1 Barrel, Top Half, Blue	3,999.00	RAW	100	\$0.05		
4	BP-2 Barrel, Bottom Half, Blue	18,200.00	RAW	100	\$0.05		
5	BP-3 Ring, Metal .250 diameter	20,000.00	RAW	100	\$0.02		
6	BP-4 Clip, Pocket Metal 1.5 inch	17,800.00	RAW	100	\$0.02		
7	BP-5 Barrel, Top Half, Red	8,310.00	RAW	100	\$0.05		
8	BP-6 Barrel, Bottom Half, Red	5,210.00	RAW	100	\$0.05		
9	BPP-100 Assembly, Ball Point Pen, Blue	200.00	PENS	100	\$0.85		
10	BPP-100 Assembly, Ball Point Pen, Blue	1,400.00	PENS	100	\$0.85	FEN-105	FEN-105
11	BPP-200 Assembly, Ball Point Pen, Red	1.00	PENS	100	\$0.84	SN06000121	
12	BPP-200 Assembly, Ball Point Pen, Red	1.00	PENS	100	\$0.84	SN06000122	
13	BPP-200 Assembly, Ball Point Pen, Red	1.00	PENS	100	\$0.84	SN06000123	
14	BPP-200 Assembly, Ball Point Pen, Red	1.00	PENS	100	\$0.84	SN06000124	
15	BPP-200 Assembly, Ball Point Pen, Red	1.00	PENS	100	\$0.84	SN06000125	

From here you can select a part number and maintain expiration, maintenance and warranty dates by clicking the SN/Lot Tracking in the Related Views sidebar.



**From the Inventory Lots View**

The records displayed in the Inventory Lots View depend on the query you select. You can display inventory by buyer, serial/lot number, commodity code, job number and other categories. From here you highlight an item and click on the Related Edits sidebar section to relocate inventory from one department or location to another, and perform miscellaneous issues and receipts.

**TIP:**

*You can create a view of specific inventory based on your criteria and add it to your Favorites Section in the Sidebar.*

The Inventory Details menu selection also gives you access to the Misc. Issue, Misc. Receipt, and Relocate Inventory transactions.



## Miscellaneous Issues and Receipts

Miscellaneous issues and receipts can be used to issue parts non-routinely to stockrooms and departments; or receive parts into inventory from a department. For example, you may want to issue and return to stock an assembly that was temporarily used by the Engineering department.

Misc. Issues and Receipts can be performed from the Inventory Lots View window using the Related Edits sidebar section, or select Misc. Issues or Receipts from the Main Menu Inventory Details submenus.

### Miscellaneous Issues

Select Inventory>Misc. Issue to open a blank Misc. Issue form. You must enter the Part Number and Stockroom. If there is inventory in the selected stockroom the system defaults the current inventory location, and any SN/Lot Numbers or Job Number that may apply, and the quantity in that stockroom and location.

If you access the Misc. Issue transaction form from the Inventory Lots View, you can select the part number first, then use the Related Edits section to open a Misc. Issue form for the part you selected. The system defaults the current stockroom and location, and any SN/Lot Numbers or Job Number that may apply, and the quantity in that stockroom and location.

**Misc. Issue**

Part Number ✓ BP-1 Entered By SUPERVISOR  
 Barrel, Top Half, Blue Tran Group -1

From Stockroom Code ✓ RAW RAW

From Location Code ✓ 100

From SN/Lot Number

From Job Number

Current From Quantity 3,899.00 EA

✓ Misc. Issue Notes

To Department Code ✓ ASSY Pen Assembly - Work In Process

Quantity Issued ✓ 100 EA

Tran Date 7 /18/2006

Tran Info

OK Close

At the bottom of the form, enter the “To Department Code.” The description displays next to the field. Enter the quantity you wish to issue. The Transaction Date defaults to “today’s” date; you can use the calendar box to enter a different date if needed.

When you are finished, do one of the following:

- Click Save on the toolbar to save the issue and leave the form open.
- Click OK to save the issue and exit the form.
- Click Close to exit the form without saving.



Click the Refresh button on the toolbar to view the parts adjusted inventory, the transaction is also recorded in the Transaction Log.

### Miscellaneous Receipts

Select Inventory>Inventory Details>Misc. Receipts to open a blank Misc. Receipts form. You must enter the Part Number, From Department, Quantity Received, and any SN/Lot Numbers or Job Number that may apply. The system defaults the current inventory cost, the default Stockroom and Location.

If you access the Misc. Receipts transaction form from the Inventory Lots View, you can select the part number first, then use the Related Edits section to open a Misc. Receipts form for the part you selected. The system defaults the selected part number, you must enter the From Department, Quantity Received, and any SN/Lot Numbers or Job Number that may apply. The system defaults the current inventory cost, the default Stockroom and Location..

The screenshot shows the 'Misc. Receipt' form with the following data:

Part Number	BP-1	Entered By	SUPERVISOR
	Barrel, Top Half, Blue	Tran Group	-1
From Department Code	✓ RAW	Raw Materials/Purchased Parts	
QTY Received	✓ 100.00	EA	
Misc. Receipt   Notes			
To Stockroom Code	RAW	Raw Materials/Purchased Parts	
To Location Code	100		
To SN/Lot Number			
To Job Number			
Cost		\$0.05	
Update On Hand Inventory?	<input checked="" type="checkbox"/>		
Tran Date	7/18/2006		
Tran Info			

The Transaction Date defaults to “today’s” date; you can use the calendar box to enter a different date if needed.

When you are finished, do one of the following:

- Click Save on the toolbar to save the receipt and leave the form open.
- Click OK to save the receipt and return to the Inventory Lots View.
- Click Close to exit the form without saving.

Click the Refresh button on the toolbar to view the parts adjusted inventory, the transaction is also recorded in the Transaction Log.

## Relocating Inventory

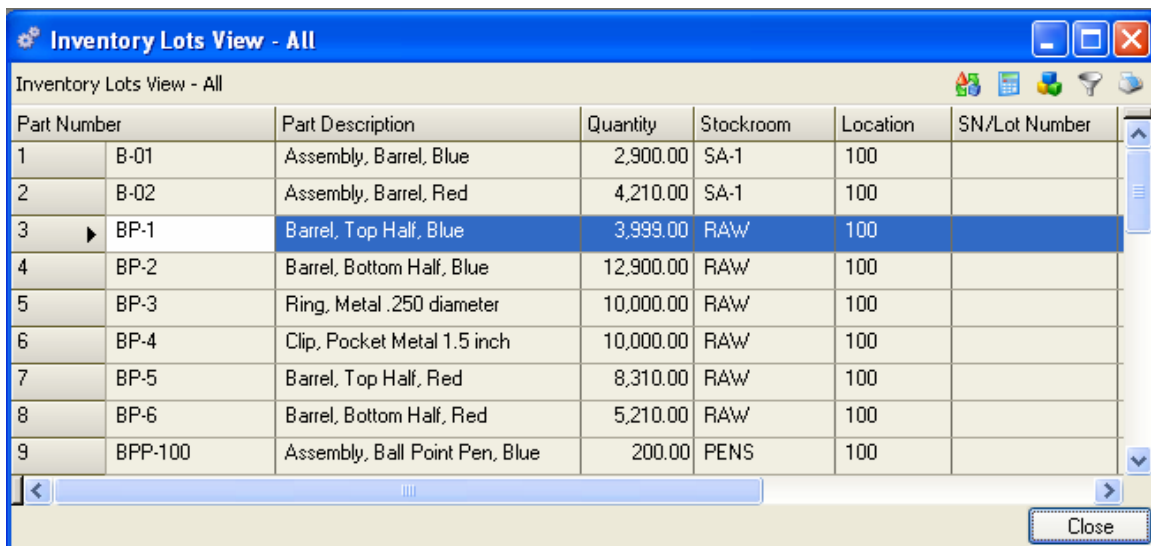
If your company uses an Incoming Inspection or Quarantine process you can use the relocate transaction to move the material to an inventory location after it has passed inspection or the quarantine time line. You can also use the relocate transaction to correct inventory location errors, scrap obsolete parts, etc. and the system will track the inventory movement. If you alter critical data such as serial or lot number you will terminate the Alliance/MFG ability to track those serial or lot numbers. Be sure to add information about the reason for the relocation to the Notes on the relocation transaction.

### NOTE:

*When the Require SN/Lot Number flag in the Part Maintenance>Inventory Codes is checked for a given part number, you will NOT be able to use the Relocate transaction to alter/change serial/lot numbers for that part.*

### To Relocate inventory:

From the Inventory Lots View, select the line that represents the part number, stockroom, location, and quantity you wish to relocate. You can relocate any amount of the quantity. The following example was displayed by entering a part number in the By Part Number query.



Part Number	Part Description	Quantity	Stockroom	Location	SN/Lot Number
1	B-01	Assembly, Barrel, Blue	2,900.00	SA-1	100
2	B-02	Assembly, Barrel, Red	4,210.00	SA-1	100
3	BP-1	Barrel, Top Half, Blue	3,999.00	RAW	100
4	BP-2	Barrel, Bottom Half, Blue	12,900.00	RAW	100
5	BP-3	Ring, Metal .250 diameter	10,000.00	RAW	100
6	BP-4	Clip, Pocket Metal 1.5 inch	10,000.00	RAW	100
7	BP-5	Barrel, Top Half, Red	8,310.00	RAW	100
8	BP-6	Barrel, Bottom Half, Red	5,210.00	RAW	100
9	BPP-100	Assembly, Ball Point Pen, Blue	200.00	PENS	100

Click Relocate in the Related Edits sidebar section to open the Relocate Inventory form. The part number, From Stockroom and From Location with current From Inventory Quantity displays in the top of the form.

Relocate Inventory			
Part Number	✓ BP-1	Entered By	SUPERVISOR
	Barrel, Top Half, Blue	Tran Group	-1
From Stockroom Code	✓ RAW	Raw Materials/Purchased Parts	
From Location Code	✓ 100		
From SN/Lot Number			
From Job Number			
Current From Quantity	3,000.00		
<input checked="" type="checkbox"/> Relocate Inventory <input type="checkbox"/> Notes			
To Stockroom Code	✓ RAW	Raw Materials/Purchased Parts	
To Location Code	✓ 200		
To SN/Lot Number			
To Job Number			
Relocate Quantity	✓ 999		
Current To Quantity	999.00		
Tran Date	7 /18/2006		
Tran Info			
<input type="button" value="OK"/> <input type="button" value="Close"/>			

In the bottom half of the form, enter the "To Stockroom Code." The description will display next to the field. Enter the "To Location Code", a SN/Lot Number or a Job Number, if needed. Add any notes to retain critical information. Enter the quantity you wish to relocate. This can be any amount of the current "From" quantity. The Transaction Date defaults to "today's" date; you can use the calendar box to change it at your discretion.

When you are finished, do one of the following:

- Click Save on the toolbar to save your entries and leave the form open.
- Click OK to save the relocate and return to the Inventory Lots View.
- Click Close to exit the form without saving.

## Serial Number/Lot Tracking

If your business requires that all transactions (all material movement within Alliance/MFG) for a given part number include a serial or lot number, you may indicate so in the Part Maintenance record by clicking the “Require SN/Lot Number” flag on the Inventory Codes tab. It is not necessary to set this flag to be able to enter a serial or lot number during transactions, but if you do set this flag, you will NOT be able to complete any transaction without a serial/lot number.

Serial number and lot information can be maintained via the SN/Lot Tracking menu selection or preferably will be entered during the following transactions; Purchase Order Receipts, Work Order Completions, or Misc. Receipt. These are transactions into stockrooms (inventory). You can optionally assign additional information such as Expiration, Maintenance and/or Warranty Dates for these items. If a serial or lot number assigned is NOT unique for that part number, it will be combined with like serial or lot numbers existing in inventory. Serial and lot numbers in inventory may also be transferred or moved between departments and stockrooms using the Relocate transaction.

**NOTE:**

*When the Require SN/Lot Number flag is checked for a given part number, you will NOT be able to use the Relocate transaction to alter/change serial/lot numbers for that part. If a serial/lot number requires changing you will need to use the Unplanned Issue under the original serial number (issue from a stockroom to a department) and then use an Unplanned Receipt (from that same department back into a stockroom) under the new serial number. Use the Notes field to indicate why the transactions were necessary as the Alliance/MFG SN/Lot Tracking audit trail will cease to exist.*

The screenshot shows the 'Part Master' window for part BPP-100. The 'Inventory Codes' tab is active, displaying various codes and their associated values. The 'Require SN/Lot' checkbox is currently unchecked.

Part Number	BPP-100	Revision	B
Description	Assembly, Ball Point Pen, Blue	Inactive	<input type="checkbox"/>
Commodity Code	F/G	Finished Goods	Require SN/Lot <input type="checkbox"/>
Pur/Mfg UOM	EA	Each	SN Format *Y*M*D#####
Product Class Code	BPP100	100 Series	Average Catch Weight 0.00
System Used On Code	BP	BLUE PENS	Catch Weight UOM
Product Discount Code	BPP	Ball Point Pens	
ICN Code			
ABC	A - Highest Relative Value	Standard Hours	0.01

All Serial Number and Lot Number information is retained in the system, even if the inventory has been depleted. For serialized work order completions you can establish the SN/Lot Number Format. For using Serialized Work Order Completions see Supply>Work Order Completions.

**To add a SN/Lot Number for a part during a transaction:**

Perform either a purchase order receipt, unplanned receipt, work order completion or serialized work order completion transaction. Add the serial or lot number to the transaction record. If required, click on the SN/Lot Information button to enter a expiration, warranty or maintenance date. The serial/lot number and information will be added to the SN/Lot Tracking and the transactions tables.

**NOTE:**

*A lot may be received in partial receipts and have several transactions, however, only one expiration date is valid for each unique lot number.*

**To create or modify a SN/Lot Number record for a part:**

Select Inventory>SN/Lot Tracking>New to open a blank SN/Lot Tracking data entry form.

1. Enter a part number.
2. Enter an SN/Lot Number to uniquely identify either the part or the lot.
3. Enter Notes or an Expiration, Maintenance or Warranty date if needed.

**NOTE:**

*A Serial/Lot number created and added through this method will not contain a reference to a purchase order or work order. You must add any reference information to the SN/Lot Notes field.*

When you are finished, do one of the following:

- Click Save on the toolbar to save your entries and leave the form open.
- Click OK to save the receipt and exit the form.
- Click Close to exit the form without saving.

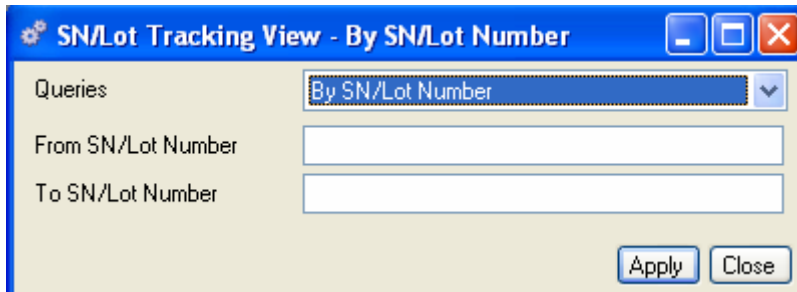
### Tracking SN/Lot Numbers

Once you have assigned SN/Lot numbers to parts, you can track them through the system. Alliance/MFG gives you several options for tracking the data.

**From the SN/Lot Tracking Submenus:**

Select Inventory>SN/Lot Tracking from the main menu. From here you can enter new SN/Lot Numbers, edit existing records; or use a predefined query to locate and track specific records.

To track a range of serial numbers, select the Query By Serial Number option, enter the beginning and ending serial numbers. To track a specific serial or lot number enter the same number as both the beginning and ending numbers.



**From the SN/Lot Tracking View:**

The records displayed in the SN/Lot Tracking View depend on the query you select.

Part Number	Description	SN/Lot Number	Expiration Date	Maintenance Date	Warranty Date
1	BP-3 Ring, Metal .250 diameter	11-18			
2	BP-4 Clip, Pocket Metal 1.5 inch	11-15			
3	BP-4 Clip, Pocket Metal 1.5 inch	11-16			
4	BP-4 Clip, Pocket Metal 1.5 inch	11-19			
5	BPP-100 Assembly, Ball Point Pen, Blue	21-9			
6	BPP-100 Assembly, Ball Point Pen, Blue	FEN-105			
7	BPP-x300 Custom Ball Point Pen, Red, S...	55-21-4			
8	C-01 Assembly, Cartridge, Blue Ink	11-25			
9	C-01 Assembly, Cartridge, Blue Ink	22-61			
10	PL-01 Assembly, Plunger	FEN-105			
11	T-01 Tube, Plastic clear 3.25 inch	FEN-105			

From here via the sidebar or Links button you can drill down or access related data; preview or print a serial/lot number tracking report.

**From the Serial Number Locations Report**

You may query and run the Serial Number Locations Report to identify the location of all inventory for a serial or lot number. You will be able to track which serial or lot number was received on which PO, and was then kitted to which Work Orders, and then completed into finished goods and were ultimately shipped on which customer orders. The report will list all stock locations, sub-assemblies and finished goods items containing that serial/lot number.

**SN/Lot Locations**

Parts Matching Your Search criteria:	
Part Number	SN/Lot Number
Leve IIA	Lot092501

Inventory On Hand				
Part Number	SN/Lot Number	Stockroom Code	Location	Quantity
Leve IIA	Lot092501	QUAR	BURN	500.00
Leve IIA	Lot092501	RAM	100	455.00
Leve B	Lot092501	SA-1	100	5.00
Leve M	SN03090001	PENS	100	1.00
Leve M	SN03090007	PENS	100	1.00
Leve M	SN03090008	PENS	100	1.00
Leve M	SN03090009	PENS	100	1.00
Leve M	SN03090010	PENS	100	1.00

Work In Process						
WO Number	Assembly	Part Number	SN/Lot Number	Completed Qty	Released Qty	Release Date
WO03090015	Leve I4	Leve I3	Lot092303	1000	15.00	09/05/2008

Customer Locations					
SO Number	Line	Part Number	SN/Lot Number	Customer PO	Quantity
SO03090001	001	Leve I4	SN03090001	(415) 223-5547 x234 (415) 223-5552	1.00
BLUES	Blue Star Supply		Jessica Schilling		bluesbn@lsae1
SO03090001	001	Leve I4	SN03090002	(415) 223-5547 x234 (415) 223-5552	1.00
BLUES	Blue Star Supply		Jessica Schilling		bluesbn@lsae1
SO03090001	001	Leve I4	SN03090003	(415) 223-5547 x234 (415) 223-5552	1.00
BLUES	Blue Star Supply		Jessica Schilling		bluesbn@lsae1
SO03090001	001	Leve I4	SN03090004	(415) 223-5547 x234 (415) 223-5552	1.00
BLUES	Blue Star Supply		Jessica Schilling		bluesbn@lsae1
SO03090001	001	Leve I4	SN03090005	(415) 223-5547 x234 (415) 223-5552	1.00
BLUES	Blue Star Supply		Jessica Schilling		bluesbn@lsae1

**From the SN/Lot Production History Report**

By selecting a manufactured or subcontract part number and the lot number assigned to it, you will be able to track which serial numbers or lot numbers were kitted to this Work Order.

SN/Lot Production History								
Part Number	SN/Lot Number	Quantity	Reference	Line Number	Tran Group	Tran ID	Tran Type	Tran Date
B-01	Lot 03001	5,100.00	W000030002		2,354.00	2,352.00	CHP	09/24/2008
BP-4		5,100.00	W000030002		10.00	17.00	KIT	09/11/2008
BP-3		5,100.00	W000030002		10.00	10.00	KIT	09/11/2008
BP-2		5,100.00	W000030002		10.00	15.00	KIT	09/11/2008
BP-1		5,100.00	W000030002		10.00	14.00	KIT	09/11/2008

## Cost Maintenance

There are two “primary” methods of maintaining your costs. One that is used for entering costs for “New” parts, and one used for changes and/or cost revisions on existing parts. Both methods are described below:

### Entering Costs for New Parts

All part cost information is maintained on the Parts Costs tab on the Part Master form. Here you will enter and maintain the pending part costs for both new and existing parts. You can enter a Default PO Cost for purchased items and a list price for each part you intend to sell. You can additionally specify a Commission Rate, and Tax Code to be applied to a part.

### Part Costs Tab

Standard Costs are generated by the Update Standard Costs utility along with the date of the last cost revision and the current inventory cost.

Pending Costs		Standard Costs	
Material Cost	\$0.73	Std Material Cost	\$0.73
Labor Cost	\$0.11	Std Labor Cost	\$0.11
Burden Cost	\$0.00	Std Burden Cost	\$0.00
Setup Cost	\$3.00	Std Setup Cost/EOQ	\$0.00
Setup Cost/EOQ	\$0.00	Subcontract Cost	\$0.00
Subcontract Cost	\$0.00	Total Standard Cost	\$0.84
Total Pending Cost	\$0.85		

Default PO Cost	\$0.00	Cost Revision Date	7/14/2006 1:18:29 PM
Part Commission Flag	<input checked="" type="checkbox"/>	Current Inventory Cost	\$0.84
Part Commission Rate	0.05	List Price	\$1.25 Each
Taxable Flag	<input checked="" type="checkbox"/>	Tax Code	0.00

Average, Standard Costs and Current Inventory Cost along with other costs and prices entered here will be used in value calculations throughout the Alliance/MFG system and may be processed through an accounting link to your accounting package.



**To enter Pending Costs:**

Enter Pending Costs for Material, Labor, Burden, Setup, and subcontract costs associated with this part. The total pending costs will display at the bottom of the Pending Costs box. You can enter this information manually, or use the Cost Roll Up and Update Standard Costs functions (described later in this section).

**Material Cost** - This cost can be entered manually or for assemblies and subassemblies it can be calculated and entered by the cost roll up. Material Cost should be the cost of materials for a single part per stocking unit of measure. For example, if the unit of measure is feet, the material cost would reflect the cost for one foot of the part.

**Buy Parts** - The material cost is the cost you pay for each part. If you use an accounting link and receive a purchase order for an amount other than the Standard Cost, the appropriate variance (PPV) information will be generated. (See your Link documentation for more information.) All Buy parts should have an entry in this field.

**Make Parts** - The material cost can be manually entered here for an assembly or subassembly or calculated. The calculated cost on an assembly is entered when you run a cost roll up. This calculation enters the Total Cost of all the parts components (Total Cost = Material Cost + Setup Cost + Burden Cost + Labor Cost + Subcontract Cost) as the Material Cost of the assembly.

**NOTE:**

*When you change the cost of a component used in an assembly, you must run a cost roll up on that assembly, to update the cost of the parent assembly.*

**Labor Cost** - Enter the labor cost to make a single part, or run Update Labor Standards which will calculate the labor cost from the parts labor operations, and work center wage. See Update Labor Standards in CRP.

**Burden Costs** - The Burden Cost can be entered manually or calculated via the Cost Roll Up. The Burden Cost should be based on a single unit. It represents a portion of your total overhead amount to be added to the cost of this part.

**Setup Cost** - Enter the setup cost. When the system calculates the total unit cost (for one unit), it divides the setup cost by any Costing EOQ quantity.

**Subcontract Cost** - Enter the cost associated with the manufacture of one unit by a subcontract supplier. This may or may not include material issued by you.

**Total Pending Cost** - The System displays the sum of the Material, Labor, Burden, Setup, and Subcontract fields. (Setup cost is divided by the order quantity.)

**Additional Part Cost Fields**

**Default PO Cost** – Enter a current purchase price which will default to the Purchase Order cost when the part is entered as a PO Line Item.

**Cost Revision Date** – The system displays the last cost revision date.

**Current Inventory Cost** – The system displays the Current Inventory cost based on either the Average cost or the Standard Cost, depending on your costing method selection in the Preferences dialog box. See Setting Up Your Company, for more information about this setting.

**Part Commission Flag** and **Commission Rate** – Select the Part Commission Flag if the sale of the part is commissioned. This is for reference only. If you select the Commission Flag, enter the rate.

**List Price** – Enter the cost your customer will pay the next time this part is purchased from you.

**Taxable Flag** - Select Taxable Flag to indicate whether a part is taxable.

**Tax Code** - If you select the Taxable Flag and the Tax Code field is left blank, the tax rate on a Sales Order for this part will default to the tax rate defined in the ordering Customer's Address Maintenance record. If you use the Taxable Flag and enter a code, it will override the tax rate on the customer's record.

## Cost Changes and Cost Revision Steps

1. Update the pending costs of all raw materials. Also update burden, setup and subcontract pending costs for manufactured parts (there is no need to update the material or labor costs on assemblies if you use the Cost Roll Up and Update Labor Standards functions).
2. Run a Cost Roll Up (either of the entire system, or on selected assemblies).
3. Review the cost changes using reports like the Standard Costed BOM and the Part Cost List reports).
4. Run the "Stockroom on Hand" report to get total dollars in each stockroom.
5. Run the Update Standard Costs routine to move the pending costs to the standard costs (this can be done on all parts or just on selected parts depending on the scope of your cost revision)
6. Re-run the "Stockroom on Hand" report to get the new dollar amounts for each stockroom.
7. Comparing the two copies of the "Stockroom on Hand" report you can see the effect that the cost revision had. Generally you will want to make an adjustment to your accounting system to account for this revision.

Once all parts costs are entered into the system via the Part Master, Part Cost tab; you can maintain costs for all parts via the Inventory>Cost Maintenance submenus. From here you can drill down to detailed cost information and, if necessary, go straight to the Part Master>Part Cost Tab to make changes.

### Accessing Cost Maintenance Data

#### From the Inventory Menu

The main menu is your first access level. From here you can open a cost record for a specific part, view all parts, or use a predefined query to go to a specific part or range of parts.

#### From the Part Cost View

The records displayed in the Cost Maintenance View depend on the query you select.

Part Number	Description	Employee ID	Last Name	Department Code	ISC	DMC	ABC	Current Cost	
1	B-01	Assembly, Barrel, Blue	55-JAT	Tierney	SUBS	M	P	A	\$0.23
2	B-02	Assembly, Barrel, Red	55-JAT	Tierney	SUBS	M	P	B	\$0.23
3	BP-1	Barrel, Top Half, Blue	50-JDD	Dorovsky		B	P	B	\$0.05
4	BP-2	Barrel, Bottom Half, Blue	50-JDD	Dorovsky		B	P	B	\$0.05
5	BP-3	Ring, Metal, .250 diameter	50-JDD	Dorovsky		B	P	C	\$0.02
6	BP-4	Clip, Pocket Metal 1.5 inch	50-JDD	Dorovsky		B	P	C	\$0.02
7	BP-5	Barrel, Top Half, Red	50-JDD	Dorovsky		B	P	C	\$0.05
8	BP-6	Barrel, Bottom Half, Red	50-JDD	Dorovsky		B	P	C	\$0.05
9	BPP-100	Assembly, Ball Point Pen, Blue	55-JAT	Tierney	ASSY	M	P	A	\$0.85
10	BPP-200	Assembly, Ball Point Pen, Red	55-JAT	Tierney	ASSY	M	P	A	\$0.84
11	BPP-x300	Custom Ball Point Pen, Red, Stamped with...	55-JAT	Tierney	ASSY	M	J	A	\$1.19
12	C-01	Assembly, Cartridge, Blue Ink	90-KEM	M...	SUBS...	C	P	P	\$0.24

From here you can add, edit, or delete a record; or via the sidebar or Links button you can drill down or access related data; preview or print a report.

### Maintaining Standard Costs

Standard Costs are system generated and updated via the Update Standard Costs function, then displayed in the Standard Costs box. See Update Standard Costs.

### Performing a Cost Roll Up

You can perform a Cost Roll Up at any time to calculate the total cost of an assembly or sub-assembly based on the total cost of it's components. See Cost Roll Up for additional details.



## Cost Roll Up

You can perform a Cost Roll Up at any time to calculate the total cost of an assembly or sub-assembly based on the total costs of its components. You can run a multiple Cost Roll Ups to test “what if” scenarios for engineering changes that introduce new parts to existing BOM's.

A Cost Roll Up will recalculate the cost of an assembly or subassembly regardless of the number of BOM levels involved or the type of cost field changed. You can update the costs of labor, material, burden, subcontract, or setup or perform an Annual Cost Revision. The total cost of a subassembly in a cost roll up is assigned to the material cost of the parent assembly.

**NOTE:**

*If you need to isolate and display the total material, total labor, total burden, etc. for your end products use the Parallel Costed Indented BOM Report.*

### Understanding the Cost Roll Up Function

Part costs are rolled up from the lowest level components to the highest, all the way to your finished goods. All component level material, labor, set up, and subcontract costs are rolled up to the material cost of their parent assembly. If you manually change a material cost in an upper level assembly and then perform a cost roll up, costs at the lower level (which may not have been changed) will override your manual change!

### How Cost Roll Up calculates a cost change

The following table shows how costs are rolled up through an assembly to calculate the total cost. The first table shows how costs roll up to a total cost of \$12.00 for one unit of BPP-100, with the total material cost of component B-01 at \$4.00.

**Finished Good, BPP-100, Component B-01 total material cost = \$4.00, Total Cost = \$12.00**

			Material	Labor	Burden	Set up	Subcontract	Sub-total	TOTAL
BPP-100			10.00	1.00	.50	.50	0		\$12.00
	B-01			4.00					
		BP-1		1.00	0	0	0	0	1.00
		BP-2		1.00	0	0	0	0	1.00
		BP-3		1.00	0	0	0	0	1.00
		BP-4		1.00	0	0	0	0	1.00
	S-01		3.00	0	0	0	0	3.00	
	Phantom		3.00	0	0	0	0	3.00	

In this example, it is made up of three components: B-01, S-01, and a phantom part. B-01 is an assembly with four components (BP-1, -2, -3, and -4). The total material cost of B-01 is the sum of its components (\$4.00). S-01 and the Phantom part are each costed at 3.00.

The total material cost of BPP-100 is therefore the sum of the total material cost of B-01, S-01, and the Phantom part, as shown in the dotted line areas of the chart.

Additional labor, burden, and setup costs have been added at the highest level, for a total part cost of \$12.00.

The second table shows how changing the cost of the component B-01, by adding burden costs to its components, increases the total cost of B-01, which then rolls up to a material cost of \$5.00 and a total cost of \$13.00 for one unit of BPP-100.

When we run the cost roll up, the total cost of the component elements (material plus labor, burden, and set up for each component) rolls up into the material cost of the parent, B-01 to \$5.00. The cost of all the components of BPP-100 (B-01 + S-01 + the Phantom) roll up to its material cost, for a total of \$11.00. Labor, burden, and set up are added at the highest level for a total part cost of \$13.00.

		Material	Labor	Burden	Set up	Subcontract	Sub-total	TOTAL
BPP-100		11.00	1.00	.50	.50	0		\$13.00
	B-01	5.00						
	BP-1	1.00	0	.25	0	0	1.25	
	BP-2	1.00	0	.25	0	0	1.25	
	BP-3	1.00	0	.25	0	0	1.25	
	BP-4	1.00	0	.25	0	0	1.25	
	S-01	3.00	0	0	0	0	3.00	
	Phantom	3.00	0	0	0	0	3.00	

### Using Cost Roll Up with CRP and Update Labor Standards

It is important to run Update Labor Standards BEFORE running a Cost Roll Up. See Capacity Requirements Planning, for more information on maintaining work centers and labor routers.

### Performing a Cost Roll Up

Cost Roll Up will recalculate the cost of assemblies when any component costs have been changed, regardless of the number of BOM levels or the type of change. You can make changes to any parts material, labor, burden, subcontract, or setup cost field depending on the ISC type (make, phantom, subcontract, buy, or free/bulk). The total cost of a subassembly is assigned to the material cost of its parent assembly during a cost roll up. If you need more information about how the system performs a cost roll up, see the previous section.

**CAUTION!**

***If you use either of the Average valuation methods, you must select the "Use Current Inventory Cost" box when performing cost roll ups.***

#### A cost roll up is performed in these basic steps

- Identify and enter all component level cost changes in the Part Master record.
- Enter any labor changes to the labor routers and run Update Labor Standards (from the CRP Menu).
- Perform the Cost Roll Up for one or all parts.

Each step is described below:

#### 1A. Identify component cost changes

Begin with the low level components. If your product is fairly simple, you may already know the low level components in the assembly. However, if you have complex multilevel products, you can print the Indented BOM report to identify the low level components in the assembly.

1. Select Products>Reports>Indented BOM.
2. Enter the part number for the affected assembly.
3. Preview or Print the Indented BOM report and review the components at all levels.
4. Select the appropriate components.

#### **1B. Enter Changes in the Part Master, Part Costs tab**

Parts costs are maintained via the Part Master data entry form, Part Costs tab, Pending Costs, see Entering New Part Costs, under Cost Maintenance.

**From Inventory>Part Maintenance** - If you're working in the Part Maintenance View, highlight the part number you want to change; click Edit, and select the Part Costs tab.

**From the Inventory>Cost Maintenance** - From the Cost Maintenance View list, select the part, and select Related View>Cost Details to review the current cost, material, burden setup, and subcontract costs. From here you can click the Edit button to open the Part Master and make your changes.

**From the Products menu** - If you know you are going to make changes to multiple component parts in an assembly, you can start from Products>Product Structure>Bill of Materials (by assembly). Then enter the assembly part number to open the Product Structure (BOM) View displaying all the component parts for the assembly. From here you can select a component, click Related Edits>Component Part Master.

Once you are at the Part Costs tab for the component selected, enter the change into the appropriate field or fields. If you need more information about entering costs in the Part Cost tab, see Entering New Part Costs, under Cost Maintenance.

After you change the part cost and click OK, the system returns you to the Product Structure list where you can continue to work your way through the components until all changes are entered.

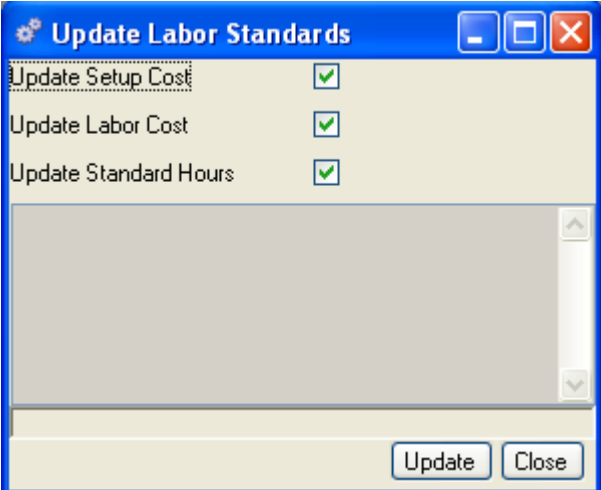
#### **2. Perform Update Labor Standards**

The Update Labor Standards calculation multiplies the labor time for each labor router by the wage rate for the work center to determine the standard hours and labor cost to produce a single unit of each part. It also computes the setup cost by lot for each part. This information is updated in the Part Master Part Costs tab>Pending Costs.

Because updating labor standards changes standard hours and affects the basis by which setup and labor costs are calculated, it is important to update labor standards before performing a cost roll up.

##### **To Update Labor Standards:**

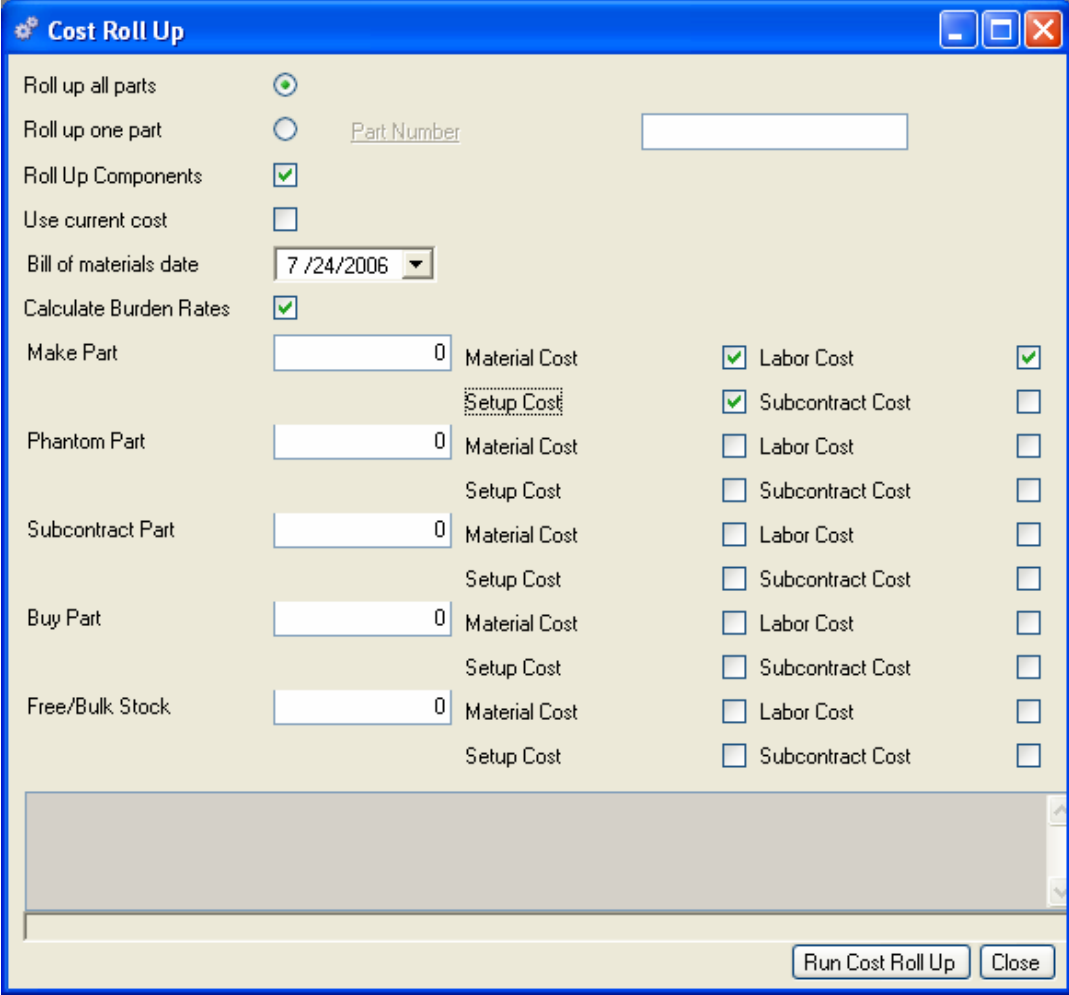
1. Make all necessary labor changes.
2. Select CRP>Update Labor Standards to open the Update Labor Standards dialog box.
3. Select which standards you wish to update; you can select one, two, or all types.
4. The message box displays progress and reports any failures, along with the steps to correct it.



When finished, the message box reports “calculation completed successfully.”  
See Capacity Requirements Planning, Labor Routers for more information.

**3. Perform the Cost Roll Up**

Select Inventory>Cost Roll Up to open the Cost Roll Up dialog box.



You have the option to roll up all parts, or roll up a single part, sub-assembly or assembly. If you're rolling up a single part, you must enter the part number.

Select Roll up Components if you want to update the cost impact in all areas of the system. If left blank, the Roll up will show only incremental costs for the assemblies.

Select Use Current Cost if you wish to post current inventory cost into the Material cost. (Typically used with Average costing.)

If you wish to include Burden rates in your calculation, select Calculate Burden Rates. Use the check boxes to apply any Burden rates to Material, Labor, Setup, or Subcontract costs. (For more information about applying Burden rates to parts, see Calculating Burden Rates in the following section).





## Update Standard Cost

### Updating Standard Costs

Standard costs are maintained by the system and are not affected by Cost Roll Ups performed on Pending Costs. You will use the Update Standard Costs function to add standard costs for new parts or to modify/change the standard cost of a part when necessary or annually for a product cost revision.

Standard Costs are displayed by part number on the right side of the Part Master, Part Costs tab. The Total Standard Cost per part is derived from the total of Material, Labor, Burden, Setup, and Subcontract costs applicable to the part.

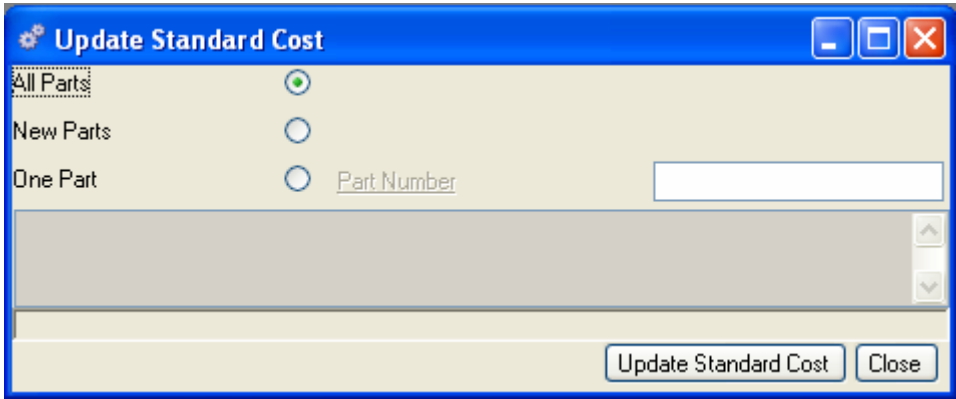
### To Update Standard Costs

1. Select Inventory>Update Standard Costs to open the Update Standard Cost dialog box.
2. Select one of the following:

**All Parts** - This will update standard costs for all parts in the system.

**New Parts** - This will update all new parts. New parts are parts added to the Part Master since the last time you ran "Update Standard Costs". If required, be sure to update labor standards and perform a cost roll up prior to updating standard costs. Once a part has been updated it will no longer be considered new.

**One Part** - Enter the part number to update. Only this part will be updated.



## Transaction History

### Transactions

All movement of parts and materials in Alliance/MFG is recorded as an inventory transaction. Whether you receive parts from a supplier, ship parts to a customer, or simply move stock from one location to another, a transaction record will be created and posted to the Transaction History.

The Transaction History records every activity performed that affects the quantity or movement of inventory. This file records any transaction that causes an item's on-hand quantity in any stock location to increase or decrease.

**NOTE:**

*If you use an Alliance Manufacturing Accounting Link, transactions will be passed through to your accounting package via this log. (See your Accounting Link documentation for more information about your particular product link.)*

If you are a member of the EMU, the Transaction History stores information you need for Intrastat Reporting.

### Accessing Transaction History data

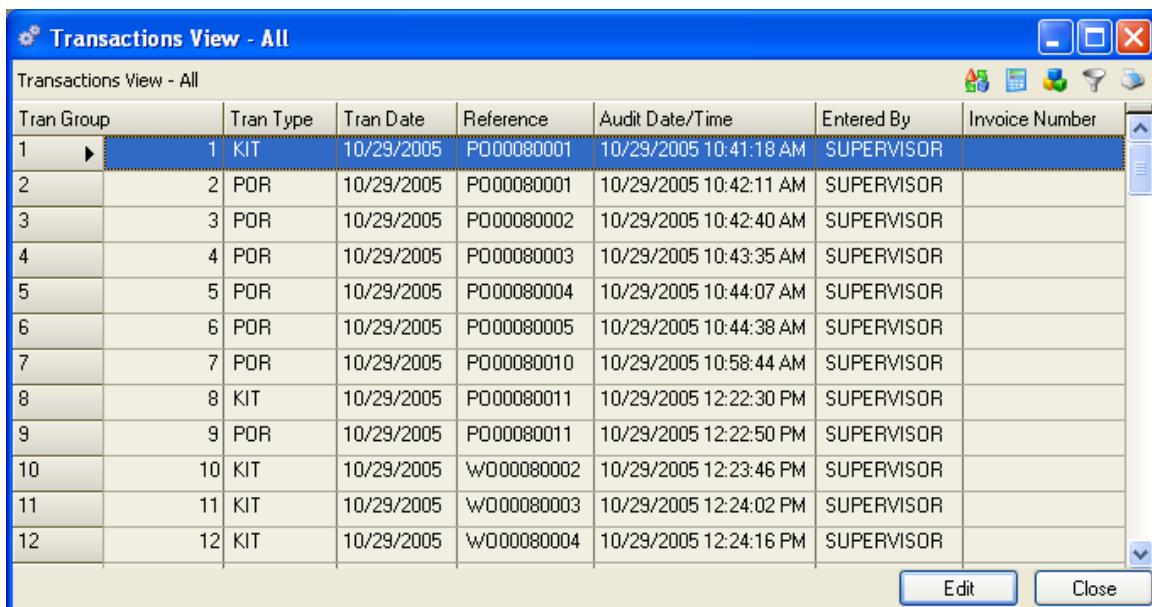
Once you begin operating the system, it begins accumulating Transaction History. Alliance/MFG gives you several options to access the data.

#### From the Inventory menu

Select Inventory>Transaction History>All to open the Transactions View for all transactions, or use a predefined query to locate specific records.

#### From the Transactions View

The records displayed in the Transactions View depend on the query selected. The following sections describe the origin of data in each column.



The screenshot shows a window titled "Transactions View - All" with a table of transaction records. The table has the following columns: Tran Group, Tran Type, Tran Date, Reference, Audit Date/Time, Entered By, and Invoice Number. The records are numbered 1 through 12, with Tran Type alternating between KIT and POR. The Reference numbers range from P000080001 to W000080004. The Audit Date/Time column shows the date 10/29/2005 and the time of the transaction. The Entered By column for all records is SUPERVISOR. The Invoice Number column is empty for all records. At the bottom right of the window, there are "Edit" and "Close" buttons.

Tran Group	Tran Type	Tran Date	Reference	Audit Date/Time	Entered By	Invoice Number
1	KIT	10/29/2005	P000080001	10/29/2005 10:41:18 AM	SUPERVISOR	
2	POR	10/29/2005	P000080001	10/29/2005 10:42:11 AM	SUPERVISOR	
3	POR	10/29/2005	P000080002	10/29/2005 10:42:40 AM	SUPERVISOR	
4	POR	10/29/2005	P000080003	10/29/2005 10:43:35 AM	SUPERVISOR	
5	POR	10/29/2005	P000080004	10/29/2005 10:44:07 AM	SUPERVISOR	
6	POR	10/29/2005	P000080005	10/29/2005 10:44:38 AM	SUPERVISOR	
7	POR	10/29/2005	P000080010	10/29/2005 10:58:44 AM	SUPERVISOR	
8	KIT	10/29/2005	P000080011	10/29/2005 12:22:30 PM	SUPERVISOR	
9	POR	10/29/2005	P000080011	10/29/2005 12:22:50 PM	SUPERVISOR	
10	KIT	10/29/2005	W000080002	10/29/2005 12:23:46 PM	SUPERVISOR	
11	KIT	10/29/2005	W000080003	10/29/2005 12:24:02 PM	SUPERVISOR	
12	KIT	10/29/2005	W000080004	10/29/2005 12:24:16 PM	SUPERVISOR	

## Transaction View Column Definitions

### Tran Group

The system assigns a sequential Transaction Group number to all simultaneous transactions.

For example, when you Receive All on a purchase order with eight different line items, the transaction log assigns the same Transaction Group number to each part received in this transaction. The individual parts received will be assigned unique, sequential Transaction ID numbers, which you can see in the Transaction Detail View.

### Tran Type

The transaction type is read from the transaction form where the transaction is recorded. For example, when you ship a purchase order, the Transaction Log records a SHP transaction type.

When you kit a work order, the Transaction Log records a KIT transaction type. The following list defines the transaction types and source transactions for all transactions performed in Alliance/MFG.

Tran Type	Source and Description
KIT	Work Order Kit - This transaction will decrease the quantity of the material in inventory and increase WIP.
DKT	Work Order Dedit. This transaction will increase the quantity of the material in inventory and decrease WIP.
CMP	Work Order Completion. This transaction will increase the quantity of goods in inventory and decrease WIP.
UPR	Unplanned Receipt to Stock. This transaction will increase the quantity of goods in inventory.
UPL	Unplanned Issue from Stock. This transaction will decrease the quantity of goods in inventory.
REL	Relocation of Inventory. This transaction will not change the quantity of inventory on-hand; simply relocate it to a new stockroom or location.
PIP	Physical Inventory Positive Adjustment. This transaction will increase the quantity of an item in inventory.
PIN	Physical Inventory Negative Adjustment. This transaction will decrease the quantity of an item in inventory.
SHP	Sales Order Shipment. This transaction will decrease the quantity of goods in inventory.
RMA	Sales Order Return. This transaction will increase the quantity of goods in inventory.
POR	Purchase Order Receipt. This transaction will increase the quantity of materials in inventory.
RTV	Return to Vendor. This transaction will decrease the quantity of materials in inventory.

### Audit Date/Time

The audit date and time is read from the input form when the transaction was recorded. This will be the time and date at the machine used to perform the transaction.

### Reference

The reference is read from the input form used to perform the transaction. For example, a KIT transaction will display the related work order number.

### Entered By

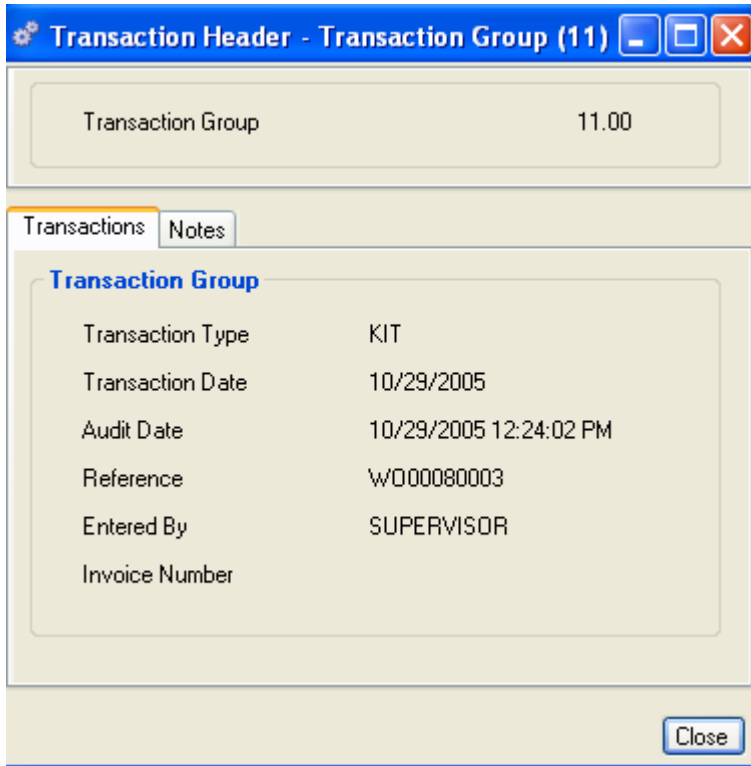
The Entered By is read from the login ID on the computer where the transaction was performed.

**Tran Info**

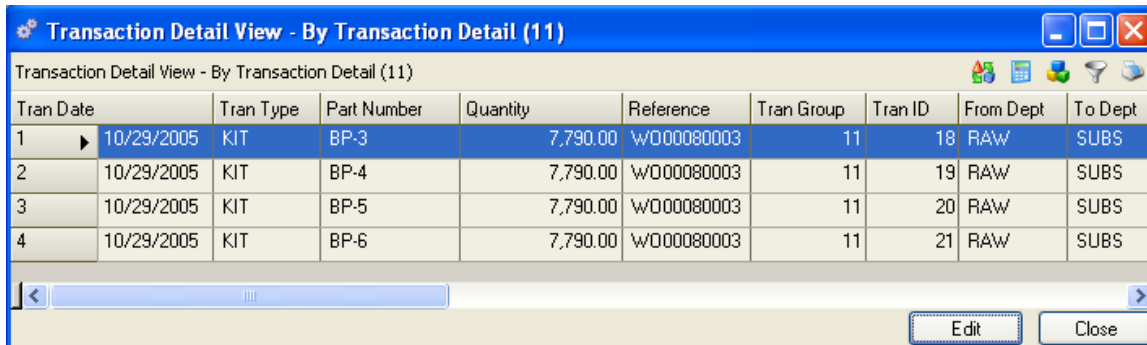
You can add up to 60 characters of additional information about the transaction in this field (you can record and track serial numbers here). This information will display on the Transaction Detail form.

**Transaction Group and Detail Display**

You can display Transaction Group and Transaction Detail in a form rather than a view. Select a Tran Group from Transactions View and select Display Transaction Header in the Related Views sidebar section to display the header form. All Transaction group information is displayed in the form. In addition, you can click the notes tab to add any information about the transactions.



Select Display Transaction Detail in the Related Views sidebar section to display the Transaction Detail View. There may be multiple detail records for the selected header.



**Transaction Detail View**

Because the Transaction Log records all movement of inventory, it creates a very large body of data. Alliance/MFG gives you a number of options for narrowing the categories of data displayed from the Transaction Log.

Tran Date	Tran Type	Part Number	Quantity	Reference	Tran Group	Tran ID	From Dept	To Dept
1	10/29/2005	KIT	BP-3	7,790.00	W000080003	11	18 RAW	SUBS
2	10/29/2005	KIT	BP-4	7,790.00	W000080003	11	19 RAW	SUBS
3	10/29/2005	KIT	BP-5	7,790.00	W000080003	11	20 RAW	SUBS
4	10/29/2005	KIT	BP-6	7,790.00	W000080003	11	21 RAW	SUBS

Transaction Detail includes the part number and description, quantity, transaction ID, to and from department and location information; any SN/Lot numbers applicable; and cost information including the invoice cost, invoice line, if applicable. From here via the sidebar you can drill down or access related data; preview or print a report.

You can also display the Transaction Detail in a form rather than a view. Highlight a Transaction in the view and double click to display the Transaction Detail Form.

Transaction ID	18.00	Line Number	
Transaction Group	11.00	Invoice Line	
Part Number	BP-3	SN/Lot Number	
	Ring, Metal .250 diameter		
Tran Info			
From Department	RAW	To Department	SUBS
From Location	100	To Location	

Transaction Detail			
Quantity	7,790.00	UOM Conversion	1.00
PO Cost	\$0.00	SO Cost	\$0.00
Extended PO Cost	\$0.00	Extended SO Cost	\$0.00
WO Cost	\$0.00	Inventory Cost	\$0.02
Extended WO Cost	\$0.00	Extended Inventory Cost	\$186.96

## Intrastat Reporting

If you do business within the European Monetary Union, the VAT (value added tax) feature will help you track payment and receipt of VAT by region/country and ICN Code. With this feature, you can print reports that summarize payments and receipts by country/region, commodity type, and vendor or customer. Once you enable and complete transactions in the system, you can access the Intrastat Reporting View from the Inventory>Transactions submenu. The following sections explain how to set up your system to use the Intrastat Reporting feature.

### Intrastat Reporting Setup

VAT tracking is optional and will only be enabled when you set it up in Company Preferences. To use **Intrastat Reporting** Tracks Value Added Tax payments and receipts, you must first enable the feature, then tell the system what regions and countries you regularly deal with, what commodity types are used, enter region/country codes for suppliers and customers, and enter a VAT type for each part in your inventory. To do this, set up the following elements. (If you need more detailed information about setting up codes tables, see Setting Up Your Company.)

#### Enable Intrastat Reporting:

1. Select File>Company>Preferences.
2. Click the Accounting tab.
3. Select Require Intrastat.

#### Set up ICN Codes:

1. Select File>Codes>ICN Codes>New.
2. Enter ICN Codes and Descriptions for each material type you plan to sell or buy.

#### Set up Tax Codes:

1. Select File>Codes>Tax Codes.
2. Enter Tax Codes, Tax Rates, Description and Liability accounts for the regions you will do business with.

#### Set up the VAT Region/Country Code:

1. Select File>Codes>Region/Country codes.
2. Enter all regularly used regions and countries into the table.

#### Set up Intrastat Rates Codes:

1. Select File>Codes>Intrastat Rates>New.
2. Select the ICN Codes, Region Codes and Tax Codes that apply. These codes will now appear in tables for entry in Customer and Supplier data entry forms.

#### To set up a customer for VAT Reporting

1. Select Demand>Customer and whatever option you choose to open the Customers data entry form.
2. In the Customer tab, enter a VAT Registration number and VAT Branch ID.

- In the Default Codes tab, enter a Region Code.

**To set up a supplier for VAT Reporting:**

- Select Supply>Supplier and whatever option you choose to open the Supplier's data entry form.
- In the Default Codes tab, enter a Region Code or double-click on the field to choose from the Region Code table.
- Enter a VAT Registration #.

**Set up the Inventory for VAT Reporting:**

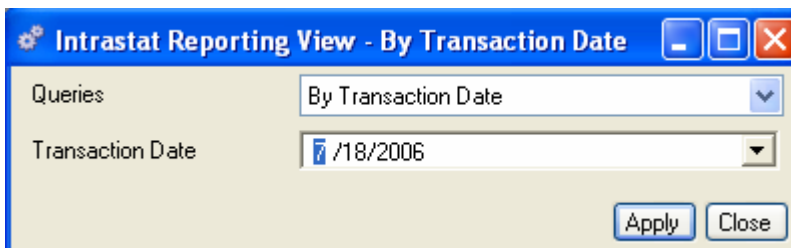
- Open the Part Master data entry form for the part you wish to track.
- Click the Inventory Codes tab.
- Enter the ICN Code or use the hyperlink to select a code from the ICN Code View.

**Using the Intrastat Reporting Feature**

Once you have set up all Intrastat Reporting elements, the system is ready to access the data and record VAT values.

When you create a purchase order, the supplier's region code field will display the default setup for that supplier (this may be overridden at your discretion). The purchase order detail shows the tax rate for that region and the commodity type.

When you receive or return a purchase order, or ship or return a sales order, select Inventory>Transactions>Intrastat Reporting and select a date to review a summary of all transactions for Intrastat Tracking on that date.



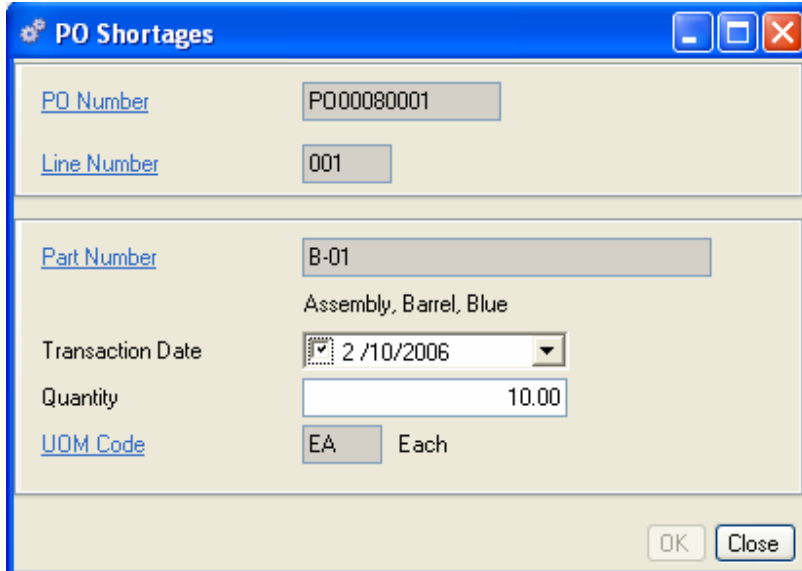
From here via the sidebar or Links button you can drill down or access related data; preview or print a report.

## Shortages

Shortages are created automatically by the system whenever available inventory is insufficient to fully kit a WO or subcontract PO. You can also manually create, edit, or delete shortages at your discretion. All shortages, whether generated by the system or created manually, can be reviewed from the Inventory>Shortages submenu.

### To add a new PO Shortage:

Select Inventory>Shortages>PO Shortages>New to open a blank Purchase Order Shortages data entry form.



The screenshot shows a window titled "PO Shortages" with a blue title bar and standard Windows window controls. The form contains the following fields:

- PO Number:** PO00080001
- Line Number:** 001
- Part Number:** B-01  
Assembly, Barrel, Blue
- Transaction Date:** 2/10/2006 (with a calendar icon)
- Quantity:** 10.00
- UOM Code:** EA Each

At the bottom right of the form are "OK" and "Close" buttons.

1. Enter a PO Number.
2. Enter the Part Number you wish to short.
3. The Transaction date will default to "today's" date, or you can use the calendar box to select a different one.
4. Enter a quantity for the PO shortage.
5. When you have completed your entries, do one of the following:
  - Click Save on the toolbar to save your entries and leave the form open.
  - Click OK to save your entries and return to the Shortages View.
  - Click Close to exit the form without saving.

### To edit an existing PO Shortage:

1. In the Purchase Order Shortages view list, select a part to open the Purchase Order Shortages form for that part.
2. Change the information in the fields as described in the previous paragraphs.
3. When you have completed your entries, do one of the following:
  - Click Save on the toolbar to save your entries and leave the form open.
  - Click OK to save your entries and return to the Shortages View.
  - Click Close to exit the form without saving.



**NOTE:**

*The shortage transaction is also available through the Work Order Kitting and Subcontract Purchase Order features. There, you may partially or completely relieve a shortage for specific orders. (See Supply, for more information about how shortages are created in WO and PO kitting.)*

**Accessing Data from the Shortages submenus**

Once shortages are in the system, Alliance/MFG gives you a number of ways to access the data. You can create or review shortages for POs or WOs from the same menu.

**From the Inventory Menu**

Select Inventory>Shortages to access the Shortages submenus. From here you can go straight to a blank data entry form to create a shortage manually, review existing shortages, or use a predefined query to locate specific records.

**From the PO Shortages View**

The records displayed in the PO or WO Shortages View depend on the query you select.

PO Number	Line Number	Part Number	Part Description	Short Date	Quantity	On Hand Inv	UDM Code	
1	PO00080001	001	B-01	Assembly, Barrel, Blue	2/10/2006	10.00	2,900.00	EA
2	PO05110004	002	CP-1	Ball Point	7/24/2006	110.00	15,000.00	EA
3	PO05110004	002	T-01	Tube, Plastic clear 3.25 inch	7/24/2006	110.00	10,000.00	EA

From here you can add, edit, or delete a record; or via the sidebar or Links button you can drill down or access related data; preview or print a report.

**From the WO Shortages View**

The records displayed in the WO Shortages View depend on the query you select.

WO Number	Part Number	Short Date	Quantity	UDM Code	Part Description	
1	WO00080003	BP-3	11/18/2005	2,210.00	EA	Ring, Metal .250 diameter
2	WO00080003	BP-4	11/18/2005	2,210.00	EA	Clip, Pocket Metal 1.5 inch
3	WO00080003	BP-5	11/18/2005	2,210.00	EA	Barrel, Top Half, Red
4	WO00080003	BP-6	11/18/2005	2,210.00	EA	Barrel, Bottom Half, Red
5	WO05110001	BP-1	11/18/2005	2,000.00	EA	Barrel, Top Half, Blue
6	WO05110001	BP-2	11/18/2005	2,000.00	EA	Barrel, Bottom Half, Blue
7	WO05110001	BP-3	11/18/2005	2,000.00	EA	Ring, Metal .250 diameter
8	WO05110001	BP-4	11/18/2005	2,000.00	EA	Clip, Pocket Metal 1.5 inch
9	WO05110002	B-01	11/22/2005	5,000.00	EA	Assembly, Barrel, Blue
10	WO05110002	C-01	11/22/2005	5,000.00	EA	Assembly, Cartridge, Blue Ink

From here you can add, edit, or delete a record; or via the sidebar or Links button you can drill down or access related data; preview or print a report.

**To create a new WO Shortage:**

Select Inventory>Shortages>WO Shortages>New to open a blank Work Order Shortages data entry form.

The screenshot shows a software window titled "Work Order Shortages". The window contains the following fields and values:

- WO Number:** WO00080002 (with a green checkmark)
- Part Number:** BP-1 (with a green checkmark). Below this field is the text "Barrel, Top Half, Blue".
- Transaction Date:** 7/25/200 (with a calendar icon)
- Quantity:** 20.00 (with a green checkmark)
- UOM Code:** EA (with a green checkmark). To the right of this field is the text "Each".

At the bottom right of the window are two buttons: "OK" and "Close".

1. Enter a WO Number.
2. Enter the Part Number you wish to short.
3. The Transaction date defaults to "today's" date, or you can use the calendar box to select a different one.
4. Enter a quantity for the shortage.
5. When you have completed your entries, do one of the following:
  - Click Save on the toolbar to save your entries and leave the form open.
  - Click OK to save your entries and return to the WO Shortages View.
  - Click Close to exit the form without saving.

**To edit an existing WO shortage:**

1. In the Work Order Shortages View, select a part and click the Edit button to open the Work Order Shortages form for that part.
2. Change the information in the fields as described in the previous paragraphs.
3. Click Close, OK, or Save as appropriate.

**NOTE:**

*The shortage transaction is also available through the Work Order Kitting and Subcontract Purchase Order features. There, you may partially or completely relieve a shortage for specific orders. (See Chapter 6: Supply for more information about how shortages are created in WO and PO kitting transactions.)*



Highlight a record in the view, the On Hand Inventory, all open work orders the part was kitted to, all open purchase orders for that part along with the actual kit transaction will be displayed on the bottom of the form. Click the associated hyperlink to expand the details and perform the necessary research to correct the exception.

Part Number	Part Description	SN/Lot Number	Quantity	UDM	Stockroom	Location	Job Number	Tran Date
1	B-01	Assembly, Barrel, Blue	1000	EA	SUBS	100		7/24/2006

	Stock Quantity	Order Count	Earliest Order
<a href="#">Open Work Orders</a>	30400	7	11/21/2005
<a href="#">Open Purchase Orders</a>	0	0	
<a href="#">Inventory On Hand</a>	2900	N/A	N/A
<a href="#">Transaction</a>	1000	KIT	7/24/2006 5:59 PM

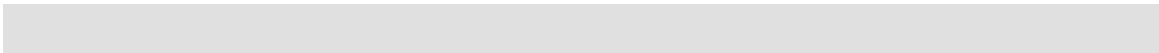
Open Work Orders – Opens View WO Header showing all open work orders for the selected part

Open Purchase Orders – Opens View PO Header showing all open purchase orders for the selected part

Inventory On Hand – Opens View Inventory Lots showing all inventory for the selected part

Transaction – Opens Display Transaction Detail queried by the selected transaction ID.

In this example click the Update Inventory button in the Toolbar and the negative condition should be corrected. If it does not correct the condition, more investigation is required. Verify the correct part was issued to the work order and that all work order completions or purchase order receipts have been processed. A cycle count may be required to correct the problem.



## Physical Inventory

### Physical Inventory and Cycle Counting

Some companies can perform a full physical inventory in one day or maybe over a weekend, unfortunately, others may require a plant shutdown for numerous days resulting in a costly interruption to business. Some companies have no alternative, other than a shutdown, due to external audit requirements, legal reasons, or simply unacceptable inventory accuracy. It is generally suggested that a full physical inventory verification be performed when first implementing Alliance/MFG or any other inventory control software.

You may be able to avoid additional annual plant shutdowns while maintaining or even improving your inventory record accuracy if your CFO and/or Company Auditors agree to accept periodic cycle counting (with a predetermined "acceptable" variance tolerance and counting schedule) in place of the full physical inventory.

Periodic cycle counting can be done using numerous methods. For example, you may plan to count all parts in inventory per a set schedule (monthly, semi-monthly, weekly, etc.) or you may want to count parts by commodity code, product code, source code, ABC Code, etc. You may elect to use the ABC Analysis to classify your parts based on either On-Hand Value, \$ Usage or Part Cost and count by classification (See ABC Analysis). The ABC Analysis will analyze and classify your parts based on the criteria you select. Additionally, it will update the Part Master ABC Code field with the assigned code. You might then establish a cycle counting schedule to count all of your A Parts quarterly, B Parts semi-annually and C Parts annually. The generate count tags feature can utilize the ABC code to generate tags based on your schedule. If the year-end variance recorded by the cycle counts is within the agreed to tolerance at year end, perhaps a costly plant shutdown can be eliminated.

### Establishing Procedures

Before you begin, it is important to establish a detailed policy and procedure to support your Physical Inventory and Cycle Count functions, not only for your initial physical inventory validation, but for every count thereafter to ensure consistency and record accuracy. You must freeze all inventory movement during any physical inventory counting. Therefore, it is important to schedule your inventory counting period when it will have the least impact on your material movement (PO Receipts, WO Kitting, WO Completions, SO Shipments, etc.). Some steps, such as deciding whether to conduct a full physical or perform periodic cycle counting, and freezing inventory movement are external to Alliance/MFG and should be understood and initiated prior to conducting your actual inventory counting.

### Initial Physical Inventory

During your initial implementation, you will want to perform a full physical inventory to validate your starting inventory balances. After you have entered all inventory data into the system, you can generate count tags, using the Full Physical method, and then perform a physical inventory.

NOTE:

*You can use the Import/Export feature to import existing inventory data. See the Technical Reference for more information.*

### Recommended Physical Inventory Maintenance Procedure

Your counting procedure should be documented, approved by your CFO/Accountant and distributed to all employees involved with the counting.

1. Freeze all inventory movement (into and out of stockrooms).

2. Enter all outstanding transactions (receipts, issues, relocate, ship, kit, etc.) to bring your system current.
3. Select a Inventory Counting method (Full Physical or Cycle Counting).
4. Generate count tags. This action records the current inventory balance by part number, sn/lot number, stockroom and location for all items selected.
5. Perform counts. Employees physically note the quantity for each tag generated, and additionally verify the SN/lot number, stockroom and location for each part number.
6. Input counts (edit/review). Enter actual physical counts in the system.
7. Print variance reports. Variance reports tell you the difference between what the system currently shows and what the employees have physically counted.
8. Reconcile variances. Recount parts as necessary.
9. Back up the system.
10. Apply all counts. This updates your system inventory on hand with your reconciled physical count data on the current count tags.

### Performing Inventory Counts

The following sections describe how to generate tags, assign tags to employees, record counts, enter tags and update inventory records using the Alliance/MFG Physical Inventory features.

*NOTE:*

*The Assign Tags to Employee feature is also used by the Alliance RDC (Remote Data Collection) system to allocate and synchronize tags with employees utilizing Mobile Devices (PDA's).*

### Generating Count Tags

#### Tag Numbering

When generating inventory tags, Inventory>Physical Inventory>Generate Count Tags, the First Tag Number field will default to one number higher than the last tag generated. For example, if the last tag number generated was 123 then the First Tag Number will default to 124. You can change this number to any number you want as long as it is higher than the last tag number generated. There is an exception to this restriction if you are re-generating tags without applying the counts. Generating tags will delete any unapplied tags so you may enter the beginning number of the unapplied tags when the Generate Tags screen opens. If you would like to reuse old tag numbers you will first need to purge the existing tag file. Go to File>Database>Import/Export and add a Mass Delete of the "Inventory Tags View" using the "All" query. Once all existing tags have been purged you can enter any first tag number on the Generate Count Tags screen.

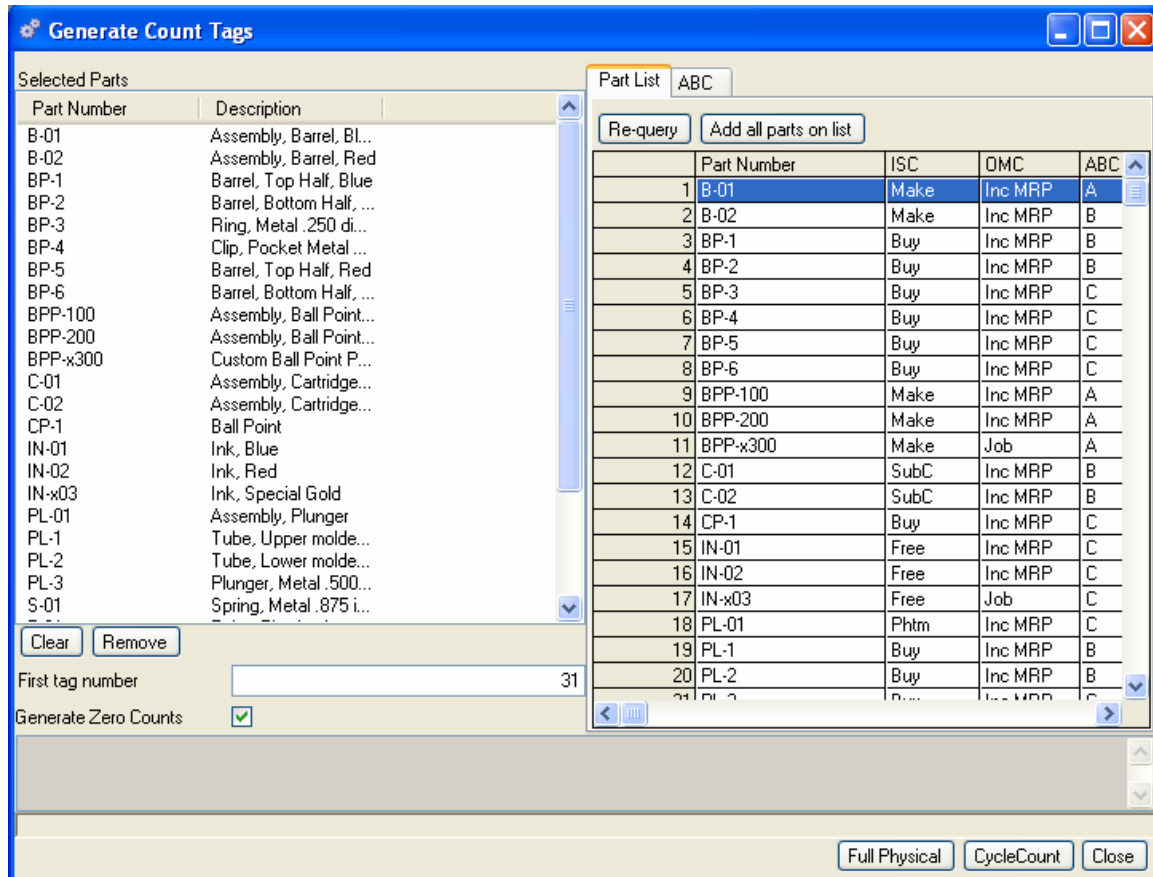
#### **CAUTION!**

***Always use extreme caution and backup your database prior to running any Mass Delete function.***

### To Generate Count Tags

Select Inventory>Physical Inventory>Generate Count Tags to open the Generate Count Tags dialog box.

Click the Re-query button on the Part List tab to query the Part Master file. You can limit your count tags to a specific part or range of parts. The queried parts will appear in the Part List tab on the right side of the dialog box. If you are performing a full physical count you may either select "All" from the query list or click the Full Physical button at the bottom of the screen. If you clicked the Full Physical button at the bottom of the screen the tags will be generated but the part list will not appear on the right side of the screen. If you use ABC Codes to generate tags, click the ABC Tab.



Select the parts to count. You may drag and drop individual parts from the list to the Selected Parts work area.

Click the Add all parts on list button to add the parts to the Selected Parts work area on the left side of the dialog box. Once you have added parts to the work area, you can use the buttons on the bottom of the Selected Parts area to further define which parts you wish to generate count tags for.

### Buttons

**Clear** – Clears all selected parts from the left display box.

**Remove** – Highlight a part and select Remove to remove one part.

**Add All Parts on List** – This will include all parts from the Part List tab.

**Add Parts from ABC** – Adds any ABC parts you have defined in the ABC tab. Please see ABC counts later in this section for more information about performing ABC counts.

**Select Full Physical** to generate tags for all parts in your database. Non-inventory items, ISC = N (non-stock) or ISC = P (phantom assembly), will not be included.

**Select Cycle Count** to select the parts that you want to be counted during the current inventory period. Cycle counting intervals are determined by your company and can be performed as frequently as you like (daily, weekly, monthly, and so on).

The inventory tag system reviews all stockrooms and locations and creates a Tag # and detail information for every part added to the Selected Parts list.

**Freeze all inventory movement**

Once tags are generated, permit no material or parts movement (receipts or issues, for example) until the counting is complete. To ensure data integrity, a material cutoff procedure must be observed. If you receive a part after tags are generated and prior to counting that part, do not process or enter the receipt or the system will enter it twice: once as a receipt and once as a part of the count.

**Pre-Assigning Count Tags to Counters**

Select Inventory>Physical Inventory>Edit/Review Counts

Tag Number	Count Quanti	Counter	Counted	Part Number	Part Description	Stockroom	Location	SN/Lot Number
1	000092	0	<input type="checkbox"/>	B-01	Assembly, Barrel, Blue	SA-1	100	
2	000093	0	<input type="checkbox"/>	B-02	Assembly, Barrel, Red	SA-1	100	
3	000094	0	<input type="checkbox"/>	BP-1	Barrel, Top Half, Blue	RAW	100	
4	000095	0	<input type="checkbox"/>	BP-2	Barrel, Bottom Half, Blue	RAW	100	
5	000096	0	<input type="checkbox"/>	BP-3	Ring, Metal .250 diameter	RAW	100	
6	000097	0	<input type="checkbox"/>	BP-4	Clip, Pocket Metal 1.5 inch	RAW	100	
7	000098	0	<input type="checkbox"/>	BP-5	Barrel, Top Half, Red	RAW	100	
8	000099	0	<input type="checkbox"/>	BP-6	Barrel, Bottom Half, Red	RAW	100	
9	000100	0	<input type="checkbox"/>	BPP-100	Assembly, Ball Point Pen...	PENS	100	
10	000101	0	<input type="checkbox"/>	BPP-100	Assembly, Ball Point Pen...	PENS	100	FEN-105
11	000102	0	<input type="checkbox"/>	BPP-200	Assembly, Ball Point Pen...	PENS	100	
12	000103	0	<input type="checkbox"/>	BPP-x300	Custom Ball Point Pen, Re...	PENS	200	
13	000104	0	<input type="checkbox"/>	C-01	Assembly, Cartridge, Blue...	SA-2	100	
14	000105	0	<input type="checkbox"/>	C-02	Assembly, Cartridge, Red I...	SA-2	100	
15	000106	0	<input type="checkbox"/>	CP-1	Ball Point	RAW	100	
16	000107	0	<input type="checkbox"/>	IN-01	Ink, Blue	RAW	100	
17	000108	0	<input type="checkbox"/>	IN-02	Ink, Red	RAW	100	
18	000109	0	<input type="checkbox"/>	IN-x03	Ink, Special Gold	RAW	200	
19	000110	0	<input type="checkbox"/>	PL-01	Assembly, Plunger	SA-1	100	
20	000111	0	<input type="checkbox"/>	PL-1	Tube, Upper molded plasti...	RAW	100	

You can assign tags individually, one at a time, to an employee for counting or utilize the customization features built into the Inventory Tags Editable View to assign tags. If you want to assign tags to Counter 1, Counter 2 or John Doe, just type that name in the counter column.



NOTE:


The absence of validation on the "Counter" field allows your company to hire temporary employees to assist with Physical Inventory or assign generic counter designations if desired.

In the example below we will assign tags using the authorized employee list. First sort the newly generated tags into stockroom order by clicking on the Stockroom column header. File>Company>Employees>Detail Tab>Employee Functions> Inventory Accuracy checkbox is checked.

Tag Number	Count Quantity	Counter	Counted	Part Number	Part Description	Stockroom	Location	Frozen Quantity
1	000053	0	<input type="checkbox"/>	S-01	Spring, Metal .875 inch	ENG	cap	0.479999999999...
2	000039	0	<input type="checkbox"/>	BPP-100	Assembly, Ball Point Pen,...	PENS	100	200
3	000040	0	<input type="checkbox"/>	BPP-100	Assembly, Ball Point Pen,...	PENS	100	1400
4	000041	0	<input type="checkbox"/>	BPP-200	Assembly, Ball Point Pen,...	PENS	100	1000
5	000042	0	<input type="checkbox"/>	BPP-x300	Custom Ball Point Pen, Re...	PENS	200	0
6	000033	0	<input type="checkbox"/>	BP-1	Barrel, Top Half, Blue	RAW	100	3999
7	000034	0	<input type="checkbox"/>	BP-2	Barrel, Bottom Half, Blue	RAW	100	17900
8	000035	0	<input type="checkbox"/>	BP-3	Ring, Metal .250 diameter	RAW	100	10000
9	000036	0	<input type="checkbox"/>	BP-4	Clip, Pocket Metal 1.5 inch	RAW	100	10000
10	000037	0	<input type="checkbox"/>	BP-5	Barrel, Top Half, Red	RAW	100	8310
11	000038	0	<input type="checkbox"/>	BP-6	Barrel, Bottom Half, Red	RAW	100	5210
12	000045	0	<input type="checkbox"/>	CP-1	Ball Point	RAW	100	15000
13	000046	0	<input type="checkbox"/>	IN-01	Ink, Blue	RAW	100	2324
14	000047	0	<input type="checkbox"/>	IN-02	Ink, Red	RAW	100	4168
15	000048	0	<input type="checkbox"/>	IN-x03	Ink, Special Gold	RAW	200	200
16	000050	0	<input type="checkbox"/>	PL-1	Tube, Upper molded plasti...	RAW	100	8999
17	000051	0	<input type="checkbox"/>	PL-2	Tube, Lower molded plasti...	RAW	100	12999
18	000052	0	<input type="checkbox"/>	PL-3	Plunger, Metal .500 inch	RAW	100	7999
19	000054	0	<input type="checkbox"/>	S-01	Spring, Metal .875 inch	RAW	100	2400
20	000056	0	<input type="checkbox"/>	TR-01	Tubing, Clear Plastic, Full...	RAW	100	2811.66666666...

The next step is to highlight the tags you want counted by the employee. We will select the tags associated with the stockrooms ENG and PENS by highlighting the first record, holding down the shift key, and highlighting the last record you want to assign to this employee. Highlighting is done by clicking in the row grid number column (far left side).

Tag Number	Count Quantity	Counter	Counted	Part Number	Part Description	Stockro	Location	Frozen Quantity
1	000053	0	<input type="checkbox"/>	S-01	Spring, Metal .875 inch	ENG	cap	0.479999999999...
2	000039	0	<input type="checkbox"/>	BPP-100	Assembly, Ball Point Pen,...	PENS	100	200
3	000040	0	<input type="checkbox"/>	BPP-100	Assembly, Ball Point Pen,...	PENS	100	1400
4	000041	0	<input type="checkbox"/>	BPP-200	Assembly, Ball Point Pen,...	PENS	100	1000
5	000042	0	<input type="checkbox"/>	BPP-x300	Custom Ball Point Pen, Re...	PENS	200	0
6	000033	0	<input type="checkbox"/>	BP-1	Barrel, Top Half, Blue	RAW	100	3999
7	000034	0	<input type="checkbox"/>	BP-2	Barrel, Bottom Half, Blue	RAW	100	17900
8	000035	0	<input type="checkbox"/>	BP-3	Ring, Metal .250 diameter	RAW	100	10000
9	000036	0	<input type="checkbox"/>	BP-4	Clip, Pocket Metal 1.5 inch	RAW	100	10000
10	000037	0	<input type="checkbox"/>	BP-5	Barrel, Top Half, Red	RAW	100	8310
11	000038	0	<input type="checkbox"/>	BP-6	Barrel, Bottom Half, Red	RAW	100	5210
12	000045	0	<input type="checkbox"/>	CP-1	Ball Point	RAW	100	15000
13	000046	0	<input type="checkbox"/>	IN-01	Ink, Blue	RAW	100	2324
14	000047	0	<input type="checkbox"/>	IN-02	Ink, Red	RAW	100	4168
15	000048	0	<input type="checkbox"/>	IN-x03	Ink, Special Gold	RAW	200	200
16	000050	0	<input type="checkbox"/>	PL-1	Tube, Upper molded plasti...	RAW	100	8999
17	000051	0	<input type="checkbox"/>	PL-2	Tube, Lower molded plasti...	RAW	100	12999
18	000052	0	<input type="checkbox"/>	PL-3	Plunger, Metal .500 inch	RAW	100	7999
19	000054	0	<input type="checkbox"/>	S-01	Spring, Metal .875 inch	RAW	100	2400
20	000056	0	<input type="checkbox"/>	TR-01	Tubing, Clear Plastic, Full...	RAW	100	2811.666666666...

Next click on the Assign Counter icon  in the grid header. This will display a list of all employees authorized to perform Inventory Counts.

Employee ID	First Name	Last Name
1	Elizabeth	Sorensen
2	Nicolas	Weitz
3	Kyle	Morgan
4	Ellen	Hailey
5	Katya	Marenko

Double click or highlight the desired employee and click on the Select button. This will assign the selected inventory tags to the selected employee.

Tag Number	Count Quantity	Counter	Counted	Part Number	Part Description	Stockro	Location	Frozen Quantity
1	000053	0	30-EWS	S-01	Spring, Metal .875 inch	ENG	cap	0.479999999999...
2	000039	0	30-EWS	BPP-100	Assembly, Ball Point Pen,...	PENS	100	200
3	000040	0	30-EWS	BPP-100	Assembly, Ball Point Pen,...	PENS	100	1400
4	000041	0	30-EWS	BPP-200	Assembly, Ball Point Pen,...	PENS	100	1000
5	000042	0	30-EWS	BPP-x300	Custom Ball Point Pen, Re...	PENS	200	0
6	000033	0		BP-1	Barrel, Top Half, Blue	RAW	100	3999
7	000034	0		BP-2	Barrel, Bottom Half, Blue	RAW	100	17900
8	000035	0		BP-3	Ring, Metal .250 diameter	RAW	100	10000
9	000036	0		BP-4	Clip, Pocket Metal 1.5 inch	RAW	100	10000
10	000037	0		BP-5	Barrel, Top Half, Red	RAW	100	8310
11	000038	0		BP-6	Barrel, Bottom Half, Red	RAW	100	5210
12	000045	0		CP-1	Ball Point	RAW	100	15000
13	000046	0		IN-01	Ink, Blue	RAW	100	2324
14	000047	0		IN-02	Ink, Red	RAW	100	4168
15	000048	0		IN-x03	Ink, Special Gold	RAW	200	200
16	000050	0		PL-1	Tube, Upper molded plasti...	RAW	100	8999
17	000051	0		PL-2	Tube, Lower molded plasti...	RAW	100	12999
18	000052	0		PL-3	Plunger, Metal .500 inch	RAW	100	7999
19	000054	0		S-01	Spring, Metal .875 inch	RAW	100	2400
20	000056	0		TR-01	Tubing, Clear Plastic, Full...	RAW	100	2811.666666666...

Notice that the Counter column is now filled in with the employee ID. Continue to highlight tags and assign them to employees until you are finished.

The Assigned Tags are now ready to be handed out to employees or synchronized with Mobile devices utilized in the RDC system.

Tag Number	Count Quantity	Counter	Counted	Part Number	Part Description	Stockro	Location	Frozen Quantity
7	000034	0	40-NAW	BP-2	Barrel, Bottom Half, Blue	RAW	100	17900
8	000035	0	40-NAW	BP-3	Ring, Metal .250 diameter	RAW	100	10000
9	000036	0	40-NAW	BP-4	Clip, Pocket Metal 1.5 inch	RAW	100	10000
10	000037	0	40-NAW	BP-5	Barrel, Top Half, Red	RAW	100	8310
11	000038	0	40-NAW	BP-6	Barrel, Bottom Half, Red	RAW	100	5210
12	000045	0	40-NAW	CP-1	Ball Point	RAW	100	15000
13	000046	0	44-KNM	IN-01	Ink, Blue	RAW	100	2324
14	000047	0	44-KNM	IN-02	Ink, Red	RAW	100	4168
15	000048	0	44-KNM	IN-x03	Ink, Special Gold	RAW	200	200
16	000050	0	44-KNM	PL-1	Tube, Upper molded plasti...	RAW	100	8999
17	000051	0	44-KNM	PL-2	Tube, Lower molded plasti...	RAW	100	12999
18	000052	0	44-KNM	PL-3	Plunger, Metal .500 inch	RAW	100	7999
19	000054	0	44-KNM	S-01	Spring, Metal .875 inch	RAW	100	2400
20	000056	0	44-KNM	TR-01	Tubing, Clear Plastic, Full...	RAW	100	2811.666666666...
21	000031	0	80-EMH	B-01	Assembly, Barrel, Blue	SA-1	100	2900
22	000032	0	80-EMH	B-02	Assembly, Barrel, Red	SA-1	100	4210
23	000049	0	80-EMH	PL-01	Assembly, Plunger	SA-1	100	0
24	000055	0	80-EMH	T-01	Tube, Plastic clear 3.25 in...	SA-1	100	10000
25	000043	0	80-EMH	C-01	Assembly, Cartridge, Blue...	SA-2	100	15000
26	000044	0	80-EMH	C-02	Assembly, Cartridge, Red I...	SA-2	100	6300

**Printing the Inventory Tags View**

To print the above Inventory Tags View for distribution to employees:

1. Resize and move the columns to where they are easiest to read and understand. You can also hide (collapse) any column data you don't want the Counter to see (Frozen Quantity?).
2. Click on the Printer icon in Inventory Tags View grid header. See Alliance/MFG Window Types if you are not familiar with printing directly from data views.

Tag Number	Count Quanti	Counter	C	Part Number	Part Description	Stockro	Location	SN/Lot	Job Numb	F V
1	000031	0	80-EMH	B-01	Assembly, Barrel, Blue	SA-1	100			
2	000032	0	80-EMH	B-02	Assembly, Barrel, Red	SA-1	100			
3	000033	0	40-NAW	BP-1	Barrel, Top Half, Blue	RAW	100			
4	000034	0	40-NAW	BP-2	Barrel, Bottom Half, Blue	RAW	100			
5	000035	0	40-NAW	BP-3	Ring, Metal .250 diameter	RAW	100			
6	000036	0	40-NAW	BP-4	Clip, Pocket Metal 1.5 inch	RAW	100			
7	000037	0	40-NAW	BP-5	Barrel, Top Half, Red	RAW	100			
8	000038	0	40-NAW	BP-6	Barrel, Bottom Half, Red	RAW	100			
9	000039	0	30-EWS	BPP-100	Assembly, Ball Point Pen...	PENS	100			
10	000041	0	30-EWS	BPP-200	Assembly, Ball Point Pen...	PENS	100			
11	000042	0	30-EWS	BPP-x300	Custom Ball Point Pen, R...	PENS	200			
12	000043	0	80-EMH	C-01	Assembly, Cartridge, Blu...	SA-2	100			
13	000044	0	80-EMH	C-02	Assembly, Cartridge, Red...	SA-2	100			
14	000045	0	40-NAW	CP-1	Ball Point	RAW	100			
15	000046	0	44-KNM	IN-01	Ink, Blue	RAW	100			
16	000047	0	44-KNM	IN-02	Ink, Red	RAW	100			
17	000048	0	44-KNM	IN-x03	Ink, Special Gold	RAW	200			
18	000049	0	80-EMH	PL-01	Assembly, Plunger	SA-1	100			
19	000050	0	44-KNM	PL-1	Tube, Upper molded plas...	RAW	100			
20	000051	0	44-KNM	PL-2	Tube, Lower molded plas...	RAW	100			
21	000052	0	44-KNM	PL-3	Plunger, Metal .500 inch	RAW	100			
22	000053	0	30-EWS	S-01	Spring, Metal .875 inch	ENG	cap			
23	000054	0	44-KNM	S-01	Spring, Metal .875 inch	RAW	100			
24	000055	0	80-EMH	T-01	Tube, Plastic clear 3.25 i.	SA-1	100			
25	000056	0	44-KNM	TR-01	Tubing, Clear Plastic, Full...	RAW	100			
26	000040	0	30-EWS	BPP-100	Assembly, Ball Point Pen...	PENS	100	FEN-10...	FEN-105	

**Printing the Count Tags Report**

With the Inventory Tags Editable View open, click on the Print Tags hyperlink in the Related Links Sidebar, Actions section. This will open the following report. Click Print

**Cycle Count / Physical Inventory Tag**

Tag #	Stockroom	Location	Part Number	Serial/Lot Number	Job Number
000092	SA-1	100	B-01 Assembly, Barrel, Blue	Rev: A	UOM Code: EA
<b>Current Inventory</b>		2,900.00	<b>Counted By</b>	<b>Count Quantity</b>	

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**Cycle Count / Physical Inventory Tag**

Tag #	Stockroom	Location	Part Number	Serial/Lot Number	Job Number
000093	SA-1	100	B-02 Assembly, Barrel, Red	Rev: A	UOM Code: EA

## Perform Counts

### Freeze all inventory movement

Once tags are generated, permit no material or parts movement (receipts or issues, for example) until the counting is complete. To ensure data integrity, a material cutoff procedure must be observed. If you receive a part after tags are generated and prior to counting that part, do not process or enter the receipt or the system will enter it twice: once as a receipt and once as a part of the count.

### Perform Counts

Have inventory counters physically count inventory and record quantities. Care should be taken to ensure accuracy. Enter the counts during the Edit/Review process below.

## Reviewing and Editing Counts

### Edit/Review Counts

Select Inventory>Physical Inventory>Edit/Review Counts to review the most recent count tags generated. The Inventory Tags Editable View allows editing directly in the grid. This replaces the old Inventory Tag Entry screen. Additionally you have all of the sorting, filtering, summarizing capabilities explained in the section on Alliance/MFG Window Types.

Tag Number	Count Quantity	Counter	Counted	Part Number	Part Description	Stockroom	Location	Frozen Quantity
1	000031	0	<input checked="" type="checkbox"/>	B-01	Assembly, Barrel, Blue	SA-1	100	2900
2	000032	0	<input type="checkbox"/>	B-02	Assembly, Barrel, Red	SA-1	100	4210
3	000033	0	<input type="checkbox"/>	BP-1	Barrel, Top Half, Blue	RAW	100	3999
4	000034	0	<input type="checkbox"/>	BP-2	Barrel, Bottom Half, Blue	RAW	100	17900
5	000035	0	<input type="checkbox"/>	BP-3	Ring, Metal .250 diameter	RAW	100	10000
6	000036	0	<input type="checkbox"/>	BP-4	Clip, Pocket Metal 1.5 inch	RAW	100	10000
7	000037	0	<input type="checkbox"/>	BP-5	Barrel, Top Half, Red	RAW	100	8310
8	000038	0	<input type="checkbox"/>	BP-6	Barrel, Bottom Half, Red	RAW	100	5210
9	000039	0	<input type="checkbox"/>	BPP-100	Assembly, Ball Point Pen,...	PENS	100	200
10	000040	0	<input type="checkbox"/>	BPP-100	Assembly, Ball Point Pen,...	PENS	100	1400
11	000041	0	<input type="checkbox"/>	BPP-200	Assembly, Ball Point Pen,...	PENS	100	1000
12	000042	0	<input type="checkbox"/>	BPP-x300	Custom Ball Point Pen, Re...	PENS	200	0
13	000043	0	<input type="checkbox"/>	C-01	Assembly, Cartridge, Blue...	SA-2	100	15000
14	000044	0	<input type="checkbox"/>	C-02	Assembly, Cartridge, Red I...	SA-2	100	6300
15	000045	0	<input type="checkbox"/>	CP-1	Ball Point	RAW	100	15000
16	000046	0	<input type="checkbox"/>	IN-01	Ink, Blue	RAW	100	2324
17	000047	0	<input type="checkbox"/>	IN-02	Ink, Red	RAW	100	4168
18	000048	0	<input type="checkbox"/>	IN-x03	Ink, Special Gold	RAW	200	200
19	000049	0	<input type="checkbox"/>	PL-01	Assembly, Plunger	SA-1	100	0
20	000050	0	<input type="checkbox"/>	PL-1	Tube, Upper molded plasti...	RAW	100	8999

**Entering counts via the Inventory Tags Editable View**

Select a tag by clicking on the Tag Number field, tab into or double click the Count Quantity field. Enter the Count Quantity in the Count column. When you exit the Count field the Counted checkbox will automatically be checked by the system.

**CAUTION!**

***If you entered a zero (0) in the count field you will need to manually check the Counted Box.***

Tab to the Counter column, type the counter name ( you can assign tags to Counter 1, Counter 2 or John Doe) in the counter column or enter the Employee ID or click on the eyeglass icon (right side of Counter column) to drill down to the authorized employee list. This will display a list of all employees authorized to perform Inventory Counts. File>Company>Employees>Detail Tab>Employee Functions> Inventory Accuracy checkbox is checked.

**NOTE:**

*The absence of validation on the "Counter" field allows your company to hire temporary employees to assist with Physical Inventory or assign generic counter designations if desired.*

In the example below we have entered tags for Counter 1 and are now using the authorized employee list to select counters.

Tag Number	Count Quanti	Counter	Counted	Part Number	Part Description	Stockroom	Location	SN/Lot Number	
1	000092	2900	Counter 1	<input checked="" type="checkbox"/>	B-01	Assembly, Barrel, Blue	SA-1	100	
2	000093	4200	Counter 1	<input checked="" type="checkbox"/>	B-02	Assembly, Barrel, Red	SA-1	100	
3	000094	4000	Counter 1	<input checked="" type="checkbox"/>	BP-1	Barrel, Top Half, Blue	RAW	100	
4	000095	18200	Counter 1	<input checked="" type="checkbox"/>	BP-2	Barrel, Bottom Half, Blue	RAW	100	
5	000096	10000	Counter 1	<input checked="" type="checkbox"/>	BP-3	Ring, Metal .250 diameter	RAW	100	
6	000097	10000		<input checked="" type="checkbox"/>	BP-4	Clip, Pocket Metal 1.5 inch	RAW	100	
7	000098	0		<input type="checkbox"/>	BP-5	Barrel, Top Half, Red	RAW	100	
8	000099	0		<input type="checkbox"/>	BP-6	Barrel, Bottom Half, Red	RAW	100	
9							PENS	100	
10							PENS	100	FEN-105
11							PENS	100	
12							PENS	200	
13							SA-2	100	
14							SA-2	100	
15							RAW	100	
16							RAW	100	
17	000108	0		<input type="checkbox"/>	IN-02	Ink, Red	RAW	100	
18	000109	0		<input type="checkbox"/>	IN-x03	Ink, Special Gold	RAW	200	
19	000110	0		<input type="checkbox"/>	PL-01	Assembly, Plunger	SA-1	100	
20	000111	0		<input type="checkbox"/>	PL-1	Tube, Upper molded plasti..	RAW	100	

Highlight the desired employee and double click on the row number in the grid or click on the Select button. The Variance Quantity and Variance Cost columns will be automatically updated when the actual count is entered.

When you have entered all of the counts and are satisfied the data is accurate, click on the Save button (always Save before Applying the count tags).

### Creating a Tag for a part not on the Inventory Tags List

This method is used when counting is still in progress and tag counts have not been applied. With the Inventory Tags Grid open, click on the Create Tag hyperlink in the Related Links Sidebar, Actions section. This will open the following blank tag edit screen.

The screenshot shows a software window titled "Inventory Tags". The window contains several input fields and buttons. The "Tag Number" field contains "000031". The "Entered By" field contains "SUPERVIS". The "Part Number" field is empty and has a red "X" icon to its left. Below this, there are two more empty fields, "Stockroom" and "Location", each with a red "X" icon to its left. The "SN/Lot Number" and "Job Number" fields are also empty. The "Frozen Quantity" field contains "0" and the "Freeze Date" field contains "7/19/2006 10:50:07 AM". The "Count Quantity" field contains "0" and the "Counted?" checkbox is unchecked. The "Counted By" field is empty. At the bottom right of the window are "OK" and "Close" buttons.

3. The next sequential tag number will be defaulted to one number higher than the last tag generated.
4. The name of the person creating the new tag is defaulted.
5. Enter the Part Number, or use the hyperlink to select one from the Part Master View.
6. Enter the Department, Location, any SN/Lot Number or Job Number you want to count. Duplicate tags can not be generated for existing tags that have not been applied.
7. The Frozen Quantity will be defaulted to zero and then updated after you enter the part number, stockroom and location. You cannot edit this field.
8. Enter the Count Quantity.
9. Enter the Employee ID in the Counted By.
10. When you are finished, click OK to save your entries and exit the form.

### Alliance RDC (Remote Data Collection)

#### If you are using the Alliance RDC with Mobile Devices

If you are using the Alliance RDC with Mobile Devices the count tags will be downloaded to the HHD (Hand Held Device) counted and then uploaded to Alliance/MFG via Microsoft ActiveSync and the data automatically updated and saved. See the Alliance RDC Users Guide for instructions on performing inventory counts with mobile devices.

#### NOTE:

*Alliance RDC is not part of Alliance/MFG. It can be purchased separately from Account Management. See the Contacting Alliance section of the Alliance/MFG Help System.*



## Variance Analysis

After all counts have been saved you can use the Inventory Tags Editable View to reorganize, group, sort and summarize the variance amounts and costs by employee or in total as a company. You can reorganize and summarize for the current tags only or use the Drop Down List box in the Toolbar to select All Tags. Selecting All Tags will display all tags that have been applied since the last time tags were deleted (usually at fiscal year-end).

### Print the Variance Report

The Variance report is a useful tool to ensure the physical count data is entered correctly before it is applied to your database. It displays both value and quantities for each part. Review the Variance Report carefully for any discrepancies. For example, if you missed entering a quantity for a Count Tag, the Inventory Quantity will show the quantity when count tags were generated and the Count Quantity will show zero. If you apply count tags as is, the system will adjust your inventory quantity to zero! To avoid this, be sure to review the Variance Report for such discrepancies and edit or recount as required before you apply the counts.

### How Variances are Applied in the System

The Variance Report may show an inventory quantity of 100, with a physical count of 150. If you have verified that the physical count is correct, the system will reconcile this variance when you apply counts. The resulting transaction would be posted to the Transaction Log as a Physical Inventory Positive Adjustment (PIP). If the report shows the inventory quantity of 100 and the physical count is in fact 50, the system would reconcile this variance by posting a Physical Inventory Negative Adjustment (PIN) to the Transaction Log. Physical Inventory Adjustment Transactions are passed to your financial package if you purchased an Alliance/MFG Accounting Link.

### To run a Variance Report:

Select Inventory>Reports>Physical Inventory>Variance Report>Current Counts. You can preview the report on screen or print a hard copy.

### Apply Counts

When you are satisfied that the count quantity data in your count tags is correct, you are ready to apply the counts to your system inventory. This will update the quantity on hand values in your inventory records.

### **CAUTION!**

***Applying counts will make permanent adjustments to your on-hand inventory. We strongly recommend making a backup before applying your counts.***

### To Apply Counts

11. Backup your system using your standard procedures for backing up your Alliance/MFG database.
12. Select Inventory>Physical Inventory>Apply Counts.
13. Select a Department Code and Account Number to apply to your Variances.
14. Click Apply Counts. The system updates all inventory quantities for the count tags created.

**WARNING:**

***The Count Quantity on an Inventory Tag overwrites the quantity field in the inventory lots table. Applying Counts with tags that were not counted will apply a count of zero. (The quantity on-hand will be adjusted to zero for that tag's part, stockroom, and location).***

**TIP:**

**ACCOUNTING FOR WIP DURING PHYSICAL INVENTORY**

*When you kit a work order, the raw materials (or component) parts are moved from the actual stockroom to the WIP account. You can view which items are in process from the Work in Process. View (select Shop>Work in Process, All, By Part Number or By Work Order.) Because "In-Process" parts are not truly their original part number, but not yet their finished goods part number, these parts are usually handled separately in the Physical Inventory process. They are valued as a raw materials part plus the value of the labor added to date. The Work in Process reports found under the Shop menu will help you determine the value of your WIP inventory.*

## ABC Analysis

You can analyze your entire parts inventory and classify all records in relative order of importance according to value definitions you decide. When you enter parts in the Part Master, you have the option to classify them as Highest Relative Value, Medium Relative Value, or Lowest Relative Value. You can also do this by running an ABC Analysis. You have the option to calculate either Year-To-Date Use, QOH Value, QOH Net Value, or Unit Cost. The analysis sorts your parts by the parameter (percent of parts) you set, and tells you how many A, B, and C parts make up that parameter.

This tool is useful to establish inventory handling policies based upon ABC analysis, and to help you focus action in the areas of highest return.

For example, an ABC analysis calculated by Unit Cost might show the following:

20% of the parts represent 80% of the value (A parts).

30% of the parts represent 15% of the value (B parts).

50% of the parts represent 5% of the value (C parts).

### How ABC Analysis Calculates Value

ABC analysis multiplies the quantity by the cost, and sorts the part numbers in descending order by the resulting extended value.

Number of parts	Percent of parts	Percent usage	Minimum value	Number of A Parts	Number of B Parts	Number of C Parts
1	5	22.8011049036996	8891	1	0	0
3	10	60.6830218405395	6666	3	0	0
4	15	68.0624897645102	2878	3	1	0
6	20	80.0726686727846	1966	4	2	0
7	25	84.8186075285264	1851	4	3	0
8	30	86.9342773174242	825	4	4	0
10	35	90.7528433082854	664	4	6	0
11	40	92.4557395102487	664	4	7	0
13	45	94.791887735632	416	4	7	2
14	50	95.8176670272188	400	4	7	3
15	55	96.8434463188057	400	4	7	4
17	60	98.2180418584966	204	4	7	6
18	65	98.7411892972059	204	4	7	7
20	70	99.4998813063869	134	4	7	9
21	75	99.7819706115733	110	4	7	10
22	80	99.8948063336479	44	4	7	11
24	85	100	0	4	7	13
25	90	100	0	4	7	14
27	95	100	0	4	7	16
28	100	100	0	4	7	17

Displaying results  
Completed Successfully

Clear All Selections    A - Highest Relative Value    B - Medium Relative Value    C - Lowest Relative Value    Close

In the example, we ran ABC Analysis using the YTD Usage Value. You can see that 20% of the parts comprise 77% of the value.

It is then a simple task to select the items based on value and assign them Highest, Medium, or Lowest Relative value. When you click Apply, these value breakdowns (highest, medium, and lowest relative value) replace any ABC values assigned in the Part Master.

## Calculating ABC

When you calculate ABC, based on QOH Value for example, the ABC Analysis data form shows you the Number of parts, the Percent of parts, the Percent dollar usage, the Minimum dollar value; and then the number of A, B, and C parts in each category.

### To calculate ABC parts:

1. Select Inventory>ABC Analysis. A blank ABC Analysis form opens.
2. Set the Percent of parts you want the analysis displayed in (Top right side of window). In the example on the previous page, we set Percent of parts to "5," which groups parts in 5% increments. (See Setting the Percent of Parts Parameter, later in this section for more information about how this setting is used.)
3. Select the value you wish to calculate by: YTD Usage, QOH Value, QOH Net Value, or Unit Cost. The calculation runs, showing progress in the progress bar.

## Applying ABC Values

You could arbitrarily apply ABC values for each part from the Part Master. However, you can use the ABC Analysis to calculate actual relative values based on YTD Usage, QOH Value, QOH Net Value, or Unit Cost. When you apply the values via the ABC Analysis function, they will override any manual ABC entries in the Part Master.

### To apply relative ABC values:

1. Calculate ABC as described in the previous section.
2. Select the bottom line you wish to assign to the highest relative value group (A Parts).
3. Click the A Highest Relative Value button.
4. Continue to select lines and assign relative values until you have assigned Highest, Medium, and Lowest value to all the parts.

**By YTD Usage Value** [Min] [Max] [Close]

By YTD Usage Value | By QOH Value | By QOH Net Value | By Unit Cost | Percent of parts: 5 [OK] [Cancel]

Number of parts	Percent of parts	Percent usage	Minimum value	Number of A Parts	Number of B Parts	Number of C Parts
1	5	22.8011049036996	8891	1	0	0
3	10	60.6830218405395	6666	3	0	0
4	15	68.0624897645102	2878	4	0	0
6	20	80.0726686727846	1966	6	0	0
7	25	84.8186075285264	1851	6	1	0
8	30	86.9342773174242	825	6	2	0
10	35	90.7528433082854	664	6	4	0
11	40	92.4557395102487	664	6	5	0
13	45	94.791887735632	416	6	7	0
14	50	95.8176670272188	400	6	8	0
15	55	96.8434463188057	400	6	8	1
17	60	98.2180418584966	204	6	8	3
18	65	98.7411892972059	204	6	8	4
20	70	99.4998813063869	134	6	8	6
21	75	99.7819706115733	110	6	8	7
22	80	99.8948063336479	44	6	8	8
24	85	100	0	6	8	10
25	90	100	0	6	8	11
27	95	100	0	6	8	13
28	100	100	0	6	8	14

Displaying results  
Completed Successfully

Clear All Selections | A - Highest Relative Value | B - Medium Relative Value | **C - Lowest Relative Value** | Close

Click the Save button on the toolbar, the new values will replace any values assigned to parts in the Part Master.

**Setting the Percent of Parts Parameter**

If you have a large number of parts, you can summarize your ABC parts list to simplify analysis. For example, if you have 1000 parts in your Part Master and enter 5 in the Percent of parts field, you will have 200 lines of data, rather than 1000 lines, each representing 50 of your parts. If you have 10000 parts and enter 5, you will still have 200 lines of data; however, each line will represent 500 parts. How you use this feature is dependent on what works best for your company.



## **Inventory Control Reports**

The following reports are available from the Inventory menu. You can preview or print a report from a predefined query, or create a custom query to display specific information in an Alliance/MFG standard format. For more information about Alliance/MFG reports, see the Technical Reference.

**Intrastat Reporting**

**Part Cost List**

**Part Status**

**Stockroom on Hand**

**Shortage Report**

**Stockroom Locations**

**Serial Number Locations Report**

**Production History Report**

**Transaction Reports**

**Physical Inventory**

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# Capacity Requirements Planning



## CRP Menu Functions

This chapter describes how to create work centers for each production and cost center in your operation; how to create labor routers for each production step; and how to calculate CRP, Work Center Loads, and Update Labor Standards.

### Capacity Requirements Planning Overview

Capacity Requirements Planning (CRP) can determine roughly how much time will be required in each work center to meet the demands planned by materials requirements planning. The Capacity plan created by a CRP run is “forward loaded”; it uses the start date and start quantity of planned orders and work orders, the defined capacities of your work centers, and detailed labor routers to calculate load. The CRP calculations results provide the information you need to evaluate whether to add personnel, add machines, reschedule customer orders, or let production continue according to plan.

You can set up Work Center capacities to include shifts and downtime; and Labor Routers can include individual labor operations such as setup, queue times, and *run time*. *The standard hours allowed to produce one item on an operation. The actual time taken to produce one piece may vary from the standard but the latter is used for loading purposes. The work center efficiency factor is a comparison of actual versus standard run time.*

Once Work Centers and Labor Routers are set up, you can perform the following calculations:

**Calculate CRP** - Runs the calculations for capacity planning on the basis of the last MRP calculation (either full or top-level MRP).

**Work Center Loads** - Displays the results of the calculation, giving the production capacity and projected loads for each work center.

**Update Labor Standards** - Updates labor standards on manufactured or subcontracted parts that have labor routers established.

**Successful CRP Planning comprises the following steps:**

1. Review Work Centers and Labor Routers for accuracy.
2. Run the Calculate MRP function.
3. Run the Calculate CRP function.
4. Review Work Center Loads and take appropriate action.

Tasks described in these sections assume familiarity with the basic use of Alliance/MFG data lists, data entry forms, dialog boxes, queries, and finding and sorting features. If you need more information about how to use these features, review System Overview.

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## Work Centers

Work centers are specific production facilities or cost centers that may consist of one or more people and/or machines. You create a unique work center ID and define the capacity, default wage rate, and any burden costs you wish to apply for each work center. You can also define any number of shifts for a work center, and optionally enter a default labor account that will appear on all labor routers.

### Entering new Work Center information

You can schedule work center capacity by shift-by-day, or schedule multiple shifts with different capacities. Enter Start and Stop times using a 24 hour clock. For example, two workers performing hand assembly from 8 A.M. to 12 noon would have a capacity of 480 minutes (240 minutes x 2 workers = 480).

#### To create a New Work Center:

Select CRP>Work Centers>New to open a blank Work Centers data entry form. At a minimum, you must enter a Work Center ID and a Capacity to create a valid work center.

The screenshot shows a software window titled "Work Centers". It contains the following fields and values:

- Work Center ID: WC002
- Work Center Name: Pen Assembly
- Capacity: 2,880.00
- Default Wage Rate: \$8.00
- Burden Cost: \$0.00
- Use Shifts:
- Account Number: 7325.00

Buttons for "OK" and "Close" are located at the bottom right of the window.

From here you can create any number of work centers and work center shifts.

Enter a Work Center ID, and continue to enter information in the Work Centers and Work Center Shifts tabs as described in the following sections.

### Work Centers Tab

1. Enter a name for the work center. The Work Center ID and Name will appear on your Labor Routers.
2. Enter the work center capacity in minutes per day. If you don't use shifts, the days of the week the work center is open will default to the days your company is open, as specified in your company Preferences. If you use shifts, enter the start and stop times and days of the week the shifts will operate in the Work Center Shifts tab.

3. Enter a default wage rate that applies to this work center. If no wage rate is associated with an employee working in this work center, the system will apply this wage rate. If an employee working a labor router assigned to this work center is paid a different wage rate, their wage rate will override the default specified here.
4. You can supply a burden cost (information only).
5. If you plan to use shifts, select the Use Shifts box and define shifts in the Work Center Shifts tab (see the following section).
6. Enter an Account Number to associate costs of operating this work center with an account. This number will print on the Labor Router.

**Work Center Shifts Tab**

Click Work Center Shifts to display a list of all shifts defined for the work center.

	Shift ID	Start Time	Stop Time	Capacity	Monday	Tuesday	Wednesday	Thursday	Friday	
Add	1	AM	7:00:00 AM	4:00:00 PM	1,960.00	Yes	Yes	Yes	Yes	Yes
Edit	2	PM	4:00:00 PM	12:00:00 PM	1,960.00	Yes	Yes	Yes	Yes	Yes
Delete										

From here you can add a new shift or exit an existing one.

**To Add a Work Center Shift:**

Click Add on the left side of the form to open a blank Work Center Shifts data entry form. The Work Center ID displays in the header.

Work Center ID: WC001      Shift ID: PM

Work Center Shifts | Shift Downtime

Capacity: 1,960.00

Start Time: 4:00:00 PM

Stop Time: 12:00:00 PM

Scheduled Work Days

Monday	<input checked="" type="checkbox"/>	Friday	<input checked="" type="checkbox"/>
Tuesday	<input checked="" type="checkbox"/>	Saturday	<input type="checkbox"/>
Wednesday	<input checked="" type="checkbox"/>	Sunday	<input type="checkbox"/>
Thursday	<input checked="" type="checkbox"/>		

Close

1. Enter the Capacity in minutes per day.
2. Enter the Start Time for the shift.
3. Enter a Stop Time for the shift.
4. Select the days of the week the shift will operate.
5. From here you can continue to click Add to define as many shifts as you need for this work center.
6. When you are finished, click Close to save your entries and return to the Work Centers Shifts tab. The new shifts display in the body of the tab.
7. When all entries are complete, do one of the following:
  - Click Save on the toolbar to save your entries and leave the form open.
  - Click OK to save your entries and exit the form.
  - Click Close to exit the form without saving.

**To Edit a Work Center Shift:**

1. From the Work Center Shift tab, select a shift and click Edit on the left side of the form. The Work Center Shifts data entry form opens.
2. Edit the information as required.
3. Click Close to return to the Work Centers form.

4. When all entries are complete, do one of the following:

Click Save on the toolbar to save your entries and leave the form open.

Click OK to save your entries and exit the form.

Click Close to exit the form without saving.

### Shift Downtime

You can inform the system when a work center shift will be down. Its available capacity will not be considered in a CRP run covering the downtime period. Provide a brief explanation, such as machine calibration or maintenance. You need not schedule downtime for days your company is normally closed.

### Defining Work Center Shift Downtime

Click the Shift Downtime tab on the Work Center Shifts data entry form. The Work Center Shifts display in the body of the tab. From here you can Add or Edit downtime information.

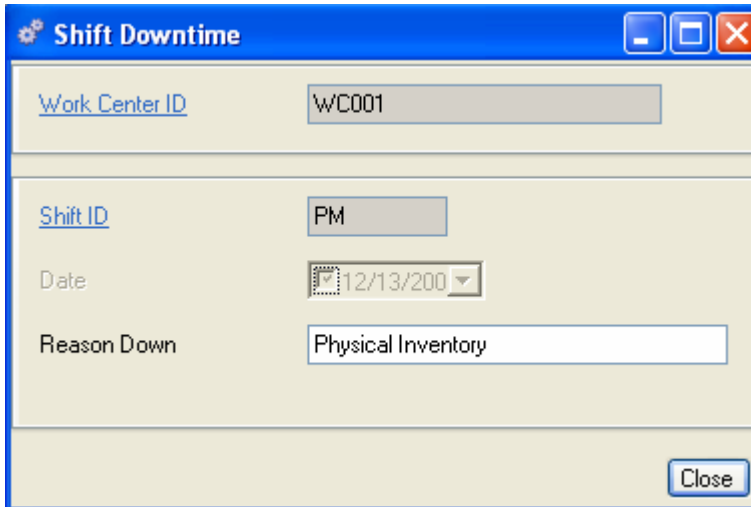
The screenshot shows a software window titled "Work Center Shifts". At the top, there are two input fields: "Work Center ID" with the value "WC001" and "Shift ID" with the value "PM". Below these fields, there are two tabs: "Work Center Shifts" and "Shift Downtime", with the latter being the active tab. On the left side of the main area, there are three buttons: "Add", "Edit", and "Delete". The main area contains a table with the following data:

	Work Center ID	Shift ID	Date	Reason Down
1	WC001	PM	12/13/2005	Physical Inventory

At the bottom right of the window, there is a "Close" button.

### To Add or Edit a Shift Downtime:

Select a shift and click Add or Edit to open the Shift Downtime data entry form. The Work Center and Shift ID's display for the shift selected.



The screenshot shows a dialog box titled "Shift Downtime" with a blue header bar. The dialog contains the following fields:

- Work Center ID:** A text box containing "WC001".
- Shift ID:** A text box containing "PM".
- Date:** A date picker showing "12/13/200".
- Reason Down:** A text box containing "Physical Inventory".

A "Close" button is located at the bottom right of the dialog.

1. The Date defaults to "today's" date; you can use the calendar box to change it, if needed.
2. Enter the reason the shift will be down.
3. Click Close to exit the form and return to the Work Center Shifts, Shift Downtime tab.
4. When all entries are complete, do one of the following:
  - Click Save on the toolbar to save your entries and leave the form open.
  - Click OK to save your entries and exit the form.
  - Click Close to exit the form without saving.

**To restore the work center from downtime:**

1. From the Work Center Shifts tab, select the Work Center Shift that is down.
2. Click Edit.
3. Click the Shift Downtime tab.
4. Select the line that defines the downtime.
5. Click Delete. A trash can icon appears next to the line.
6. Click Close.
7. When all entries are complete, do one of the following:
  - Click Save on the toolbar to save your entries and leave the form open.
  - Click OK to save your entries and exit the form.
  - Click Close to exit the form without saving.

## Accessing Work Center information

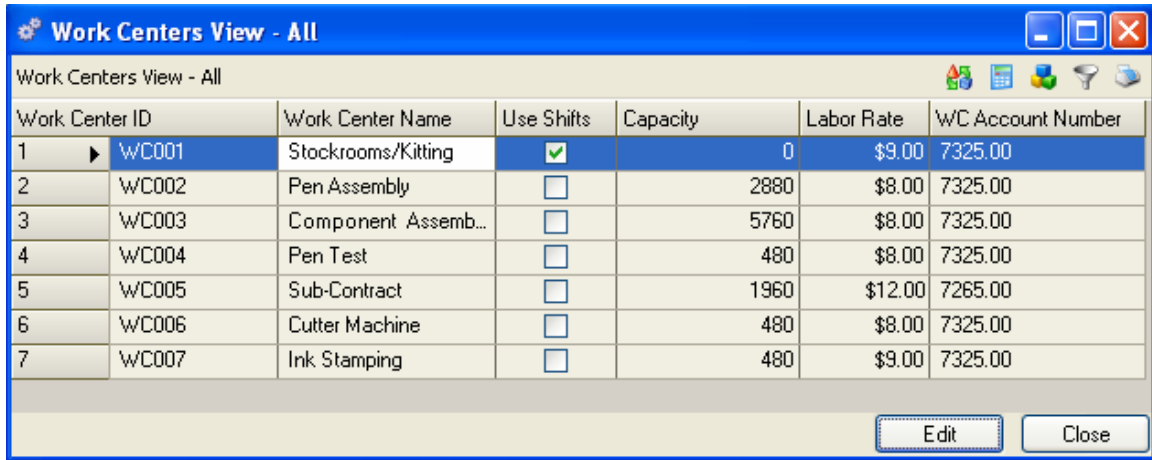
Once all work centers are created, Alliance/MFG gives you several options for accessing the data.

### From the CRP Menu

Select CRP>Work Centers from the main menu. From here you can open a blank Work Centers data entry form, open the Work Centers View for any or all work centers in the system, or use a predefined query to access a specific record.

### From the Work Center View

The records displayed in the Work Centers View depend on the query you select.



The screenshot shows a window titled "Work Centers View - All" with a table of work center data. The table has columns for Work Center ID, Work Center Name, Use Shifts, Capacity, Labor Rate, and W/C Account Number. The first row is selected, and there are "Edit" and "Close" buttons at the bottom right.

Work Center ID	Work Center Name	Use Shifts	Capacity	Labor Rate	W/C Account Number	
1	WC001	Stockrooms/Kitting	<input checked="" type="checkbox"/>	0	\$9.00	7325.00
2	WC002	Pen Assembly	<input type="checkbox"/>	2880	\$8.00	7325.00
3	WC003	Component Assemb...	<input type="checkbox"/>	5760	\$8.00	7325.00
4	WC004	Pen Test	<input type="checkbox"/>	480	\$8.00	7325.00
5	WC005	Sub-Contract	<input type="checkbox"/>	1960	\$12.00	7265.00
6	WC006	Cutter Machine	<input type="checkbox"/>	480	\$8.00	7325.00
7	WC007	Ink Stamping	<input type="checkbox"/>	480	\$9.00	7325.00

From here you can Add, Edit, or Delete a record; or via the sidebar or Links button you can drill down or access related data; preview or print a report.

## Labor Routers

The labor routers describe each operation performed on your company's manufactured parts.

These operations may include kitting parts, inspections, testing, assembling, drilling, polishing—whatever processes are performed in the work center. You can include notes that describe tools that may be required, special operating instructions, machining tolerances, JSA's, and so on.

Notes can be added to operations as work instructions. They will not print on the Labor Router, but will print on the WO Traveler.

The Labor Router contains information about the per-piece time to perform each operation, such as fixed Queue Time, Setup Time, and Run Time. CRP considers these times to determine capacity requirements.

**NOTE:**

*You must create work centers and operations codes before you can create labor routers. Work centers were discussed in the preceding section. Operations codes are set up in your company codes tables (see Chapter 2: System Overview for more information).*

### Creating Labor Routers

Labor routers define each sequence in an operation to manufacture a part. Here you assign an operation code and the work center where the operation is performed; and specify the queue time, setup time, and run time it takes to perform the operation. CRP calculates the time for each sequence in the operation to create the Work Center Load report.

**To Create a New Labor Router:**

Select CRP>Labor Routers>New to open a blank Routers data entry form.

The screenshot shows the 'Routers' data entry form. The form is titled 'Routers' and has a blue header bar. Below the header, there are several input fields and a 'Notes' tab. The 'Part Number' field has a red 'x' icon next to it. The 'Revision' field is empty. The 'Sequence ID' field contains the number '0'. The 'Alternate' checkbox is unchecked. The 'Work Center ID' field has a red 'x' icon next to it. The 'Account' field is empty. The 'Operation Code' field is empty. The 'Queue Time' field contains '0'. The 'Setup Time' field contains '0'. The 'Run Time' field contains '0'. At the bottom right of the form, there are 'OK' and 'Close' buttons.

1. Enter a part number or use the hyperlink to select one from the Part Master View.
2. Enter a unique Sequence ID for this step to indicate its order in the process.
3. Specify an Alternate sequence number, if applicable. This can represent a back-up machine or process used in case of a breakdown or overload (see Chapter 5: Supply, Work Order for more information).

### **Routers Tab:**

1. Enter a Work Center ID or use the hyperlink to select one from the Work Centers View. The account number assigned to the work center displays to the right of the Work Center field, and its description displays below the field.
2. Enter an Operation Code. This is a code defining the a step in the manufacturing process. Enter an operation code or use the hyperlink to select one from the Operation Codes View
3. Enter a Queue Time in minutes-per-run to represent the total time a lot waits at this labor operation. Queue time is non-costed; however, it is used by CRP to help in determining when an operation actually begins. Some examples of queue time are cooling, paint drying, transit, and to allow for backlog. Queue time does not consume capacity in CRP.
4. Enter a Setup Time in minutes-per-run to represent the amount of time it takes to set up a lot at this operation. Setup Time is used to calculate the setup cost in the inventory master. Setup time consumes capacity in CRP.
5. Enter a Run time in minutes-per-unit to represent the amount of time it takes to produce one part at this operation. Run Time is used by the Update Standards calculation to calculate the labor cost for this part.
6. When all entries are complete, do one of the following:
  - Click Save on the toolbar to save your entries and leave the form open.
  - Click OK to save your entries and exit the form.
  - Click Close to exit the form without saving.

### **NOTE:**

*Only primary sequence ID's are used for costing and by the CRP calculation. Alternates are for information only and are bypassed.*

## **Copying Labor Routers**

Often labor routers for different part numbers will be nearly identical. You can save time by copying a set of labor operations from one part to another. If you copy a router to a part that already has a router it will append the new operations.

### **To Copy a Labor Router:**

1. From the CRP menu, select Labor Routers>Copy Router. The Copy Router dialog box opens.
2. Enter a part number or click the From hyperlink to display the Part Master View for all parts with labor routers defined.
3. Select a part. At this point you could click Labor Router From in the Related Views section of the sidebar to review the Labor Router for this part.



4. Enter a part number or click the To hyperlink to select a part from the Part Master View to copy the Labor Router to.
5. Click Copy.
6. Click View to review your new labor router. You can add, edit, or delete operations codes as needed to complete the router.
7. Click Close to exit the form.

## Accessing Labor Routers Data

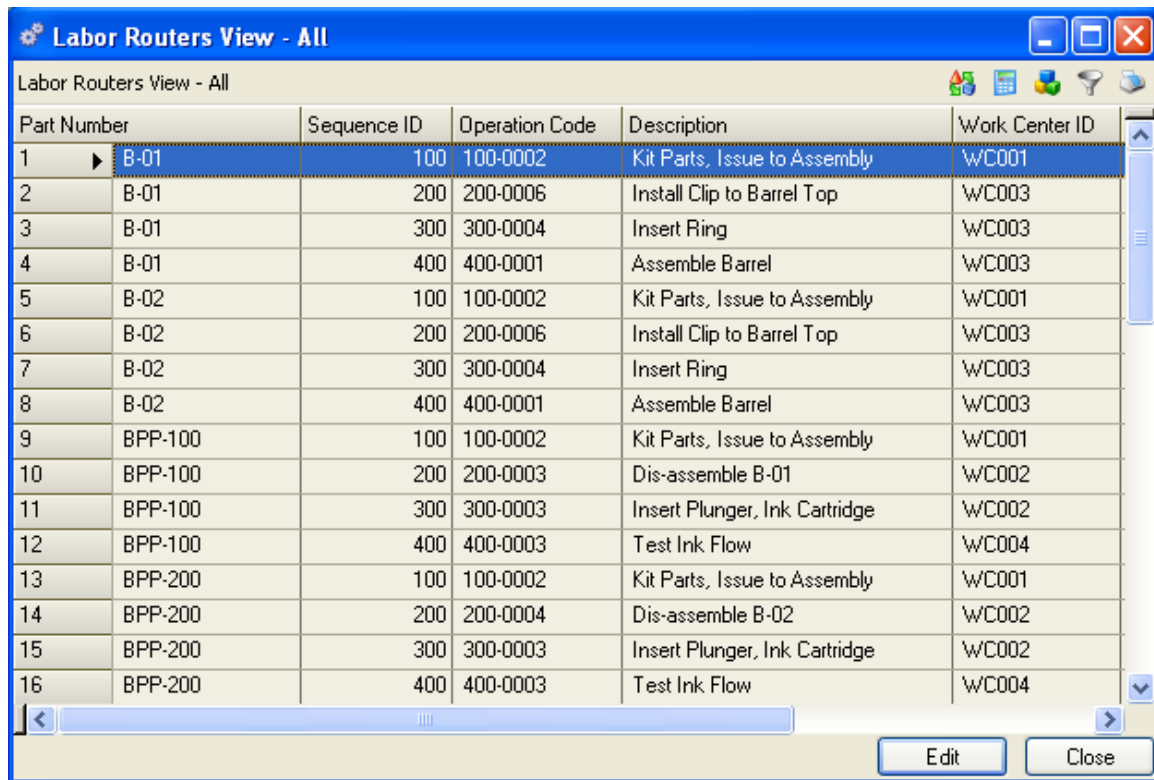
Once Labor Routers are added to the system, Alliance/MFG gives you several options for accessing data.

### From the Labor Routers Submenus

Select CRP>Labor Routers from the main menu. From here you can open a blank Labor Routers data entry form or use a predefined query to access a specific record.

### From the Labor Routers View

The records displayed in the Labor Routers View depend on the query selected.



The screenshot shows a window titled "Labor Routers View - All" with a table of labor router records. The table has columns for Part Number, Sequence ID, Operation Code, Description, and Work Center ID. The records are numbered 1 through 16. The first row is selected, and the "Edit" and "Close" buttons are visible at the bottom right.

Part Number	Sequence ID	Operation Code	Description	Work Center ID
1 B-01	100	100-0002	Kit Parts, Issue to Assembly	WC001
2 B-01	200	200-0006	Install Clip to Barrel Top	WC003
3 B-01	300	300-0004	Insert Ring	WC003
4 B-01	400	400-0001	Assemble Barrel	WC003
5 B-02	100	100-0002	Kit Parts, Issue to Assembly	WC001
6 B-02	200	200-0006	Install Clip to Barrel Top	WC003
7 B-02	300	300-0004	Insert Ring	WC003
8 B-02	400	400-0001	Assemble Barrel	WC003
9 BPP-100	100	100-0002	Kit Parts, Issue to Assembly	WC001
10 BPP-100	200	200-0003	Dis-assemble B-01	WC002
11 BPP-100	300	300-0003	Insert Plunger, Ink Cartridge	WC002
12 BPP-100	400	400-0003	Test Ink Flow	WC004
13 BPP-200	100	100-0002	Kit Parts, Issue to Assembly	WC001
14 BPP-200	200	200-0004	Dis-assemble B-02	WC002
15 BPP-200	300	300-0003	Insert Plunger, Ink Cartridge	WC002
16 BPP-200	400	400-0003	Test Ink Flow	WC004

From here you can Add, Edit or Delete a record; or via the sidebar or Links button you can drill down or access related data; preview or print a report.

## Calculate CRP

### CALCULATING CRP

Capacity Requirements Planning is a rough-cut planning tool. It analyzes the capacity for each work center versus the planned work load. The resulting calculation determines the production load in each work center as a percentage of its total capacity.

CRP uses the output from the most recent MRP Run as the basis for calculation. If MRP was run for Top Level only, CRP will calculate top level only. To calculate CRP for all levels, run MRP for all levels before calculating CRP. To get a true picture of your capacity requirements, it is important to run MRP before running CRP.

#### How CRP Calculates Capacity

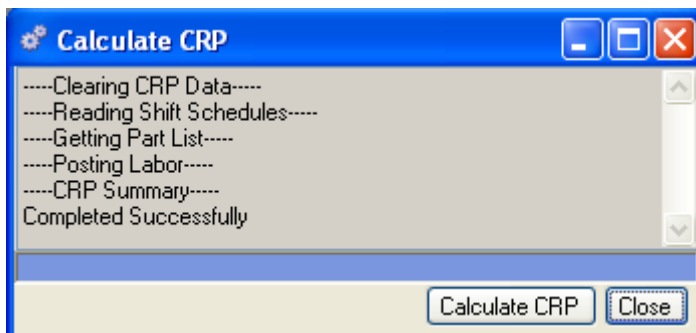
CRP considers the release date of a work order, the start date of MRP planned orders, and the Labor Router for the part. Beginning with the first labor operation to be defined, it posts it at the beginning of the first available shift on that day for that work center. It posts the queue time and setup time. It then multiplies the start quantity on the order by the runtime per unit, and posts the run time for this operation. If it reaches the end of a shift, it rolls to the next shift. If the labor operation is complete before the shift is over, it uses the remaining time on the next labor operation in that work center.

When an operation is complete, CRP moves to the next operation. If it's in the same work center, it uses up the remaining shift before rolling into the next shift.

CRP assumes infinite capacity. If multiple work orders are scheduled to enter a work center on the same day, CRP does not post the orders separately. They all move through the work center beginning at the first shift. It then considers the total minutes used compared to the capacity defined in the Work Center data entry form to calculate the percentage load.

#### To Run CRP

1. Ensure that your Work Center and Labor Routers are accurate.
2. Run MRP to ensure all transactions are up to date and work orders are scheduled.
3. Select CRP>Calculate CRP. The Calculate CRP dialog box is a simple message box that will report when the operation is complete.
4. Click Calculate CRP.



Review the Work Center Loads (see Work Center Loads).

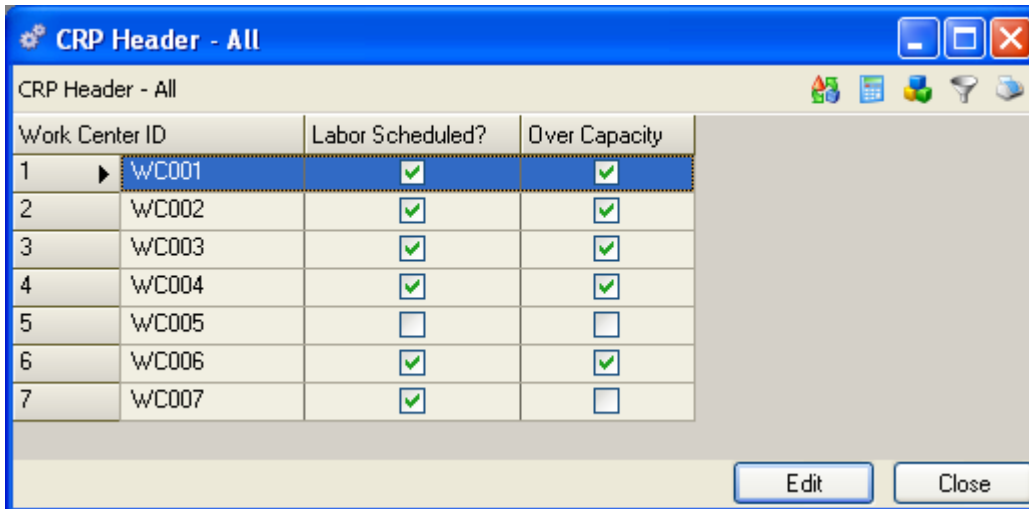
Keep in mind that CRP is not finite scheduling. It does not reschedule work center loads for you; it simply shows you the percentage of capacity in a work center on a given day. It's up to you to decide whether to add shifts, personnel, or to reschedule work orders to level the loads.

## Work Center Loads

CRP calculates a load for each work center defined, considering existing shop orders and planned orders. The Work Center Loads View is a display only list that shows the results of the latest CRP calculation for each work center; whether labor is scheduled for that work center; and if the work center is over capacity. From here, you can select a work center and review the Load Date, Load %, and Capacity for that work center. Some days may show significantly more than 100% load, while others may show well under capacity. With this information, you can decide whether to reschedule work orders to “level” the load.

### Viewing Work Center Loads

After running the CRP calculation, select CRP>Work Center Loads to open the CRP Header View, which lists all work centers defined in the system, whether or not labor is scheduled for a work center, and if the work center is over capacity.



The screenshot shows a window titled "CRP Header - All" with a table containing the following data:

Work Center ID	Labor Scheduled?	Over Capacity
1 WC001	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2 WC002	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3 WC003	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4 WC004	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5 WC005	<input type="checkbox"/>	<input type="checkbox"/>
6 WC006	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7 WC007	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Buttons for "Edit" and "Close" are visible at the bottom right of the window.

### To View the Work Center Load Summary:

From the CRP Header View, select a work center and double click to display the work CRP Summary By Work center ID for that work center. This View breaks down the work center load by day so you can easily see which day the work center is over capacity and by what percent.

Work Center ID	Start Date	Load %	Capacity	
1	WC002	7/25/2006	481	13,857
2	WC002	7/26/2006	344	9,931
3	WC002	7/27/2006	264	7,620
4	WC002	7/28/2006	200	5,760
5	WC002	7/31/2006	200	5,760
6	WC002	8/1/2006	129	3,720
7	WC002	10/2/2006	100	2,880
8	WC002	10/3/2006	21	620

From here you can drill down to additional details of the work order and operations responsible for creating the load.

## Update Labor Standards

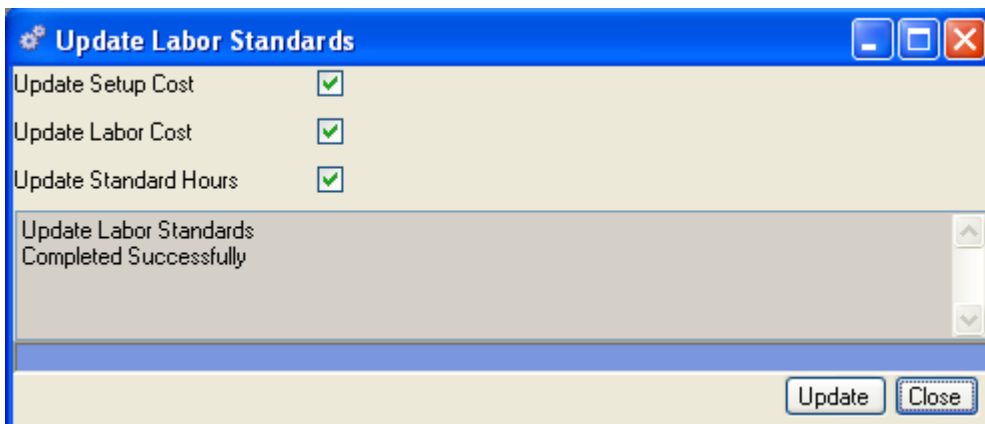
The Update Labor Standards calculation multiplies the labor time from each labor router by the wage rate from each work center to determine the standard hours and labor cost to produce a single unit of each part. It also computes the setup cost by lot for each part. This information is updated in the Part Master Part Costs tab.

### Cost Roll up and Updating Labor Standards

Because updating labor standards changes standard hours and affects the basis by which setup and labor costs are calculated, it is important to update labor standards before performing a cost roll up. See Chapter 8: Inventory Control, Cost Roll Up for more information.

#### To Update Labor Standards:

1. Select CRP>Update Labor Standards to open the Update Labor Standards dialog box.
2. Select which standards you wish to update; you can select one, two, or all types.
3. The message box displays progress and reports any failures, along with the steps to correct it.



When finished, the message box reports “calculation completed successfully.”

## CRP Reports

The following reports are available from the CRP menu. You can preview or print a report from a predefined query, or create a custom query to display specific information in an Alliance/MFG standard format. For more information about Alliance/MFG reports, see the Technical Reference.

**Labor Router**

**Work Center Listing**

**Work Center Loads**

# Shop Floor Control



## Shop Floor Menu Functions

Shop Floor Control is a system for utilizing data from the shop floor as well as data processing files to maintain and communicate status information on work orders and work centers. This information facilitates the calculation of job costing and accounting information. It gives you constant feedback on your labor distribution and work-in-process so you can adjust your plan to meet your needs. Labor reports provide data such as hours by work order and employee, and labor and scrap costs. Once labor routers have been defined and work orders entered, you can track and generate reports for labor distribution and work in process. Enter actual labor and operations completed on each work order; or actual labor and operations completed by each employee.

You can review work-in-process by part number or by work order; including the cost of materials and scrap applied to each work order.

Shop related reports include labor distribution, labor utilization, production backlog, and work in process.

Tasks described in this section assume familiarity with the basic use of Alliance/MFG data lists, data entry forms, dialog boxes, queries, and finding and sorting features. If you need more information about how to use these features, review System Overview.

## Labor Distribution

Alliance/MFG uses labor router information entered for each part, employee hours, and wage rates to create labor distribution. Labor Distribution reports each employee's labor contribution to a work order—the actual number of hours worked on a particular job and quantity completed—to provide a calculation of actual direct labor.

Each labor entry will be assigned a unique Labor ID.

Detailed labor transactions are retained in the system until the work order is deleted. When you delete a work order, all labor data for that work order is deleted. When you close a work order, the Labor Distribution View no longer displays the data; however, you can still access it through the reports. (See Shop Reports at the end of this chapter for more information about shop reports.)

### Reporting Labor

To report labor against a work order:

Select Shop>Labor Distribution>New to open a blank Labor Distribution data entry form.

<u>W/O Number</u>	W000080003	Part Number	B-02
Labor ID	1		Assembly, Barrel, Red
<u>Employee ID</u>	A4-KNM		
	Morgan, Kyle N		
Start Date	10/29/2005 9:31:15 AM	Job Number	
<u>Sequence ID</u>	100	Kit Parts, Issue to Assembly	
Quantity Completed	3,000.00	Quantity Released	10,000.00
Stop Date	10/29/2005 10:31:15 AM	Quantity Remaining	7,000.00
Wage/Rate	8.00	Total Time	1.00
<u>Account Number</u>	1850		
Quantity Scrapped	0.00		
<u>Scrap Account</u>			

1. At a minimum, you must enter a work order number, Employee ID and Sequence ID for each labor distribution.
2. Enter a Work Order number. The Part Number and description display to the right of the field.
3. The system generates a new Labor ID for each unique entry against this work order. Each Labor ID will present a separate line item in the Labor Distribution View.
4. Enter an Employee ID.



5. The Start Date defaults to the current date and time; however, you can use the calendar box to enter a different date. For example, you may enter labor from labor routers or time sheets that indicate different start times.
6. If the work order is linked to a job number, the job number will display next to the Start Date field.
7. Enter the Sequence ID this employee performed, or use the hyperlink to select one from the Labor Router View. The description displays to the right of the field.
8. Enter the quantity completed at this labor operation. This number must be less than or equal to the quantity released.
9. The quantity released from the work order into manufacturing displays to the right of the Quantity Completed field.
10. Enter the actual stop date and time the employee finished applying labor. Use the calendar box to select the date and time.
11. The Employee Wage Rate displays from the Employee record. Enter a different wage rate if this is nonstandard, such as overtime.
12. The Total Time (number of hours worked) to date displays to the right of the Wage/Rate field.
13. The quantity of items remaining to be built at this labor operation displays to the right of the Stop Date field.
14. The default account number assigned to the part on this Work Order will display. If this is a nonstandard work order, or if you wish to charge labor to an account other than the account displayed, you can enter a different account number.
15. When you have completed all entries, do one of the following:
  - Click Save on the toolbar to save your entries and leave the form open.
  - Click OK to save your entries and exit the Labor Distribution form.
  - Click Close to exit the form without saving.

**To edit labor on an existing Labor Distribution form:**

1. Select Shop>Labor Distribution>Edit and enter the WO Number and Labor ID for the record you wish to edit; or open the Labor Distribution View, select the appropriate line item, and click Edit. The Labor Distribution form for the item selected opens.
2. The WO Number and Labor ID display at the top of the form, along with the Part Number and description for the part.
3. The employee ID and Start Date will display as selected. You can edit these as required.
4. When you are finished, click OK, Close, or Save, as appropriate.

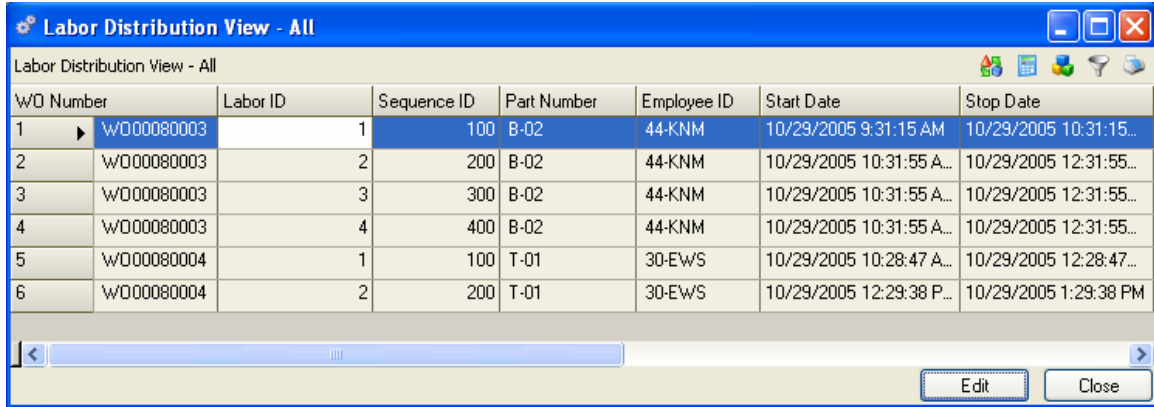
## **Accessing Labor Distribution Data**

### **From the Labor Distribution Submenus**

Once labor is entered against a work order, you can access the data from the Shop>Labor Distribution submenus.

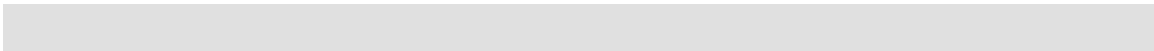
From the Labor Distribution View

Records displayed in the Labor Distribution view depend on the query selected.



WO Number	Labor ID	Sequence ID	Part Number	Employee ID	Start Date	Stop Date
1	W000080003	1	100 B-02	44-KNM	10/29/2005 9:31:15 AM	10/29/2005 10:31:15...
2	W000080003	2	200 B-02	44-KNM	10/29/2005 10:31:55 A...	10/29/2005 12:31:55...
3	W000080003	3	300 B-02	44-KNM	10/29/2005 10:31:55 A...	10/29/2005 12:31:55...
4	W000080003	4	400 B-02	44-KNM	10/29/2005 10:31:55 A...	10/29/2005 12:31:55...
5	W000080004	1	100 T-01	30-EWS	10/29/2005 10:28:47 A...	10/29/2005 12:28:47...
6	W000080004	2	200 T-01	30-EWS	10/29/2005 12:29:38 P...	10/29/2005 1:29:38 PM

From here you can Add, Edit, or Delete a record; or via the sidebar or Links button you can drill down or access related data; preview or print a report.



## Work In Process

Work In Process is a view only feature that shows you the status of work for all open work orders in the system. From here you can quickly review the part numbers, date and quantity released to a work order; the quantity completed to date for any open work order, along with a summary of material, labor, and scrap costs; and the total WO cost to date.

### Viewing Work-In-Process

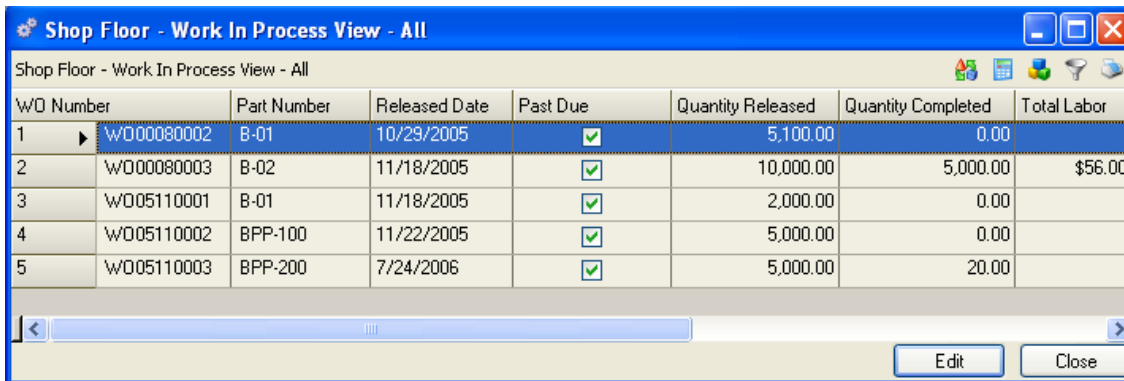
Once you begin entering labor operations in Alliance/MFG, you have several options for accessing the data.

#### From the Work-in-Process Submenus

Once labor is entered against a work order, you can access WIP data from the Shop>Work In Process submenus. Select Work In Process>All to view all records; or use a predefined query to locate specific records.

#### From the Shop Floor Work In Process View

The records displayed in the Work in Process View depend on the query selected.



WO Number	Part Number	Released Date	Past Due	Quantity Released	Quantity Completed	Total Labor
1	WO00080002	B-01	10/29/2005	5,100.00	0.00	
2	WO00080003	B-02	11/18/2005	10,000.00	5,000.00	\$56.00
3	WO05110001	B-01	11/18/2005	2,000.00	0.00	
4	WO05110002	BPP-100	11/22/2005	5,000.00	0.00	
5	WO05110003	BPP-200	7/24/2006	5,000.00	20.00	

From here via the sidebar or Links button you can drill down or access related data such as applied labor and shortages; preview or print a report.

### Work-In-Process Columns Field Definitions

**Work Order Number** – The work order number for this record.

**Part Number** – The part number for this work order.

**Released** - The date the work order was actually released.

**Quantity Released** - The quantity released to production.

**Quantity Completed** - The quantity completed to date for this work order.

**Last Labor Sequence** – The last labor sequence recorded for this work order.

**Total Work Order Cost** - The accumulated work order cost to date, material, labor, and scrap.

**Material Cost** - The total material cost to date for the work order.

**Labor Cost** - The total labor costs applied to the work order.

**Scrap Cost** - The total cost of components dekitted to scrap.

**Job Number** - The Job Number associated with the work order, if applicable.

## Shop Floor Reports

The following reports are available from the Shop menu. You can preview or print a report from a predefined query, or create a custom query to display specific information in an Alliance/MFG standard format. For more information about Alliance/MFG reports, see the Technical Reference.

**Labor Distribution**

**Labor Utilization**

**Production Backlog**

**Work in Process**

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