DELMIAWorks

Inventory Management

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Inventory Management

The Importance of Inventory Control

Inventory levels and open orders play the major role in determining what must be produced, purchased and inventoried. The material resource planning (MRP) engine built into **EnterpriselQ** analyzes both the *demand* (open orders) and the *supply* (inventory and purchase orders) then builds work orders that meet the demand. Therefore, it is absolutely imperative that inventory levels are kept as accurate as possible.

How is Inventory Maintained?

Inventories are affected by many functions within **EnterpriselQ**. The following list identifies the key activities which impact inventories.

- Production Reporting or Floor Dispositions As product is produced from work centers it is
 dispositioned, finished goods and raw material locations will be impacted, based on how the Bill of
 Manufacture (BOM) was set up.
- Shipping Finished goods are removed from inventory when a packing slip is created.
- **Transfers** (*Location to Location*) Because multiple locations are supported, the system must track any movement of the product from one physical location to another. Location transfers are commonly used in raw materials to account for material movements from a warehouse location to a work center, or from the work center back to the warehouse.
- Manual transactions These are typically used to make adjustments once the system is on line.
 Manual transactions are also used to return items to various locations if any adjustment to a count was made.

Multi-Location Support

EnterpriselQ supports unlimited locations per inventory item. Using multiple locations, **EnterpriselQ** can support lot number traceability, unique costing per location, and non-conforming or non-allocatable locations.

Transaction Based

In **EnterpriselQ**, on-hand inventory amounts cannot be edited directly. All activity against inventory is entered as a transaction. **EnterpriselQ** supports various types of transactions including adding, subtracting, adjusting, scrapping and location-to-location transfers. Please see the Transactions section for a full discussion of transactions in **EnterpriselQ**.

Traceability and Accountability-The Trans Log

For the purpose of accountability, every transaction made in **EnterpriselQ** is registered in the *Translog* table. This log contains information concerning the nature of the transaction, the amount involved, who, what, where and when the activity took place, if it was part of a particular job, and its actual and standard cost at that moment. A complete history of transactions against any single item is maintained and remains with the item until the file is purged.

Inventory Numbering Schemes

Prior to entry of any inventory items, a coding mechanism should be devised to logically organize the materials. It is important to develop a workable part numbering scheme prior to entering information to eliminate the need to change the system later. The following section outlines a method which has been used, and is provided here *only as an example*.

Each inventory item must contain at least four pieces of information - Class, Item Number, Revision Level and Description. The combination of Class, Item Number, and Revision Level and EPlant are what make an inventory item unique in **EnterpriselQ**. For example, two inventory items with the same item number and revision level may exist in inventory as long as the class of the two items is different.

Note: In many cases, items will not have a revision level. **EnterpriselQ** will automatically add a space inside the field when an inventory item is created. This allows the system to use the field as part of the unique combination above. When assigning a revision to an item, be sure to backspace and enter the revision in the first space.

Raw Material Inventory Number

When assigning inventory numbers to raw material inventory items, one method that has proven to be effective is to define a basic material identification code such as ABS#Color. This will allow the grouping of various materials together for display on the pick lists.

Examples:

Part Number	Description
ABSFR0001	ABS, Flame Retardant
SS21	Silicone Substrate
NYLGP0248RD	General Purpose Nylon, with Red Color added
BSCR10MM	Brass Screw, 10 mm

Note: As stated earlier, the method described is only a suggestion. The only requirement that **EnterpriselQ** imposes is that each item have a unique identifier.

Note: When a user creates a User Defined Form field and grants security to that UDF field, if the UDF field is deleted the security to the field is removed. If the UDF field is re-added with the same name, security will need to be reestablished for users.

Inventory Classes

EnterpriselQ uses a combination of the class, the item number and the revision level to make an inventory item unique.

Manufacture Any Class

EnterpriselQ supports the ability to *manufacture any class of item*. Under most circumstances, you will manufacture FG or WP class items. However, you can designate the class from within the BOM structure. This ability opens up the possibilities of how the BOM is used. For example, you can build a BOM to manufacture an item of class PL, then consume that item by another BOM that creates an item of class FG. This technique can be used to build blends, pre-operations that process material prior to manufacturing, etc.

Note: You can create a BOM for a PK class item. The manufactured PK items will be calculated like an FG item if it has a Standard ID associated to it.

EnterpriselQ needs to understand if an item is purchased or manufactured. Stored within the inventory record is a field containing a manufacturing number - a BOM. If this field is filled in, the item is a manufactured item. If it is blank, then it is assumed the item is purchased.

This topic is covered in greater detail in the BOM chapter of the manufacturing manual.

How Classes are Used

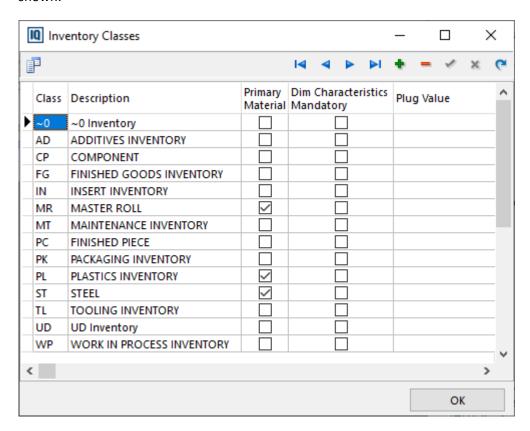
Classes are used to sort pick lists and reports into logical groups by the appropriate category, for example when selecting a raw material (PL) to be used in a configuration or for creating a report to show the value of finished goods (FG) inventory.

EnterpriselQ contains six pre-defined classes. An unlimited number of additional classes may be created through **Misc|Inventory Classes** menu (also found in the **Lists** menu in **System Parameters**).

FG	Finished goods . This class includes items that are manufactured. This can also include Work-in-Process items although IQMS recommends setting up a separate class for these items to provide better inquiries and reports by class.
PL	Plastics and raw materials . This class is typically used to classify the main material consumed during production.
IN	Inserts or purchased components.
PK	Packaging materials.
МТ	Maintenance items . Used by MRO for items used in the repair and maintenance of machinery. Work centers are automatically assigned the MT class.
TL	Tooling items. Used for classifying items used in tooling.
UD	User Defined. This is a free form class to be used for any miscellaneous purpose.

Setting Up the Inventory Class Table

To set up the Inventory Classes table, select **Misc|Inventory Classes** from the menu in Inventory or select **Lists|Inventory Classes** from the menu in **Sys Setup|System Parameters**. The following table will be shown:

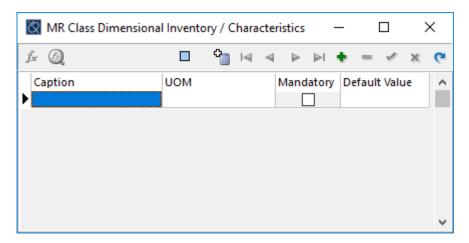


- Click on the Add [+] key add a new line, then enter a Class and a Description.
- Select the Primary Material box if the class of inventory can be attached as the main raw material on a BOM or Quote.
- Check the Dimensional Characteristics Mandatory check box to require that dimensional characteristics be entered when printing a label for a Serialized Inventory Control (SIC) item associated to the class.
- ➤ The Plug Value is used for informational purposes only.
- > Save the entry by clicking on the check mark.

Dimensional Inventory / Characteristics

Specific dimensions/characteristics can be set up for specific inventory classes which are used for Serialized Inventory Control items when printing labels. For Serialized Inventory Control (SIC) items only there will be an additional tab on the Print Label form to enter the specific values for the item for the labels that will be printed. When this information is set up per class, when a new SIC item associated to that class is created the 'Dimensional Inventory/ Characteristics' form (accessed from the button next to the Serialized Inventory check box on the Main Inventory screen) will automatically populate with the specific dimensions/characteristics associated to the class.

To create the dimensions/characteristics for a class, highlight the class and select the button in the top left of the list. The following form will appear to define the Caption of the Dimension or Characteristic, and the UOM (if a Dimension).

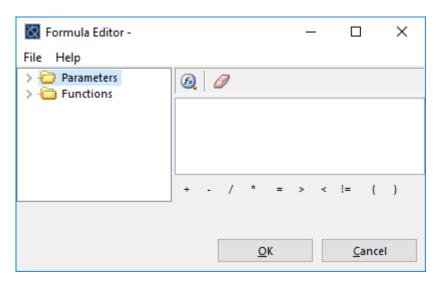


If the 'Dimensional Characteristics Mandatory' check box is checked when the user attempts to print a package label for a SIC item without entering the value(s) for the Dimensional Inventory/Characteristics a warning will appear stating 'Caption name' is a required dimension for this inventory item that has not been populated'. The form will remain open until a valid value is entered in the mandatory field(s). During receiving, after posting the receipt the Print Labels form appears. If the user skips mandatory fields they will receive the warning message above, and also receive the error, 'This is a serialized item labels must be printed. Unable to continue'. Note that the cancel button is grayed out on this form to prevent cancelling.

This information can be used for shipping and invoicing based on the Actual Inventory Unit of Measure (UOM) entered when a label is created. When printing a label from anywhere in the system for the item, users are required to enter a value for the mandatory dimension. Once labels are printed, the dimensional value for each serial is stored in MASTER_LABEL_DIM.NVALUE. During scanning of a pick ticket, if there is a match on the inventory item custom UOM and the mandatory label custom UOM the system will use the actual UOM value from the label instead of the calculated UOM conversion for the item. This will carry over to packing slip and AR invoice.

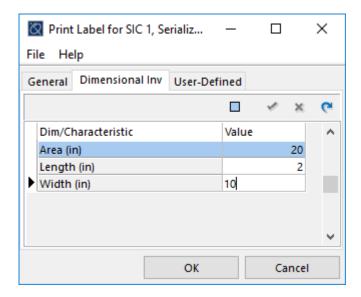
Users can create calculated UOM fields through user-defined calculations that can be used in this process. UOMs included in the calculation must already exist on the Dimensional Inventory. To create a

calculated dimension, select the 'Insert a new calculated UOM record' button on the Dimensional Inventory/Characteristics form. A Formula Editor form will appear to enter the calculation.



The formula is entered in the blank space on the right (up to 2000 characters). Only the other UOM (characteristics) associated to the item will be listed on the left. These parameters can be added to the formula by dragging and dropping them with the mouse. Operators are found in the lower section. Just click on the operator to add it to the formula. (Note: Only the listed operators can be used). The calculated dimension will be highlighted in light blue. There are also an Edit Formula button that will open the Formula Editor to make changes, and a check formula for errors button.

Users can enter an optional Default value for any UOM in the Default Value column on the Dimensional Inventory/Characteristics form. When the labels are printed the default values will fill in but are editable. When users post the actual values, if there is a calculated field it will populate based on the formula.



Note: Inventory transactions take place as always in native UOM.

NOTES:

Security can be placed on IQMS standard classes of inventory: PL, FG, IN, PK, MT, TL, UD. Users without security clearance cannot edit or add new items to inventory. Security names are: FG_inv, Pk_inv, IN_inv etc.

Security can be set up for User Defined (UD) classes as well. Through the Security Inspector on the Users tab, from the sub-tab called 'Inv UD Class Access' administrators can select which UD classes an individual can access. If nothing is specified in this grid, the user will have access to all UD class items. If a UD class is specified in the grid, the user will only have access to add/select inventory items for the specified UD class in the inventory module. When a user tries to access a UD class they do not have rights to, they will receive an error stating they have insufficient rights, access denied. The Inv UD Class Access only applies to the inventory module. Users will still be able to select any inventory class items in other modules such as adding a new part from a BOM, adding an item from inventory item groups, and the quick add item form.

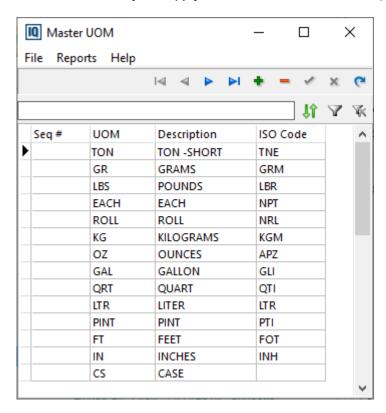
Units of Measure

The system allows inventory items to be maintained with different Units of Measure (UOM). **EnterpriselQ** supports a master list of units of measure. The system supports internal conversions using several UOMs, including KG, LBS, GR, FT, and M (Meter). User defined UOM's can be created with specific conversions as well.

Note: The UOM of GR should never be deleted even if none of the manufacturing types utilize grams.

Setting Up the UOM Table

To set up the UOM table, select **Misc|UOMs** from the menu in Inventory or select **Lists|Inventory UOMs** from the menu in **Sys Setup|System Parameters**. The following table will be shown:



Several UOMs come with the system as defaults such as LBS, GR, KG, DAYS, and HOURS. To add a user defined UOM, click on the Add [+] key add a new line, then enter a UOM and a Description. Note: The system forces upper case for UOMs.

The **Seq #** field will automatically populate with the next sequence number. The Seq # field can be modified to enable users to control the sorting (i.e. put the most used UOMs at the top).

The **ISO Code** is used in credit cards for Level III processing. The ISO Code can be selected from the pick list accessed from the ellipsis button. For example, for the UOM of each the ISO Code defaults to NPT (Number of Parts).

> Save the entry by clicking on the check mark.

Converting between Units of Measure

EnterpriselQ provides a utility that allows the system to automatically convert one UOM to another UOM. This feature can be used when a raw material item is ordered from the Vendor in one unit of measure, but then inventoried, staged, and consumed in production in a different unit of measure. This feature can also be used for manufactured items where the item is manufactured and inventoried in one unit of measure, but then sold in another unit of measure. UOM calculations can either be created using a division or multiplication formula. The conversion is done on an item by item basis and conversion factors must be set up for each inventory item.

Notes:

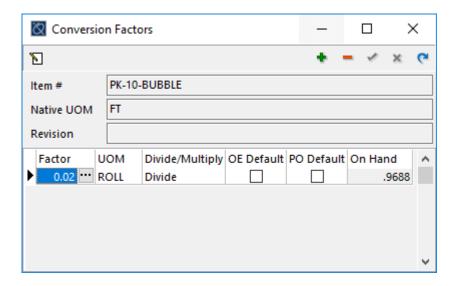
Conversion factor for the default UOMs (such as KG, LBS, and M) are built into the system and do not need to be specified for each inventory item. For example, if an item with a UOM of FT can be converted to M without creating a specific conversion setting.

For Class PL items the drop down list on the main inventory screen is hard coded and custom user defined UOMs are not displayed.

For Serialized Inventory Control it is recommended to use two-decimal precision in System Parameters on the Inventory Setup tab. This is particularly important with UOM conversion factors greater than two-decimal precision in regards to In vs. Out transactions (for example posting vs. voiding receipts).

Each inventory item can have unlimited conversion factors and associated UOMs. The number of UOM conversions set up for an item will display next to the Unit field on the main screen in inventory. The procedure to input conversion factors is outlined below:

- > Enter the UOMs into the Master UOM table.
- > Select the inventory item that needs the conversion factor.
- > Click on the conversion factors to other UOMs speed button next to the UOM field.



- The upper portion of the screen shows the current item and UOM. The lower grid area supports unlimited alternate UOMs.
- Click in the UOM field and select a secondary UOM from the arrow down list.
- The user may specify a default unit of measure for Sales Orders and Purchase Orders. The default factor will be used when adding the item to a sales order or a PO unless an AKA UOM is established. Please note the defaults cannot be the same name.

Note: You cannot have a PO Default UOM factor set on an outsource item. Backflushing will only calculate based on the BOM parts per, not taking into account a UOM PO factor.

Note: A specific unit of measure (UOM) can be assigned to an AKA record by selecting one from the drop down list. If the AKA UOM is populated, when adding the AKA item to a sales order or a purchase order the UOM on the line item will default to the UOM listed on the AKA. The hierarchy for assigning a UOM to a purchase order or sales order line item is as follows:

- AKA UOM
- Master Inventory UD UOM marked 'PO Default' or 'OE Default'
- Master Inventory Native UOM
- ➤ Enter the conversion factor. A factor is required unless it is for default UOMs with conversion factors built into the system such as LBS to KG. If the UOM has a conversion factor built into the system the On Hand field in the Conversion Factors form will immediately calculate upon selection.
- > Select divide or multiply from the drop down list. The divide option is the default and is the Factor of the Custom UOM = 1 of the Native UOM (or Division calculations simply put are Buy UOM/Inv UOM). Multiply is 1 of Custom UOM = Factor of the Native UOM (or Multiply calculations simply put are equivalent Inv UOM to Buy UOM).
- General Tip: When setting up UOM conversions, using a factor with the smallest decimal precision possible will help alleviate rounding issues where possible, particularly in conjunction with label printing for which the quantity field is limited to two decimal places in master_label. Generally this will mean using a 'Multiply' function rather than 'Divide'.
- For the TForm2 MFG Type only, the conversion factor can be calculated from entered values. Select the ellipsis button in the Factor field and enter a value in each field (Length, Width, Gauge, SPG) in the pop up form. All four fields must have a value. The conversion factor is calculated as follows: Width x Length x SPG x Gauge x .0361. NOTE: For TFORM2 MFG type BOM's the Length and Width used to calculate the Sheet Weight come from the values entered here for the specified material on the BOM. If the sheet weight is in pounds the dimensions are entered in inches; if the sheet weight is in grams the dimensions are entered in centimeters.
- > Once the data is entered, the On Hand quantity based on the UOM factor will be visible form this screen.

The following examples demonstrate the calculations:

Purchased Item examples

UOM Conversion Factor Examples for purchased items:

- ➤ Ink is purchased in **Gallons** and inventoried by the **Ounce**. (128 ounces to 1 gallon).
 - The **conversion factor** would be 1/128 = .007812 with the divide option selected.
 - Put a check in the PO Default box.
 - Set your inventory price and cost based on ounces.
 - When item is placed on PO the UOM will automatically be set to Gallons.
 - During the receiving function, EIQ will automatically convert Gallons to Ounces.
- Foil is purchased in **Rolls** and inventoried by the **Square Feet** (where you can get **24 square feet** from 1 roll).
 - The **conversion factor** would be 1/24 = .041667 with the Divide option selected, or 24 with the multiply option selected.
 - Create a user-defined unit of measure called square feet.
 - Attach square feet UOM to the Foil item (this is how you inventory this item)
 - Put a check in the **PO Default** box.
 - Set your inventory price and cost based on square feet.
 - When item is placed on PO the UOM will automatically be set to rolls.
 - During the receiving function, EIQ will automatically convert Rolls to Sq.Ft.

Manufactured Item Example

UOM Conversion Factor Example for manufactured:

- ➤ The item is inventoried by the Each and sold by the Case (where you can get 100 pieces in a case)
 - The **conversion factor** would be 1/100 = .01 with the Divide option selected, or 100 with the multiply option selected.
 - Put a check in the OE Default box.
 - Set your inventory price and cost based on each.
 - When item is placed on Sales Order the UOM will automatically be set to cases.
 - During the shipping function, EIQ will automatically convert Each to Case.

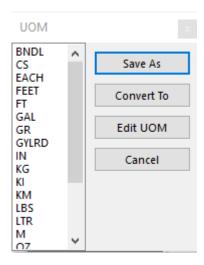
Using the Conversion Factor

To convert between UOMs:

- > Find the inventory item of choice.
- Click on the drop down arrow next to the UOM. A warning message will appear stating: "Please note this item is consumed in the following modules: BOM Configuration. Changes made to inventory UOM must be propagated to the BOM Configuration, Sales Orders and Purchase Orders. If you continue you will be prompted to update each individual BOM consuming this item. Sales and Purchase Orders need to be revised manually. Are you sure you want to continue?"

Note: Users are advised to create a new item rather than changing the existing conversion factor or changing the UOM itself once any activity has taken place on the item. This will prevent confusion as to what transaction was in what UOM.

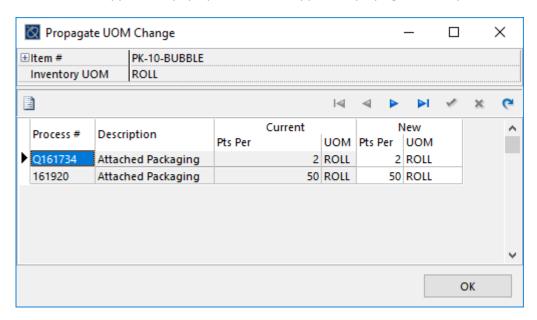
To continue, click on the drop down arrow next to the UOM, the UOM pick list will appear.



Select the UOM that you want to convert to and click on **Convert To**.

NOTE: If **no** UOM conversion is set up for the inventory item, an error message will indicate that the system does not know how to convert to the new UOM. Use the Conversion tool to create the conversion factor or select another UOM.

If the UOM is supported a pop up window will appear displaying all of the places the item is used in.



The user can update the new UOM for each individual BOM consuming this item. (Select the 'Where Used...' button to access the Where Used form for more details). Select OK to continue.

All On Hand quantities are updated to reflect the new factor. This includes all locations that maintain the item.

Save As - The user also has the option to Save As a different UOM. This will not change the quantity of the item in inventory, but will only change the UOM associated with the item. When this option is selected a warning will appear stating something similar to the following: "'Save As' option does NOT convert but marks UOM as CS. Use 'Convert To' option to convert to CS if it is possible. Are you sure you want to continue?"

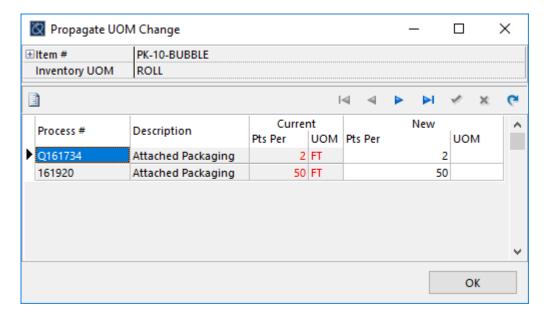
Deleting a UOM Conversion

When deleting a UOM conversion a warning will appear similar to the one below:

Please note this item is consumed in the following modules: Sales Orders

Changes made to inventory UOM must be propagated to the BOM Configuration, Sales Orders and Purchase Orders. If you continue you will be prompted to update each individual BOM consuming this item. Sales and Purchase Orders need to be revised manually. Are you sure you want to continue?

If the factor is used on a BOM, a screen will appear to change the UOM on the affected BOM(s) (which will be highlighted in red). Enter the new UOM and parts per. Note: A null or zero quantity is allowed. A message will appear stating, "PtsPer should be a number greater than 0. Are you sure you want to continue?". Select Yes to continue or No to return to the form to enter a value.

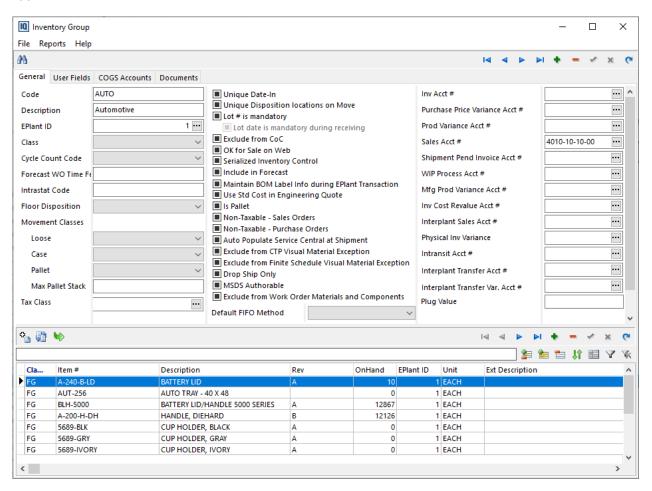


As the warning states the sales orders and purchase orders will have to be updated manually

Inventory Item Group

The Inventory Item Group module is used to set up specific settings applicable to an inventory group. This enables users to enter the settings one time and then when adding new items to inventory from this module they will automatically have these settings applied. This will help prevent data entry error and ensure all new items added for a specific group have the same settings.

Select this module from the Manufacturing tab on the launcher bar, the following form will appear:



Note: Users can use the Inventory Group Code to filter inventory items in the picklists within the following modules:

Manufacturing - Inventory and Inventory Transactions and Locations

PO/Receiving - Outsource Central and Intercompany Receiving

Quality - Deviation, ECO, Material Review Board, Repair Work Order, Control Plan, FEMA, Risk Assessment (FEMA), Inspection Setup, SPC, and Quick Inspection.

Modules with Pick Lists for BOMs

Create an Inventory Group

- > Select the insert record button and enter the Code and Description for the group. Then select the EPlant ID and Class. The EPlant filter is a soft filter, users will see both groups without an EPlant assigned and those associated to the logged in EPlant.
- Next check the boxes next to the options that are relevant to this group. See the Additional Tab in Inventory for details on each field.

The specific GL accounts that can be associated to an item can be associated to a group. These accounts are not written to the record in inventory but are used as defaults. The hierarchy the system will use in determining what <u>default</u> GL account to use for an item will first look at the inventory group table to determine if the item is associated to a group and then use the GL accounts from that group if populated. If the group does not have a GL account populated the system will use the defaults in System Parameters.

Note: If the item has specific GL accounts associated to it the system will use those instead of the Inventory Group or System Parameter defaults.

Note: Only the specific GL accounts that apply to the item in inventory will be picked up from the Inventory Item Group. The system will use the default account from system parameters or specific to Cost Elements instead of the GL accounts in the Inventory Item Group that do not apply to specific items in the Inventory Group. For example, in Inventory, purchased items cannot have their own inventory GL account associated to them — only the GL from the cost element. This is the same with any purchased item in an Inventory Group. Therefore, since users can only assign GL accounts to manufactured and non-material items in Inventory users can only assign GL accounts to manufactured and non-material items in an Inventory Item Group. Likewise, due to the fact that purchased items cannot have a production variance account assigned on the inventory level, they cannot therefore have a production variance account assigned on the group.

Note: For groups with no EPlant assigned the system will take the GL account and EPlant plug based on the item. We recommend that if a group is associated to an EPlant all the GL accounts should be associated to that same EPlant so the correct EPlant plugged GL accounts are used.

Note: The 'Movement Classes' fields (Loose, Package, Pallet, and Max Pallet Stack) are only applicable for users with the Advanced WMS license. Refer to the **Advanced WMS https://my.iqms.com/cfs-file.ashx/_key/Technote/advanced_2D00_wms.pdf** TechNote on MyIQMS for more information.

Note: The Tax Class field is used with the Avalara Tax Web Service to get the correct tax amount for the get taxes request. If an existing item is added to a group the tax code from the Group populates on the item when the Propagate button is used. This will override the Tax Class if one was already associated to the item. (The Tax Class list is created from the 'Tax Web Service Setting' module accessed from the Tax Code Maintenance form (System Parameters->Lists menu). Please see the Avalara Tax Web Service TechNote for more information).

User Fields - The User Fields in the Inventory Group module are the same fields visible in Master Inventory. The information entered in the fields from here will populate in the corresponding user field in inventory.

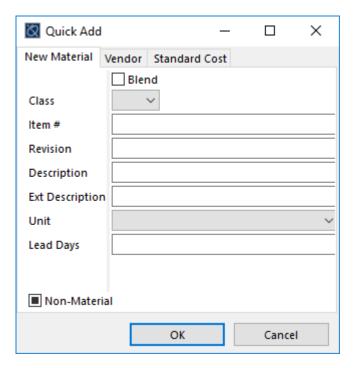
COGS Accounts - Specific COGS accounts can be associated to the Inventory Group to provide the ability to have different cost elements' Shipped GL accounts for COGS based on the item's inventory group. On the AR Invoice, if the item is associated to an inventory group and the group has a different cost elements' Shipped GL Account for a cost element associated to that inventory item, then the system will use that GL instead of the GL account on the cost element itself. To associate the cost elements and GL accounts to the group select the ellipsis button in the Element field and select the cost element from the pick list. Select the corresponding GL account from the drop down list.

Documents - From the Documents tab users can associate Internal or External documents, or Email Correspondence specific to the Inventory Group. These documents can be added to the Documents tab

in Inventory for the items in the group by clicking on the Synchronize Documents button confirm message will appear stating, "This option ensures all internal/external documents attached to a group are going to be attached to every inventory item in the group. Please confirm to continue." Select Yes to continue. Once completed a message will appear stating the synchronization is done.

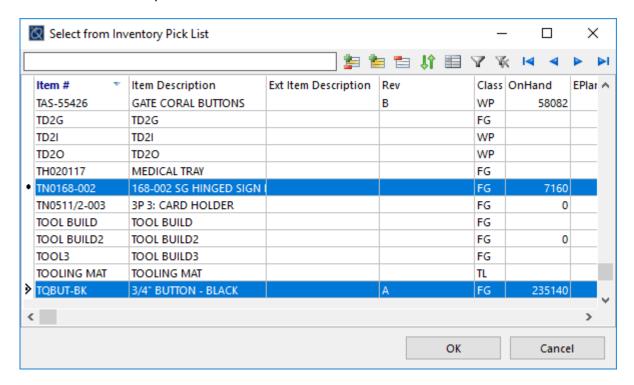
Create a New Inventory Item

To create a new inventory item from Inventory Groups select the 'Add new inventory item' button
The Quick Add pop up form will display to enter the basic item information such as item #, description
and unit of measure. The Class field will automatically be populated with the class from the group and
cannot be changed.



Associate Existing Items

Existing inventory items can be associated to the group by selecting the insert record (+) button in the lower navigator bar. A pick list of items will appear. This list includes both active and inactive items (in case they may become active later). The pick list can be sorted by clicking on a column header. Advanced filtering is available on this pick list. Multi-select the items using the toggle buttons at the top of the form or the Shift and Ctrl keyboard buttons.



Once the items are selected press the OK button and they will be added to the bottom section of the Inventory Group form.

Note: Existing items associated to a group will not automatically inherit the group's check box settings. This only occurs when when a new item is created. The only automatic change to an existing item is the Inventory Group field on the Additional tab will be populated with the group. Also, for both new and existing items the system will use a hierarchy when determining what GL accounts to use: Item specific, Group, System Parameters default.

Check box information can be propagated to existing items added to the group by using the Propagate button described below.

Propagate Check boxes to Items Additional Tab - If a check box is changed for a group, or an existing item is added to the group, this button can be used to propagate the groups check box settings to the selected items. Highlight the items to be updated using the toggle buttons or the Shift or Ctrl keyboard

buttons. Select the propagate button , and select Yes on the confirm box, and the system will update the check boxes on the Additional tab in inventory to match the Groups settings for the selected items.

Note: The 'Serialized Inventory Control' check box will be treated as follows: The system will not touch already serialized items with or without on hand inventory. The system will not change an item to serialized that has on hand inventory. The system will mark an item that has no on hand and is not serialized yet as serialized. If a user un-checks the serialized check box for a group and then hits propagate the system will un-check all the serialized inventory check boxes for the highlighted items.

Note: The 'Lot date is Mandatory during receiving' can only be checked if 'Lot# is Mandatory' is also checked.

Items can be removed from a group by selecting the Delete (-) button and selecting Yes on the confirm box. The group designation will be removed, but no changes will be made to the item's Additional tab check boxes.

Main Inventory Screen

The following discussion pertains to all classes of inventory - finished goods, plastics, inserts, and packaging. The differences among these types of inventory are discussed where appropriate.

NOTE: The process of data entry is very similar between the material classes. Each screen contains almost identical fields. However, there are some differences that are noted throughout the following sections.

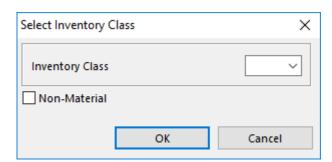
For the purposes of clarity, the PL items section details all of the fields within the raw material screen. Be sure to read this section carefully. The two other material classes - inserts and packaging - are discussed later, but do not include a discussion of some of the common fields - such as user notes, documents, manufacturing, pricing and standard costing. Instead, these sections focus on the different information captured.

Entering New Inventory Items

Items can be entered from the Inventory Item Group module or from Master Inventory. When entering the information from the Inventory Item Group module specific settings will automatically populate the new item. See Inventory Item Group section for details.

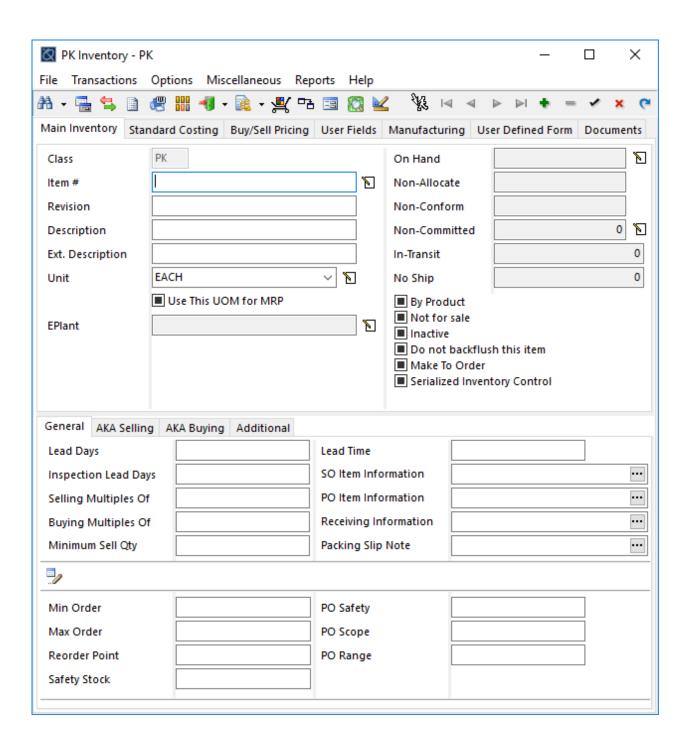
To enter a new item from Master Inventory follow the steps below:

From the **EIQ Launcher Bar**, click on the **Inventory** speed button or select **File|Manufacturing|Inventory** from the main menu. The Master Inventory pick list will appear. In the bottom right hand portion of the screen, click on **[New]** to enter a new item. The following screen will appear:



> Select an inventory class from the arrow down list and click on [OK].

Non-Material - When creating a new item, the user can check the Non-Material box. These items can be attached to BOMs but the system does not allow parts per to be entered for a non-material item. They can be shipped but are not dispositioned. Locations and On Hand quantities are not maintained for Non-Material items. Non material items can have an inventory and shipments GL account numbers associated (on the Buy/Sell Pricing tab in Inventory). The inventory GL will populate on the purchase order and the shipments GL is used when posting shipments. Non-material items are not intended for manufacturing purposes, and work orders for non-material items are not generated when running update schedule. Non-Material items can be displayed in WebDirect if the 'OK for Sale on WebDirect' option is checked.



If this is the first time accessing the inventory screen, all data fields will be blank (as shown above).

Use the field listing below to assist in filling in each of the fields shown on the inventory screen.

Main Inventory Tab Information

Class	Fills in automatically when the class is initially selected. This field cannot be modified.	
Item #	The inventory item number for this item (50 characters). If the System Generated Inventory # option is enabled in System Parameters->Sequential Numbering tab the Item # will be automatically populated with the next sequential number. Note: To view the ARINVT table ID for this item select the Alt F1 keys and a pop up will display the ID and the Table name. From the pop up users can right click to access copy, save, and print options. Show ID	
	Copy Cell to Clipboard Save List to File Print Stay on Top	
Revision	The revision level of the item (15 characters). Used primarily for manufactured items.	
Description	The description of the inventory item (100 characters).	
Ext Description	A second description field for entering additional information (100 characters).	
Unit	The unit of measure associated to the item. Select the UOM from the drop down list. A value cannot be typed in this field. For Class PL, this drop down list is hard coded and custom user defined UOMs are not displayed. Please see Units of Measure for details. If the item has unit of measure conversion(s) set up, the system will display the number of conversions associated with this item next to this field.	
Use This UOM for MRP	Select this box to indicate the item's UOM as the one to be used in MRP (Material Exceptions). If this box is not checked the system will use the Native UOM associated to the EPlant. For example, if the inventory item is in grams the material requirement planning will convert to pounds in material exceptions unless this box is checked. Note: GR or OZ will be converted to LBS in material exception unless "Use this UOM" is checked in inventory. This applies to both primary and attached components.	

On Hand The current on hand inventory quantity (up to 4 decimal precision). This value cannot be edited directly from this screen. Go to the **Locations and Transactions** screen. On Hand by Plant Click on the button to the right of the On Hand field to show on hand at each EPlant and or (Button) warehouse. For class PL items only the regrind quantities will also display. By EPlant - Check this option to see the On Hand for the current item. The EPlant listed is based on the FPlant associated to the current item. By Warehouse/Division - Check this box to see the on hand inventory per Warehouse/Division. Include same Inventory Items - When checked the on hand inventory will display for the same item in other EPlants. Х On Hand [Item ID = 147203] Total By FG Class ✓ By EPlant 05543-101 Item# ✓ By Division Include same Inventory items Revision EPlant Name Division Name On Hand CHICAGO PLANT 0 PASO PLANT 11469581 CANADA PLANT 100 The check box settings are remembered in the registry. **Non Allocate** This is the quantity of items that are marked Non Allocatable in inventory transactions. The amount in the on hand still includes the amount in non allocatable but this field shows how many of the on hand inventory is non allocatable. Setting an item to non-allocated indicates to EnterpriseIQ that the quantity IS part of the On Hand inventory amount, but is NOT considered during the MRP evaluation. This situation is typically used when an item has been received or is in stock, but is on hold for some reason. Setting an item to non-allocated is a temporary way to tell EnterpriselQ to ignore the quantity during the system evaluation, but maintain it in the On Hand inventory. **Non-Conform** The on hand quantity of non-conforming material. EnterpriselQ will not include nonconforming materials in any on hand balance and will not use non-conforming materials when calculating MRP requirements. In the case of raw materials, this has a direct impact when Enterprise Q generates raw material requirements. This value cannot be edited directly from this screen. Go to the **Locations and Transactions** screen.

Non Committed	This displays how many un-allocated items are in inventory since the last time update schedule ran. This field is also in the inventory pick list.
	The formula for <i>Manufactured</i> items is:
	On Hand - MFG Quantity - VMI Location quantities - MTO - MFG Safety Stock.
	The formula for <i>Purchased</i> items is:
	On Hand - Total Material Used (day_use_total.cum_mat_qty) - Total hard allocated for this item
	Note: For purchased items - When hard allocations are made to a work order for purchased components, the Non-Committed value in Inventory will be updated correctly after running update schedule.
	Note: If the calculation is negative the system will display zero.
	Note: When dispositioning MTO Items into inventory or allocating MTO inventory from SOs, the quantity is immediately not included in the Non-Committed value (before running update schedule). Releasing the MTO allocation adds the released quantity to Non-Committed.
	By clicking on the icon to the right of this field you can jump to the Daily Projected Material Requirements screen.
In-Transit	Displays the quantity in In-Transit locations.
No Ship	Displays the quantity in No Ship locations.
By Product	Used for materials associated to a Thermoform or TFORM2 BOM. If the user creates a By Product inventory item from one of these types of BOMs, this box will automatically be checked. The user can also check and un-check the box manually.
Not for sale	By checking this box it will keep the item from showing up on the Sales Order inventory pick list so it cannot be selected to be put on a Sales Order.
	It will be available to add to manual packing slips.
	An item marked Not for Sale will also be excluded from automatic matching in EDI.

Inactive Items can be made inactive which will 'hide' the item from all pick lists. In pick lists there is a button to 'view inactive' if users need to see items that have been marked inactive. If an item in Master Inventory is marked inactive a confirm message will appear asking if the user would like to inactivate the Quote Inventory item as well. If Yes is selected the quote inventory item will be marked inactive as well as the master inventory item. If a master inventory item is toggled back to active, the quote item is not automatically marked active. If the quote item should be active again users must uncheck the box from the Modify Quote Inventory Item form. Note: If a location still exists on an Inactive item, the inactive item will be included in the pick list for Physical Inventory and a tag will automatically be created by the system. To prevent this from occurring, remove any existing inventory and locations when marking an item 'Inactive'. After marking an Auto-MRP item inactive, work orders and material requirements are not generated when running update schedule, and the existing item on the internal stock sales order will not have releases. Do not backflush With the 'Do Not Backflush' option selected in Inventory, items (both manufactured and this item purchased) that are attached to a BOM will be excluded from backflushing during the disposition process. The item will also be excluded from standard cost calculations of the parent BOM, but does allow a standard cost rollup of the item itself. This feature is a global setting that overrides the 'Do Not Backflush' option on the BOM, and likewise is not intended for use (and has no effect on) an item when used as the main material on a BOM. Make To Order When this box is checked and a sales order is added the system will automatically mark the SO line item Make to Order. For more information see the Make To Order https://my.iqms.com/cfs-file.ashx/__key/Technote/Make_2D00_To_2D00_Order.pdf TechNote.

Serialized Inventory Control (SIC)

Inventory with this box checked will be tracked by serial number during adds, deletes and moves within EIQ and RF/WMS.

In Locations and Transactions the user can quickly see the labels associated to each location (FGMULTI record) by clicking on the Linked Labels button or right clicking on each location. The user can also see all labels printed for the item by right clicking and selecting 'Show All Locations Linked Labels'. Once a label is shipped it will no longer be visible here.

During any transaction within Locations and Transactions the user will be prompted to pick from available serial numbers.

Notes:

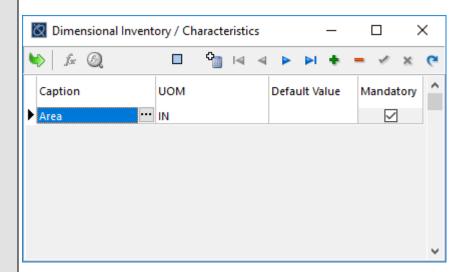
An item cannot be marked serialized if the on hand does not equal zero. A warning message will appear if this is attempted. The user should complete a physical inventory to match the on hand with serial numbers.

IQMS does not recommend using Serialized Inventory Control for material and components due to strict backflush location requirements in comparison to non-serialized items.

In order to alleviate decimal precision rounding issues for Serialized Inventory Control, two-decimal precision may be required in System Parameters on the Inventory Setup tab. This is particularly important if choosing (against our recommendation) to use Serialized Inventory Control for material and components.

Dimensional Inventory/ Characteristics

For SIC items only. Select the button next to the Serialized Inventory check box to define the Caption of the Dimension or Characteristic, and the UOM (if a Dimension). This can be set up for specific Inventory Classes and will automatically populate this form for new items. For existing items select the 'Load Default...' (green arrow) button to load the default characteristics associated to the inventory class.

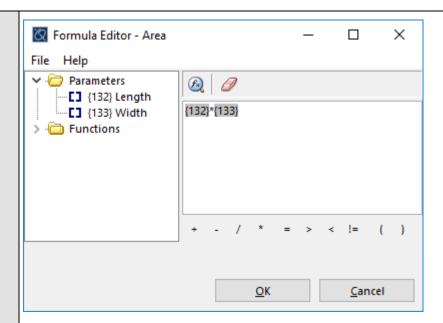


This information is accessible in the Print Labels>Dimensional Inv tab and Show Linked Labels in transactions. If the Mandatory check box is checked, labels cannot be printed until values are entered for the Dimensional Inventory/Characteristics. Users can enter a 0 value for a mandatory field.

This information can be used for shipping and invoicing based on the Actual Inventory Unit of Measure (UOM) entered when a label is created. When printing a label from anywhere in the system for the item, users are required to enter a value for the mandatory dimension. Once labels are printed, the dimensional value for each serial is stored in MASTER_LABEL_DIM.NVALUE. During scanning of a pick ticket, if there is a match on the inventory item custom UOM and the mandatory label custom UOM the system will use the actual UOM value from the label instead of the calculated UOM conversion for the item. This will carry over to packing slip and AR invoice.

Users can create calculated UOM fields through user-defined calculations that can be used in this process. UOMs included in the calculation must already exist on the Dimensional Inventory. To create a calculated dimension, select the 'Insert a new calculated UOM record'

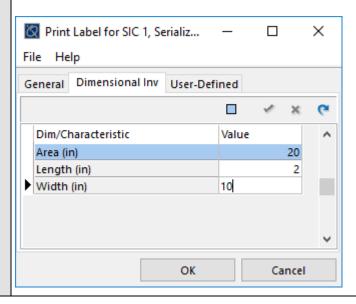
button on the Dimensional Inventory/Characteristics form. A Formula Editor form will appear to enter the calculation.



The formula is entered in the blank space on the right (up to 2000 characters). Only the other UOM (characteristics) associated to the item will be listed on the left. These parameters can be added to the formula by dragging and dropping them with the mouse.

Operators are found in the lower section. Just click on the operator to add it to the formula. (Note: Only the listed operators can be used). The calculated dimension will be highlighted in light blue. There are also an Edit Formula button that will open the Formula Editor to make changes, and a check formula for errors button.

Users can enter an optional Default value for any UOM in the Default Value column on the Dimensional Inventory/Characteristics form. When the labels are printed the default values will fill in but are editable. When users post the actual values, if there is a calculated field it will populate based on the formula.



	Note: Inventory transactions take place as always in native UOM.
EPlant	If you are using EnterpriselQ's EPlant module the EPlant you are logged into will populate the EPlant field automatically. It is not a required field if EPlant is not being used. To manually select the EPlant associated with the inventory item click on the 'Assign Plant' button near the field. Select the EPlant from the drop down list in the One Plant field. Select the 'Apply' button to update the field and automatically post it. If the 'OK' button is selected the change is made, but requires a manual post by the user.

Right Click Options

- Costed BOM Displays the costs associated to the item based on the default BOM. Please see Costed BOM in the Costing section for more information.
- Jump to BOM This option will be available if the item has a default BOM attached to it.
- Jump to Inspection Setup Users with a license for the SPC module can jump to the Inspection Setup module.
- Jump to Availability This will take the user to the Inventory Availability module for the item.
- Trace Brings up the Trace function. See the Trace section for more information.
- Copy Standard Cost to Clipboard This will copy the standard cost elements and costs to the clipboard for pasting elsewhere.
- Jump to Tier Table This option will jump the user to the Tier Table and display tier discounts that
 are associated to the item. For more information on Tier Discounts please see Tier Pricing in this
 section.

General Tab

Lead Days	The number of calendar days it normally takes to receive this item once a purchase order is created. Primarily used for purchased items. Used in the Material Exception List to generate a Must Order By date. It is the days between the must order by and the should arrive by fields. For example if the lead days = 14 and the Should Arrive By = 11/26/07, the Must Order By will be 11/12/07.
	Note: This field is also used if the 'Auto Populate Request & Promise Date based on Lead Time' option is checked in System Parameters on the Purchase Order and Sales Order setup tab, when adding a PO release using the '+' sign, dragging and dropping, or the Generate Releases option, the release dates populate using the item's Lead Days added to 'today's' date, taking into account the first receiving day found from Vendor Maintenance. The system looks first at AKA lead days when applicable, and if none it checks for warehouse/division lead days, and if none it uses the main item's lead days. If no applicable Lead Days exist for the item, the release dates are not automatically populated.
	Note: This value may be used in Sales Order Releases to evaluate the Lead Days+Must Ship Date. If it is equal to or greater than Promise Date a pop up warning will appear. The system will first look at the lead days in AKA Selling, if none it will use this value.
Lead Time	Optional. A text field used to write out the lead days (10 characters). Example: Lead Days is 7, then the Lead Time field might be ONE WEEK or 7 DAYS.
Inspection Lead Days	The number of inspection lead days for the item. If a value is entered in this field, during material planning the system will subtract the inspection lead days from the must arrive date.

Multiples Of

The values entered in these two fields will display in the appropriate section on the Buy/Sell Pricing tab.

Buying Multiples Of: Optional. The most commonly purchased amount of material. The purchase order requirements on the Material Exception List will then be created with the amounts rounded off to this number.

Example:

Item is normally purchased in 50 LBS bags, fill in 50 here.

Exact MRP engine requirement is 423 pounds.

Material Exception List generates PO requirement for 450 pounds.

If purchased items are purchased or sold, when adding the release information on a purchase order or a sales order, the system will warn the user if the quantity does not conform to the multiples of.

Selling Multiples Of: Optional. This field is used in conjunction with Sales Order releases and Sales Quotation quantities. Fill in 'multiples of' with the full box quantity. During order entry the user will be asked if they want to keep the original quantity entered or use the full box quantity. If custom unit of measures are used the system will convert those as well when performing this check.

This is also used to determine tier pricing when the 'Less Than Min. Upcharge %' option in AR Discount Tiers is populated. If the Selling Multiples Of is populated, and the Minimum Sell Qty is less than Selling Multiples Of, when the blanket quantity is less than the Selling Multiple Of the upcharge will apply. If they are equal, then standard waterfall pricing applies.

Note: This can also be entered on the AKA Buying and AKA Selling tabs. The information populated in the AKA sections will override the master inventory values when applicable.

Minimum Sell Qty

A minimum sell quantity value can be entered in this field, then if a release is less than the Minimum Selling Qty, a confirmation message will pop up stating, 'The release quantity, <qty>, is less than the Minimum Selling quantity, <qty>, for Inventory Item, <itemno>. Would you like to change it to the Minimum Selling quantity of, <qty>?' This pop up has a 'Do not show next time' option and Yes/No buttons. Security can be added to this confirmation message.

This field is also used in conjunction with the 'Less Than Min. Upcharge %' option in AR Discount Tiers. If a value is entered in this field and it is less than the Selling Multiples Of, and the blanket quantity on a sales order is less than Selling Multiples Of quantity the system will calculate the price break or Std price (based on the on 'Tier Price based on' setting) * Upcharge %. (Price + (Price *Upcharge %)). For example: With a tier price of \$10.00 and an Upcharge of 20%, the Selling price = \$12.00

Note: This can also be entered on the AKA Selling tab. The information populated in AKA will override the master inventory values when applicable.

Min Order	Optional. This is the minimum order quantity for the item, If a purchase order is created for less than this amount a warning message will appear requiring a security bypass. Note: If a zero is entered here the user will receive an error when creating a PO from the Raw Material Below Min material exception report stating 'Release qty must be greater than 0.' Note: This can also be entered on the AKA Buying tab. The information populated in
	AKA will override the master inventory values when applicable.
Max Order	Optional . This is the maximum order quantity for the item, If a purchase order is created for more than this amount a warning message will appear requiring a security bypass.
Reorder Point	Optional . This is the reorder point for the item. If the item is set up with a Reorder Point and the amount in inventory drops below the Reorder Point, the item will show up in the Material Exception List->Raw Material Below Minimum.
Safety Stock	Optional . A Safety Stock value can be entered for purchased items to create a false bottom. During the creation of material exceptions, the system will calculate the Total Exception as the total demand from the work orders plus the 'Reorder Point' amount for the inventory item less any on hand inventory plus the Safety Stock if applicable. Then this amount is rounded up to accommodate the 'Multiples Of' (standard packaging quantity) field found in inventory.
	For example: The work order demand is 165.35, on hand is 15, reorder point is 30 and the safety stock is 25 with no buying multiples of, the left to order is 205.35 (165.35 + 30 - 15 + 25).
	If the Buying Multiples Of is 100 then the Left to Order is 300 (rounded up to nearest 100).
PO Safety	Adds additional days to the lead days of the material when calculating the Must Order By date in the Material Exception List. It is the days between the should arrive by and the must arrive by fields. For example, if the PO Safety equals 2 and the Should Arrive By is 11/26/07, the Must Arrive By will be 11/27/07. (The system counts each day).
PO Scope	Used to determine the number of days of material requirements that should be entered as a single PO line item in the Material Exception List. Controls how much material to receive in against blanket order (i.e. only want to order enough material to complete production requirements over the next 7, 14, 21 days, etc.)
PO Range	Used in conjunction with the Ideal vs. Existing PO evaluation tool in the Material Exception List. This tool makes recommendations on how your current purchase orders might be re-arranged to acquire materials more efficiently. The Range value provides a baseline for making some of these assumptions. The suggested actions are based on comparing the 'Should Arrive' date with the 'Promise Date' on the purchase order. If the promise date falls within the PO Range the system recognizes it as meeting the demand.

SO Item Information	Information can be added in this field that will be displayed when the item is added to a sales order or CRM Quote. To add information in this field click on the ellipsis button and type the information in the pop up form. This field can hold up to 2000 characters. This information can also be added at the AKA level.
PO Item Information	Information can be added in this field that will be displayed when the item is added to a purchase order. To add information in this field click on the ellipsis button and type the information in the pop up form. This field can hold up to 2000 characters. This information can also be added at the AKA level.
Receiving Information	Information can be added in this field that will be displayed when the item is being received. To add information in this field click on the ellipsis button and type the information in the pop up form. This field can hold up to 2000 characters.
	This information can also be added at the AKA level. Note: This note does not display when processing the receipt using Receive ASN functionality through the scanners. The receiving note does display when processing the receipt through the Pending ASN Receipts Maintenance module in EIQ.
Packing Slip Note	This note will pop up right after a pick ticket is converted to a packing slip in EIQ as well as IQRF. When not using pick tickets, this note will pop up when a packing slip is posted. To add information in this field click on the ellipsis button and type the information in the pop up form. This field can hold up to 2000 characters.
	Security can be placed on this field so users cannot change but view in read only mode. Note: A Packing Slip note can be associated to a customer (Customer Maintenance- >Miscellaneous tab). If both the customer and item associated to a packing slip have a note, both notes will display in separate pop up windows.

Inventory PO Parameters by Division

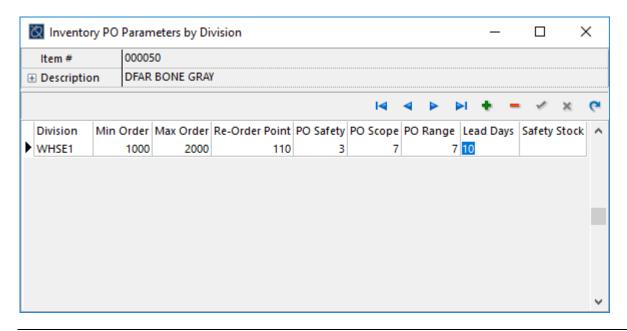
For *purchased* items only users can set up the PO Inventory Parameters per Warehouse/Division. This functionality allows users to enter specific settings for situations where different Warehouses/Divisions have different needs. For example, you may need to carry 100000 of item A in in your main manufacturing facility because you are producing items that use this item in a large quantity. However, in another division you may only want to have 200 on hand to cover repairs.

Note: When information is set up by division the PO parameters section on the main Inventory form will be grayed out and the system will use the division parameters or global parameters only. The system will default to the global parameters for PO Safety, PO Scope and/or PO Range if the Division settings are null or 0. It will allow for mix and match, for instance you could have PO Safety and PO Scope specified for a division while PO Range = 0, which would then default to global PO Range.

To enter this information select the button above the Min Order field . A form will appear to enter the parameters per Warehouse/Division. Select the Warehouse/Division from the pick list accessed by clicking the ellipsis button in the Warehouse/Division field. (Note: The name of this field will either be Warehouse or Division based on the Division setting on the Company File Information->Application tab in System Parameters). Enter the values in the Min Order, Max Order, Reorder Point, PO Safety, PO Scope, PO Range, Lead Days, and Safety Stock that pertain to this item for the specific Warehouse/Division. The system will use these values in material exceptions.

Note: When the option to 'Auto Populate Request & Promise Dates based on Lead Time' is selected in System Parameters->PO and SO Setup tab, the Lead Days hierarchy for adding PO releases in the PO module is: 1) Buying AKA Lead Days, 2) Warehouse/Division Lead Days, 3) Inventory Master Lead Days.

Note: The system will separate the requirements based on the division associated to the MFG Cell on the BOM or the work center. If the BOM has a MFG Cell with a division the material requirements will be separated for the specific division if the work order is not scheduled or scheduled on a work center with a division associated to the MFG Cell. If it is scheduled on a work center without a division linked to a MFG Cell, the requirements will be included in the non division requirements. If the BOM does not have a MFG Cell with a division the material requirements will only be separated for a division if the work order is scheduled on a work center with a MFG Cell with a division.

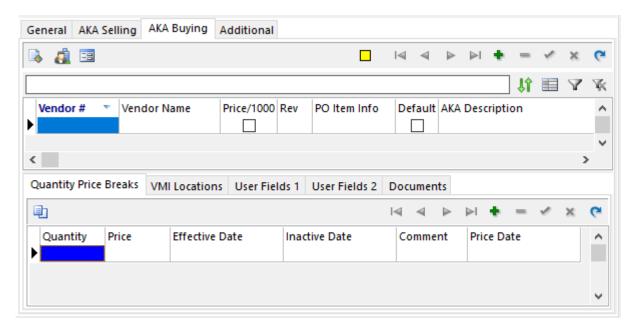


NOTE: The PO fields on the General tab are for the specific inventory item only. Defaults for the PO Safety, PO Scope, and PO Range can be set up by going to **Misc/Parameters**. The system will use what is set on the individual inventory item if it is blank then it will look to the system defaults set in Parameters.

AKA Buying

AKA (Also Known As) Buying

Click on the AKA Buying tab to access this information. The following screen will appear.



➤ The AKA buying system provides a cross reference of the vendor part numbers to internal part numbers. The primary focus is on providing an effective way to show different pricing schemes related to different vendors. The system allows the input of multiple vendors along with their different pricing. The system will then use the pricing entered under the AKA tab when purchasing to the vendor listed.

NOTES: If no vendors are set up under AKA, then the system will use the pricing set up under the Pricing tab.

AKA Description	The description of the AKA item.
AKA Ext Description	The AKA Ext Description field provides another field to enter additional information on the AKA item. This field is also in the select by AKA pick list in purchase orders and on the PO.
AKA Item #	The AKA item number that this particular vendor recognizes the internal item number as. This item number may be entirely different than the original internal item number.

Buying Multiples Of	The most commonly purchased amount of material. The purchase order requirements on the Material Exception List will then be created with the amounts rounded off to this number. Example: Item is normally purchased in 50 LBS bags, fill in 50 here. Exact MRP engine requirement is 423 pounds. Material Exception List generates PO requirement for 450 pounds. If purchased items are purchased or sold, when adding the release information on a purchase order or a sales order, the system will warn the user if the quantity does not conform to the multiples of.
	Note: A Buying Multiples Of can be entered for the master inventory item on the General tab. The system will first look to see of the AKA item has a value, if not it will use the value for the master inventory item.
Cost Element	For items that are purchased and manufactured (have a BOM associated to it), this field will be visible to associate a cost element that will be used in translog when receiving the item. When receiving the item in, if the Cost Element and Std Cost in AKA Buying is populated for that Vendor, the system will use the values entered in AKA Buying instead of the standard cost on the Standard Costing tab in inventory.
	Note: The inventory account the system uses will be based on the hierarchy used for manufactured items even when a cost element is assigned to the AKA and the item is purchased from a vendor. It will check the inventory account at the inventory item level and then the inventory group. If neither are populated then it will use the default inventory GL account. It will not use the recv/dispo account on the cost element.
Currency	If Multi-Currency is enabled, this field can be used to select the currency code (i.e. USD, CAD, etc.) to associate to the price breaks. If the currency is not filled in the system uses the default currency. For example, if you have a CAD vendor and the price breaks are in CAD, choose CAD for the vendor in AKA selling. If you do not put CAD the system assumes the price breaks are the default.
Default	Check this box for the default vendor to be used when creating a new PO from material requirements.
	If there is not a vendor marked default and there are multiple lines in AKA buying, the system will display a pick list of the AKA vendors/items when making a new PO from material requirements.
	Note: The system will always display the Seq. 1 vendor in material requirements and not the one marked as the default.
Documents	Internal and/or External documents may be associated to a specific AKA record. The Print With options are: None, PO, or All. There is also a tab for Email Correspondence.
Lead Days	Enter the Lead Days for this AKA item. This is informational only unless the option to 'Auto Populate Request & Promise Dates based on Lead Time' is selected in System Parameters->PO and SO Setup tab. If that is checked the Lead Days hierarchy for adding PO releases in the PO module is: 1) Buying AKA Lead Days, 2) Warehouse/Division Lead Days, 3) Inventory Master Lead Days.
	Note: This value is not used for material exception calculations.

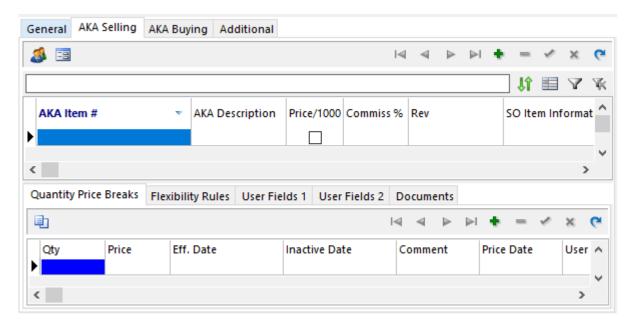
Min Order	This is the minimum order quantity for the item, If a purchase order is created for less than this amount a warning message will appear requiring a security bypass.
	Note: If a zero is entered here the user will receive an error when creating a PO from the Raw Material Below Min material exception report stating 'Release qty must be greater than 0.'
	Note: A Min Order can be entered for the master inventory item on the General tab. The system will first look to see of the AKA item has a value, if not it will use the value for the master inventory item.
OEM	If the OEM check box in Vendor Maintenance is checked this box will be checked. This box cannot be edited from this screen. A list of OEM vendors and their distributors can be accessed in Vendor RFQ's. Then an OEM vendor can be selected which will add their distributors to the list of vendors to send the RFQ to.
PO Item Info	Information can be added in this field that will be displayed when the item is added to a purchase order. To add information in this field click on the ellipse button and type the information in the pop up form. This field can hold up to 255 characters.
Price/1000	If this box is set to "Yes", the pricing will be based on 1000 units rather than Each.
Quantity Price Breaks	Enter Quantities and Price Breaks for each AKA item. To do so, select the vendor AKA item and begin entering in all quantities and price breaks for that item. (Quantities go out to two decimal places). Optionally enter an Effective Date, Price Date and an Inactive Date. If the effective date is in the future or the inactive date has passed, the line item will display in gray. (Note: If only the effective date is entered without an inactive date the line item will always be white). To hide inactive pricing select the Hide Inactive toggle button.
	A comment (up to 255 characters) may also be entered.
	This section can be sorted on any column, by selecting the column header.
Rec Insp Threshold and	Inventory items can be marked for receiving inspection. The Threshold is the number of posted receipts after which the user is notified of a needed inspection.
Count	The Count is the number of receipts posted since the last inspection. The line item in receiving will change color when an inspection is required.
Receiving Item Info	Information can be added in this field that will be displayed when the item is being received. To add information in this field click on the ellipsis button and type the information in the pop up form. This field can hold up to 2000 characters.
Rev	The revision of the AKA item.
Seq.	This is the sequence number for the attached vendors. This will default to the next number as vendors are added. The first will be Seq 1, the second will be 2, and so on. This field can be manually changed.
	If the Default feature mentioned above is not being used, when creating a new PO from material requirements, the system will use the vendor with the lowest sequence number.

Std Cost	For items that are purchased and manufactured (have a BOM associated to it), this field will be visible to enter a standard cost that will be used in translog when receiving the item. When receiving the item in, if the Cost Element and Std Cost in AKA Buying is populated for that Vendor, the system will use the values entered in AKA Buying instead of the standard cost on the Standard Costing tab in inventory.
	Note: The inventory account the system uses will be based on the hierarchy used for manufactured items even when a cost element is assigned to the AKA and the item is purchased from a vendor. It will check the inventory account at the inventory item level and then the inventory group. If neither are populated then it will use the default inventory GL account. It will not use the recv/dispo account on the cost element.
Unit	A specific unit of measure (UOM) can be assigned to an AKA record by selecting one from the drop down list. If the AKA UOM is populated, when adding the AKA item to a purchase order the UOM on the line item will default to the UOM listed on the AKA.
	The hierarchy for assigning a UOM to the purchase order line item is as follows:
	- AKA UOM
	Master Inventory UD UOM marked 'PO Default'
	Master Inventory Native UOM
	Note: The quantity in the AKA Quantity Price Breaks will still be in the Native UOM and prices should reflect the cost of one unit in the Native UOM so that if there is a PO UOM conversion, the price conversion will be accurate when applied to a Purchase Order.
User Fields	Two additional tabs are available in this section; User Fields 1 and 2. The User Fields 1 tab contains ten alphanumeric user fields. User Fields 2 tab has ten numeric user field. The user-defined label text is dependent on item classes. These user fields are for informational purposes or can be added to reports.
Vendor#	The vendor's number. This will populate automatically based on the Vendor selected.
Vendor Name	The vendor's name. To select a vendor, click twice in the field and then click on the ellipse button to access the pick list.
Vendor Type	Select Distributor or OEM from the drop down list to indicate the vendor type. This is informational only.
VMI Locations	VMI locations can be assigned to the AKA item by selecting a VMI location from the pick list accessed by clicking on the ellipsis button in the Locations field on the VMI Locations tab. Only locations marked VMI that are not used by another AKA Buying row can be added. Once a location has been assigned the AKA Buying record will be highlighted in yellow indicating it is a Vendor VMI.
	When receiving is done the item will be placed in a VMI location (which is marked non allocate). Performing a move out of the VMI location into a normal location will trigger the creation of another PO receipt and post it. The Receipt is then available in AP Invoices. See Vendor Managed Inventory for Suppliers - Consignment for details.

- > Vendor RFQ The user can create a Vendor RFQ for items by selecting the Vendor RFQ speed button. Please see Vendor RFQ for details.
- ➤ **Hide Inactive Vendors** Click the Vendor button to hide inactive vendors. If the Vendors are not hidden they will display with a gray background.
- Right Click Options: From the AKA Buying tab the user can right click to: Jump to the Vendor, Trace changes, access the User Defined Form.
- ➤ **User Defined Form** Select the User Defined Form speed button or right click and select 'User-Defined Form' to create/access the user defined form associated to the AKA Buying tab. User defined forms allow the user to create a unique form to store information beyond the scope of the original form. The form can contain an unlimited number of fields. For more information see User Defined Forms.

AKA Selling

Click on the AKA Selling tab to access this information. The following screen will appear.



➤ The AKA selling system provides a cross reference of the customer part numbers to internal part numbers. The primary focus is on providing an effective way to show different pricing schemes related to different customers. The system allows the input of multiple customers along with their different pricing. The system will then use the pricing entered under the AKA tab when selling to the customer listed.

Note: Before making any changes to AKA Information, post all invoices. This will ensure that the correct AKA information is retained with the Sales Order detail, Shipment detail, and AR Invoice detail. Any changes made to the AKA Information prior to invoicing will lose Customer Item Number (custo_itemno) and Customer Description (custo_descrip) AKA information once invoiced, see AKA Kind and Ship To Attn.

AKA Description AKA Ext	The description of the AKA item.
Description	The AKA Ext Description field provides another field to enter additional information on the AKA item. This field is also in the select by AKA pick list in sales orders and on the pick ticket.
AKA Item #	The AKA item number that this particular customer recognizes the internal item number as. This item number may be entirely different than the original internal item number.
AKA Kind	This field can be populated to describe the specific AKA Kind related to the AKA. This field enables users to create multiple AKA records for the same customer, item number, and ship to address. The records are unique based on the combination of Customer+Item#+Ship To Address+AKA Kind.
	The 'AKA Kind' column is visible in the Sales Order AKA pick list so users will be able to pick the correct AKA item #.
	On the Sales Order, a second pick list will populate when you enter your inventory item that has multiple AKA records with different AKA Kind with the same AKA Ship To, allowing user to select the correct AKA Kind.
	Note: Before making any changes to AKA Kind, post all invoices. This will ensure that the correct AKA information is retained with the Sales Order detail, Shipment detail, and AR Invoice detail. Any changes made to the AKA Kind prior to invoicing will lose Customer Item Number (custo_itemno) and Customer Description (custo_descrip) AKA information once invoiced.
	Note: Items with an 'AKA Kind' will populate AKA information and pricing on the Sales Order line item only when the item is added by AKA to the Sales Order.
Commiss %	This is the commission percent that will be used when the item is sold to the AKA customer (up to six decimals). This allows the user to pay a different commission percent when selling the same product to different customers.
	The system will use the commission hierarchy to establish the salesperson(s) and commission percentage when a sales order is entered.
	Note: When changing the salesperson via the Commission field in AKA Selling, the Commiss % field will only be updated if the field was blank. If the Commission % should be different it must be changed manually.
Commissions	Salesperson(s) can be associated to the AKA item by selecting them from the drop down list in this field.

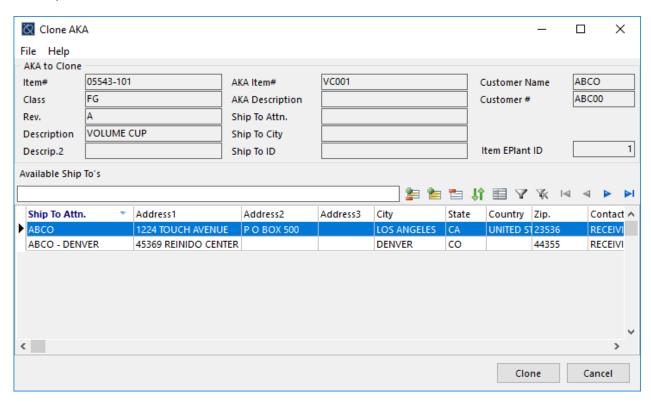
Currency	If Multi-Currency is enabled, this field can be used to select the currency code (i.e. USD, CAD, etc.) to associate to the price breaks. If the currency is not filled in the system uses the default currency. For example, if you have a CAD customer and the price breaks are in CAD, choose CAD for the customer in AKA selling. If you do not put CAD the system assumes the price breaks are the default.
Customer #	The customer's number. This will populate automatically based on the Customer Name selected.
Customer Name	The customer's name. To select a customer, click twice in the field and then click on the ellipse button to access the pick list.
	A customer can only be added once to the AKA unless they have different Ship To addresses.
Documents	Internal and/or External documents may be associated to a specific AKA record. The Print With options are: None, Sales Order, Sales Order Acknowledgment, Work Order, Certificate of Conformance, or All. This enables users to print documents specific to an AKA record when printing a report such as work order.
	There is also a tab for Email Correspondence.
Drop Ship	Check this box to designate the AKA item as drop shipped. This is an item that is shipped directly to the customer from a vendor. (In other words, it is used to bypass bringing product in-house and then re-shipping to customer). When a sales order for a drop shipped item is created the system will prompt the user to create a purchase order for the default vendor.
Flexibility Rules	Flexibility Rules are used in conjunction with EDI for FG items. The system determines the maximum allowed quantity increase or decrease based on the selected day range. Orders that comply with the Flex rules are passed through to the Sales module. Orders that do not comply, get flagged. Flexibility Rules can be setup for each AKA number for each Customer.
	When flexibility rules are set up on an AKA item and a new EDI order is converted outside of these flexibility rules, the system generates an error like the following: "Proc. [CheckFlexibilityRules] Order# %s, Item# %s, Del. Date %s: The percentage (%s) is over the lower limit of %s".
Labels Menu Title	This is the name of the shipping label to be used for the AKA item.
Lead Days	This is the number of lead days required for the AKA item. If the Lead Days + the Must Ship Date is equal to or greater than Promise Date a warning will appear stating, "The Must Ship Date + Std Lead Days is equal to or greater than the Promise Date". This will enable users to determine if an order is being placed within the agreed to lead time.
Mfg #	Select the MFG # that produces the Item from the drop down list.
Mfg Division	This displays the division of the cell associated to the BOM.

Minimum Sell Qty A minimum Selling Qty, a confirmation message will pop up stating, 'The release is less than the Minimum Selling Qty, a confirmation message will pop up stating, 'The release quantity, qty- , is less than the Minimum Selling quantity, qty- , is less than the Minimum Selling quantity of, qty- , for Inventory item, qty- , is less than the Minimum Selling quantity of, qty- , 'This pop up has a 'Do not show next time' option and Yes/No buttons. Security can be added to this confirmation message. This field is also used in conjunction with the 'Less Than Min. Upcharge % option in AR Discount Tiers. If a value is entered in this field and it is less than the Selling Multiples Of, and the blanket quantity on a sales order is less than Selling Multiples Of quantity the system will calculate the price break or Std price (based on the on 'Tier Price based on' setting) * Upcharge % (Price + (Price * Upcharge %)). For example: With a tier price of \$10.00 and an Upcharge of 20%, the Selling price = \$12.00 Note: A Minimum Sell Qty can be entered for the master inventory item on the General tab. The system will first look to see of the AKA item has a value, if not it will use the value for the master inventory item. Price/1000 If this box is set to "Yes", the pricing will be based on 1000 units rather than Each. Enter Quantities and Price Breaks for each AKA item. To do so, select the vendor AKA item and begin entering in all quantities and price breaks for that item. (Quantities go out to two decimal places). Optionally enter an Effective Date, Price Date and an Inactive Date. If the effective date is in the future or the inactive date has passed, the line item will always be white). To hide inactive pricing select the Hide Inactive toggle button. A comment (up to 255 characters) may also be entered. This section can be sorted on any column, by selecting the column header.		
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Quantity Price Breaks Enter Quantities and Price Breaks for each AKA item. To do so, select the vendor AKA item and begin entering in all quantities and price breaks for that item. (Quantities go out to two decimal places). Optionally enter an Effective Date, Price Date and an Inactive Date. If the effective date is in the future or the inactive date has passed, the line item will display in gray. (Note: If only the effective date is entered without an inactive date the line item will always be white). To hide inactive pricing select the Hide Inactive toggle button. A comment (up to 255 characters) may also be entered. This section can be sorted on any column, by selecting the column header. There are five User text fields and five Numeric User fields in this section to add additional information to the price breaks. Click the header to customize the caption. Rebate Parameter A Rebate Parameter can be associated to the AKA Item by selecting one from the pick list accessed by clicking on the ellipsis button. When the AKA item is associated to a sales order, the Rebate Parameter field will populate with this parameter. When an AR Invoice for the sales order is paid in full the system will calculate the amount of the rebate in the Rebate		General tab. The system will first look to see of the AKA item has a value, if not it will
begin entering in all quantities and price breaks for that item. (Quantities go out to two decimal places). Optionally enter an Effective Date, Price Date and an Inactive Date. If the effective date is in the future or the inactive date has passed, the line item will display in gray. (Note: If only the effective date is entered without an inactive date the line item will always be white). To hide inactive pricing select the Hide Inactive toggle button. A comment (up to 255 characters) may also be entered. This section can be sorted on any column, by selecting the column header. There are five User text fields and five Numeric User fields in this section to add additional information to the price breaks. Click the header to customize the caption. Rebate Parameter A Rebate Parameter can be associated to the AKA Item by selecting one from the pick list accessed by clicking on the ellipsis button. When the AKA item is associated to a sales order, the Rebate Parameter field will populate with this parameter. When an AR Invoice for the sales order is paid in full the system will calculate the amount of the rebate in the Rebate	Price/1000	If this box is set to "Yes", the pricing will be based on 1000 units rather than Each.
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Parameter accessed by clicking on the ellipsis button. When the AKA item is associated to a sales order, the Rebate Parameter field will populate with this parameter. When an AR Invoice for the sales order is paid in full the system will calculate the amount of the rebate in the Rebate		
Manager module.		accessed by clicking on the ellipsis button. When the AKA item is associated to a sales order, the Rebate Parameter field will populate with this parameter. When an AR Invoice for the
To remove the parameter from being associated to the customer, right click and select 'Clear Rebate Parameter'.		
Rev The revision of the AKA item.	Rev	The revision of the AKA item.

Selling Multiples Of	This field is used in conjunction with Sales Order releases and Sales Quotation quantities. Fill in 'multiples of' with the full box quantity. During order entry the user will be asked if they want to keep the original quantity entered or use the full box quantity. If custom unit of measures are used the system will convert those as well when performing this check.
	This is also used to determine tier pricing when the 'Less Than Min. Upcharge %' option in AR Discount Tiers is populated. If the Selling Multiples Of is populated, and the Minimum Sell Qty is less than Selling Multiples Of, when the blanket quantity is less than the Selling Multiple Of the upcharge will apply. If they are equal, then standard waterfall pricing applies.
	Note: A Selling Multiples Of value can be entered for the master inventory item on the General tab. The system will first look to see of the AKA item has a value, if not it will use the value for the master inventory item.
Ship To Attn	A specific Ship To address can be associated with the AKA item. This allows users to have different pricing based on the Ship To address. When a sales order is entered for an AKA item the system will match the sales order shipping address to the AKA item's ship to address for the customer to find the correct pricing. Only active Ship To addresses will appear in the pick list.
	To clear an associated ship to address, right click and select 'Clear Ship To'.
	Note: If the user chooses to use this ship to functionality it is mandatory that a second AKA record without ship to information be entered. In several areas of the software the system filters on this AKA ship to information and without the AKA record with no ship to the items will not show in the pick list.
	Note: Before making any changes to AKA Ship To, post all invoices. This will ensure that the correct AKA information is retained with the Sales Order detail, Shipment detail, and AR Invoice detail. Any changes made to the AKA Ship To prior to invoicing will lose Customer Item Number (custo_itemno) and Customer Description (custo_descrip) AKA information once invoiced.
Ship To City	The city associated to the selected Ship To address.
Ship Division	This is the Division/Warehouse associated to the Ship To address if applicable.
SO Item Info	Information can be added in this field that will be displayed when the item is added to a sales order. To add information in this field click on the ellipse button and type the information in the pop up form. This field can hold up to 2000 characters.
Supplier Code	This field is set up in Customer Maintenance->Ship To->EDI tab.

Unit	A specific unit of measure (UOM) can be assigned to an AKA record by selecting one from the drop down list. If the AKA UOM is populated, when adding the AKA item to a sales order the UOM on the line item will default to the UOM listed on the AKA.
	The hierarchy for assigning a UOM to the sales order line item is as follows:
	■ AKA UOM
	■ Master Inventory UD UOM marked ' OE Default'
	■ Master Inventory Native UOM
	Note: The quantity in the AKA Quantity Price Breaks will still be in the Native UOM and prices should reflect the cost of one unit in the Native UOM so that if there is an OE UOM conversion, the price conversion will be accurate when applied to a Sales Order.
Use Lot Charge Lot Charge	Select the 'Use Lot Charge' box if the pricing is based on a lot charge and not a quantity price, and optionally enter the lot charge amount in the Lot Charge field. When this is checked, when a sales order is created and the item is added, the system will pop up a field to allow the user to edit or enter the lot charge. Once the lot charge is entered, a separate line will be created automatically for a miscellaneous item, with an item description of Lot Charge, a blanket quantity of 1, and the lot charge populated in the price field.
	Note: If this box is checked price breaks cannot be entered. The pricing is based on quantity breaks or a lot charge, it cannot be both.
User Fields	Two additional tabs are available in this section; User Fields 1 and 2. The User Fields 1 tab contains five alphanumeric user fields. User Fields 2 tab has ten numeric user fields. These user fields are used for informational purposes or can be added to reports.

- ➤ **Hide Inactive Customers** Click the Customer button to hide inactive customers. If the Customers are not hidden they will display with a gray background.
- ➤ **User Defined Form** Select the User Defined Form speed button or right click and select 'User-Defined Form' to create/access the user defined form associated to the AKA Selling tab. User defined forms allow the user to create a unique form to store information beyond the scope of the original form. The form can contain an unlimited number of fields. For more information see User Defined Forms.
- > Right Click Options: From the AKA Selling tab the user can right click to:
- Jump to the Customer
- Trace changes
- Clear the Ship To
- Jump to Ship To opens Customer Maintenance at the Ship To tab
- Attached Commodities (see AKA Commodities section below)
- Clone AKA
- When the Clone AKA option is selected a multi-select pick list will appear displaying all of the ship to address for the AKA customer for the EPlant associated to the item.



➤ Select the ship to addresses that this item should be associated to using the toggle buttons. Once the selections are made, select the Clone button, select Yes to confirm, and the system will clone the highlighted AKA for each selected ship to. The cloned records will be identical to the original AKA (including AKA breaks, Flex rules, User fields, SO Item Information, Commissions, and Documents). If an AKA already exists for the ship to that was selected, the system will skip that ship to and continue creating the AKA records for the other ones.

AKA Selling Commodities

From the AKA Selling tab, right click and select Attached Commodities. This allows the user to associate a commodities charge with an AKA item. The commodities charge will automatically be added to the AR Invoice as a separate miscellaneous line item with a quantity of one and a unit price calculated based on the selected procedure (AMOUNT_SUR_RATE or JUST_AMOUNT). The amount will post to the GL account associated to the commodity.

Commodities are set up by selecting Commodities from the Options menu. Please see Commodities for details.

NOTE: Commodity charges will be applied on a AKA Item/Ship To basis. Commodity charges will be applied from the non-ship to AKA if there are no AKAs with Ship To's assigned.

- AMOUNT_SUR_RATE will calculate as follows: Unit price = invoice quantity (from item row just added to invoice) * AKA Commodities Amount * Commodities Surcharge Rate
- JUST_AMOUNT will not use the sur charge rate and will calculate as follows: Unit price = AKA Commodities Amount
- PRCENT_SUR_RATE This Procedure allows a percentage of the extended line item price to be added
 as a commodity. During AR Prepost, an attached Commodity with Percent_Sur_Rate procedure will
 calculate as follows: unit price = (Invoice Quantity * unit price) * (Commodities Surcharge Rate /100)
- **SAC_DISCOUNT** This stored procedure is for use with recorded SAC EDI segments If this commodity is configured, and the order has recorded SAC segments, the following rules apply when creating the invoice:
 - 1) If SAC01 = A and SAC07 is populated, the commodity amount = (ABS(SAC07)* .01 * Qty Shipped * Unit Price) * -1.
 - 2) If SAC01 = A and SAC07 is null, the commodity amount = (ABS(SAC08) * Qty Shipped) * -1.
 - 3) If SAC07 and SAC08 are both null, or SAC01 <> A, do not apply a commodity.
 - 4) A separate commodity line should be added for each SAC segment (there can be more than one SAC).

Note: If no procedure is selected the system will default to Amount Sur Rate.

To access this option right click in the AKA Selling section and select 'Attached Commodities.' From the Options menu select 'Commodities' to first set up the various commodities. Enter the commodity description, surcharge rate, actual rate (informational only), and the GL account associated to the commodity. Select a Procedure for the calculation by clicking on the ellipsis button in the field to access the pick list.

If the **Propagate Commission** option is checked when the commodity is added to the AR invoice, along with the inventory item, the commodity will have the same commission as the inventory item.

Once the commodities are created they are associated to the AKA item by selecting the ellipsis button in the Commodity field on the AKA Commodities form.

Additional Tab in Inventory

The Additional page maintains some inventory class specific information, as described below. For example, in the case of FG items, it maintains the default customer and the bill of lading shipping information (NMFC#). The PL class uses this tab to store additional information related to the raw material. See below for a full discussion.

The following information is stored on the Additional tab. All possible fields are listed below in alphabetical order. The fields actually displayed on the additional tab is based on the inventory class of the selected item.

Auto Populate Service Central at Shipment	If this option is checked, when posting a packing slip the system will automatically create a CRM Service Central record. The Serial # field will populate with the Lot # associated to the location the items were shipped from (FGMULTI.LOTNO), if there is no lot number the field will be blank. The Sold To field is the Customer from the packing slip, the Inventory item is the item from packing slip, and the Date Active will be the packing slip date. The system will populate the Packing Slip # field on the Service Central record.
	If a second packing slip is created for the same item with the same lot # a second Service Central record will not be created as one exists for the lot already.
Automate Directed Task Generation	This option, if enabled, activates automated directed task generation at the inventory item level. Tasks will be generated automatically for all items with this setting enabled.
	If the system-wide 'Automated Directed Task Generation' has been enabled within the Directed Task Monitoring module, this setting does not matter - tasks will be generated automatically for all items and all work centers.
	If the system-wide setting has not been enabled, however, this setting confines the automated directed task generation functionality to only these items with the setting enabled.

Blend - Oper #	If this raw material is made up of a blend, an Operation # will be present in this field or the user may define a new blend. To define a new blend, click on the pick list near this field. Defining a new blend is discussed below. To delete a blend associated with the inventory item, click on the red minus button. The item will still be in inventory but not as a blend.
Color Group	Inventory items can be associated to a color group to be used on the GVS schedule to display the work orders in the color associated to the main material of the BOM. This allows users to quickly identify like materials for grouping on the schedule.
	Select the Color Group code from the drop down list. The Color Group Codes list is accessed from the Miscellaneous menu in inventory.
Count	The Count is the number of receipts posted since the last inspection. The line item in receiving will change color when an inspection is required.
Cycle Count Code	The Cycle Count Code is used in the Physical Inventory module. It allows a material to be assigned a pre-defined code and then physical inventory work sheets can be generated for specific Cycle Count Codes. Items can be automatically assigned a Cycle Count Code based on Sales % Rank, Transaction velocity, or manually assigned a code. See Cycle Count Codes for details.
	Last Cycle Count - The last date the item was counted when doing a Physical Inventory using the work sheet method and choosing the cycle count code. This date is used to determine if an item needs to be cycle counted based on the Counted Per Year value associated to the item's Cycle Count Code. The date used depends on the 'Cycle Count Code Based On' option that is selected for the code associated to the item (in the Cycle Count Codes list->Miscellaneous menu).
	This field is also used when creating physical inventories for Location(s). On the Cycle Count Code tab, by default, the Tags will be created for each location found for the selected cycle count codes. Users can select the 'Requiring Count Only' toggle button on this tab to have the system only create tags for those items that require counting based on the Counted Per Year field and the Cycle Count Date (FGMULTI.CYCLE_COUNT_DATE) for the selected location(s)/cycle count codes.
	In Physical inventory when Recording Inventory Adjustments the system will update the 'Last Cycle Count' date (Arinvt.cycle_count_code_date) with either the current Record Adjustment Date (default) or the Transaction Date.
	Refer to Physical Inventory for more detail.

Default Customer	A default customer can be associated with manufactured items or purchased items if they are resold. This field will automatically populate with the customer associated to the BOM associated to the item if applicable. The Default Customer is only automatically populated when the item is first created from the BOM. To add or edit, select the Customer using the pick list accessed by selecting the search button near this field. Right click and select 'Clear Default Customer' to remove the associated customer. (This field is not a drop down selection in order to avoid opening a large lookup table). Proprietary - Select the button next to this field to set the default customer as the Proprietary customer. A pop up form will appear listing the current default customer. This can be changed by clicking the ellipsis button in the field and selecting a different customer from the pick list. This will also update the Default Customer field on the Additional tab. Enter an Effective Date and Inactive Date from the drop down calendars in the fields. If 'today' is in the Effective Date range, the Default Customer field will be displayed with a green background to indicate it is in a Proprietary state. Items in a Proprietary state may only be added to Sales Orders for the Default Customer. If a user attempts to add it to a sales order for a non default customer the user will receive and error stating, 'Inventory item # xxx is proprietary to customer xxx - operation aborted.' If the effective and inactive dates are not populated, or are in the past or the future, the field will not be green and the item can be sold to any customer. Note this check is only on adding the item to the order. If the customer is then changed it will not be enforced.
Default FIFO method	This is the default FIFO method used in Pick Ticket and WMS processing for this item. This will override the default selection in System Parameters->Inventory Setup. Select from the drop down list: System Default - This will use the FIFO Method selected in System Parameters->Inventory tab In-Date - This will use the In-Date to determine FIFO Lot Date - This will use the Lot Date to determine FIFO Expiry Date - This will use the Expiry Date to determine FIFO Lot # Based FIFO - This will use the Lot # to determine FIFO To clear the field, select it and hit the 'delete' key. Note: VMI, IN Transit, MTO, Hard Allocated, Non Conform, and No Ship locations are excluded from Lot # Based FIFO.
Discount Group	This is used with SAC Discounts. An inventory item can be associated to a Discount Group by selecting one from the pick list accessed from the ellipsis button. When the item is added to a sales order for a customer that has the 'Use Discount Parameters' option checked, the SAC Discounts associated to the Discount Group will be applied to the line item and carry over to the AR Invoice.
Drop Ship Only	Check this box if the inventory item is always drop shipped. When an inventory item is added to a sales order, the inventory level drop ship option will override the AKA level drop ship option. For example, if inventory level drop ship only is checked, but AKA level drop ship is unchecked, the order detail line will be marked Drop Ship. Default is Inventory level unchecked.
Dry Time	(PL Class only). The number of hours required to dry the material. Used in the quote to calculate production hours.

Dry Temp	(PL Class only) The recommended temperature for drying the material.
Exclude from CoC	When checked the item will not be included in the calculations of the Certificate of Conformance. It can be added manually to the CoC.
Exclude from CTP Visual Material Exception	If this is checked the system will exclude the material exception flag for the item in (Capable to Promise) CTP.
Exclude from Finite Schedule Visual Material Exception	When this box is checked, if a material exception exists for the item, it will not cause the work order # to turn red/white on the Finite Schedule.
Exclude from Work Order Materials and Components	This option is only available if licensed for 'Advanced WMS'.
	When this box is checked ShopData/AssyData will not include this material in the Work Order Materials and Components screen.
Floor Disposition	This feature is used to establish the floor dispositioning rules for the item. The user can select from three options:
	Use Production Report Switch - This is the default option. The system will use what is selected in the production report parameters screen to determine whether to disposition partials or not.
	Do not disposition partials - With this selected only the quantity floor dispositioned will be dispositioned into inventory. The difference between good parts and floor dispositions will be ignored during Production Reporting. (No additional parts will be available for dispositioning into inventory other than the amount that was Floor Dispositioned
	Disposition partials - The system will Floor Disposition all Good parts not just those that were floor dispositioned.
Forecast WO Time Fence	The work order time fence option designates a time in days that you do not want the system to generate a forecast work order for releases that are within that time fence. This value can be set as a default system value from within Forecast parameters or per inventory item which will override the default.
Gauge	This is for class PL items only. This is the gauge of the material. This is used in Thermoform type BOMs.
	If the gauge of the attached material is changed in master inventory, the system will ask the user if the change should be propagated to all of the BOMs that use the material. Security can be placed on the pop up message. The pop up message also includes a 'Do not show next time' check box.
	The Gauge field can be changed from a specific BOM without affecting the default gauge value associated to the raw material in inventory

Group Code

This is a user defined list used to designate which group an item belongs to. This is visible in several areas of the system to enable users to sort and filter on the Inventory Group Code. It is currently in the areas listed below:

- Grouping ID Assignment and Assembly Track Sandbox modules which are used with the licensed Assembly Track By Group module
- Work Centers within RealTime™ Production Monitoring can be sorted by Group Code
- Where Used Can be sorted by Group Code on the Attached To, Main Material, and Sales Config tabs
- Inventory Group module sorting is available
- Scheduling Add/Insert Work Order (sorting is available)
- Scheduling Text Mode Lower Grid (sorting is not available but users can move the Group Code column)
- Update Schedule Regenerate Schedule grid view (sorting is available)
- Scheduling Graphical View GVS WO Caption
- Scheduling Window Accessed from Sales Orders in the header and Releases->Work Order Information
- Sales Order pick list
- Archived Sales Orders pick list
- Work Order pick list
- Archived Work Order pick list
- ICT
 - Step three in the Transaction Wizard
 - View Inventory form and pick list
 - eKanban Triggers form
- MRO Parts tab
- Engineering Quotes
 - In all pick lists and tables if the displayed item is linked to a master inventory record. This includes areas such as: RFQ pick list, Quote Inventory Maintenance, Current Materials, Attached Packaging, and Operations.
- BOMs
 - In all BOM module pick lists such as: BOM pick list, Add Material, Change Material, Add Packaging, Add Component, and View/Edit Processes and Operations.
- Process Cost In all Item # pick lists on all four tabs, and in the Advanced Filter pick list feature.
- IACJ screen (sorting is available)

Hard Allocation Decimal Rounding	If the field is 0 or greater, in the Qty field in the upper section of the Allocated Materials form and the Qty to Allocate field on the Allocate Material form, the quantity for the inventory will be rounded to the nearest number based on this value. If this field is null it will round out up to six decimals depending on the actual quantity required.
	Note: This is not applicable for Serialized Inventory Control items (SIC). The full quantity of serial(s) selected are hard-allocated regardless of this setting.
Include in Forecast	(Purchased items only) If this option is checked the item will be listed in the Forecast module. If forecasts are added to the item and the 'Generate Work orders' option is checked in Forecast parameters, it will appear in the material exception list. The text in the middle section of the Projected Exception screen will be blue indicating it is forecast DRP demand. (Note: a work order will not be generated.
Intrastat Code	Intrastat stands for Intra EC Trade Statistics. Intrastat is the method of collecting information on the movement of goods between countries of the European Community.
	This field is used to designate the specific Intrastat Code for the inventory item.
Inventory Group	This is the Inventory Group associated to the item. A group can be assigned to the item from here by selecting the ellipsis button in this field and selecting the group from the pick list. Only groups with the same class as the item will be available to choose from.
	For more information see Inventory Item Group.
Is Pallet	(PK Class Only) Check this box if the packaging item is a pallet. It is used to determine pallet count in conjunction with parts per on the BOM. In the RF module it is used for the print label function 'Print on Complete Pallet.' Based on the part per field the system will recognize when a full pallet has been reached and prompt to print a label.
	Also, if this box is checked when a pick ticket is converted to a packing slip the Pallet Count field on the Packing Slip will populate automatically with the pallet count.
Label Image	Allows an image (*.jpg or *.bmp) to be linked to an inventory item and then printed on the label when labels are printed. To link an image to the item, click on the button to the right of this field and locate the image on the network or computer and click on Open. The file name and path will then be displayed in this field. Refer to the Label chapter (Attaching an Image to a Label) for more information on setting up the label.
Label Menu Title	This is the name of the primary label you want associated with the inventory item. Select the label from the drop down list.
Label Printing Interval	For 'Label Printing Assistant' module users only. Enter the value in seconds that the user must wait to print another label for the same item. The program will look at this field first and use its value to determine how often a label can be printed, if there is no value for this item the program will use the default interval within the Label Printing Assistant parameters. See the Label Printing Assistant https://my.iqms.com/cfs-file.ashx/_key/Technote/LabelPrintAssist.pdf TechNote for more information.

Loose Weight

The individual weight of one single item and does not include packaging items. The UOM comes from the Weight UOM in Inventory Parameters. For manufactured items this is the same field as the Loose weight field in BOL Data. When it is updated on one of the fields it will also update the other one.

This is used with the option to calculate the BOL using weight for each item on the BOM. Please Calculate BOL based on individual component weights for more information.

Note for items associated to a Thermoform/TForm2 BOM: For users installed before version 2011, updating the Item Weight on the BOM modifies this Weight field in Inventory. For users installed after version 2011 this field will not automatically populate from the BOM, but if for some reason this is a requirement please contact IQMS support and the required trigger can be provided.

Lot # is mandatory

Expiration Date is Mandatory

Lot Date is mandatory during receiving

With this box checked the system will require a lot number for transactions such as ins, outs, and moves. If the user tries to do a transaction to a location without a lot number an error message will appear: 'Unable to continue - missing mandatory field Lot #'.

Lot Date is mandatory during receiving - If the 'Lot # is mandatory' option is checked the user can also select the 'Lot Date is mandatory during receiving' option to force users to enter a lot date during receiving.

Expiration Date is Mandatory - If the 'Lot # is mandatory' option is checked the user can also select the 'Expiration Date is Mandatory' option. If this is checked for an item, the user will be prompted to enter an Expiration Date when doing a Change FG Lot # in RT Monitor or Assembly Track, when processing a transaction for an inventory item in IQRF and WMS such as receiving or Add by Item, and when dispositioning in Production Reporting by Work Order and Report Final Assembly in Assembly Track. If the transaction is called while auto dispositioning from a Production Report by Shift, the MFG # on the production report will be marked in red indicating there is a Disposition Error, which is, "Missing mandatory lot expiration date - operation aborted".

Note: An item cannot be marked mandatory lot number if it has locations associated to it that do not have lot numbers. A warning will appear if this is attempted.

Note: If an item has 'Lot# is Mandatory' in conjunction with a Receive Designator location, the default Receiving location must have a Lot# or users will not be able to receive that item using IQRF/WMS.

When printing labels, if a lot number is not entered on the label, a warning will appear stating, 'Lot # is Mandatory for 'Item #'. Continue?' Select No to return to the label form to enter the Lot#. If the user selects Yes, the label will be printed without a Lot#. Security can be added to this button. The pop up also includes a 'Do not show next time' check box.

Note: For manufactured items, a FG Lot # on the BOM may be required for disposition transactions.

M : 4 : DOM : 1 : 1 : 6	
Maintain BOM Label Info during EPlant Transaction	When an inventory move results in an intercompany transaction, if this option is checked the system will not update the source item MASTER_LABEL.STANDARD_ID or MFGNO. The purpose is so that a user can determine the original BOM used even after an intercompany transfer has been done on the item. Note: This switch is setup on the target item number not the source.
	Note. This switch is setup on the target item number not the source.
MSDS Authorable	The MSDS Authorable setting can be specified for an entire class of material or for an individual item. To mark a class as MSDS Authorable select 'Inventory Class MSDS Setup' from the Options menu in the Chemical Abstract Service form (Inventory - >Miscellaneous menu).
NMFC #	National Motor Freight Carrier shipping code used to describe the type and class of the item to be shipped. This is used for a Bill of Lading.
Non-Taxable - Sales Orders	If this option is checked, when adding the item to a sales order the system will not populate the Tax Code column. This will override the Tax Code associated to the Ship To address for the customer.
Non-Taxable - Purchase Orders	If checked when a purchased item is added to a purchase order, regardless of the tax in the header section of the purchase order, the item will not be taxed. If unchecked the item will be marked 'Taxable' in the PO Detail if there is a tax code entered on the PO.
OK for Sale on Web	Check this box to make the inventory item available for sale to all WebDirect B2B and WebDirect B2C customers without requiring an AKA for each. Note: This checkbox is only available if licensed for either WebDirect B2B (WEB) or WebDirect B2C.
Plug Value	This is used for informational purposes only.
Product Code	Select the product code type for the item from the drop down list. Product codes are used to group like products together for volume price discounts and for the Repair module to establish items with similar replacement part lists. Product Codes can also be used to establish pricing for items stored in one unit of measure and sold in another. Please see Using Product Codes for converting prices for UOM Conversions.
	The list of Product Codes can be accessed from the Miscellaneous menu in Inventory.
	Note: If an item has a Product Code assigned and that product code has a decimal precision set, the decimal precision will be applied to that item's unit price throughout WebDirect B2B.
Rebate Parameter	A Rebate Parameter can be associated to the inventory item by selecting one from the pick list accessed by clicking on the search button. When the item is associated to a sales order, the Rebate Parameter field will populate with this parameter. When an AR Invoice for the sales order is paid in full the system will calculate the amount of the rebate in the Rebate Manager module.
	To remove the parameter from being associated to the customer, right click and select 'Clear Rebate Parameter'.

Rec Insp Threshold Inventory items can be marked for receiving inspection. The Threshold is the number of posted receipts after which the user is notified of a needed inspection. If licensed for SPC, there will be a button next to this field to setup Receiving SPC Information. × Receiving SPC Information Setup Receive to Non-Conform Location Use SPC Inspection Close Receive to Non-Conform Location - This is the non-conform location the item will be received into during receiving when the threshold has been met. When posting the receipt, the system will populate the 'Assign New Receiving Location' form with this location, and the user cannot edit the location. To setup a location, select the ellipsis button to access the pick list of non-conform locations. Choose from the list or select the new button to create a new non-conform location. Use SPC Inspection - This is the SPC Inspection Group to be used for the inspection. Select the ellipsis button to access the pick list of inspection groups associated to the item. When an item that requires inspection is received it will be listed in Quick Inspection for the Non-Conform Inventory Type. To clear the field select the eraser button. **Regrind On Hand** (PL Class only) The amount of regrind that is on hand. EnterpriselQ stores regrind material separately within the same record as the virgin material. This value cannot be edited directly from this screen. Go to the Locations and Transactions screen. Note: If regrind is to be valued, then regrind will need its own inventory master record. The regrind column is not used in actual or standard costing. RF/ShopData Backflush This can be checked for materials that are attached to BOMs. With this checked along by Serial with 'Auto-Backflush on RT scan to inventory' in Production Reporting parameters, when users are performing RT Scan to Inventory, Floor Dispositions, and Disposition Label(s) Current Shift or Multiple Shifts from Print RealTime Labels, users will be prompted to scan serial numbers for the materials that will be backflushed. **RG Value %** (PL Class only) The percent of the cost of the virgin material that should be applied to the regrind. This is informational only, and can be used for reports.

Serialized Inventory Inventory with this box checked will be tracked by serial number during adds, deletes Control and moves within EIQ and RF/WMS. (This box is also on the Main Inventory screen). In Locations and Transactions the user can quickly see the labels associated to each location (FGMULTI record) by clicking on the Linked Labels button or right clicking on each location. The user can also see all labels printed for the item by right clicking and selecting 'Show All Locations Linked Labels'. Once a label is shipped it will no longer be visible here. During any transaction within Locations and Transactions the user will be prompted to pick from available serial numbers. Notes: An item cannot be marked serialized if the on hand does not equal zero. A warning message will appear if this is attempted. The user should complete a physical inventory to match the on hand with serial numbers. IQMS does not recommend using Serialized Inventory Control for material and components because the only way labels are backflushed automatically is in FIFO order. For Serialized Inventory Control it is recommended to use two-decimal precision in System Parameters on the Inventory Setup tab.

the location in red as expired.

The shelf life of the item in days. This is used in conjunction with Lot Dates to

determine if a lot is expired. Once the lot is expired the system will automatically mark

Shelf Life

Shelf Life 2 This can be used to track multiple shelf lives for raw materials. This is used primarily for items that require refrigeration. While in refrigeration the system will apply the Shelf Life. When the items are removed from a refrigerated location then the Shelf Life 2 value (in days) will kick in. If the Inventory Item's Shelf Life2 is populated, the system will mark locations in red if the System Date - locations in date is greater then the item's Shelf Life 2. When adding inventory in Transactions and Locations (or IQRF/WMS) to an existing location (fgmulti) with In Date other than 'today's' date, a message surfaces and the user must add a new location to populate the In Date of today. This is the same as when Unique Date-In is selected on an item. Locations can be set to 'Do Not Process Shelf Life 2' to establish rules for if/when the shelf life 2 will kick in. Location Shelf Life 2 examples: Type A = Process Shelf Life 2 Type B = Do Not Process Shelf Life 2 Moving from Type B to Type A Maintains Unique Date In – assigns System Date as In Date Moving from Type A to Type A Maintains Unique Date In – current In Date stays the same Moving from Type B to Type B Uses standard Unique Date In rules (see 'Unique Date In' below) Moving from Type A to Type B Uses standard Unique Date In rules (see 'Unique Date In' below) Receiving New Inventory to Type A Maintains Unique Date In – assigns System Date as In Date Receiving New Inventory to Type B Uses standard Unique Date In rules (see 'Unique Date In' below) Inventory Out either Type A or B Uses standard Unique Date In rules (see 'Unique Date In' below) The two Shelf life fields work independently of each other in determining a location (fgmulti) expired status.

SPG

The Specific Gravity of the item. This value is used in several areas of the system:

- It is used during quoting, along with the part volume to determine the part weight.
- It is used in the calculation of the SPG for a blend based on the SPG values for each attached material.
- Used in Thermoform and TForm2 BOMs to calculate the sheet weight.

Tariff Code Select the Tariff Code to be associated to this item from the pick list accessed by clicking on the search button. A tariff code is a number assigned to each type of product sold internationally. Each tariff code is issued by the World Customs Organization (WCO) through a database called the Harmonized System. This information can be added to official shipping documents such as Commercial Invoices and Shippers Export Declaration. The list of tariff codes is created from the Miscellaneous menu in inventory, or it can also be accessed from Lists menu in System Parameters. The Tariff Code can be changed by selecting a different one from the pick list. When it is changed the system will pop up a box for the user to enter the reason and the review date. The 'Reason for the Tariff Change' field is a user defined drop down list. The history of the Tariff Codes assigned to the item can be accessed by clicking the 'Tariff History' button . A form will display showing the Review date, Reason, Change date/time, User ID, and Old and New Tariff Codes and descriptions. Х Tariff History File Help Old Tariff Code New Tariff Code ▲ Review Date Reason Change Date/Time Changed du 10/31/2017 5:18:41 PN IQMS 3924.10.20 **Tax Class** This is used with the Avalara Tax Web Service to get the correct tax amount for the get taxes request. A Tax Class can also be associated to an Inventory Group. If an existing item is added to a group the tax code from the Group populates on the item when the Propagate button is used. This will override the Tax Class if one was already associated to the item. The Tax Class list is created from the 'Tax Web Service Setting' module accessed from the Tax Code Maintenance form (System Parameters->Lists menu). Please see the Avalara Tax Web Service TechNote for more information.

Unique Date-In

Setting this flag forces the system to maintain a unique date per location. The location stores an "In Date" - the date the transaction to that location occurred. This field is assigned with each transaction. Once the date of receipt is established, future movements of the item include the original location date. The date can be changed by right clicking on the location from within the Locations and transactions screen and selecting 'Change In-Date'. Note, when the In Date is changed it will no longer have a time associated to it.

Setting this switch is accomplished on an item by item basis. The check box can be found on all inventory items, on the Additional tab. By default, it is not active.

Rules for Unique Date In function:

When the 'Unique Date In' option is checked, the following transaction logic is invoked:

When ADDING to a location - if the On Hand amount of that location is zero, update the location date with the current system date. If the On Hand amount of that location is greater than zero, then make a NEW location with the current system date and time and the ORIGINAL location description. Noted Exception: If the Add is done in a manual disposition in Production Reporting by Shift, when the user selects an existing location with on hand, only the date is looked at, not date and time. If it is a different date than today, the user must create or select a location with today's date.

When MOVING from one location to another - If the On Hand amount is greater than zero, make a NEW location with the Original location date and time and location description. The idea is that you have merely moved the SAME item to a new location, but the original date the material was received will still be a part of the record.

In Receiving, the system only looks at the Date and does not consider a difference in Time. So, if the location selected has the same In Date as current date, then the quantity is added to the existing location. If the location selected has a different date, the user gets a message and needs to add a new location to receive into.

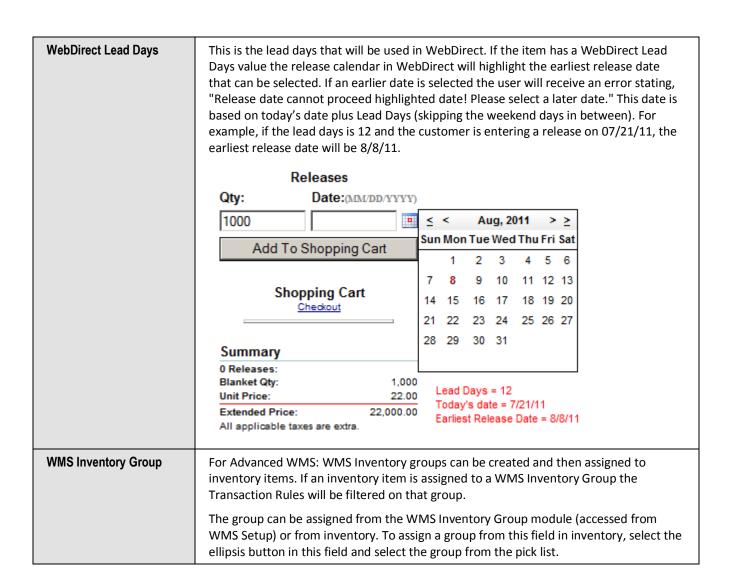
When the 'Unique Date In' option is NOT checked, the following logic occurs:

When ADDING to a location - If the On Hand amount of that location is zero, update the location date with the system date. If the On Hand amount of that location is greater than zero, simply update the quantity but DO NOT change the location date. In other words, use the original date of the location, do not change it to match the current date.

When MOVING from one location to another - If the On Hand amount is greater than zero, maintain the original date of the location as the date of the TO transaction. This means the original date of location will be maintained at the new location as well.

Whether or not the Unique Date In box is checked, the system date is used with the OUT (from) transaction when the location On Hand quantity is greater than zero.

Unique Disposition Locations on Move	With this option checked all IN move transactions to any location marked as a default disposition 'Dispo Designator' in Inventory Transactions and Locations will create a unique FGMULTI row even if it is the same lot number. This includes moves made from IQRF and WMSIQ. This is designed for manufactured components and raw materials in order to consume them based on FGMULTI_ID order instead of FIFO by In Date order. Auto dispositioning during backflushing or production reporting will relieve based on the FGMULTI_ID sequentially. The system will maintain the hierarchy consideration of default locations with Mfg# associated (for example: unique FGMULTI_ID's created using Direct Move WO will backflush before default locations without a Mfg# associated).
	It is important that the move transactions are done in order of how you want to consume them. For example, you have a partial box of 250 lbs and a full box of 1000 lbs of material. It is desired that the system consume the partial box first, so the user will first move the 250 lbs to the disposition location, and then the 1000 lbs to the same location. With this option checked the system will create two rows in FGMULTI and the system will consume based on the one that was moved into the disposition location first using the FGMULTI_ID.
	Note: This feature does not create unique FGMULTI_ID's with IN Disposition transactions (for this use the Unique Date-In check box in Inventory).
	Note: When moving material through scanners and by serial number, if the item has multiple locations existing of the same name, unless the item is marked 'Serialized Inventory Control' there is no guarantee that the material will be moved from a specific fgmulti of that location.
Use Std Cost in Engineering Quote	With this option checked the system will use the standard cost when assigning the material to an engineering quote instead of the price breaks.
Volume	The volume of the item. The UOM comes from the Case Dim UOM in Inventory Parameters. The volume for packaging items is used in the Bill of Lading calculation in the Packing Slip module. This information is also used in conjunction with the Pick Ticket parameter, 'Enable volume\weight calculations'. This is the same field that is in BOL Data->Case Volume. When it is updated on one of the fields it will also update the other one.



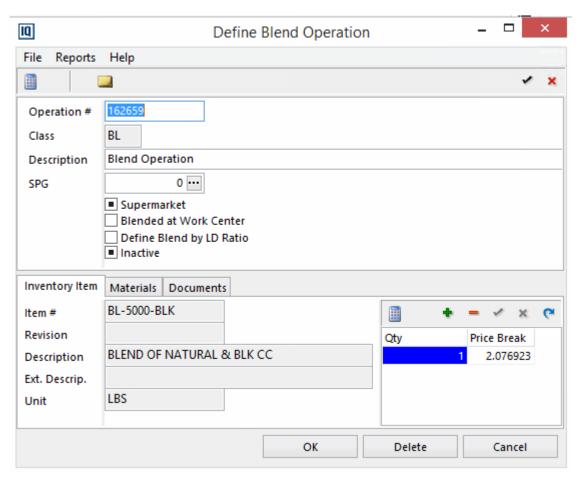
Blend Operations in EnterpriselQ

The inventory module supports the concept of blends which can be added as the primary material on a BOM (not as a component). A blend is an operation stored internally in **EnterpriselQ** and the operation dictates whether the final item is made up of two or more other items. Each item represents a percentage of the whole and the total percentages must add up to 100%. A blend can be "blended at the work center" or away from the work center. During Production Reporting and Dispositions, this field dictates how materials are consumed.

Creating a Blend

To create a blend, first create and save a new item of class PL. The item number and description should describe the final blend.

> Select the Additional Tab and click the blend icon located on the right side of the Additional Tab. The following screen will appear:



The system will automatically fill in the Class, Oper # and Description. These may be changed if necessary. The Inventory Item #, Revision, Description and Unit of Measure will also fill in automatically.

> Select whether the material is **Blended at Work Center**. This feature determines how product will be handled for material planning and dispositioning.

If Blended at Work Center is checked:

- Material Planning The system will not look at any blend on-hand, only the components. Only the components will show up in material exceptions.
- Dispositions Only the blend components will be dispositioned. The blend itself will not ever be removed during dispositioning.

If Blended at Work Center is not checked:

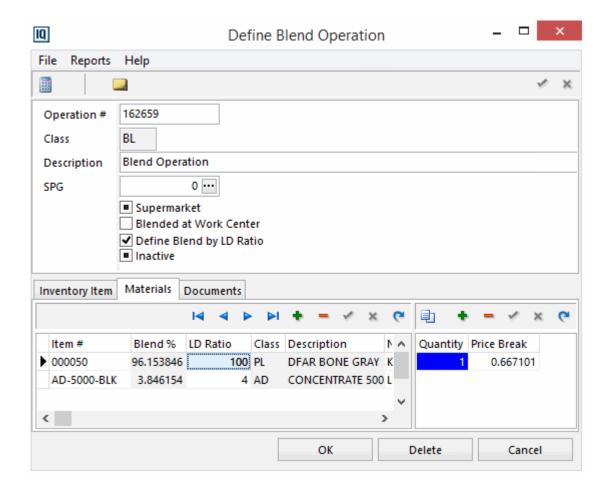
- Material Planning Material planning will first look at how much blend is on-hand and if there is not enough, the blend components will show on the material exceptions.
- Dispositions Only the blend will be removed during dispositioning, never the components.

Define Blend by LD Ratio:

A blend can be defined by **Let Down Ratio** instead of using percentages. To use LD Ratio, check the box 'Define Blend by LD Ratio' and enter in the ratio instead of a percentage. For example, if the ratio for resin to color is 17/1, enter 17 in the LD Ratio field for the resin and enter a 1 in the LD Ratio field for the colorant. The percentages will calculate automatically. When using LD Ratio first select the main plastic, then the additive, and then the let down ratios.

Materials Tab:

The next step is to define the materials which compose the blend. Click on the **Materials** tab to display the materials grid, as shown below.



Click [+] to add a new record, then click in the Item # field and use the ellipsis button to add the first material by selecting the material from the pick list. Once the material is selected, the pricing from the inventory Buy/Sell Pricing tab will be displayed in the right side grid. The pricing can be modified for the blend item. Any price changes made here will also change the value on the Buy/Sell Pricing tab for the inventory item. By default both active and inactive pricing will display. Select the button above the pricing section to hide inactive pricing.

Note: The materials added to a blend must all have the same unit of measure as the raw material inventory item. If a blend has a unit of measure in LBS the components must be in LBS also.

Note: Manufactured items should not be added as components of a blend operation as a work order will not be created for the component since a work order is not created for the blend. In situations where a manufactured item is part of a blend users should create a BOM for the blend rather than use the blend operation functionality. See Creating BOM's for Blends and Regrind using Phantoms Items for details.

- ➤ Enter the Blend% or LD Ratio as a whole number, not a decimal (unless your percentage is less than 1%). For example, to enter 95%, simply enter 95. To enter 4.2%, enter 4.2.
- Continue adding materials until all have been accounted for. The total of all material blend percentages MUST equal 100. If it does not, an error stating, 'Either no materials have been assigned to the blend operation, or the total blend percentage does not equal 100.' will appear.
- Calculating the buying price breaks for the blend is done by clicking on the calculator icon next to the price breaks section on the inventory item tab. Select which items price breaks to use then the system will calculate the blends price breaks from the prices and percentage information from all of the items that make up the blend. First, the system determines the 'quantity for the calculation' consideration (QFC), which is equal to the Blend Ratio for the component * the blend quantity. Using this QFC, the system then calculates the blend's price breaks using the following calculation:
- Blend price breaks = [(Component A's QFC * Component A's Price Break for QFC Amount) + (Component B's QFC * Component B's Price Break for QFC Amount)] / Qty of Blend. Note: If three components are used to populate the blend, then Component C would be taken into consideration, and so on.

For example: When calculating 1000 lbs. of blend made up of two components (A & B) that are set to 95% and 5%, where both components have two price breaks of \$0.50 for 1 qty and \$0.25 for 900 qty. The system first determines the QFC per component.

- Component A's QFC = .95 * 1000 = 950 lbs
- Component B's QFC = .05 * 1000 = 50 lbs

Then, the system will use component A's price break that corresponds to the 950 lbs (\$0.25), and it will use the price break that corresponds to the 50 lbs for component B (\$0.50). The blend price for the 1000 quantity, therefore will equal [(950 * \$0.25) + (50 * \$.50)] / 1000 = .2625.

> The user can also calculate pricing for ALL blends by clicking on the calculator at the top of the blend form. The breaks will use the same quantity price bracket used during the first calculation or if this is the first time calculated, the program will use the item with the largest percentage.

Note: The Seq # field in the Materials section is used in RealTime Process Monitoring to tie data collected to attached components of the BOM running in first position.

From the Material tab users can right click on an attached item and jump to inventory.

SPG - The Specific Gravity (SPG) for all items can be entered on the Additional tab in inventory. This information will display in the lower section for each item. The SPG for the blend can be calculated based on the SPG values for each attached material. To calculate the SPG for the blend select the ellipsis button in the SPG field and select Yes to confirm. The system will use the component's SPG and the percent of the blends content to determine the SPG for the blend. It is the sum of (SPG * Blend %) for all attached materials. For example: (1.1*0.95) + (0.8*0.05) = 1.045 + 0.04 = 1.085

Note: For costing purposes an item with a blend operation attached is considered a purchased component.

Note - Costing for inventory blends if there are two or more items attached with different cost elements:

- Blended at work center: When blended at work center is checked dispositioning will take the components of the blend out of inventory. PIT will process this as if it were a substitution since the blend components are not on the BOM. PIT will take out the full amount from each components GL and then adjust when it calculates how much was actually used. If exclude substitutions in system parameters is checked, the cost elements GL accounts are used and no substitution calculation is made.
- Not blended at work center: The main blend will be taken out of inventory. PIT will find the main blend, use its default cost element for processing. There is only one row in translog for the material used. PIT cannot match the second cost element. The other cost elements will be treated as variance since there is no 'match' found in the translog for that component cost element. This is the same if you had a purchased item with multiple cost elements.

If users want to have multiple cost elements on a blend it is recommended to use 'Blended at work center' to achieve correct costs on consumed components. The other option is to make the blend a Generic MFG item with a BOM. The system is not designed to have non manufactured items with multiple cost elements except when Landed cost type is involved.

Documents Tab:

You can also add Internal or External documents to the blend from the **Documents** tab.

Once the blend has been created, save all changes and exit this screen. The material is now linked to the blend.

Standard Costing Tab in Inventory

Standard Costing is the comparison of standard costs as defined by the Bill of Manufacture and the actual costs associated with the purchase and production of items. The STD Costing tab in inventory holds much of the information required to properly use Standard Costing. For an in depth discussion please refer to the Standard Costing section in the Costing Manual.

Security Note: Companies may wish to hide cost and price information for inventory items. In security inspector look for SHCOST and SHPRICING in the inventory Invt_Shell form. Remove visible and enabled and the tab(s) will disappear. Note that if the SHCOST is not enabled users will not be able to scroll through items on the Standard Cost tab or resize the fields on that page.

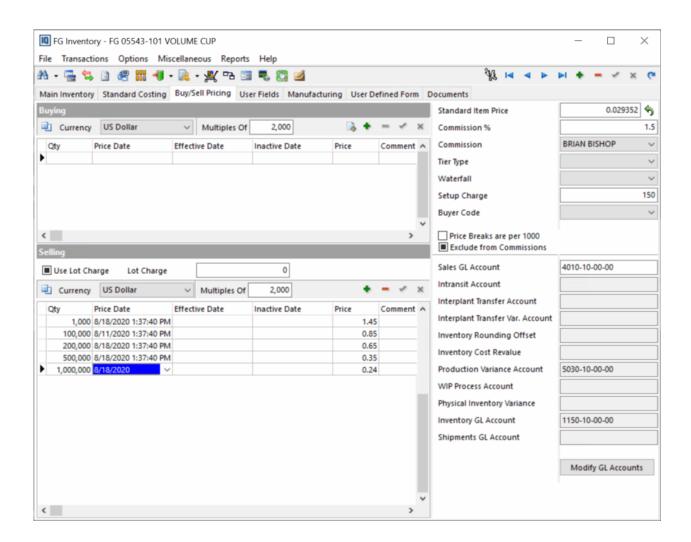
Buy/Sell Pricing Tab

DELMIAworks supports an unlimited list of price breaks for each inventory item. The screen is split to include pricing for Buying and Selling. The purchasing part of the system will look at the price breaks in the buying section and the sales order will look in the selling section. Access to the list of price breaks is under the Buy/Sell Pricing tab within the inventory module.

Each price break can support a quantity, price, price date, effective date and inactive date for multiple currencies. The system automatically uses pricing information entered on the Pricing tab when purchase orders or sales orders are created.

You can maintain a running history of price breaks by setting the inactive date to an old date. The pricing record will change colors showing an obsolete price. Prices with an inactive date will not be considered during the purchase order or sales order entry process.

Use Lot Charge - In the Selling section a lot charge can be used instead of price breaks. Select the 'Use Lot Charge' box if the pricing is based on a lot charge and not a quantity price, and optionally enter the lot charge amount in the Lot Charge field. When this is checked, when a sales order is created and the item is added, the system will pop up a field to allow the user to edit or enter the lot charge. Once the lot charge is entered, a separate line will be created automatically for a miscellaneous item, with an item description of Lot Charge, a blanket quantity of 1, and the lot charge populated in the price field. Note: If the Use Lot Charge box is checked price breaks cannot be entered. The pricing is based on quantity breaks or a lot charge, it cannot be both.



Select the desired 'Currency' from the drop down list above the price section. Pricing may be entered and stored for multiple currencies. If Multi-Currency is being used, price breaks cannot be entered without a currency. If attempted an error will appear stating, 'Please select a currency when adding Price Breaks'.

Note: There must be prices in all currencies, or when creating a sales order or CRM Quote the price will be blank for currencies without a price break.

Enter a specific 'Multiples Of' value for Buying and/or Selling if desired. Both fields will default to the 'Multiples Of' value entered on the Main Inventory->General tab.

Vendor RFQ - From the Buying section the user can create a Vendor RFQ for items by selecting the Vendor RFQ speed button . Please see Vendor RFQ for details.

Pricing may be entered and stored for multiple currencies. Enter the price break information using the field description below as a reference. The user can enter in as many quantities and price breaks as they like. The maximum decimal places is six. If you use the Quoting module, price information is imported automatically during the conversion process.

Price Breaks (Buying and Selling) - Left side of Pricing Tab.		
Quantity	The quantity associated with the price. To enter a quantity: Click on the ADD [+] key.	
	Place the cursor in the Qty field and enter a quantity.	
Price	The price of the item at that quantity.	
Price Date	Optional. The date the price was created or revised.	
Effective Date	Optional . The date that this price will be in effect. If the date is in the future the line item will be gray until the effective date.	
Inactive Date	Optional . The date when this price will no longer be in effect. The system recognizes the inactive date as the date entered however the line item will not turn gray until after that date has passed. To show/hide inactive price breaks select the Inactive toggle button.	
Comment	A price break comment (up to 255 characters) can be entered in this field.	

Right Side of Pricing Tab.

Standard Item Price

Optional. The default price of the item. If all fields are blank in the price break section (AKA Selling and Selling section on Buy/Sell Pricing tab), then the program will use the default value entered in this field. Also, some inventory value reports use the amount entered here to value the inventory item.

If this field is used for pricing on sales orders the user can update the price in this field then select the 'Update current sales orders price' button to update the price on selected sales orders.

A form will appear from which the user can select all or specific sales orders to update pricing on.

If a standard item price is entered for purchased items, a warning message will appear if the unit price on the requisition is greater than the standard item price. The warning box also has the 'Do not show next time' check box, if the standard item price is not entered for items.

Commission%	If applying commissions to the inventory item, fill in the amount of the commission. This field can only be edited if the commission field is associated to an individual not a commission group.
	Note : If a Commission Group is selected for the Commission field the Commission % field cannot be edited. For example, the group is John 5% and Tim 2% if you put in 10% in the commissions field, the system cannot determine how much of the 10% would go to each salesperson in the group.
Commission	Select the salesperson associated with the commission from the arrow down list. This list includes the salesperson/group name and commission percent.
Tier Type	Select a Tier Type from the arrow down list. Tier Types and Pricing are discussed in detail later in this section.
Waterfall	Select the Waterfall option from the drop down list to associate to the item if Waterfall Tier Discount pricing should be used. See Waterfall Pricing for details.
Setup Charge	If the setup charge is greater than zero, users entering a sales order for that item will get a notice that there is a setup charge associated with that item.
Buyer Code	Enter the Buyer Code from the drop down list. The list is a user created list which can be accessed in Inventory from the Options menu or from System Parameters->Lists->Buyer Code.
	This field flows through to material exceptions and daily project material requirements.
Exclude from Commissions	If this is checked commissions will be excluded from the sales order even if a salesperson is assigned to the item or an AKA item associated to the item.
Price Breaks are per 1000	If this box is checked, the system will base the pricing per every 1,000 pieces.

Sales GL Account	The General Ledger sales account for this item. If this field is blank, the system will use the default account number defined under System Setup System Parameters GL Setup. Each manufactured item in inventory can have multiple GL sales accounts, broken down by percentage. Click on the modify GL accounts button then right click on the Sales GL account and a form will appear for 'Sales Account Split'. From here you can specify multiple sales accounts and the percentage that you want to go to each account by clicking on the ADD (+) button on the form. When the Sales GL Account is a split this field will display in
	During A/R invoice posting, the sales amount of the invoice will be divided up between the multiple accounts. In the A/R invoicing module, if the sales account for the item is found in the split sales account table, the account will appear in blue. This way users can easily tell that this item on this invoice has a split sales account. If the sales account is then un-split, user should delete the multiple sales accounts from the right-click screen. This will take the item out of the multi-sales account table and the items sales account will no longer appear in blue. The sale account will revert back to the one found on the buy/selling tab in inventory.
	Note: For EPlant users - The sales accounts associated to items MUST have the EPlant suffix added to them.
Intransit Account	This is the Intransit Account used for interplant transfers. This applies to manufactured and purchased inventory items. An Intransit Account can be assigned in in Inventory Groups and in System Parameters->GL Setup tab.
	Note: Accounts must be assigned for items that may undergo an Interplant transfer.
Interplant Transfer	This is the default GL account used for interplant transfers. This applies to manufactured and purchased inventory items.
Account	An account can be assigned in Inventory Groups and in Inventory on the 'Buy/Sell Pricing' tab and in System Parameters -> GL Setup tab.
	Note: Accounts must be assigned for items that may undergo an interplant transfer.
Interplant Transfer Var. Account	This is the default variance account used for interplant transfers. This applies to manufactured and purchased inventory items.
Account	A variance account can be assigned in in Inventory Groups and in Inventory on the 'Buy/Sell Pricing' tab, and in System Parameters->GL Setup tab.
	Note: Accounts must be assigned for items that may undergo an interplant transfer.
Inventory Rounding Offset	This account will be used to capture out of balance amounts due to large quantities reported and decimal precision used in the parts per calculation.

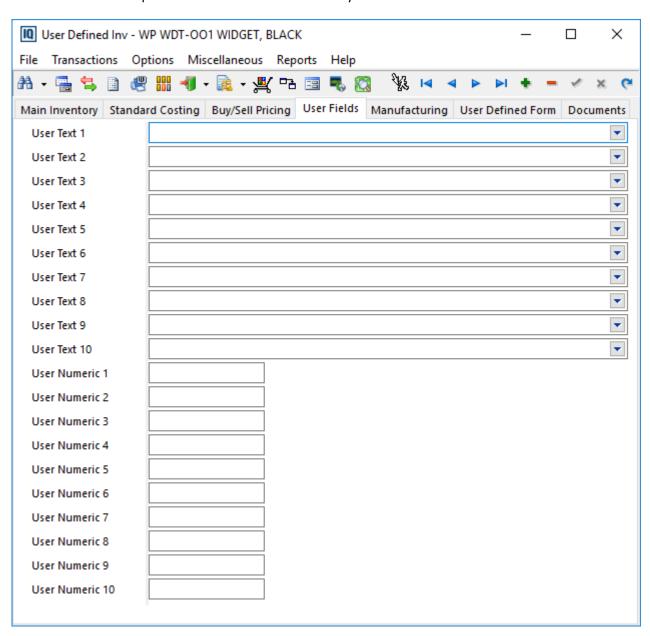
This account will be used when rolling a new standard cost for both purchased and manufactured items.
Manufactured Items Only. This account will be used when the manufactured item is consumed into a generic and there is a difference between the parts per and the actual usage. If the account is empty, the system defaults to the MFG Production Variance account when actual usage is different and the Production variance account for standard cost changes. Both default accounts are set up in System Setup System Parameters GL Setup.
Purchased Items Only. This is the purchased price variance account used for this item. The PPV Account is used when posting Purchase Price Variances during AP invoicing. PPV is the difference between the PO price and the Standard Cost. If this field is blank, the system will use the default account number defined under System Setup System Parameters GL Setup.
Manufactured Items Only. This account is used only for ASSY MFG Type items. As items are reported complete for a certain process they will go into inventory and post to this WIP Process account. Once the item is done with its processes it will change from a WIP item to a FG item. This account is also accessible from Options->Inventory Accounts. When using non-ASSY manufacturing types the 'WIP Inventory' account will use the Inventory GL Acct# field referenced above. Please Note: In order to have this account affected by ASSY3 items, the 'Backflush Each Process' option must be checked within the Manufacturing Type.
Manufactured Items Only. This is used only for interplant transfers.
Manufactured Items Only. This account will be used in post inventory transactions for physical inventory variances. If this is not populated at the item level the system will use the physical inventory variance account number defined under System Setup System Parameters GL Setup. If that account is also not populated the production variance account number defined under System Setup System Parameters GL Setup will be used.
Manufactured Items and Non-Material items Only. The General Ledger inventory account for this item. If this field is blank, the system will use the default account number defined under System Setup System Parameters GL Setup. Note: For EPlant users - The inventory accounts associated to items MUST have the EPlant suffix added to them.

Shipments GL Account	Manufactured Items and Non-Material items Only. This account will be used when posting the Shipments transaction type in Post Inventory Transactions. If the item does not have a specific account associated to it, the system will use the Shipments Pending Invoicing default account number defined under System Setup System Parameters GL Setup. Note: This is only used when the 'Post Shipments awaiting invoicing/PIT' parameter is
	turned on in System Parameters->Inventory Setup.
Pallet Charge Account	This account is used at the time of AR Invoice when 'Use Pallet Charge' is enabled on the Sales Order and pallet charges are captured on a customer packing slip. If the item does not have a specific account associated to it and the 'Use Pallet Charge' option is enabled on a sales order, the system will use the Pallet Charge default account number defined under System Setup System Parameters GL Setup.
Modify GL Acct's	Use this button to modify the default GL accounts for this item only, as defined under System Setup System Parameters GL Setup. To modify the GL accounts for more that one item, select Options Inventory Accounts from the menu.

Inventory User Fields

These fields are informational only and are provided so that you may enter other information about the inventory item. EnterpriseIQ provides ten text based fields, each 60 characters in length, and ten numeric fields, each supporting up to 15 digits and up to 6 decimal places (nine digits before the decimal and 6 after). Note: If the 'Use 1000 separator for numeric fields' option is selected (System Parameters->Company File Informations->Application tab) the user has to retype the entire number when editing the value or an error will appear.

The label text and drop down lists are based on inventory class.



EnterpriselQ does not use these fields in any reports or forms (including Pick Lists), but they may be used in any user defined reports.

Defining Label Text

Change the text for each field to closely match your environment. For example, the first field, by default listed as User 1, can be changed to store additional inventory information. The label text created is based on inventory class. For example, if you change the label text for the User Text 1 field on a class PL item it will be that name for all class PL items, but it will still be User Text 1 for other classes until changed.

- > Place the cursor over the text and right click, then select "Define Label Text" from the drop down menu.
- ➤ Enter a new label and press [OK]. All records will now reflect this change.

User Defined Lists

For the User Text Fields the user can define a list that can be used to populate the user field rather than manual data entry. The lists are based on inventory class. To edit the list for a user field, right click on the blue arrow and select 'Edit User Defined List'. A list form will appear to enter the Text selections that will be available when selecting the blue drop down arrow in the field.

NOTE: The information in these fields will populate the HIST_UD_ARINVT table when the item is shipped or received. This is useful for report queries.

Fore more information refer to the User Fields section.

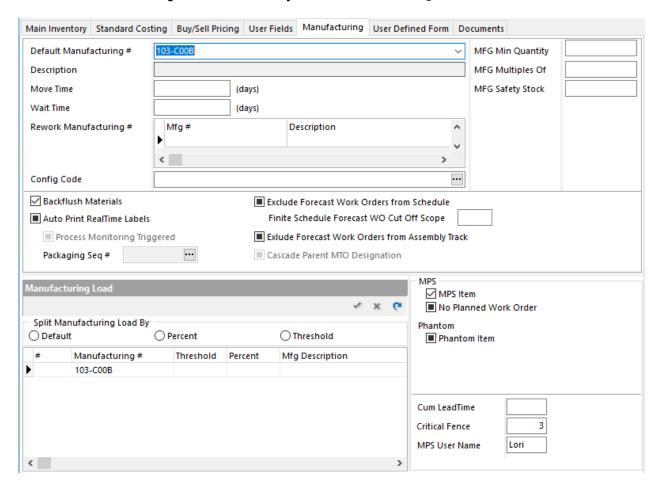
Manufacturing

The information on this tab is relevant to items that are manufactured. Many of the fields are not enabled for editing for non-manufactured items. The link between an inventory item and a BOM is what tells **EnterpriselQ** whether an item is manufactured or whether the item is purchased. Items that have no link to a BOM (no BOM listed on the Manufacturing tab) are considered by **EnterpriselQ** to be purchased items and will not have work orders generated for them as the system will not be able to assign a BOM to the work order.

Note: If a Manufacturing number associated to an inventory item has been marked inactive, the system will consider the item to be a purchased item.

EnterpriselQ also supports the capability to have several BOMs that make the same item and to have the system generate work orders using just one default BOM, to split the work orders among several BOMs based on a pre-defined percentage, or to create work orders using a threshold method. Each of these methods are described in more detail below.

Click on the **Manufacturing** tab under **Inventory** to access the following screen:



Additional Fields on Manufacturing Tab

	Manufacturing lab
Move Time (days)	This will add extra lead time to the must start date of the work order for manufacturing the item. This is intended for work in process items to create more time between operations if they do not run back to back. Move time from all levels of the BOM will be used when calculating must start dates. Must Start Date - Move Time (always excluding weekends regardless of the Shop Calendar). The system will then look at the Shop Calendar to see if the result of that calculation falls on a non working day and will back up more until the first working day is found.
	Notes:
	Move Time was designed for lower level items and not the finished good. Adding Move Time to a finished good will result in moving up the customer ship date.
	If Move Time is associated to a FG on a sales order with a promise date that is a 'Dock' Date Type, the system will move up the ship date. If the Promise date is a 'Ship' Date Type, then the move days are ignored since the promise date is the ship date.
Wait Time (days)	This value will be subtracted from the Must Ship Date and used to calculate the Must Start Date. Wait Time (days) looks at calendar days (not the shop calendar). For family BOMs the system uses the longest wait time of item(s) ordered; the wait time of a family item that is not actually being ordered is not considered.
	Wait Time was designed for top level items, but can be used on components.
	Note: The Must Ship Date will not reflect the Wait Time in days (this is just used for calculating the Must Start Date).
	Note: Wait time will be applied only once within a Run Size when Max WO Batch is used.
Rework Manufacturing #	This section will display any Rework Manufacturing BOMs created for the inventory item. The user can right click and select Jump To BOM to access the Rework BOM.
	Rework BOMS are used in the RMA and MRB modules to create Rework work orders. Please see Rework Work Orders for more information.
Config Code	The information displayed in this field is the Config Code (Sales Configuration Item description + non-default choice codes) for items created using the Sales Configuration templates in CRM->Sales Quotations. When creating a Sales Quotation for the Sale Configuration Template and converting it to a sales order, a 'Config Code' is created from the Sales Configuration Item description and any non-default Choice codes. The information displayed in the pop up form accessed by clicking on the ellipsis button is the description of the choices in a list. For example, if the Item is 'Vehicle', and the non default choices are color and size, the config code would be 'VehicleColorSize', the memo in the pop up would be Color and Size in a list. Additional information can be added by entering text in the form.
	This actual Config Code field will also be in the pick list enabling users to search for specific Config Codes.
	Note: For VIN Generator users - The VIN History table in Serial Number Tracking will not populate the VIN # unless this Config Code is populated.

Backflush Materials	With this checked, every time a transaction is done for the item the user will be forced to backflush the raw materials. This is also used for floor dispositioning. When this is checked it will alert the Warehouse Management module that when you floor disposition you need to also calculate and remove the items components from inventory.
	Note: This option will automatically be checked upon creation of a new manufactured item.
Exclude Forecast Work	With this checked, forecast work orders will not display on the Insert Work order Grid within Scheduling.
Orders from Schedule	Auto-load will not load these work orders.
Finite Schedule Forecast WO Cut Off Scope	This is a value in days that is used to filter the forecast work orders based on the Must Start Date. Only forecast work orders that have a must start date that falls between the current date and the Forecast WO Cut Off Scope will be available to load in the finite schedule either manually or via Auto Load. This field cannot be populated if the 'Exclude Forecast Work orders from Schedule' option is checked.
	A Forecast WO Cut Off Scope can also be set as a global value in Scheduling Parameters (accessed from the Options menu in the Finite Scheduling module). The system will look at the value associated to the inventory item first followed by the global setting.
	The global setting only applies if the inventory item does not have the 'Exclude Forecast Work Orders from Schedule' option checked, or the Cut Off scope is not populated.
Exclude Forecast Work Orders from Assembly Track	This only applies to ASSY1/2/3 work orders. If this is checked the system will hide work orders with forecast releases for the inventory item from the pick list when adding work orders to Assembly Track (from either the New button on the pick list or when using the + button within Assembly Track).
	Note: If the Scheduling Parameter 'Combine SO & Forecast Demand on WO' is checked work orders can have both forecast and sales order demand. If a work order has both it will be hidden from the pick list.
Auto Print RealTime Labels	Check this option for this item to be monitored for automatic printing of RT labels through RT Label Monitor. With this box checked, the user can also select which packaging sequence will be used when printing the labels. The selection will always default to sequence #1, however if labels need to be printed for a different packaging sequence on the BOM, use the ellipsis to select the sequence from the pick list. If the packaging on the BOM is changed at a later date, the program will still use the selected sequence, regardless of what packaging item is in the sequence. If the job is already running, it must be setup in Realtime again for RTLabel Monitor to recognize the change and print the labels.
	Note: RT Labels Monitor will automatically print labels for manufactured items based on the parts produced captured in RealTime. As a package is completed (based on the parts per packaging item in the BOM) a label will automatically print. (Please refer to the RT Labels Monitor https://my.iqms.com/cfs-file.ashx/key/Technote/RealTime_2221Label-Monitor.pdf TechNote for more information).
	Note: The 'Process Monitoring Triggered' checkbox tells the system to print a label every time there is a cycle within RealTime Process Monitoring. (It is just like "Auto Print RealTime labels", but with RealTime Process Monitoring instead).

Cascade Parent MTO Designation

This option is available for manufactured items that are used in higher level BOMs (dependant demand). It cannot be checked for top level items. During the update schedule when the system processes the dependent demand of a Make To Order (MTO) top level item it will designate the dependent demand items that have this box checked as MTO as well. When backflushing a parent item that is set to MTO, the dependent demand backflush quantity will come out of the MTO inventory location.

Note: If the 'Exclude from KIT MTO' option (BOM module) is selected on a manufactured component of a phantom item that also has this option selected in Inventory, the 'Exclude from Kit MTO' option in the BOM module overrides this and the component will NOT be marked MTO on the sales order.

MFG Min Qty

This field is used to establish a minimum quantity to manufacture. At the time update schedule is run the system will evaluate the MFG Min Qty and MFG Multiples Of fields to determine the quantity of the work order. When these values are filled in, by default each release will be a work order, bucketing will not take place. These values will also display in MPS.

If a MFG Min is set on an item that is part of a family tool separate work orders will be created if the Promise Date is the same on all items. For example, if a tool makes a Part A & Part B a work order will be created with requirements for part A and another work order with requirements for Part B. Both items are listed on each work order but only one item has a delivery quantity.

MFG Min = 1

	_		
Item	Rel Qty	Prom Date	Results
TOP	5000	8/10/2009	2 WOs: 1 for TOP 5000, BOTTOM 0
воттом	5000	8/10/2009	1 for TOP 0, BOTTOM 5000

MFG Min = 1

Item	Rel Qty	Prom Date	Results
TOP	5000	8/10/2009	1 WO for TOP 5000, BOTTOM 0,
BOTTOM	5000	8/15/2009	have Schedule Alloc. for BOTTOM

If the release is less than the MFG Min Quantity, the work order will be increased to that quantity. If it is greater than the Minimum value it will be increased to the next MFG Multiples Of value. The quantity of parts over the release quantity will be allocated to later releases.

If the system changes the quantity on the work order based on the Mfg Min Qty/Mfg Multiples Of the work order will be marked firm when it is scheduled in the first position. There are two cases where this will happen:

If the Mfg Min Qty is greater than the sales order release. For example the sales order release is for 200 but the Mfg Min Quantity is for 300.

If the sales order release is not divisible by the Mfg Multiples Of field. For example if the sales order release is for 1100 but the Mfg Multiples Of is 300.

Since users can report via Production Reporting by Work Order without finite scheduling in the first position, for work orders that were system modified based on the MFG Min Quantity, they will be marked firm when PRW is used to report production.

NOTES:

The Must start date will NOT be based on the MFG Min Qty but the quantity of the original sales order amount. If you have a sales order for 1000 pieces and the MFG Min Qty is set for 5000, the Must Start Date will be based on the 1000 pieces, not 5000.

If the work order was generated from the Forecast module it will not automatically be marked Firm.

If the 'Force Bucketing for Mfg Min/Max Quantity' Scheduling Parameter is checked update schedule will force multiple sales releases into a single bucket even if they have min or max quantities. This also works with 'multiples of'. The work order will still be marked firm when it is scheduled in the first position. In the work order module, if additional demand was added by the system due to Mfg Min Qty or Multiples Of values the line will be colored orange in the Delivery Quantities section.

MFG Min Qty Example

For example: MFG Min Qty = 10000 and MFG Multiples Of = 10000

Ex #1 - Sales Order Blanket Qty = 40000 with four releases of 10000 pieces each within the run size scope. The system will generate four work orders for 10000 pieces each. Each release becomes a separate work order due to a value being entered in the MFG Multiples Of field. If no value was entered as a MFG multiple of the system would generate one work order for 40000 pieces.

Ex #2 - Sales Order Blanket Qty = 35000 with four releases of 8750 pieces each. The system will generate four work orders for 10000 pieces each due to the multiples of value of 10000.

Ex #3 - Sales Order Blanket Qty = 35000 with one release of 35000 pieces. The system will generate one work order for 40000 pieces due to the multiples of value of 10000.

MFG Multiples Of

This is the quantity the item will be manufactured in. By default the delivery quantities on the work order will be forced to be divisible by this multiples of quantity as well as the total manufactured.

For example: If this field is 150 pieces and the sales order is for 1000 pieces total with 10 releases of 100 each, the work order will be generated for a total of 1050 pieces with seven 150 piece deliveries.

If the system changes the quantity on the work order based on the Mfg Min Qty/Mfg Multiples Of the work order will be marked firm when it is scheduled in the first position. There are two cases where this will happen:

- If the Mfg Min Qty is greater than the sales order release. For example the sales order release is for 200 but the Mfg Min Quantity is for 300.
- If the sales order release is not divisible by the Mfg Multiples Of field. For example if the sales order release is for 1100 but the Mfg Multiples Of is 300.

MFG Safety Stock

This allows for a false bottom on inventory allocation. The MRP engine will not recognize the amount entered here to be used for allocation against sales order demand. It does not consider this as usable product.

Note: If inventory falls below this level it will not automatically generate a work order, you must use Auto MRP.

Note: This does not apply to Auto MRP demand. The system will consider all on hand as usable inventory to meet the Auto MRP requirements.

For example:

- The MFG Safety Stock is 1000, on-hand inventory = 2000, there is a sales order for 5000 pieces. The work order will be created for 4000 pieces because 1000 of the on-hand is considered safety stock. Without a value in this field the work order would be for 3000 (5000 2000).
- If the demand came from Auto MRP, the work order would be created for 3000, because it will use all of the on hand to meet the demand.

If the on-hand = 500 and there is not a sales order, no work order would be created just because the on-hand is below the MFG safety stock. Only auto-mrp will do that.

For Auto-MRP users: If the safety stock box was previously checked on the Auto MRP and then this box is filled in, the box in Auto MRP will automatically un-check.

Master Production Scheduling (MPS)

MPS information is for the Master Production Scheduling module. See MPS Time Phase for additional information.

MPS Item	Check this box if you want this item to be in the MPS (Master Production Schedule).
No Planned Work Order	For MPS items only, this option may be checked to prevent the system from generating a planned work order when sales order or dependent demand is present. A message stating, 'arinvt_id = xxxxx demand is negated by no_plan_wo switch', will display in the EnterpriseIQ MRP Engine in the Note field informing the user that a work order was not generated because the MPS item has this box checked.
	Keep in mind that NO work order will be created for an item with this option checked even if Sales Orders or dependent demand is present. If the item has Auto MRP setup, the system will create a work order for the Auto MRP demand. If this option is checked and the item does not have Auto MRP setup, users will have to create a manual work order, and then once update schedule is run the system will generate planned work orders for any dependent demand. Note: This will also prevent the system from generating Forecast Work Orders for the item.

Phantom Item	Check this box if you want this item to be a Phantom Item. A phantom item is a product that is consumed in a higher Bill of Manufacture. (A top level item that is sold should not be marked as a phantom item with the exception of a Kitting item). If this is checked the inventory level will never go negative when being consumed unless the Drive Phantom Negative check box is selected. Instead the components of the phantom item will be removed. This particular part number is typically considered a non-stocked item. When an item is made phantom on the manufacturing tab in inventory, additional check boxes will appear. • Drive Phantom Negative - If this is checked, dispositioning will take from the phantom item and take inventory negative rather than pulling from the phantom's components. Note: A phantom Kit item is a top-level item, and when selected to ship (instead of components), this will drive the phantom Kit item negative regardless of 'Drive Phantom Negative' check box selection. Note: This should not be checked for Serialized Inventory Control items (SIC), as they should never go negative. • Include Kitting Components on SO - If this option is checked the components of a phantom kit item will be included on sales orders. If is not checked, then only the phantom item will be on the sales order. (See Kitting for details on this manufacturing type option). Note: A message will appear stating, 'A Kit cannot be a component on a BOM that makes a Kit - operation cancelled' if the item is currently a components on a BOM that makes a Kit, or is a manufactured item that includes a component that is a Kit. • Price Based on Components/Modify Components - This check box is only visible if the 'Include Kitting Components on SO' is checked. If this is checked, when a KIT is added to a Sales Order, the unit price of the phantom item will be null. The unit prices of the components will populate instead. The components pricing will follow normal pricing rules (e.g. pricing hierarchy, discounts/markups, etc). When the kit
Cum LeadTime	Informational only. This is how long it will take to produce this item if there is zero on hand. The total of the longest lead times per operation. This is a free form field, not currently used by EnterpriselQ. It should be noted that EnterpriselQ calculates a similar value when generating the must start dates for work orders, and does not use the value stored here.
Critical Fence	This is an informational only field, used by planners to recognize when they might transform a planned work order into a firm work in the MPS module. The MRP engine does not use this value. This is a value in days when the status of the MPS item becomes critical. Exception messages will appear to alert user to address the order for this item.
MPS User Name	This free form field simply identifies the person interested in this data, and is used only for grouping purposes when viewing the results of the MPS evaluation.

Manufacturing Load

In the example above, the same item is made by two different manufacturing configurations, with each one being listed under the section **Split Manufacturing Load By**. There are also three buttons on this screen which are used to tell the system how to create the work orders. You may specify the proportion to be made from each configuration whenever this item is ordered. Select the configuration and indicate the percentage of each order to be made from each configuration.

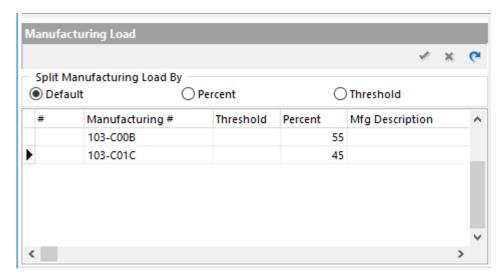
Create Work Orders Using Default Manufacturing

To create a work order for an item using a single configuration, click on the **Default Manufacturing#** button and then select the configuration to be used in the work order from the arrow down list next to the **Default Manufacturing#** field at the top of the screen.

Create Work Orders Using Multiple MFG#s Split by Percent

To create work orders using a multiple configurations split by percent, click on the **Percent** button. The next step is to tell the system how to split the work orders between the configurations. This is done by filling in the percentages to be used in the **Percent** fields associated with each of the configurations. Note that the total of the percentages must equal 100 or the system will not create the correct amounts for the work orders.

In the example below, for an order of 10,000 pieces, the system will create one work order for 4,500 pieces (45 percent of 10,000) using MFG# 103C00B and one work order for 5,500 pieces (55 percent of 10,000) using MFG# 103-A00B.



Create Work Orders Using Multiple MFG#s Split by Threshold

The use of thresholds for configurations in **EnterpriselQ** is based on the premise that there are primary and secondary configurations, but that there are limits on the capacity of a configuration. When the capacity of a primary configuration is exceeded, then the system will then automatically shift the overflow capacity to secondary or even tertiary configurations. As many configurations as necessary can be used to handle the capacity.

The thresholds are based on each sales order and by bucket. For example, you have two BOM's, BOM A and BOM B where BOM A is the BOM you can manufacture a limited amount of parts with. For example, you can only manufacture 1000 parts on BOM A and the rest need to be manufactured using BOM B. List BOM A as the first sequence with a Threshold of 1000 and list BOM B as sequence number 2 with a large threshold.

With a sales order for 5000 parts and one release of 5000 parts. A work order will be created for BOM A for 1000 parts and another work order will be created for BOM B for 4000 parts.

Since this is per sales order then if you had another sales order with the same quantities and release date then you would see another 1000 parts added to the BOM A work order and another 4000 parts added to the BOM B work order.

The use of Thresholds also takes into account the bucket size. If the releases are split such that each release is for 1000 parts and they are 10 days apart where the manufacturing run size is set to 10 days, then all work orders would be created for BOM A

NOTE: If multiple BOM's make the same item the system can hold a different center cost override for each MFG configuration. To adjust the center cost for a specific BOM, select the BOM from the Default Manufacturing # list and then go to the Standard Costing tab and enter a value in the Center Cost field. Do this for all of the BOM's that have a different center cost. The system will use the correct center cost override based on the BOM used.

Manufacturing Split Information for Child Items

In situations where split loads are established for items with a "child/parent" relationship the system works as follows:

If the Split Load by threshold for the child is set up you will not see the 'split' occur unless the parent WO quantity is greater than the child's threshold quantity. The system allocates child demand for each separate bucket of parent demand. For example, if the parent threshold = 1000 and child threshold = 500, then for each parent WO of 1000 (BOM 1) you will get two child WOs (Boms A and B) for 500 each.

Split Load by threshold for the child performs in a straightforward manner when the parent is using one default BOM only.

If the Split Load by percent option is used for the child you will see a work order created for each of the alternate child BOMs.

Inventory Documents

The Document option allows an unlimited number of documents to be attached to the inventory item. Each inventory item may have its own set of documents. The documents can be associated to the item as an Internal or External document. Internal documents use a basic word processor to create these documents (notes) or the user can import existing text or graphics. External are documents that reside externally to EnterpriseIQ.

Regardless of whether a document is Internal or External the user can set up a '**Print with**' option for it. The document will print automatically when the selected form prints. Below is a listing of the 'Print with' options in Inventory:

- None
- Packing Slip
- PO
- Sales Order
- Sales Order Acknowledgement
- Invoice
- Inspection Receipt A document with this option selected will print with the PO Receipt.
- Web This option will display in WebDirect -> Products -> Search -> list of products -> click on one of the item numbers. This is for External documents only.
- Vendor RFQ
- Certificate of Conformance
- Sales Quotation
- All

Note: If you do not want the document to print with any 'print with' option be sure to select 'None' from the drop down list. If left blank the system assumes 'All'.

Email Correspondence

In addition to documents there is an Email Correspondence tab. From this tab users can to attach Email correspondence related to the item. To add an Email simply drag and drop it from Outlook or other email programs into the form. The Received Date will fill in based on the email's received date and time. A Received Date box surfaces if the system is unable to determine the date (such as: the Received and Sent dates differ, unclear binary data, or older data, etc.). Users are asked to provide the Received Date by selecting the correct date from the calendar. The From and Subject fields will also automatically populate with the information from the email. The date, from, and subject fields cannot be edited. A comment can be entered by double clicking the field. Enter the comment in the pop up box to further describe the email correspondence.

There are three ways to access the Email once associated to the inventory item:

- Double click on either the Received, From, or Subject fields.
- Right click and select View email.
- Or select the View email button.

Note: If the email has attachments, or multiple attachments, the total attachment size cannot be more than 4GB. The size allowance might further be limited by the chosen email program used. In order to view emails that have attachments, special formatting (e.g. stationary), or images embedded in the body of the email, the user must go into BDE Administrator and set the BLOB SIZE to 1000 for the database they are using (i.e. IQORA).

Note: Dragging and dropping from a local workstation to an RDS desktop does not work. Users in this environment can drag and drop an email .msg file from a network folder within RDS.

For information on adding documents see Documents in the Set Up manual.

Editing or Deleting Inventory Items

Editing Inventory Items

The Item number and Rev can be edited from the main inventory screen. To do this click on the Edit button next to the Item # field. A form will appear to enter the new item number and revision. If the item is manufactured the BOM will automatically be updated with the new information as well as any sales orders and work orders.

Note: the information in the Rev field can be typed manually or selected from a user defined list. To create the list right click on the Rev field and select 'Edit User Defined List'. Select the + button and enter the text. (This field is only 15 characters - any additional characters entered will be ignored).

Deleting Inventory Items

To delete an inventory item click on the **Delete (-)** button on the navigator bar. A confirm message will appear stating, 'Are you sure you want to delete Inventory Item xxx'. If yes is selected, Inventory items can only be deleted if they have zero in inventory, are not attached to a BOM or an operation. The system will also check if the item is in the Forecast module. If it exists in the forecast but does not have any quantities forecasted it can be deleted.

Warning messages will appear stating why the item cannot be deleted. For example if the item is attached to an operation the warning will state: "This item is associated with a process/operation. Remove the item from the process/operation and try again: Process/Operation #: #### Description: XXXX Class: OP."

If the item has inventory the message will state: "There are locations with non-zero quantities for this inventory item."

If Standard Costing is being used, if a user tries to delete an inventory item that is associated to an unposted Process WIP PIT transaction a warning message will surface and not allow the user to proceed. The user must ensure all PIT transactions for the item being deleted are posted first.

Note: When deleting an inventory item from the inventory module that is in multiple EPlants, the Price Book item and the Price Book price break records will not be deleted until all of the inventory item records with the same item number in all EPlants are deleted.

Trace in Inventory

Trace can be set up for inventory items for four areas: Main Inv, AKA, Costing, and Pricing. By right clicking anywhere in the inventory module the user can access the trace tables for these areas to determine any changes made, what the changes were, who made the change, and when. Security can be placed on the trace form.

Inventory Speed Buttons

At the top of the Inventory screen the following speed buttons are available:

Search - By selecting the drop down arrow next to the Search button the user can access various pick lists to quickly find the desired item.

- Search This brings up the default master inventory pick list. This list has several columns describing the items as well as on hand, non-conform, and non-allocate quantities, and native UOM.
- Search User Defined Fields This brings up a pick list that includes the fields from the User Fields tab. Note: Each class of inventory can have it's own UD field labels, depending on what class you are on at the time you use this drop down determines what the labels say in the pick list.
- Search AKA Selling This brings up a pick list that includes these fields: AKA Item#, AKA Description, AKA Rev, Customer #, and Customer Name.
- Search AKA Buying This brings up a pick list that includes these fields: AKA Item#, AKA Description, AKA Rev, Vendor #, and Vendor Name.
- User Defined Form This will access a pick list with the fields from the user defined form associated to the inventory class of the item currently open. User Defined form columns with the field kind 'query' and 'picklist' will not appear in the user defined form picklist. The name in the search drop down list will be the user defined name of the form. For example, if the user defined for for class FG is called Inventory Information, when on a FG item and going to pick list the selection will display 'Inventory Information'.
- The pick list includes a New button to add a new inventory item. If a user with the IQINVENTORY_RO role selects the New button they will receive a blank screen. Users should use the 'Select' button in the pick list and will receive a read-only version of the form.
- The inventory pick list includes the feature 'Component Where Used Search'. This allows users to create a query to display parent items that involve all of the listed components. For details refer to the Pick Lists section.

Form/Table toggle - This toggles the module from form to table view. When toggling this form to the table view the user will just see one record by default. In order to see more than one item at a time, enter a value in the pick list, click scope, click search and select a record. The items in the scope will display in the grid. If the records in the pick list span more than one class of inventory, when navigating to a different class of item, the form view will pop back up.

- **Locations and Transactions** This opens the Locations and Transactions form for this inventory item.
- Transaction Log Opens the transaction log for this inventory item.
- Labels Opens the Print Label form for this item. See Labels for more information.
- Kanban Control See Kanban Control for information.

On PO / Receive - Shows the Open PO Items form for this item, with jumps to PO and Receiving. Select the drop down arrow on this button and select **Vendor RMAs**. This opens a form listing Vendor RMAs associated to the item. From the list users can jump to a Vendor RMA or Vendor Maintenance.

Sales Order Activity - Select this button to view the item's sales order activity. From the drop down next to this button users can access Work Orders and Customer RMAs. Note: When the Work Order Information form is viewed from the Master Inventory Record, only work orders for the default BOM will appear on the list. See Sales Order Activity for details.

PO History - Select this option to view the purchase order history for this item. The PO History form will appear displaying the PO details such as: PO #, Price, and Received Date information.

Alternate Items - This table is used to store a list of other items that can be used instead of the parent item. Please see Alternate Items for more information.

RealTime Work Order History - For Manufactured Items only the user can view the RealTime™ work order history for the item. The form displays information regarding work orders for the specified item that includes: total up hours, total cycles, total down hours, average cycle, work order quantity, total floor dispositioned quantity, FG lot number, and many more.

User Defined Form - To set up the form see User Defined Forms in the Common Form Functions section of the Using EnterpriselQ manual.

Process Cost - This applies to manufactured inventory. This will display Process Cost information by work order for the item. See Introduction to Process Costing for details on this module.

Edit WebDirect B2C - For users licensed for the WebDirect B2C module, on items with the 'Ok for Sale on Web' option checked, this button will be visible. This will provide users the ability to access the 'Edit Product Detail' page within an embedded web browser.

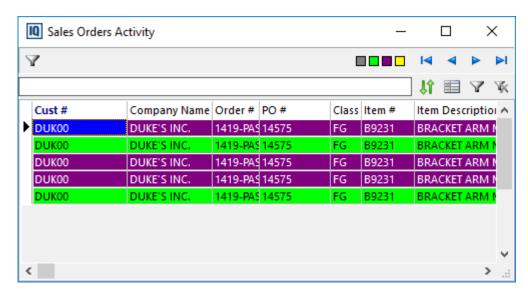
Edit Physical Characteristics - For users with the Slitting MFG Type set up, this speed button will be available to enter the physical characteristics, including Outside Diameter, Core size, Width, SPG, Volume, and Gauge of the item. (See Slitting for details).

Add/Edit Bulletin(s) - Select this button to create messages relevant to a inventory item (as well as EPlant, Work Center, Customer, and BOM) that can be seen in Scheduling, RealTime™ (Individual Center Info), and ShopData (RT Work Center). See Bulletin Board Editor for details.

EIQ Bookmark - This option allows the user to drag and drop the icon onto the desktop or a folder in order to open the exact Inventory item up again with one click. Select the EIQ Bookmark button then drag it to the desktop or folder and drop it. The shortcut will be named INVENTORY_id#.eiq by default.

Sales Order Activity

Sales Order Activity - Select this button to view the item's sales order activity.



This form will display the open and archived sales orders associated to the inventory item. Right click jumps are available to the Customer, Inventory, and Sales Order. Users can also right click and select Shipments and Work Order Info. The table is color codes as follows:

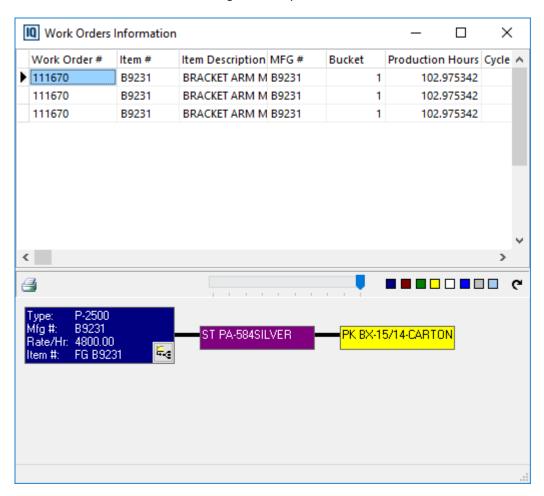
- Gray Archived Sales Orders.
- Green Shipped Sales Orders. When a release is shipped, the system will populate the date in the Ship Date field visible on this form.
- Purple Not Shipped Sales Orders
- Yellow Partially shipped Sales Orders.

Sales Orders can be sorted by any column by clicking on the column or by right clicking in the information grid. The filter button can be used to filter the results of the form based on: Class, Company Name, Cust #, Item #, Item Description, Order #, PO #, Rev, and Status.

Security can be placed on this form. There is also security just for the Unit Price column.

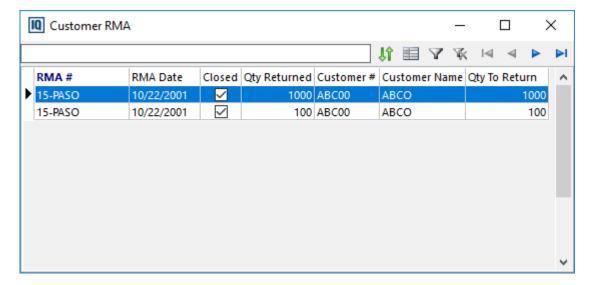
Work Orders

From the drop down list on the Sales Order Activity button select Work Order to access the Work Orders Information form for the item. This is the same option available from the bottom section of a sales order. See Sales Order Release Section - Right Click Options for more details.



Customer RMA

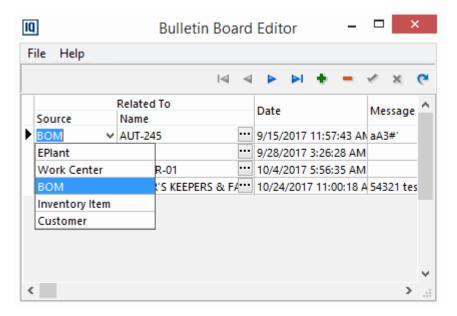
Select this to access Customer RMAs associated to the item. A list of RMAs will appear. Users can right click and jump to the RMA or Customer Maintenance.



Bulletin Board Editor

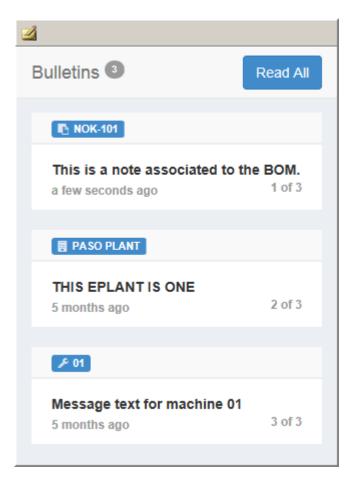
Select the **Add/Edit Bulletin(s)** button it to create messages relevant to a inventory item (as well as EPlant, Work Center, Customer, and BOM) that can be seen in Scheduling, RealTime™ (Individual Center Info), and ShopData (RT Work Center).

The Bulletin Board Editor will display.



Select the Source from the drop down list. Then select the ellipsis button to access the corresponding pick list, i.e. BOMs, Work Centers, etc. Select the ellipsis button in the Message field to enter a message. The Date and User fields will populate automatically with the date/time the message was created and the logged in user name. These fields cannot be manually changed.

A Bulletin Board can be accessed by selecting the Show/Hide Bulletin Board button in the modules that have this feature (i.e. Scheduling). The bulletin board will display messages associated to the EPlant, Work Center, BOM, Inventory Item, and Customer if relevant to the current work center. The number of Bulletins will display at the top. The messages will be bold until marked read. Select the blue source header or the text to mark it as read. Select the 'Read All' button to mark all the messages as read.



Note: This requires the IIS Server to be setup and the information populated in System Parameters->Company File Information tab->Web tab for the Bulletin Board to be available. Please see the *IIS**Installation TechNote https://my.iqms.com/cfs-file.ashx/__key/Technote/IIS-Installation.pdf for more information.

The Add/Edit Bulletin(s) button is also available in Customer Maintenance, Inventory, ShopData, and RealTime™.

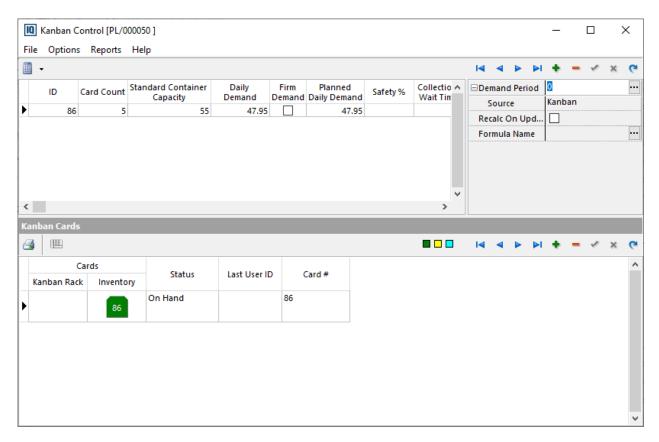
Kanban Control



Kanban is a scheduling system that helps determine what to produce, when to produce it, and how much to produce. Kanban cards are a key component of Kanban that uses cards to signal the need to move materials within a production facility or move materials from an outside supplier to the production facility. The Kanban card is, in effect, a message that signals depletion of inventory that when received will trigger the replenishment of that inventory. Consumption drives demand for more. Demand for more is signaled by Kanban card.

Note: This is different than EnterpriseIQ eKanban which is an automated system that does not use physical Kanban cards. eKanban (Auto MRP) is a triggered pull system but not a physical system like Kanban.

Kanban for Purchased Items



Kanban Control Top Section Field Listing for Purchased Items:

Tunioun Control 10p	Oction Field Listing for Furchased items.
Card Count	This field is the default card count. This is calculated by the system as follows:
	Default Card Count calculation for Purchased Items:
	[Average Daily Demand $*$ (Lead Days + Collection Wait Time) (1 + Safety Stock Percent)] / Std Container Capacity
Collection Wait Time	The number of days for collection wait time. This is added to the Lead Days in the Recommended Card Count calculation.
Daily Demand	This is calculated as follows:
	Purchased Items = (Total amount of projected material requirements / Schedule Scope in days)
	This field is editable to allow the user to override the calculated daily demand.
Division	If desired, select the division to be associated with the Kanban Control record from the drop down list.
Firm Demand	If this option is unchecked, the daily demand will be overwritten with the Planned Daily Demand each time the Kanban is calculated.
Formula Name	The Kanban card formula assigned to the Kanban Control record.
ID	ID of the Kanban Control record.

Lead Time	The number of lead days associated to the item. This defaults to the lead days associated to the item (Inventory->General tab). If the Lead Time is not populated the user will receive a warning when attempting to calculate.
Planned Daily Demand	The calculated daily demand.
PO#	The purchase order number associated to the Kanban Control record. The system will automatically add releases to this PO when a Kanban card is scanned and marked as 'On Order'.
	To associate a PO, select the ellipsis button or right click and select 'Assign PO'. The pick list of PO's will appear. Select an existing PO from the list or select the New button to create a new PO.
	Once assigned the user can jump to the PO by right clicking and selecting 'Jump to PO'.
	The PO pick list only displays POs in the logged in EPlant. In order to do centralized purchasing, the user must be logged in as View All.
	Note: The line item on the PO is not automatically marked closed by the system during receiving. Also, a PO linked to a Kanban Control record cannot be archived or deleted. If attempted the user will receive an error stating:
	Master has detail records. Cannot delete or modify. ORA-02292: integrity constraint (IQMS.FK_KB_CONTR_REF_19436_PO_DETAI) violated - child record found Master table: PO_DETAIL Child table: KB_CONTROL Cannot archive or delete PO linked to Kanban Control. Update Kanban Control by removing link to PO and try again.
Replenishment Signal	The number of Kanban cards 'Pending Accumulation' before creating the PO release or Manual WO (depending on the type of inventory – purchased or manufactured). For example, if the Replenishment signal is 3 the system will wait until there are 3 Kanban cards that are status "Pending Accumulation" before placing the PO release or Manual WO (depending on the type of inventory (purchased or manufactured).
Safety %	The percentage increase in the number of Kanbans used as a precautionary measure for buffer inventories.
Standard Container Capacity	This value will defaults to the 'Multiples Of' value associated to the item (Inventory->General tab) but can be overridden. If this field is not populated the user will receive a warning when attempting to calculate.

Top right grid Fields

- Demand Period Run scope of the Heijunka family. The user can change the demand period by selecting the ellipsis button in this field.
- Source The source of the Demand Period either Kanban or Heijunka
- Recalc on Update Sched If this option is checked, the system will recalculate the average daily demand and recommended card count during update schedule.
- Formula Name The Kanban card formula assigned to the Kanban Control record. If left blank, the system uses the default Kanban card formula.



Other options

Calculate Average Demand, Assign Standard Container Capacity and Lead Days button — Calculates
the Card Count and Average Demand, assigns the Standard Container Capacity and Lead Days

To calculate the recommended cards select the Insert (+) button in the top section. Enter the Safety % and Collection Wait Time if desired. Save the entry and then select the Calculator speed button. The system will then calculate the average daily demand and the recommended card count.

Purchased Item Example using default calculation and the information below:

Lead Days = 5

Standard Container = 100

Safety % = 20

Collection Wait Time = 3

Schedule Scope - 140 days

Total projected material requirements = 6861.93

Average Daily Demand is calculated as follows:

(Total amount of projected material requirements / Schedule Scope in days)

```
6861.93 / 140 = 49.01
```

Recommended Card Count is calculated as follows:

[Average Daily Demand * (Lead Days + Collection Wait Time) (1 + Safety Stock Percent)] / Std Container Capacity

```
[49.01 \times (5 + 3) \times (1 + 0.2)] / 100 = 4.70 (rounds up to 5)
```

To access these options select the drop down next to the calculator button:

- Assign Kanban Card Formula allows the user to assign a defined Kanban card count formula.
- **Define Kanban Formula** This option allows Power Users or DBAs to create a user defined Kanban card formula. (Important! :ID and :RESULT MUST be included in the formula. These are mandatory parameters).

Example defined Kanban formula:

```
declare
```

```
v_kb_control_id number:= :id;
  v_kb
                  kb_control%rowtype;
  v days
                 number;
  v_card_count number;
begin
  select * into v kb from kb control where id = v kb control id;
  if v kb.container qty = 0 then
    v_kb.card_count:= 0;
  else
    v days:= nvl(v kb.replenishment time,0) / 60 / v kb.daily prod hrs + nvl(v kb.wait days,0);
     v_card_count:= (v_kb.daily_demand * v_days * (1 + nvl(v_kb.safety_percent,0)/100)) /
v_kb.container_qty;
     v_kb.card_count:= trunc(v_card_count + 0.999999);
  end if;
```

:result:= v kb.card count;

end;

 Recalc Kanban Card - Calculates the Average Demand, assigns the Standard Container Capacity and Lead Days

Create Kanban Cards

To create KanBan cards select the Insert (+) button in the lower portion of the screen. Continue this process to create the recommended card count quantity. Each KanBan card will be assigned a unique card number which is used in RF Scanning. Select the Print button to print each card. (The report used is assigned in System Parameters->Reports and Forms). These cards are attached to the container of material.

Kanban Cards Grid

- Cards Displays whether the card is in the Kanban Rack or Inventory.
- Status When Kanban cards are first created, the status of the cards are inactive. The status of the cards can be changed either manually or through IQRF/WMSIQ. The status can be either On Hand, On Order, or Pending Accumulation. As the status is changed the color code is changed and the card moves back and forth between the Kanban rack and Inventory. Green indicates on hand status, yellow indicates on order status, and blue indicates pending accumulation.

Note: The status can be changed manually within this form but when done this way it will not update the PO releases, therefore it is not recommended. Use IQRF or double click the card.

- Last User ID the last user ID when the Kanban card's status is changed.
- Card # The card number.
- Additional fields for Serialized items: Serial #, Location, Qty, Lot #, and Inventory Status.

Using Kanban Control

For purchased items, scanning a Kanban card tells the system to place a release on the associated purchase order (PO). The PO can be sent to the vendor manually or eServer can be used to send the information as an outgoing EDI. The receiving process for Kanban controlled items is identical to that of all purchased items except an additional step must be performed. During receiving of a Kanban release an 'On Order' Kanban card must be scanned or double clicked on to convert it to an 'On Hand' Kanban card and then the card is manually affixed to the container.

Example:

The initial 'On Hand' quantity is equal to 5 gaylords. As soon as a gaylord is opened the Kanban card is removed and scanned. The status is changed to 'On Order'. This adds a release to the PO and the supplier is notified to ship another gaylord of material. When the gaylord is received a PO receipt is created adding the gaylord to the on hand inventory and then the Kanban card is scanned marking the status to 'On Hand'. Assuming that supplier lead times and average daily demand remain constant over time the pattern of having 4-5 gaylords on order, 1-2 gaylords on hand with one gaylord being consumed starts to repeat itself. If average daily demand were to decrease the frequency of signals to the supplier would also decrease causing a higher amount of material on order to move to on hand. To correct this situation the user will need to recalculate the number of Kanban cards needed and remove cards to reduce your total inventory of material on order and on hand. If the average daily demand were to increase the frequency of signals to the supplier would increase causing a higher amount of material on order and less to be available on hand. To correct this situation the user should recalculate the number of Kanban cards needed and add cards to increase the total inventory of material on order and on hand.

Non Serialized Inventory Control (SIC) Items:

When a Kanban card is created for a non-SIC item, the card is inactive and displayed in white.

- Changing the status manually Manual status changes are not recommended. When the status of the card is manually changed to 'On Order', the card turns yellow and no release is added to the PO. When the status of the card is manually changed to 'On Hand', the card turns green, moves to the Inventory column, and the item is not received into inventory.
- Using RF When the card is scanned through RF to 'On Order', the card turns yellow and the system adds a release to the associated PO. The receiving process for Kanban controlled items is identical to that of all purchased items except an additional step must be performed. The card is scanned through RF to 'On Hand', the card turns green, moves to the Inventory column, and the item is not received into inventory (Item was already received through the receiving process).

➤ **Double clicking on the card** - When double clicking on a card in the Kanban rack, the user can receive into inventory by reporting good parts. The card turns green, moves to the Inventory column, and the item is received into inventory. When double clicking on a green card, the confirmation 'Relieve Inventory and return Kanban Card to Rack? appears. When choosing Yes, the card turns yellow, moves to the Kanban Rack, and the status of the card changes to 'On Order'. A release is added to the PO.

Serialized Inventory Control (SIC) Items:

When a Kanban card is created for a SIC item, the card is inactive and displayed in yellow.

- Manual The status cannot be changed manually.
- Using RF When the card is scanned through RF to 'On Order', the card turns yellow and the system adds a release to the associated PO. The receiving process for Kanban controlled items is identical to that of all purchased items except an additional step must be performed. The card is scanned through RF to 'On Hand', the card turns green, moves to the Inventory column, and the item is not received into inventory (Item was already received through the receiving process).
- ➤ **Double clicking on the card** When double clicking on a card in the Kanban rack, the user can select an existing serial # to receive into inventory. The card turns green, moves to the Inventory column, and the item is received into inventory. When double clicking on a green card, the confirmation 'Relieve Inventory and return Kanban Card to Rack? appears. When choosing Yes, the card turns yellow, moves to the Kanban Rack, and the item is relieved from inventory. A release is added to the PO.

Kanban Card Speed buttons

- Print Card(s) Allows the user to print the cards.
- Assign label to the kanban card For SIC items, if a kanban card is yellow users can assign a serial number that is already in inventory but not assigned to a Kanban card by selecting the 'Assign Label...' button
 This will bring up a pick list of un-assigned serial numbers associated to the

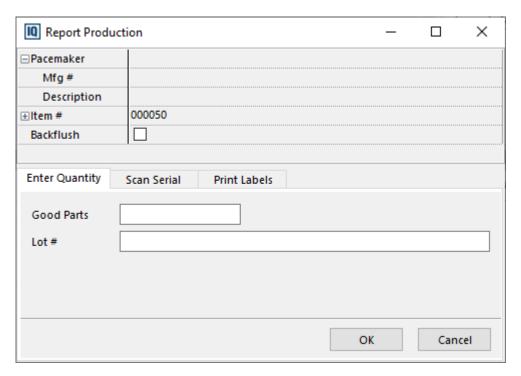
Report Production

Top Section Fields:

- Pacemaker only applicable for MFG items
- Item # Displays the Item #, Description, Ext. Description, Class, Rev, and UOM of the item.

item. After selecting a serial, the card will turn green (status will be on hand).

Backflush – only applicable for MFG items

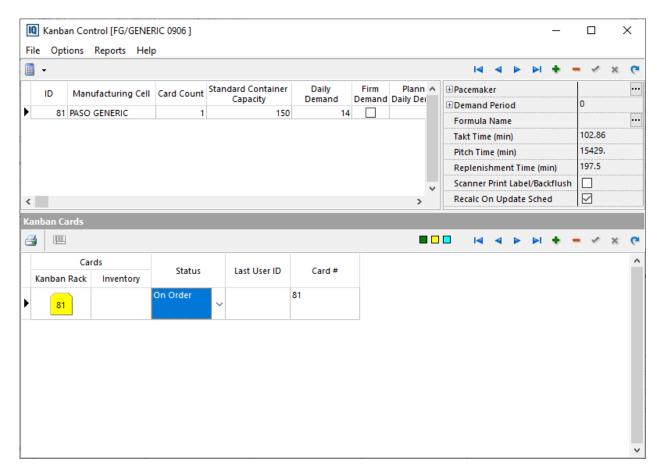


- Enter Quantity tab only appears for non-SIC items. Enter the Good Parts to receive into inventory and the lot #
- Scan Serial Allows the user to select an existing serial # to receive into inventory.
- Print Labels only applicable for MFG items

The *Enter Quantity* tab will only be visible for non-serialized items. To report production enter a quantity in the Good Parts field, and enter a lot number if applicable. A Manual/Backflush In transaction will occur for the quantity of good parts entered. The Backflush check box will be checked if the 'Scanner Print Label/Backflush' check box is checked for the item in Kanban Control in EIQ. It cannot be check or unchecked from this form.

Scan Serial tab is available to both SIC and Non-SIC items. When reporting from the Kanban form the user can select the search button to access the pick list of all SN#s for this item that have not been dispositioned. A Manual/Backflush In transaction will occur for the quantity associated to the serial number.

Kanban for Manufactured Items



Kanban Control Top Section Field Listing for Manufactured Items:

Card Count	This field is the default card count. This is calculated by the system as follows:	
	Default Card Count calculation for Manufactured items:	
	[Average Daily Demand * Replenishment Time (converted to days) + Collection Wait Time) (1+Safety Stock Percent)] / Std Container Capacity	
	(Note: when the replenishment time is converted to days, the system uses production hours per day for that MFG Cell).	
Collection Wait Time	The number of days for collection wait time. This is added to the Lead Days in the Recommended Card Count calculation.	
Daily Demand	The average daily demand from the Daily Usage tables. This will be based on the division or manufacturing cell if applicable. This is calculated as follows:	
	Manufactured Items = (Total of all WO qty in the scheduling scope / Scheduling Scope – non working days)	
	This field is editable to allow the user to override the calculated daily demand.	
Division	If desired, select the division to be associated with the Kanban Control record from the drop down list.	

Firm Demand	If this option is unchecked, the daily demand will be overwritten with the Planned Daily Demand each time the Kanban is calculated.	
Formula Name	The Kanban card formula assigned to the Kanban Control record.	
ID	ID of the Kanban Control record.	
Mfg Cell	For Manufactured items this field cannot be edited. It will be populated with the Mfg Cell based on the Pacemaker information.	
Planned Daily Demand	The calculated daily demand.	
Replenishment Signal	The number of Kanban cards 'Pending Accumulation' before creating the PO release or Manual WO (depending on the type of inventory – purchased or manufactured). For example, if the Replenishment signal is 3 the system will wait until there are 3 Kanban cards that are status "Pending Accumulation" before placing the PO release or Manual WO (depending on the type of inventory (purchased or manufactured).	
Safety %	The percentage increase in the number of kanbans used as a precautionary measure for buffer inventories.	
Standard Container Capacity	This value will defaults to the 'Multiples Of' value associated to the item (Inventory->General tab) but can be overridden. For a manufactured item, this value is calculated using the 'Selling Multiples Of' field.	

Right Click Options in upper left grid:

- Calculate Replenishment Time
- Show Demand This will how all the sales order details for all the work orders involved in the daily average demand.
- Jump to Pacemaker Source This will jump to the BOM or process depending on what the pacemaker source is.

Top Right Grid Field Listing:

Demand Period	Run scope of the Heijunka family. The user can manually change the demand period.	
	■ Source – The source of the Demand Period – either Kanban or Heijunka	
Formula Name	The Kanban card formula assigned to the Kanban Control record. If left blank, the system uses the default Kanban card formula.	
Pacemaker	The process or Mfg# that you schedule.	
	■ Source – Source of the Pacemaker – either BOM or Process	
	 Status - This may be populated during calculation and displays information if there is something wrong (missing data, cycle time greater than the calculated takt time, etc) 	
Pitch Time (min)	The time to produce the Standard Container Capacity. (Takt Time * Standard Container Capacity).	

Recalc On Update Sched	If this option is checked, the system will recalculate the average daily demand and recommended card count during update schedule.		
Replenishment Time (min)	This column is used as the "Lead Time" in the Kanban # or cards calculation. It is calculated or can be entered manually. To have the system calculate this value, right click and select 'Calc Replenishment Time'.		
	Calculation of Replenishment Time:		
	All MFG Types except ASSY 1,2 & 3: [Cycle time (in hours) * Std Container Size * Replenishment Signal + Setup time in hours] * 60		
	For ASSY 1,2 & 3:		
[Sum(all processes hrs required for one item) * Std Container Size * Replenishme Setup time in hours] * 60			
Scanner Print Label/ Backflush	If this option is unchecked, when scanning a card to 'On Hand', the card status will change to 'On Hand' and be colored coded Green. If this option is checked, when scanning a card to 'On Hand', the system will print a label, disposition the parts into inventory, and backflush material/components. The card status will change to 'On Hand' and be colored coded Green.		
Takt Time (min)	The maximum allowable time needed to produce one unit in order to meet customer demand. (Daily Hours / Average Daily Demand) * 60		



 Calculate Average Demand, Assign Standard Container Capacity and Lead Days button – Calculates the Card Count and Average Demand, assigns the Standard Container Capacity and Lead Days

Manufactured (ASSY) Item Example using the default calculation and the information below:

Standard Container Capacity= 500

Schedule Scope = 130

Safety % = 98%

Collection Wait Time = 2

Replenishment Signal = 1

Process Information = Process 1: Cycle time is 90 minutes, multiples of is 10, Yield is 100%, setup hrs of 1. Process 2: Cycle time is 75 minutes, multiples of is 50, Yield is 97%.

Average Daily Demand	Manufactured Items = (Total of all WO qty in the scheduling scope / Scheduling Scope – non working days) 2000 / 130
Replenishment Time (in minutes)	Calculation of Replenishment Time For ASSY 1,2 & 3: [Sum(all processes hrs required for one item) * Std Container Size * Replenishment Signal + Setup time in hours] * 60 [((90/60) / 10) + (((75/60) / 50) / 0.97) * 500 * 1 + 1] * 60 = [0.1757732 * 500* 1 + 1] * 60 = 5333.2 Converted to days = 5333.2 * 0.000694444444 = 3.7
Card Count	Default Card Count calculation for Manufactured items: [Average Daily Demand * Replenishment Time (converted to days) + Collection Wait Time) (1+Safety Stock Percent)] / Std Container Capacity (Note: when the replenishment time is converted to days, the system uses production hours per day for that mfg cell).

• Assign Kanban Card Formula – allows the user to assign a defined Kanban card count formula.

■ **Define Kanban Formula** – This option allows Power Users or DBAs to create a user defined Kanban card formula. (Important! - :ID and :RESULT MUST be included in the formula. These are mandatory parameters).

Example defined Kanban formula:

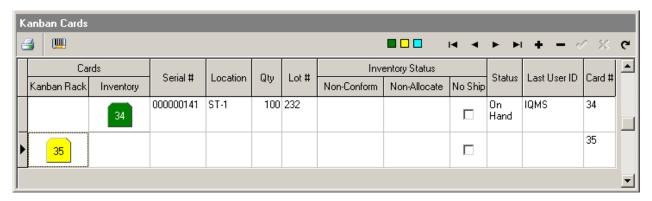
```
declare
  v kb control id number:=:id;
  v kb
                 kb control%rowtype;
  v days
                 number;
  v card count number;
begin
  select * into v_kb from kb_control where id = v_kb_control_id;
  if v_kb.container_qty = 0 then
    v_kb.card_count:= 0;
  else
    v_days:= nvl(v_kb.replenishment_time,0) / 60 / v_kb.daily_prod_hrs + nvl(v_kb.wait_days,0);
    v_card_count:= (v_kb.daily_demand * v_days * (1 + nvl(v_kb.safety_percent,0)/100)) /
v_kb.container_qty;
     v_kb.card_count:= trunc(v_card_count + 0.999999);
  end if;
  :result:= v_kb.card_count;
```

 Recalc Kanban Card - Calculates the Average Demand, assigns the Standard Container Capacity and Lead Days.

Kanban Cards

end;

The lower section of the Kanban form displays the Kanban cards. The screen shot below shows the fields when the item is marked as a serialized inventory control item. Non-serialized items will not have the Serial #, Location, Qty, Lot #, or Inventory Status fields.



To create Kanban cards select the Insert (+) button in the lower portion of the screen. Continue this process to create the recommended card count quantity. Each Kanban card will be assigned a unique card number which is used in RF Scanning. Select the Print button to print each card. (The report used is assigned in System Parameters->Reports and Forms). These cards are attached to the container of material. When first created the status of the cards are inactive. The status of the cards are changed using IQRF. The status can be either On Hand or On Order. As the status is changed the color code is changed on this form. Green indicates on hand status and yellow indicates on order status. The user name of the person who last changed the status will populate in the Last User ID field.

Kanban Cards Grid

- Cards Displays whether the card is in the Kanban Rack or Inventory.
- Status When Kanban cards are first created, the status of the cards are inactive. The status of the cards can be changed either manually or through IQRF/WMSIQ. The status can be either On Hand, On Order, or Pending Accumulation. As the status is changed the color code is changed and the card moves back and forth between the Kanban rack and Inventory. Green indicates on hand status, yellow indicates on order status, and blue indicates pending accumulation.

Note: The status can be changed manually within this form but when done this way it will not update the PO releases, therefore it is not recommended. Only use IQRF.

- Last User ID the last user ID when the Kanban card's status is changed.
- Card # The card number.
- Additional fields for Serialized items: Serial #, Location, Qty, Lot #, and Inventory Status.

Kanban Card Speed buttons

- Print Card(s) Allows the user to print the cards.
- Assign label to the kanban card Allows the user to assign an existing label to a kanban card.

Using Kanban Control

For manufactured items the system works similar to that of purchased items. The lead days is required as it may be used in the user defined calculations for kanban cards, and optionally any of the other fields that are applicable such as Safety %. The main difference between purchased and manufactured items is when changing the status of a Kanban card to 'on order', instead of creating a release on a PO, the system will immediately create a FIRM Manual work order.

As containers of manufactured items are completed the Kanban card must be scanned to convert it to an 'On Hand' Kanban card and affixed to the container. Updating the actual on hand quantity in inventory is handled identically to that of any other manufactured item using production reporting or scanning. The manual work order is then deleted.

Notes:

Setup time must be configured for manufactured items in order for the system to determine the change up time between items.

Lead days is not currently used in the default calculation for kanban cards, but it is required as it may be used in the user defined calculations.

Non Serialized Inventory Control (SIC) Items:

When a Kanban card is created for a non-SIC item, the card is inactive and displayed in white.

- Changing the status manually When the status of the card is manually changed to 'On Order', the card turns yellow and no firm manual work order is created. When the status of the card is manually changed to 'On Hand', the card turns green, moves to the Inventory column, and the item is not dispositioned into inventory.
- Using RF When the card is scanned through RF to 'On Order', the card turns yellow and the system creates a FIRM manual work order. As containers of manufactured items are completed, the Kanban card must be scanned to convert it to an 'On Hand' Kanban card and affixed to the container. If the 'Scanner Print Label/ Backflush' option on the Kanban Control form is unchecked, when scanning a card to 'On Hand', the card status will change to 'On Hand' and be colored coded Green, moves to the Inventory column, and the item is not dispositioned into inventory (Item was already dispositioned through the production reporting or scanning). If this option is checked, when scanning a card to 'On Hand', the system will print a label, disposition the parts into inventory, and backflush material/components. The card status will change to 'On Hand' and be colored coded Green. The manual work order is then deleted.

- ➤ Double clicking on the card When double clicking on a card in the Kanban rack, the user can disposition into inventory by reporting good parts, selecting an existing serial number, or printing a label. The card turns green, moves to the Inventory column, and the item is dispositioned into inventory. When double clicking on a green card, the confirmation 'Relieve Inventory and return Kanban Card to Rack? appears. When choosing Yes, the card turns yellow, moves to the Kanban Rack, and the status of the card changes to 'On Order'. No FIRM manual work order is created.
- When a Kanban card is created for a **SIC** item, the card is inactive and displayed in yellow.
- The status cannot be changed manually.
- Using RF When the card is scanned through RF to 'On Order', the card turns yellow and the system adds a release to the associated PO. The receiving process for Kanban controlled items is identical to that of all purchased items except an additional step must be performed. The card is scanned through RF to 'On Hand', the card turns green, moves to the Inventory column, and the item is not received into inventory (Item was already received through the receiving process).
- Double clicking on the card When double clicking on a card in the Kanban rack, the user can select an existing serial # to receive into inventory. The card turns green, moves to the Inventory column, and the item is received into inventory. When double clicking on a green card, the confirmation 'Relieve Inventory and return Kanban Card to Rack? appears. When choosing Yes, the card turns yellow, moves to the Kanban Rack, and the item is relieved from inventory. A release is added to the PO.

Report Production

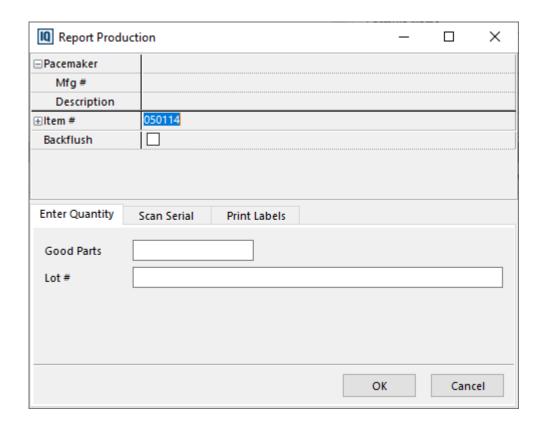
Top Section Fields:

- Pacemaker only applicable for MFG items
- Item # Displays the Item #, Description, Ext. Description, Class, Rev, and UOM of the item.
- Backflush only applicable for MFG items

Production can be reported from the Kanban form for manufactured items. If a card is yellow users can double click on the card to access the Report Production form.

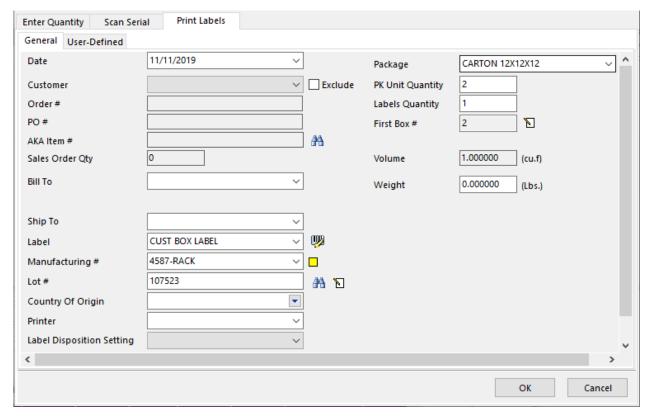
The Enter Quantity tab only appears for non-SIC items and ASSY1 manufactured SIC items. To report production enter a quantity in the Good Parts field, and enter a lot number if applicable. A Manual/Backflush In transaction will occur for the quantity of good parts entered. The Backflush check box will be checked if the 'Scanner Print Label/Backflush' check box is checked for the item in Kanban Control in EIQ. It cannot be check or un-checked from this form.

Scan Serial tab is available to both SIC and Non-SIC items. When reporting from the Kanban form the user can select the search button to access the pick list of all SN#s for this item that have not been dispositioned. A Manual/Backflush In transaction will occur for the quantity associated to the serial number. This tab does not appear for ASSY1 manufactured SIC items.



Print Labels tab

This allows the user to print a label to disposition into inventory. This tab does not appear for ASSY1 manufactured SIC items. The Box Quantity will default to the Standard Container Capacity but can be changed. The Labels quantity defaults to one and cannot be changed. The default information will populate in the other fields as with all labels. Make any necessary changes on the General tab or User-Defined tab and select the OK button to print the label. A Manual/Backflush In transaction will occur for the quantity associated to the label.



Additional Options for Serialized Items

Relieve Inventory - If the user double clicks on a green card for a Serialized Item a confirmation box will appear stating, " About to relieve inventory and return Kanban card to rack". After selecting OK, the system will relieve the inventory of that SN by the SN quantity. A Manual/Backflush Out transaction will occur, and the card will be changed to On Order (yellow) status.

Heijunka Box Load Leveling

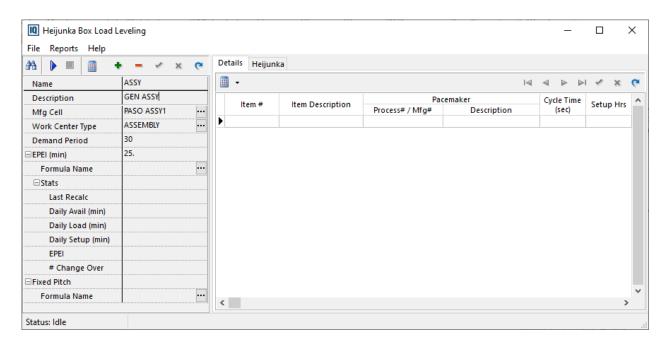
Heijunka is a Japanese term that refers to the overall leveling, in the production schedule, of the volume and variety of items produced in given time periods. Heijunka is what most lean companies are working towards as they try to be able to make just what the customer wants in the time or when the customer wants it. In Heijunka, the company is trying to do two things. One is to level production by volume and the other is to level the production by product type or mix of products. Heijunka takes the total volume of orders in a period and levels them out so the same amount and mix are being made each day. In short, what you are trying to do is to build a level schedule everyday by taking the actual customer demand, determine the pattern of volume and mix, and building your level schedule.

A tool used to help level both the mix and volume of production is a Heijunka box. A Heijunka box is basically a Mfg Cell, so there can be only one Heijunka box per Mfg Cell. A Heijunka box has a column of kanban slots for each pitch interval, and a row of kanban slots for each product type. Kanban are placed into the leveling box in the desired mix sequence by product type.

Note: The Heijunka cards are based on manufacturing demand which is different than the Kanban cards which control how much inventory you have on hand for purchased and manufactured items.

To enable Heijunka scheduling, check the 'Heijunka/KanBan Scheduling' option in System Parameters > Application tab. Once this option is checked, the user will need to log out of EnterpriseIQ and log back in to see the Heijunka Box icon on the Manufacturing tab. The Heijunka Box icon will also be available in ShopData and AssemblyData.

Heijunka Box



Field Information:

Name	Enter a name of the Heijunka Box.	
Description	Enter a description of the Heijunka Box	
Mfg Cell	Select the Mfg Cell of the Heijunka Box. Note: There can be only one Heijunka box per Mfg Cell.	
Work Center Type	Select the work center type of the Heijunka Box.	
Demand Period	The Run scope of the Heijunka family. The Mfg # run scope must be equal to the Heijunka run scope. Once a BOM is part of a Heijunka family, the run scope on the BOM cannot be changed.	
EPEI	Every Product Every Interval - The smallest possible lot size for a part in a process is a reflection of the "production interval" or "EPEI". This interval defines the maximum frequency that you can produce each part without running out of capacity because of too many setups on all parts. It is an expression of how frequently each item produced in a process can actually be run without incurring a capacity penalty. This value is calculated or a user defined EPEI formula can be created and assigned. Formula Name - The EPEI formula assigned to the Heijunka Box. If left blank, the system uses the default EPEI formula Define EPEI Formula — This option (accessed from the File menu) allows Power Users or DBAs to create a user defined EPEI formula. Each Heijunka Cell can have it's own EPEI calculations. (Important! :ID and :RESULT MUST be included in the formula. These are mandatory parameters).	
	EPEI Stats: Last Recalc - Last date/time EPEI calculated	
	Daily Avail (min) - Minutes available in the productions	
	Daily Load (min) - Average daily demand in minutes.	
	Daily Setup (min) - Daily setup minutes	
	■ EPEI	
	 # Change Over - How many times you change the item in the given period. (Calculated: Daily Avail - Daily Load / Daily Setup) 	

Fixed Pitch	The frequency at which finished goods are withdrawn from a pacemaker process as well as the corresponding amount of schedule released to that process.
	The default formula for Fixed Pitch = (Std Container Capacity * longest cycle time of the items) * 3
	Formula Name – The Fixed Pitch formula assigned to the Heijunka Box. If left blank, the system uses the default Fixed Pitch formula.
	A user defined calculation can be created to override the default. Select 'Define Fixed Pitch Formula' from the File menu to create a user defined formula. (:ID and :RESULT MUST be included in the formula. These are mandatory parameters).

Speed buttons

- Start Monitor This will start the monitor in order for users to see the progress of completed cards. As production is reported the completed intervals will be removed so users will be able to see what needs to be produced next. No edits can be made to the fields when the monitor is running.
- Stop Monitor This stops the monitor.
- Recalculate Heijunka Box This button will generate the EPEI and Pitch intervals in the Heijunka Box

Details Tab

The Details tab will display all of the Kanban items tied to the MFG Cell only. If the MFG Cells are the same, then all items for that MFG Cell will be displayed (regardless of center type). It includes the item information and the details from Kanban Control.

Item #	Item number	
Item Description	Description of the item	
Item Ext Description	Extended description of the item	
Pacemaker	How you control production at this point sets the pace for all the upstream processes.	
	■ Process #/Mfg # - The process # or Mfg # of the pacemaker	
	 Description- Description of the process or Mfg # 	
Cycle Time (sec)	Cycle time of the process/mfg #	
Setup Hrs	Setup hrs of the process/mfg #	
Scrap	Yield % from the process or Scrap % from the mfg #	
Takt Time (min)	The takt time from Kanban Control. The maximum allowable time needed to produce one unit in order to meet customer demand. (Daily Hours / Average Daily Demand) * 60	
Pitch Time (min)	The pitch time from Kanban Control. The time to produce the Standard Container Capacity. (Takt Time * Standard Container Capacity)	
Daily Demand	The daily demand from Kanban Control. (Total of all WO qty in the scheduling scope / Scheduling Scope – non working days). This field is editable to allow the user to override the daily demand.	

Firm Demand	If this option is unchecked, the daily demand will be overwritten with the Planned Daily Demand each time the Kanban is calculated.	
Std Container Capacity	The standard container capacity from Kanban Control.	
Replenishment Time (min)	The replenishment time from Kanban Control.	
KanBan Formula Name	The KanBan card formula assigned to the item. If left blank, the system uses the default Kanban card formula.	
Ratio	The ratio of cards compared to the other items in the Heijunka Box.	
EPEI Run Size	Quantity of parts to produce within the EPEI time.	
Recalc Kanban Card	Calculates the Daily Demand, assigns the Standard Container Capacity and Lead Days of the Kanban.	
Assign Kanban Card Formula	Allows the user to assign a defined Kanban card count formula.	
Define Kanban Formula	This option allows Power Users or DBAs to create a user defined Kanban card formula. (Important! :ID and :RESULT MUST be included in the formula. These are mandatory parameters.) See below for an example of a defined Kanban formula.	
Recalc Kanban Card	Calculates the Average Demand, assigns the Standard Container Capacity and Lead Days of the Kanban.	

Right Click Options from the Details tab:

- Show Demand This will how all the sales order details for all the work orders involved in the daily average demand.
- Calc Replenishment Time
- Jump To: BOM, Process, Inventory, or Kanban

Heijunka Tab

	-	
Item #	Item number	
Pitch Intervals	Displays the number of cards within each pitch interval	
Description	Description of the item	
Rev	Rev of the item	
Class	Class of the item	
Recalc Kanban Card	Calculates the Daily Demand, assigns the Standard Container Capacity and Lead Days of the Kanban.	
Assign Kanban Card Formula	Allows the user to assign a defined Kanban card count formula.	
Define Kanban Formula	This option allows Power Users or DBAs to create a user defined Kanban card formula. (Important! :ID and :RESULT MUST be included in the formula. These are mandatory parameters.) See below for an example of a defined Kanban formula.	

Recalc	Kanban
Card	

Calculates the Average Demand, assigns the Standard Container Capacity and Lead Days of the Kanban.

File menu options:

- Define EPEI Formula This option allows Power Users or DBAs to create a user defined EPEI formula.
 (Important! :ID and :RESULT MUST be included in the formula. These are mandatory parameters.)
 See below for an example of a defined EPEI formula.
- Define Fixed Pitch Formula This option allows Power Users or DBAs to create a user defined Fixed Pitch formula. (Important! :ID and :RESULT MUST be included in the formula. These are mandatory parameters.)
 See below for an example of a defined Fixed Pitch formula.
- Update Schedule This function, highlighted in detail in the How to Generate Work Orders Update
 Schedule section, will rebuild the work orders and re-evaluate material and capacity planning tables.

Example Formulas

```
Example defined Kanban formula:
declare
  v_kb_control_id number:= :id;
  v kb
                  kb_control%rowtype;
  v days
                 number;
  v_card_count number;
begin
  select * into v_kb from kb_control where id = v_kb_control_id;
  if v_kb.container_qty = 0 then
    v kb.card count:= 0;
  else
    v days:= nvl(v kb.replenishment time,0) / 60 / v kb.daily prod hrs + nvl(v kb.wait days,0);
    v_card_count:= (v_kb.daily_demand * v_days * ( 1 + nvl(v_kb.safety_percent,0)/100 )) /
v_kb.container_qty;
    v_kb.card_count:= trunc(v_card_count + 0.999999);
  end if;
  :result:= v_kb.card_count;
end;
Example defined EPEI formula:
declare
  v_heijunka_id
                       number:=:ID; /* mandatory IN param */
```

```
v_daily_avail_time number;
  v_daily_run_time
                       number;
  v_daily_setup_time number;
  v pftr
                        number;
  v_epei
                         number;
  v_work_center_count number;
                        heijunka%rowtype;
  v heijunka
begin
  select * into v_heijunka from heijunka where id = v_heijunka_id;
  -- get daily avail time in min
  v_daily_avail_time:= 480;
  -- calc total daily required run time based on daily demand and daily total setup time
  v_daily_run_time := 360;
  v_daily_setup_time:= 20;
  -- if changeover time is 0 we dont know how long does it take to change over
  if nvl(v_daily_setup_time,0) = 0 then
      return:
  end if;
  if nvl(v_daily_avail_time,0) = nvl(v_daily_run_time,0) then
      return;
  end if;
  -- PFTR - product family turnover rate. It is also how many cycles in a day we can go through
  v_pftr:= (v_daily_avail_time - v_daily_run_time) / v_daily_setup_time;
  -- EPE Interval
  v_epei:= round( 1/v_pftr, 2); -- note in order to convert to minutes just multiply by DAILY_AVAIL_TIME
  -- count how many work centers we have
  select count(*) into v_work_center_count
    from work_center
```

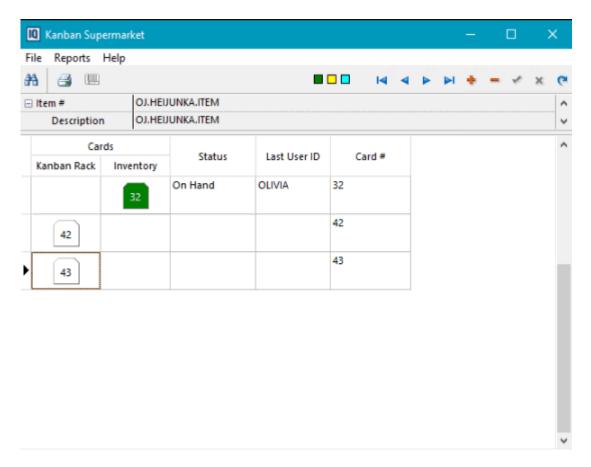
```
where mfgcell_id = v_heijunka.mfgcell_id
      and rtrim(cntr_type) = (select rtrim(name) from cntr_type where id = v_heijunka.cntr_type_id);
  -- update epei and stats in hejunka table. All times are in minutes. EPEI is a fraction of prod day in days.
  update heijunka
      set daily_avail_time = v_daily_avail_time,
           daily_run_time = v_daily_run_time,
           daily setup time = v daily setup time,
           epei = v_epei,
           epei_time = trunc(v_epei * v_daily_avail_time / iqmisc.no_zero( v_work_center_count ))
   where id = v heijunka.id;
:RESULT:= v_epei;
end;
Example defined Fixed Pitch formula:
declare
                               /* mandatory IN param */
  v id
            number:=:ID;
  v_result number;
begin
  select 3 * max( nvl(kb.container_qty, 1) *
                      nvl(case kb.pacemaker_source
                                  when 'STANDARD' then (select cycletm from standard where id =
kb.pacemaker_source_id)
                                 when 'PTOPER'
                                                    then (select cycletm from ptoper
                                                                                        where id =
kb.pacemaker_source_id)
                           end,0) / 60)
    into v result
    from kb control kb
   where kb.mfgcell id = (select mfgcell id from heijunka where id = v id )
      and nvl(ratio,0) > 0;
                              /* mandatory OUT param */
  :RESULT:= v_result;
end;
```

Kanban Supermarket

Users can directly access the Kanban Cards from the Kanban Supermarket icon on the Manufacturing tah

Note: To enable Heijunka scheduling, check the 'Heijunka/KanBan Scheduling' option in System Parameters > Application tab. Once this option is checked, the user will need to log out of EnterpriseIQ and log back in to see the Kanban Supermarket icon on the Manufacturing tab.

Select an item from the pick list and the Kanban Supermarket form will appear. The form displays the Kanban cards. The screen shot below shows the fields when the item is marked as a serialized inventory control item. Non-serialized items will not have the Serial #, Location, Qty, Lot #, or Inventory Status fields.



To create Kanban cards select the Insert (+) button. Continue this process to create the recommended card count quantity. Each Kanban card will be assigned a unique card number which is used in RF Scanning. Select the Print button to print each card. (The report used is assigned in System Parameters>Reports and Forms). These cards are attached to the container of material. When first created the status of the cards are inactive. The status of the cards are changed using IQRF. The status can be either On Hand or On Order. As the status is changed the color code is changed on this form. Green indicates on hand status and yellow indicates on order status. The user name of the person who last changed the status will populate in the Last User ID field.

Kanban Cards Grid

- Cards Displays whether the card is in the Kanban Rack or Inventory.
- Status When Kanban cards are first created, the status of the cards are inactive. The status of the cards can be changed either manually or through IQRF/WMSIQ. The status can be either On Hand, On Order, or Pending Accumulation. As the status is changed the color code is changed and the card moves back and forth between the Kanban rack and Inventory. Green indicates on hand status, yellow indicates on order status, and blue indicates pending accumulation.

Note: The status can be changed manually within this form but when done this way it will not update the PO releases, therefore it is not recommended. Only use IQRF.

- Last User ID the last user ID when the Kanban card's status is changed.
- Card # The card number.
- Additional fields for Serialized items: Serial #, Location, Qty, Lot #, and Inventory Status.

Kanban Card Speed buttons

- Print Card(s) Allows the user to print the cards.
- Assign label to the kanban card Allows the user to assign an existing label to a kanban card.

Kanban Supermarket Options:

The same functionality available from Kanban Control exists in Kanban Supermarket, such as reporting production and assigning serial numbers to cards. For a complete discussion of these options please refer to Kanban for Purchased Items or Kanban for Manufactured Items depending on the type of item.

Alternate Items

Alternate items can be set up to provide options to substitute items for other items. There are two options available for Alternate Items. These options in System Parameters->Inventory tab are mutually exclusive:

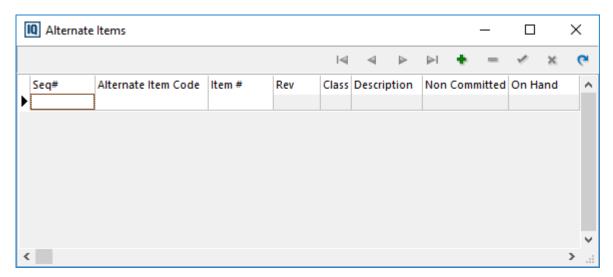
- Alternate Item# Applied to Substitute BOM (Default method). If this option is selected alternate
 items can be substituted on sales orders or from material exceptions. When substituted in material
 exceptions, the system will attempt to create a substitute BOM.
- Alternate Item# Applied to Work Order Allocation If this option is selected users can substitute alternate items from material exceptions for specific work orders. The associated work order becomes firmed. A substitute BOM is not created, instead the alternate item shows on the Material Allocation screen.

Alternate Item# Applied to Substitute BOM Method

When the Alternate Item# Applied to Substitute BOM parameter is checked, alternate items can be set up to replace items requested on sales orders or to replace material exceptions. There is a right click feature from both areas to select an alternate item.

To create Alternate Items

> Select the speed button on the inventory form. A window will appear to enter the alternate item(s) for the current item.



- > Select insert record (+) button or the ellipsis button in the Item # field and then select the alternate item(s) from the pick list. Multiple items can be selected from the pick list using the Ctrl keyboard button. The Sequence and Alternate item Code are not required when using the Alternate Item# Applied to Substitute BOM method.
- > Select the insert button to add additional alternate items.

From this form users can right click and select Jump to Inventory and Jump to Inventory Transactions & Locations

Alternate Items and Sales Orders

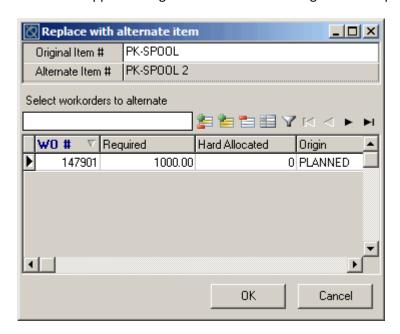
Once alternate items have been set up the user can substitute these items for parent item on sales orders. From the sales order, highlight the line item to be substituted and select Alternate Item #. Select the alternate from the pop up list. The system will do the following:

- If there have been no shipments against the sales order item the system will simply replace it. For Kitting items the default Kit's BOM components are removed, and the alternate Kit's BOM components are added.
- If the sales order item has been shipped against but not in full, a new line item will be added to the sales order for the Alternate Item selected. All of the unshipped demand (remaining Blanket Quantity and unshipped Releases) will be moved to the Alternate Item detail.
- If the sales order item has been shipped in full, a new line item will be added to the sales order for the Alternate Item selected (just like adding a new item from the pick list).

Alternate Items and Material Exceptions

Alternate items can be substituted for items in material exceptions. From within the Material Exception List, right click on the item to be replaced and select Alternate Item #. Select the alternate from the pop up list.

A form will appear listing the work orders and Mfg #'s that require the original item.

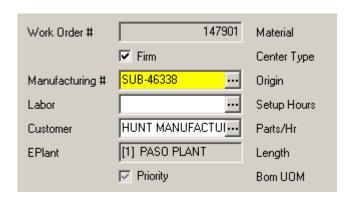


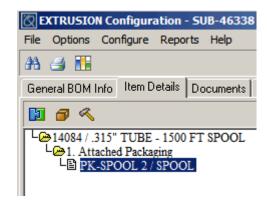
Select the work orders where the original item should be replaced by the alternate item by highlighting them in the list using the toggle buttons. Once highlighted, press OK.

The system will attempt to replace the item directly. However if the item is currently running the user will receive an error similar to the following:

General SQL error. ORA-20500: WO# 147901 is currently running on work center 16. Mfg# substitution or change is not allowed.

If the system is able to replace the item directly the selected work orders will automatically have a substitute BOM created for them. The substitute BOM is the same as the original BOM except the original exception item is replaced with the Alternate item. The parts per for this item remains the same as the original.





Note: The design will not account for UOM conversions on either the original or alternate item since the system is unable to accommodate the correct conversion amount to order when the original, or alternate, or both items use their own unique conversion factor.

Note: When a component in a blend operation is replaced with an alternate item it will permanently replace the original item in the blend operation. This will affect all BOMs where the blend operation is used in.

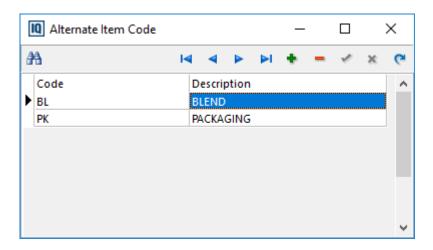
Alternate Item# Applied to Work Order Allocation

When the Alternate Item# Applied to Work Order Allocation parameter is checked users can substitute alternate items from material exceptions for specific work orders. The associated work order becomes firmed. A substitute BOM is not created, instead the alternate item shows on the Material Allocation screen.

Alternate Item Codes

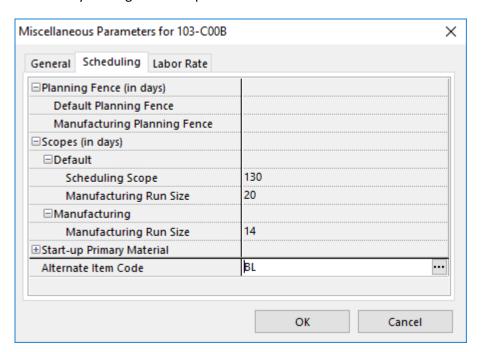
Alternate Item Codes are used with the Alternate Item # option 'Alternate item is applied to work order allocation' to filter the Alternative Items. The Alternate Item Codes are assigned to the alternate items and to the BOM that consumes items that have alternates.

The Alternate Item Code list is accessed from the Lists menu in System Parameters. To create codes select the New button on the pick list, insert a new record and enter the Code and Description.



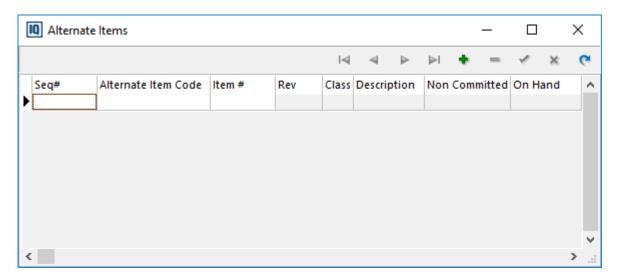
BOM Parameters

An 'Alternate Item Code' can be associated to a BOM in order for the system to know which alternate items can be used for substitutions. The system will only show blends that are setup as an Alternate Item of the original Blend with a matching Alternate Item Code. In the BOM Options menu select Miscellaneous Parameters. From the Scheduling tab select an Alternate Item Code from the pick list accessed by clicking on the ellipsis button in the field.



Create Alternate Items

> Select the speed button on the inventory form. A window will appear to enter the alternate item(s) for the current item.



> Select insert record (+) button or the ellipsis button in the Item # field and then select the alternate item(s) from the pick list. Multiple items can be selected from the pick list using the Ctrl keyboard button. Enter the sequence # and choose an Alternate Item Code from the pick list accessed by clicking the ellipsis button in the field for each item. Select the insert button to add additional alternate items.

From this form users can right click and select Jump to Inventory and Jump to Inventory Transactions & Locations.

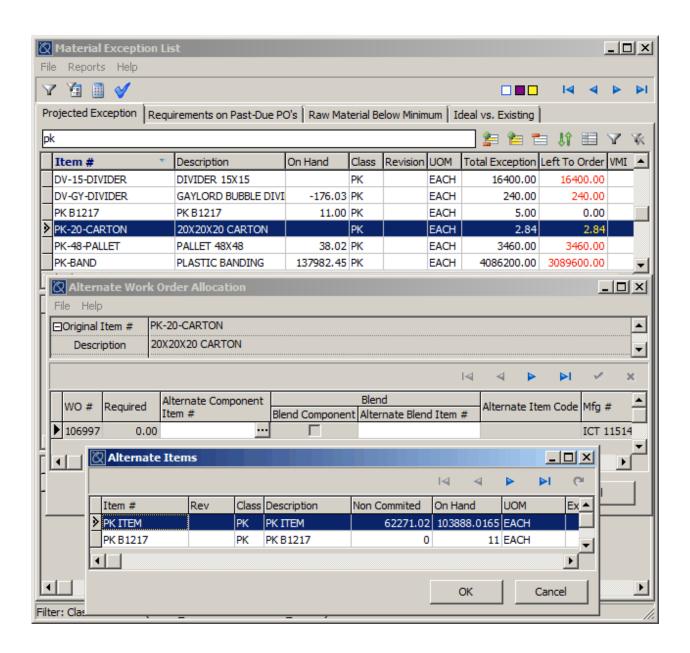
Copy and Replace - From the right click menu choose Copy Alternate Items or Replace Alternate Items to quickly make changes to the alternate items.

- Copy Alternate Item Alternate Items for one item can be copied to another item. Multi-select the item(s) in the Alternate Items list using the shift or ctrl keyboard buttons, select the target item to copy the alternate items to from the pick list and press the Select button. A confirm message will appear stating, 'About to assign alternate item(s) to 'Item #' [mode = COPY] continue?'. Select Yes to continue, and the item(s) will be added to the target item(s) alternate item list. Select No to return to the screen with no changes.
- Replace Alternate Item Alternate Items for one item can replace a target item's alternate items based on Alternate Item Code. Multi-select the item(s) in the Alternate Items list using the shift or ctrl keyboard buttons, select the target item to replace the alternate items for from the pick list and press the Select button. A confirm message will appear stating, 'About to assign alternate item(s) to 'Item #' [mode = REPLACE] continue?'. Select Yes to continue. If the selected Alternate Items have Alternate Item Codes the system will replace only matching Alternate Item Codes in the Target. If there is no Alternate Item code it will match the target without an Alternate Code. Select No to return to the screen with no changes.

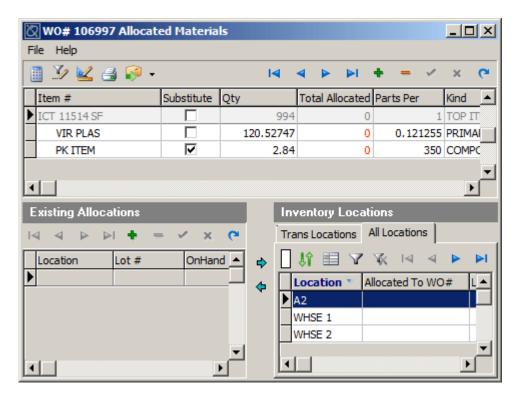
Material Exception List

From the Material Exception List users can substitute alternate items on specific work orders. The work order becomes firm. Instead of a substitute BOM being created the alternate item shows on the Material Allocation screen and will be used in backflushing.

From Material Exceptions, right click on the item in the upper section and select Alternate Item. The Alternate Work Order Allocation form will appear. To substitute an alternate component select the ellipsis button in the 'Alternate Component Item #' field and choose and item from the list of alternate items. The list includes the non committed and on hand quantities for the alternate item.



Select the item and select Yes on the confirm message to proceed with the alternate item(s) replacement. The work order will be marked firm and the alternate item will show as a substitute in the Material Allocation screen.



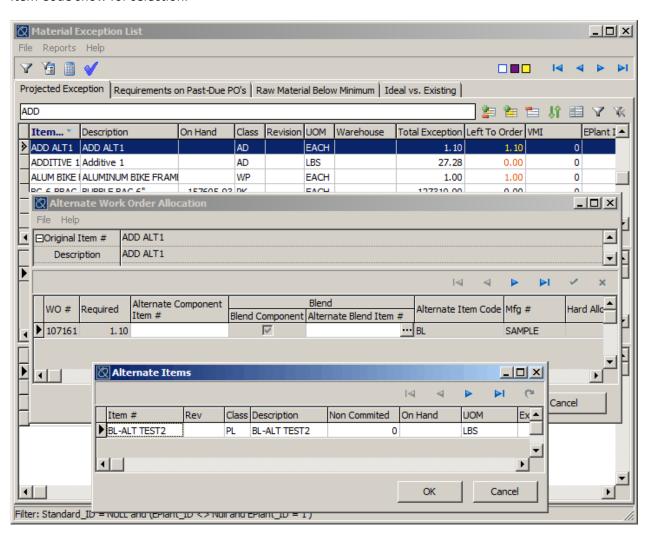
When backflushing in production reporting or if the work order is selected when doing a manual transaction the system will remove the alternate item instead of the one associated to the BOM.

Blends

This same functionality also works for blends. If the base item is a component in a blend, the system will display other blends that have been added to the Alternate Item list for the base blend.

For example, Blend 1 uses a component ALT1. Blend 2 uses a component ALT2. Blend 2 can be an alternate for Blend 1. So on the Blend 1 inventory item the Blend 2 would be set up as an Alternate Item. Then on the ALT1 item, the ALT2 item would be set up as an Alternate Item. All with the same Alternate Item Code. The Alternate Item Code for the BOM that uses Blend 1 is associated to the same code.

To choose an alternate blend, select the ellipsis button in the 'Alternate Blend Item #' field to access the pick list. Only blends that are setup as an Alternate Item for the original blend with a matching Alternate Item Code show for selection.



The work order will be marked firm and the alternate item will show in the Material Allocation screen.

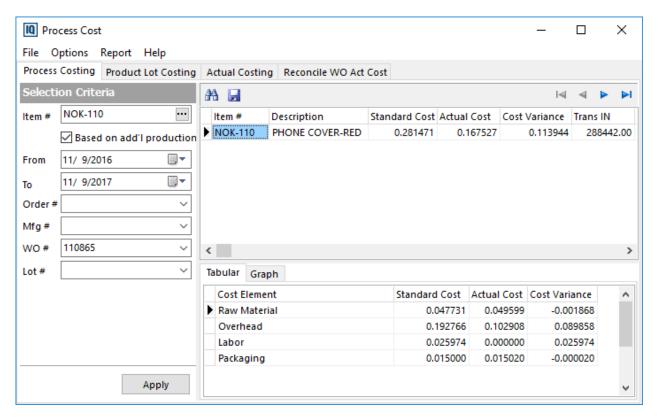
Alternate Items in Production Reporting

- In Production Reporting by Shift and Production Report by Labor/Shift (PRLS) an Alternate Item can be chosen as a substitute for an item on a one time basis or for the work order.

 Select the Drop down arrow next to the Alternate item speed button in the Materials Involved section. Select one of the options:
- Replace with Alternate Item (One Time) This replaces the item that was highlighted when the Alternate Item icon was clicked.
- Replace with Alternate Item (This Work Order) This replaces the item that was highlighted when the Alternate Item icon was clicked. It marks the work order firm and creates a Substitute BOM or Work Order Allocation based on the System Parameter Alternate item switch.
- > The pick list of alternate items for the highlighted item will display. Choose an item from the list.

Process Cost by Work Order

Select the Process Cost speed button to access process cost information by work orders for manufactured item. When this option is selected a pick list of work orders associated to the item will display. (The system looks in the C_TRANSLOG_WORKORDER table that is populated by a trigger on insert for translog). Select a work order from the list and the Process Cost form will display the costing information for the work order. See Introduction to Process Costing for details on this module.



Auto MRP (eKanban)

Auto-MRP is set up on individual inventory items and is used to specify minimum inventory stocking levels for these manufactured items. This functionality helps maintain a constant on hand supply of items. The system allows the stocking and manufacturing quantity levels to be set on an item by item basis for maximum flexibility. The manufacturing quantity concept uses the assumption that it is desirable to produce an economically sized run whenever a job is put on a machine.

Auto-MRP is set up with the minimum on hand inventory level and an amount to be manufactured. The first time an item is set up with Auto-MRP, the system generates an Internal Stocking Sales Order which has the same functionality as a regular sales order. This sales order is then used for all items set up with Auto MRP. To distinguish the sales order from a manual sales order, the wording 'INTERNAL STOCK' is embedded in the PO field and the Taken By field is filled in with Auto MRP.

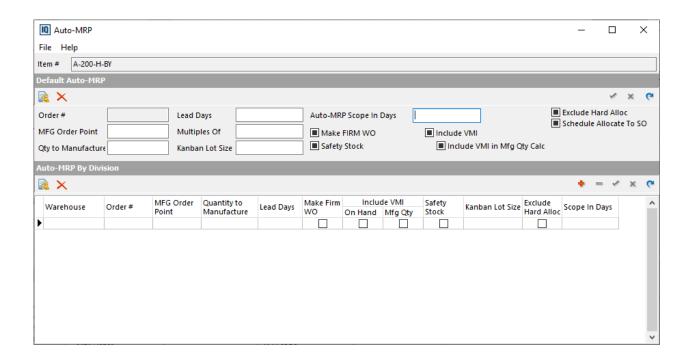
Auto-MRP monitors the inventory levels of the items on this order and when the amount in inventory drops below the minimum level specified for the item, the system automatically enters a release and thus creates demand for the item.

EnterpriseIQ's MRP engine looks at the demand for the item from the Internal Stocking Sales Order (along with other open orders for the item), the inventory level for the associated item, and creates a Work Order to ensure that the required amounts are produced. The Work Order is then handled in the same manner as other Work Orders.

Auto-MRP can only be set up for those items that are manufactured and have a valid BOM associated with the item. To set up Auto-MRP for an inventory item, follow the steps outlined below:

- From the EIQ Launcher Bar, click on the Inventory button or select File-> Manufacturing->Inventory from the menu. The inventory pick list will appear.
- > Select the item that is going to be set up for Auto-MRP from the pick list. The main inventory screen will appear.
- ➤ Select File->Auto-MRP from the menu. The following screen will appear:

Note: If the item does not have a BOM associated with it, the ability to select Auto-MRP will not be available.



Default Auto-MRP or Auto-MRP by Division/Warehouse

Each manufactured inventory item can have the Auto-MRP set up as a default (not division/warehouse specific) or specifically for a division/warehouse. The difference is when set up under the Default the system looks at the total on-hand for all locations regardless of the division/warehouse designation. If Auto-MRP is set up for a specific division/warehouse, the system will only look at the on-hand quantity for locations associated to that division to determine when to put in the sales order release. Once the sales order is generated there is really no difference.

Only set up Auto-MRP for one or the other per individual item, do not set it up for both default and by division/warehouse. Users can utilize both types within the system but not for a single item. If a user attempts to enter data for both sections an error will surface stating: "Auto-MRP has already been set up using the Default Auto-MRP method. In order to set up using Auto-MRP By Division, data must be removed from Default Auto-MRP first as these modes are mutually exclusive." The data from a section can be removed by selecting the red X button in the section.

Note: The system keeps Auto-MRP work orders separate. Therefore, it is possible that two work orders with a bucket 1 will be generated if Auto-MRP is set up on an item without the division/warehouse designated and there is also a sales order open for the item.

Note: If one BOM makes multiple items and each item has Auto-MRP set up for a specific division, the first due item will have a work order. The other item(s) will be schedule allocated and will not show demand on that work order. If the 'Qty to Manufacture' is different for the items in the family tool an additional work order may be created depending on the 'lead days' value. Please see the Auto-MRP and Family Tools section for more information.

Note: When an Auto-MRP work order is created, the current Non-Committed amount will be FG Allocated to the work order. This will cause the Non-Committed amount to drop on the inventory record based on the amount allocated.

Auto MRP Field Listing

Use the field listing below to assist in filling in each of the fields shown on the inventory screen. Enter the data in the top section to set the Auto-MRP as a default. Enter the information in the bottom section to set up the Auto-MRP for a specific division/warehouse.

Item #	This fills in automatically with the inventory item number.
Order#	Once the information requested is entered and the Create Order button is clicked, the Internal Stock Sales Order number will fill in.
MFG Order Point	The desired on hand quantity of the inventory item. When the actual on hand inventory drops below this value, a release will be added to the Internal Stock Sales Order for the number entered under 'Qty to Manufacture'.
Qty to Manufacture	The amount of items to be manufactured. This number is usually specified as an economically sized manufacturing run. Once the inventory level falls below the 'MFG Order Point' update schedule will issue a work order to manufacture this quantity or the balance to manufacture (less what is on hand).
	Note : If a value is entered in the 'MFG Min Qty' field on the Manufacturing tab in Inventory the quantity on the work order will be that value instead of the 'Qty to Manufacture' established in Auto-MRP. This is only applicable if the 'MFG Min Qty' is larger than the 'Qty to Manufacture' in Auto-MRP.
Lead Days	The number of manufacturing lead days required to reach the maximum stock level. For example, if the number entered here is 7, the Promise Date on the release on the Internal Stock Sales Order will be 7 days from the day the inventory dropped below the 'MFG Order Point'.
	If a value is entered in the 'Auto-MRP Scope in Days' field, once the entry is posted the 'Lead Days' and 'Exclude Hard Alloc' options will be cleared and be designated as readonly, since they no longer apply.
Multiples Of	This is the same field that is on the General tab in the Inventory module.
	In Auto MRP if this field has a value it will force the 'Kanban Lot Size' to be divisible by this quantity. If it is not a warning will appear.
	This field is also used in conjunction with Sales Order releases. Fill in 'multiples of' with the full box quantity. During order entry the release quantities will be rounded up to this full box quantity and the user will be asked if they want to keep the original quantity entered or use the full box quantity.
Kanban Lot Size	The system will use the 'Kanban Lot Size' to determine the work order quantity for the Auto MRP demand less the on hand quantity. The system will force each Auto MRP sales order release into separate work order buckets. Also, the same demand release date will be used for all Kanban releases.
	For example, if the' Qty to Manufacture' = 14000 and the 'Kanban Lot Size' = 8000. The system would create two work orders for 8000 pieces each (assuming no on hand).

Auto-MRP Scope In Days

This is the scope in days used to determine when inventory will fall below the 'MFG Order Point'. This option will allow users to anticipate when their inventory will fall below the desired safety stock levels, and have the system automatically create a work order based on the current sales order demand within the specified scope. Utilizing this feature will ensure the quantity to manufacture value will already be produced and on hand to replenish safety stock by the end of the scope and after sales orders are shipped.

The system considers demand from sales orders, sales orders with hard allocated material, forecast demand, and dependent demand. The system will use the date that the inventory will fall below the 'MFG Order Point' as the promise date when adding releases to the internal stock order. Orders outside of the defined scope are not considered when determining when inventory will fall below 'MFG Order Point'.

If the 'Allocate by Division' Scheduling parameter is unchecked the system will consider all available non-allocated on hand inventory when determining whether demand will cause inventory to fall below the 'MFG Order Point'.

If the 'Allocate by Division' is checked the system will consider all available nonallocated on hand inventory without a division assigned when determining whether demand will cause inventory to fall below the 'MFG Order Point'.

Note: When using the 'Scope in Days' feature for Auto-MRP items set up by division, the 'Allocate by Division' scheduling parameter must be checked. If it is not checked a confirm message will appear stating, "Allocate by division must be checked in scheduling parameters when using the Scope in Days functionality! Would you like to continue?". When selecting 'No' the changes are not saved and users are returned to the screen to change the settings. Please note that if 'Yes' is selected items setup under divisions will never trigger an internal stock order for divisions when inventory falls below the 'MFG Order Point'. A mouse over hint stating, "Check this option when setting up Auto MRP by division with scope days", is on the 'Allocate by Division' scheduling parameter to inform users that this is a requirement.

Note: If a user attempts to uncheck the Scheduling Parameter 'Allocate by Division' when an item has division Auto-MRP with 'Scope in Days' setup a warning will appear stating, "Scope in days functionality will not apply if Allocate by division checkbox is unchecked! Would you like to continue?". Selecting 'No' will return the user to the Scheduling Parameters form with no changes made. If 'Yes' is selected the 'Scope in Days' field in Auto-MRP division settings will be grayed out as an indicator that it no longer applies to the Auto-MRP calculations. If the 'Allocate by Division' parameter is re-checked, the 'Scope in Days' field will no longer be grayed out.

If a value is entered in this field, once the entry is posted the 'Lead Days' and 'Exclude Hard Alloc' options will be cleared and be designated as read-only, since they no longer apply.

Safety Stock

If this box is checked, the MRP engine will not take the 'Qty to Manufacture' amount into consideration as usable product to be allocated to customer demand (from sales orders). Safety Stock is ignored for internal (Auto MRP) demand, as the Auto MRP order is designed to get the inventory back to a certain level but not exceed it.

When determining the work order quantity for *customer* demand the MRP engine will not allocate up to the safety stock amount to a customer requirement (sales order). It does not consider this as usable product. The system uses the 'Qty to Manufacture' amount as the safety stock quantity unless a value is entered in the 'Safety Stock' field on the Manufacturing tab in Inventory. In this scenario, the system will use that value instead of the 'Qty to Manufacture' to determine the work order quantity for customer demand. If a value is entered in the 'Safety Stock' field on the Manufacturing tab, this field will be disabled.

For Example: Sales order for 10,00; safety stock set at 2,000; and on-hand = 2000

Update schedule will create a work order for 10,000 since the on-hand is set aside for safety stock. If the sales order is an Auto-MRP sales order, the work order would only be for 8,000. Update schedule will use the on-hand, ignoring the safety stock setting.

Make FIRM WO

When this is selected the work order generated for the internal stock item will be made firm automatically. The work order will then follow the firm work order rules (ignore inventory and only be reduced through dispositioning).

This also applies to internal work orders created when the 'Auto-MRP Scope In Days' option is checked. If demand changes within the scope in days, the system will create new internal firm work orders as needed. The system will allocate Firm work orders that were previously created when determining if additional work orders need to be generated based on demand changes. However, if the Must Start dates do not line up, a new firm Auto MRP work order will be created and not consume the previously generated firm work order.

Include VMI

With the 'Include VMI' box unchecked, the system will not consider VMI inventory when considering the on hand inventory level. With the box checked the system will include the VMI inventory as on hand when determining if the item has fallen below the reorder point. Note that this may cause MRP to not see a need to create parts. The VMI inventory is not used to determine the work order quantity regardless of whether this option is checked or not.

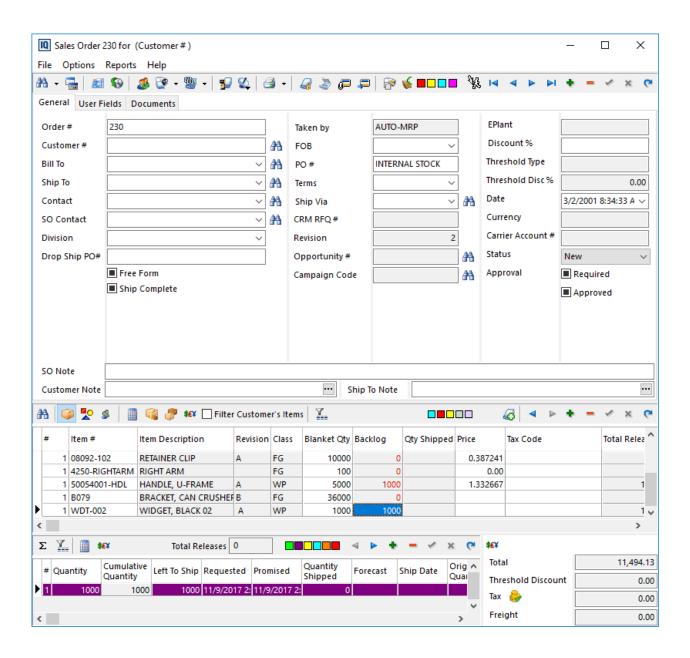
Example:

On Hand is 10,000; Auto-MRP is set to 7,000; 4,000 parts are moved to a VMI location

With the 'Include VMI' box checked, the system would take the VMI inventory into account and would not see a requirement to bring the stock level up. With the box unchecked, the system would not take the VMI inventory into account and would see a requirement to create 1,000 parts on an internal stocking sales order.

Include VMI in Mfg Qty Calc	If the 'Include VMI' option is checked, this option will become available. If this option is checked, the VMI quantities are considered available. When the system calculates the Auto MRP work order quantity it will use "Onhand+VMI Qty" in the calculation. Otherwise it will only use the On Hand quantity.
Exclude Hard Alloc	If this option is checked the system will not take into account hard allocated quantities when calculating Auto MRP Work Orders. See the Hard Allocated example in the Auto-MRP Examples section below. If a value is entered in the 'Auto-MRP Scope in Days' field, once the entry is posted the 'Lead Days' and 'Exclude Hard Alloc' options will be cleared and be designated as read-only, since they no longer apply.
Schedule Allocate to SO	If this box is checked, any product produced from an Auto-MRP work order (including Firm Auto-MRO work orders) will be applied to a sales order through schedule allocate in update schedule. This will prevent the creation of a new planned work order for the sales order demand. When the Schedule Allocate to SO box is checked, the Auto-MRP records are evaluated first, and then the Sales Order demand will take them into account when being processed by update schedule. Note: MTO work orders will not be "schedule allocated to" by Auto-MRP work orders, even when the 'Schedule Allocate to SO' option is checked.

Once all the required information is entered, click on the 'Create Order' button to add the item to the Internal Stocking Sales Order. The internal order number will appear in the Order # field. To view the Internal Stocking Sales Order, right click on the Order # field and jump to the order. The following screen will appear:



All items that are set up for Auto-MRP will be listed on the Internal Stock Sales Order and those items with on hand inventory levels below their MFG Order Point will have releases for quantities associated with their 'Qty to Manufacture'.

Note: Auto MRP orders are not EPlant specific in the header section. The user must be in View All to view the Internal Stock sales order.

Note: After marking an Auto-MRP item inactive (inactive check box in Inventory->Main Inventory tab), work orders and material requirements are not generated when running update schedule, and the existing item on the internal stock sales order will not have releases.

Note: Users will not see the system generated 'INTERNAL STOCK' Auto MRP sales order in the sales order pick list. Jumps to the Sales Order and navigation to the sales order within the module are still available.

Delete/Archive Auto MRP Sales Order

If a user tries to delete and/or archive the internal stock (Auto-MRP) sales order, a confirmation message is displayed stating: "Are you sure you want to delete and/or archive the Auto MRP Sales Order # <orderno>?", with Yes and No buttons. There is also a 'Do not show next time' check box. Security can be placed on the Yes button and the check box.

Auto-MRP Examples

The following examples explain the basic methods of work order generation for various scenarios:

Example 1:

On Hand is greater than MFG Order Point

On Hand Qty	700
MFG Order Point	500
Qty to Manufacture	5000
Safety Stock	Not checked
Open Sales Orders	0
MFG Safety Stock	0

Results:

Work Orders		On hand inventory is greater than the Manufacturing Order Point
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Example 2:

On Hand is less than Mfg Order Point - no sales orders

On Hand Qty	200
MFG Order Point	500
Qty to Manufacture	5000
Safety Stock	Not checked
Open Sales Orders	0
MFG Safety Stock	0

Work Orders	Internal Stock	WO Qty = 4800, Qty to Manufacture
	SO	less On-Hand Qty (5000 - 200).

Example 3:

On Hand is less than MFG Order Point - open sales order

On Hand Qty	200
MFG Order Point	500
Qty to Manufacture	5000
Safety Stock	Not checked
Schedule Allocate SO	Not Checked
Open Sales Orders	1000 pieces with promise date later than internal demand.
MFG Safety Stock	0

Results:

Work Order(s)	Internal Stock SO	WO Qty = 4800 (5000 - 200).
	Customer demand	WO Qty = 1000 (Qty to Manufacture)

Note: If the open sales order for the customer had a promise date sooner than the internal requirement, the on hand inventory would be allocated to the customer's demand instead. The total quantity remains at 5,800 but the results would be as follows:

Work Order(s)	Internal Stock SO	WO Qty = 5000
	Customer demand	WO Qty = 800 (1000 - 200).

If the Schedule Allocate option is checked, the system will not create another work order for the Sales Order demand if it falls after the Mfg Run Size time period. So in the above example, only one work order would be created.

Work Order(s)	Internal Stock SO	WO Qty = 4800

Example 4:

On Hand is less than MFG Order Point, no sales orders, safety stock is checked.

On Hand Qty	200
MFG Order Point	500
Qty to Manufacture	5000
Safety Stock	Checked
Open Sales Orders	0
MFG Safety Stock	0

Results:

Work Order(s) Internal Stock SO	WO Qty = 4800
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Example 5:

On Hand is less than MFG Order Point, open sales order, safety stock is checked.

On Hand Qty	200
MFG Order Point	500
Qty to Manufacture	5000
Safety Stock	Checked
Open Sales Orders	1000 pieces with promise date later than internal demand.
MFG Safety Stock	0

Work Order(s)	Internal Stock SO	WO Qty = 4800 (on hand inventory is considered for internal (Auto MRP) orders).
	Customer demand	WO Qty = 1000.

Example 6:

On Hand is greater than MFG Order Point, safety stock is checked, open sales order

On Hand Qty	750
MFG Order Point	500
Qty to Manufacture	650
Safety Stock	Checked
Open Sales Orders	1000 pieces
MFG Safety Stock	0

Results:

Work Order(s)	Customer Demand	WO Qty = 900. Allocates 100 of on hand inventory towards SO. On Hand less Qty to Manufacture (Safety Stock) 750 - 650. No Auto-MRP demand because On-Hand is greater than the MFG Order Pt.
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Example 7:

On Hand is less than MFG Order Point, safety stock is entered on the Manufacturing tab in inventory, open sales order

On Hand Qty	200
MFG Order Point	500
Qty to Manufacture	5000
Safety Stock	N/A
Open Sales Orders	1000 pieces with promise date later than internal demand.
MFG Safety Stock	150

Work Order(s)	Internal Stock SO	WO Qty = 4800 [Qty to Manufacture - On hand) = [5000 - 200].
		The MFG Safety stock is not considered for Auto MRP demand.
	Customer demand	WO Qty = 1000.

If the open sales order promise date is before the internal demand, the results are as follows:

Work Order(s)	Internal Stock SO	WO Qty = 4850 [Qty to Manufacture - On Hand] = [5000 - 150].
		After fulfilling customer demand the On Hand will be 200 + 950 - 1000 = 150
	Customer	WO Qty = 950.
demand	(1000 - 200) + 150 safety stock	

Firm Option:

In any of the above examples if the 'Make Firm WO' is checked the work order created for the Auto-MRP demand will be marked firm. It will then follow the firm work order rules (ignoring on hand inventory and only be reduced through dispositioning). Keep in mind if the on hand inventory level becomes greater than the MFG Order Point the firm work order for the Auto-MRP demand will not be removed during update schedule.

Auto-MRP Scope in Days Examples:

- MFG Order Point = 50 (trigger point)
- Qty To Mfg = 100 (build up to stock qty)
- Auto-MRP Scope in days = 30
- Make Firm Work Order is not enabled

On hand = 150

The system compares the sales order delivery dates (must ship date) to the Auto-MRP Scope in Days. If the order falls within the scope in days then the order is considered when projecting out when the quantity on hand will fall below the MFG Order Point. The system will add a release to the internal stock order for the quantity to manufacture which is 100 parts in this case. The work order will be generated for the difference between the projected on hand quantity (below the MFG Order Point) and the Qty to MFG. The date that the inventory will fall below the MFG Order Point will be used as the promise date when adding releases to the internal stock order. The system will include demand from sales orders, sales orders with hard allocated material, forecast demand, and dependent demand (all manufactured items will be evaluated).

Sales order quantity examples:

- Scenario 1: If the sales order quantity = 125 and the on hand is 150 then there is a balance in inventory of 25 when the sales order is to be shipped. This is below the MFG Order Point of 50 so the system will generate a release on the internal stock order of 100, and the work order will be for 75 parts to bring it up to the Qty to MFG of 100.
- Scenario 2: If the sales order quantity = 150 then there is a balance in inventory of 0 so the system will generate the work order for 100 parts to bring it up to the Qty to MFG of 100.

If there are several work orders within the scope, the system will accumulate them until it hits zero, and will generate the work order for the 100 stock parts (Qty to MFG).

Allocate by Division (Scheduling Parameter) Examples:

If 'Allocate by Division' Scheduling parameter is unchecked the system will consider all available non-allocated on hand when determining whether demand will cause inventory to fall below the 'MFG Order Point'.

If 'Allocate by Division' is checked the system will consider all available non-allocated on hand without a division assigned when determining whether demand will cause inventory to fall below the 'MFG Order Point'.

Using the data below, refer to the screenshots to show the results based on whether the 'Allocate by Division' parameter is checked or unchecked:

- MFG Order Point = 500
- Qty to Manufacture = 10,000
- Scope = 15
- On Hand DIV 1 = 1750
- On Hand DIV 2 = 1000
- On Hand No DIV = 250
- Hard Allocated = 4500
- VMI = 1000

Default Auto-MRP set up (not by Division)

Allocate by Division is unchecked:

	IN	OUT	On hand	Demand
7/16		1000	2000	SO Release - No Division
7/17		2000	0	SO Release - No Division
7/17	10,000	0	10000	Auto MRP WO
7/22	2000	2000	10000	MTO - Not Hard Allocated so own WO is generated for demand
7/23	1000	1000	10000	MTO - Not Hard Allocated so own WO is generated for demand
8/7		300	9700	SO Release - Div 2
8/8		400	9300	SO Release - Div 1
8/9	3000	3000	9300	MTO - Not Hard Allocated so own WO is generated for demand
8/10		4500	9300	MTO - Hard Allocated so need to consider demand (hard allocated on hand location will be used - 4500)
8/16		7750	1550	SO Release - No Division
8/17		850	700	Forecast - Demand
8/18		500	200	Dependent - Demand
8/17	9800	0	10000	Auto MRP WO
8/19		6000	4000	SO Release - Div 1
8/20		400	3600	SO Release - Div 2
8/24		5521	-1921	SO Release - Div 1
8/24	11,921	0	10000	Auto MRP WO
9/1		15000	-5000	SO Release - Div 1
9/1	5000	0	0	Regular WO

Allocate by Division is checked:

	IN	outs	On hand no Div	On hand Div 1	On hand Div2	Demand
7/16		1000	-750	1750	1000	SO Release - No Division
7/17	10750	0	10000	1750	1000	Auto MRP WO created for No Division
7/17		2000	8000	1750	1000	SO Release - No Division
7/22	2000	2000	8000	1750	1000	MTO - Not Hard Allocated so own WO is generated for demand
7/23	1000	1000	8000	1750	1000	MTO - Not Hard Allocated so own WO is generated for demand
8/7		300	8000	1750	700	SO Release - Div 2
8/8		400	8000	1350	700	SO Release - Div 1
8/9	3000	3000	8000	1350	700	MTO - Not Hard Allocated so own WO is generated for demand
8/10		4500	8000	1350	700	MTO - Hard Allocated so need to consider demand (hard allocated on hand location will be used - 4500)
8/16		7750	250	1350	700	SO Release - No Division
8/17	9750	0	10000	1350	700	Auto MRP WO created for No Division
8/18		850	9150	1350	700	Forecast - Demand
8/17		500	8650	1350	700	Dependent - Demand
8/19		6000	4000	0	700	SO Release - Div 1
8/20		400	4000	0	300	SO Release - Div 2
8/24		5521	-1521	0	300	SO Release - Div 1
8/24	11,521	0	10000	0	300	Auto MRP WO created for No Division
9/1		15000	-5000	0	300	SO Release - Div 1
9/1	5,000	0	0	0	300	Regular WO for no division

Auto-MRP set up for Division

Note: When using the 'Scope in Days' feature for Auto-MRP items set up by division, the 'Allocate by Division' scheduling parameter must be checked. If it is not checked the items setup under divisions will never trigger an internal stock order for divisions when inventory falls below the 'MFG Order Point'. A mouse over hint stating, "Check this option when setting up Auto MRP by division with scope days", is on the 'Allocate by Division' scheduling parameter to inform users that this is a requirement.

Allocate by Division is checked:

	IN	outs	On hand no Div	On hand Div 1	On hand Div2	Demand
7/16	0	1000	-750	1750	1000	SO Release - No Division
7/16	750		0	1750	1000	Regular WO created for No Division
7/17		2000	-2000	1750	1000	SO Release - No Division
7/17	2000		0	1750	1000	Regular WO created for No Division
7/22	2000	2000	0	1750	1000	MTO - Not Hard Allocated so own WO is generated for demand
7/23	1000	1000	0	1750	1000	MTO - Not Hard Allocated so own WO is generated for demand
8/7		300	0	1750	700	SO Release - Div 2
8/7	4300		0	1750	5000	Auto MRP WO created for Div 2
8/8		400	0	1350	5000	SO Release - Div 1
8/9	3000	3000	0	1350	5000	MTO - Not Hard Allocated so own WO is generated for demand
8/10		4500	0	1350	5000	MTO - Hard Allocated so need to consider demand
8/16		7750	-7750	1350	5000	SO Release - No Division
8/16	7750		0	1350	5000	Regular WO created for No Division
8/17		850	-850	1350	5000	Forecast - Demand (No division)
8/17	850		0	1350	5000	Forecast WO created for No Division
8/18		500	-500	1350	5000	Dependent - Demand (No Division)
8/18	500		0	1350	5000	Regular WO created for No Division
8/19		6000	0	-4650	5000	SO Release - Div 1
8/19	14,650		0	10000	5000	Auto MRP WO created for Div 1
8/20		400	0	10000	4600	SO Release - Div 2
8/24		5521	0	4479	4600	SO Release - Div 1
9/1		15000	0	-10521	4600	SO Release - Div 1
9/1	10521		0	10000	4600	Regular WO created for Division 1

Make Firm WO - If the 'Make Firm WO' is checked the work order created for the Auto-MRP demand will be marked firm.

Firm Work Order Example with Auto MRP Scope in Days checked:

- MFG Order Point = 500
- Qty to MFG = 1000
- On Hand = 1000

Scenario: A new Sales Order for 600 is shipped. This drops the on hand to 400, which is below the MFG Order Point. When update schedule is run, a firm work order gets created for 600. If demand is added to the sales order for 100 and shipped; the on hand is now at 300. When update schedule is run, a second firm work order is created for 100.

Note: The system will allocate Firm work orders that were previously created when determining if additional work orders need to be generated based on demand changes. However, if the Must Start dates do not line up, a new firm Auto MRP work order will be created and not consume the previously generated firm work order.

VMI Options:

If the 'Include VMI' option is checked the system will include inventory in a VMI location as part of the on hand when determining if inventory has fallen below the reorder point. (Work order generation never looks at VMI inventory).

If the 'Include VMI on Mfg Qty Calc' option is checked, when the system calculates the Auto MRP work order quantity it will use "Onhand+VMI Qty" in the calculation.

Hard Allocated Example:

When the Exclude Hard Allocated box is checked the system will not consider items that have been hard allocated.

On Hand Qty	500
MFG Order Point	400
Qty to Manufacture	1000
Safety Stock	Not checked
Open MTO Sales Orders	200 with 200 hard allocated to the SO
MFG Safety Stock	0

Work Orders	Internal Stock SO	Qty to Manufacture less Qty On hand - Hard Allocated: (1000 - (500 - 200)) =
		700

Using the same information, if the Exclude Hard Allocated box is not checked then no work order would be created as the on hand inventory of 500 is not below the MFG Order point of 400.

Kanban Lot Size Example:

The system will use the Kanban Lot Size to determine the work order quantity for the Auto MRP demand. The system will force each Auto MRP sales order release into separate work order buckets. Also the same demand release date will be used for all Kanban releases.

On Hand is less than Mfg Order Point - no sales orders, Qty to Manufacture less than Kanban lot size.

On Hand Qty	200
MFG Order Point	500
Qty to Manufacture	5000
Safety Stock	Not checked
Open Sales Orders	0
MFG Safety Stock	0
Multiples of	1000
Kanban Lot Size	8000

Results:

Work Orders Internal Stock SO	WO Qty = 7800, Qty to Manufacture rounded up to Kanban Lot Size of 8000 less on hand of 200.
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On Hand is less than Mfg Order Point - no sales orders, Qty to Manufacture greater than Kanban lot size

On Hand Qty	200
MFG Order Point	500
Qty to Manufacture	14000
Safety Stock	Not checked
Open Sales Orders	0
MFG Safety Stock	0
Multiples of	1000
Kanban Lot Size	8000

Work Orders Internal Stock SO	Two separate work orders: one for Qty = 7800, and one for 8000. Qty to Manufacture rounded up to Kanban Lot Size of 8000 x 2 = 16000 less on hand of 200.
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Divisions/Warehouses

The system will only look at the on-hand quantity for locations associated to that division to determine when to put in the sales order release.

Division Example

On Hand is less than MFG Order Point - no sales orders - On hand is in a different division than what the Auto-MRP is set up for.

On Hand Qty	200 (Div 2)
MFG Order Point	500 (Div 1)
Qty to Manufacture	5000
Safety Stock	Not Checked
Open Sales Orders	0
MFG Safety Stock	0

Work Order(s) Internal Stock SO	WO Qty = 5000. The on hand is in Division 2 but the Auto-MRP is set up for Division 1.
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Auto-MRP and Family Tools

Auto-MRP is set up on an individual item basis. It is possible to set up Auto-MRP for only one item in a family tool. Examples are provided below to illustrate how work orders are created for Auto-MRP requirements in family tools:

Family Tool Examples:

Example 1: The tool makes a part A and a part B. Auto-MRP is set up on part A only. On hand inventory of part A falls below the MFG Order Point.

One work order will be created for part A only. Part B will also be listed on the work order but with zero parts required. The work order report will also list both parts with the correct quantity required. The raw material requirements will be for both parts because they are calculated based on the shot weight and number of cycles, not the individual cavity weight. Any attached components such as packaging or inserts will be included in the material requirements reports and staging reports. However, on the work order report the attached components for part B will be listed with zero quantity required.

NOTE: The system will not create artificial demand for the other part(s). It is not necessary since the system knows the materials to be consumed based on the BOM. Also, work orders are always automatically generated based on actual demand (sales orders). If Auto-MRP is not set up for an item, sales order demand does not exist and therefore a work order is not created. Putting a requirement on the work order for items without demand would fall outside the logic of the system.

If the other part(s) will not be produced (i.e. a cavity is shut off) be sure to change the 'Act Cav' field in the BOM to zero. This will then effect the raw material requirements to not include the material required for the part(s) with zero actual cavities.

Example 2: The tool makes a part A and a part B. Auto-MRP is set up on both part A and B. On hand inventory of both parts falls below the MFG Order Point.

One work order will be created for the Qty to Manufacture set for each part. For example, part A has a Qty to Manufacture = 15000 and part B = 10000, the work order will be created for 15000 A's and 10000 B's. All raw materials will be based on the number of cycles required and shot weight. Note, the cycles required is the larger of the two requirements, in this example it would be 15000 assuming part A has one cavity. The work order will therefore be making an additional 5000 part B's that have no demand. (As mentioned above the system will not create artificial demand for those extra 5000 parts). The attached components will be based on the parts required for each. If part B requires one insert per item the material requirements reports will show 15000 inserts required.

Family Tool Examples with Divisions:

The examples below use the same family configuration as above; the tool produces a part A and part B:

Example 1: On Hand is less than MFG Order Point for both parts - no sales orders - Auto-MRP is set up identically for both items, or only one item has Auto-MRP set up. The results are the same.

On Hand Qty	0, for each part	
MFG Order Point	500	
Qty to Manufacture	3500	
Safety Stock	Not Checked	
Open Sales Orders	0	
MFG Safety Stock	0	

Results:

Work Order(s) Internal Stock SO	WO Qty = 3500 for one part, the other part will show 0 quantity but will be schedule allocated for 3500.
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Example 2: On Hand is less than MFG Order Point for both parts - no sales orders - the parts have a different Qty to Manufacture and different lead days.

On Hand Qty	0, for each part	
MFG Order Point	500	
Qty to Manufacture	3500 for part A, lead days = 5	
	3000 for part B, lead days = 10	
Safety Stock	Not Checked	
Open Sales Orders	0	
MFG Safety Stock	0	

Work Order(s) Internal Stock SO	WO Qty = 3500 for part A, part B will show 0 quantity but will be schedule allocated for 3500.
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NOTE: Because the lead days for part A is less than the lead days for part B and the quantity for part A will meet the requirements for part B, only one work order is created for part A.

Example 3: On Hand is less than MFG Order Point for both parts - no sales orders.

On Hand Qty	0, for each part	
MFG Order Point	500	
Qty to Manufacture	3500 for part A, lead days = 10	
	3000 for part B, lead days = 5	
Safety Stock	Not Checked	
Open Sales Orders	0	
MFG Safety Stock	0	

Work Order(s)	Internal Stock SO	WO Qty = 3000 for part B, part A will show 0 quantity but will be schedule allocated for 3000.
	Internal Stock SO	WO Qty = 500 for part A to meet additional 500 piece requirement that was not schedule allocated.

If part A and B have the Auto-MRP set up for different divisions the results are the same. The only relevance is what division the on-hand inventory is in to determine the ultimate work order quantity.

A Note on Schedule Allocation

The system takes into consideration if another work order will produce enough items to fulfill demand. The system knows we are making those parts to fulfill the work order, so if another order were to come in, we can see that this work order might already produce enough parts to satisfy the new demand. We look at that Schedule Allocate column to see if parts are already being made by an existing work order before creating another work order for same part(s).

For example, assume that a sales order demands Part A from BOM 103. This BOM actually creates two parts, parts A and B. EnterpriseIQ understands that the production run will produce both parts.

Both part numbers are taken into account when determining product availability. This system of allocation works in the same way on hand inventories are allocated. If a work order is already going to produce a part another sales order demands, then that demand is discounted by the number of parts the original work order will produce.

Auto-MRP vs. Mfg. Safety Stock

The section provides information on the different methods of creating a stocking program for a manufactured item in EIQ. Currently there are two methods to do this:

- 1 Auto-MRP
- 2 MFG Safety Stock.

Both methods have pros and cons that are explained below.

Auto-MRP (eKanban)

This is setup on the item level and is used to determine a Min/Max on hand situation. The system uses the Actual On-Hand to determine when an "Internal Sales Order" should be created or updated with releases to generate work orders for an Auto-MRP item. The system looks at the Current On Hand amount (Note: Not the Non-Allocated amount) to determine if a Re-Order point has been met. If the Reorder point has been met the system will create a release on the Stocking sales order to drive the system to create the required work order. The work order quantity is based on the Qty to MFG value setup on the item minus the current actual On-Hand. (Note: If the item has MFG Min or MFG Multiples of setup this will affect the quantity on the work order). The quantity of the work order can float as the On-Hand amount changes; this is normal MRP logic in EIQ. Another feature that can help control the Auto-MRP creep is setting the item up to Schedule to SO Allocate. What this setting does is allow the supply being created by the Auto-MRP order to be allocated to Demand that is outside of the Mfg. Time Fence for the item or the system default. One key thing to remember is that the restock WO is not created until the actual On Hand is less than the Mfg. Order Point. See the sections above for more details.

MFG Safety Stock (Inventory->Manufacturing Tab)

This setup allows for a quasi-stocking program to be maintained, that is driven off a combination of the Non-Committed On-Hand and customer demand. In other words entering in an amount in the Safety Stock field tells the system to ignore the quantity in this field when looking at available product. This does not affect in anyway the ability to sell, ship, consume, or otherwise use the product that is in "Safety Stock" instead it hides the inventory from the MRP engine when it is determining if there are enough products available to meet demand.

PROS and CONS for each option:

Auto-MRP (eKanban)

PROS:

- The system will automatically create a Sales Order/ Work Order if the inventory amount is below the MFG Order Point. This is true when just setting up an item, even though there is no inventory onhand the system will create the supply to get the item back up to the MFG Qty. For an ongoing basis the system will only create a Supply Order when the actual On-Hand is less than the Reorder point.
- For End users that are using Division a separate Auto-MRP setup can be created for each Division.
- The system will automatically inactivate the Auto-MRP setup if the inventory item is marked inactive.
- VMI can be included or excluded on the On Hand amount depending on how the user sets up the inventory item.
- SO Allocate can be allowed as well to prevent multiple Work Orders for the same item being created if the Sales Order demand is outside of the Mfg. Run Size fence for the item. This means that if you have a Mfg. Run Size of seven days and the On hand drops below today and no sales orders have demand within those seven days the system will allocate the Supply from the Auto-MRP Work Order to the future demand. However, if you have a Sales Order that has requirements within seven days of the Stocking Order requirements and the current On hand is not enough to cover the Sales Order requirements you will get another Work Order that is separate from the Stocking Order.

CONS:

The system only takes into account the Actual On Hand of the Inventory; it does not take into account the Non-Committed inventory. This may lead to situations were multiple work orders will be created and a true level loaded approach to scheduling control will not be able to be maintained.

Mfg. Safety Stock

PROS:

- The system looks at the Non-Committed value of the item to evaluate when a Work Order needs to be created. The trigger for this is based on when the Non-Committed is less than what is required for Demand in the future. The key concept here is the Demand is driving the stocking program.
- There will only be one work order involved for the restock plan, unless Max WO Batch or MFG Min size is less than the required amount for the Demand. Typically the system will only create a single work order.
- The user should create an appropriate Min Qty. to attain a stock level. This means that the user should set the Min Quantity to what they typically would want to run on a single work order. This is done to optimize the setup and reduce repetition of running the same item more than once.

CONS:

- When a part is first setup, the user must create a Manual Work Order to get the system back up to the Stocking Level that they want to maintain on this inventory item.
- There is no automation in the creation of the Work Order. All this is driven from the Demand vs. Supply coming from Customer Orders. However, if this is properly setup and maintained the system will maintain the appropriate level of stock at all times.

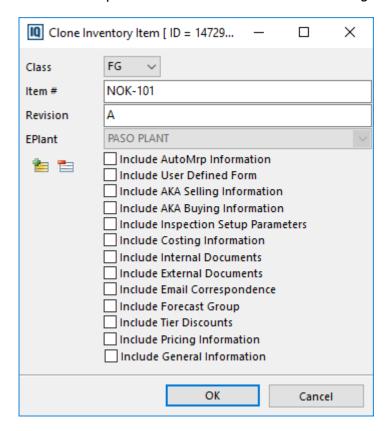
Notes:

- The MRP Engine will always protect the system, in other words Customer Demand will always be met.
- Both Auto-MRP and MFG Safety Stock settings must be evaluated on a regular basis. This holds true for the other settings related to Manufacturing.
- Family Tools create a unique problem when setting up Auto-MRP or Safety Stock. The concept of schedule allocation must be understood by the user, which means that if I setup either method on one part of the family tool a work order could be generated with "Zero" requirements for the other item(s) of the family tool. For example, a work order could be created for side A showing requirements for A, but the system knows internally that B will also be made. Care and thought should be given to setting up Family Tool items.
- MFG Safety Stock is the correct choice for customers that want the system to use the Noncommitted Amount to help drive the supply creation.
- Auto-MRP is the correct choice for customers that want the actual On-hand Amount to drive the creation of supply.

Cloning an Inventory Item

Inventory items may be cloned to facilitate the creation of like inventory items. To clone an item:

- From the **EIQ Launcher Bar**, click on the **Inventory** button or select **File| Manufacturing|Inventory** from the menu. The inventory pick list will appear.
- > Select the item that is going to be cloned and the main inventory screen will appear.
- > Select File|Clone Item from the menu. The following screen will appear:



➤ Enter the new Class, Item number, Revision level. The EPlant will fill in automatically with the EPlant the user is logged into.

Note: When cloning an item the system will populate the item number with the next sequential number if the 'System-Generated Inventory#' option is enabled in System Parameters->Sequential Numbering tab. The value can be overwritten if desired.

- Below lists additional options that can also be cloned. Check boxes can be manually checked, or use the 'Select al' and 'Unselect all' speed buttons to check or un-check all options at once.
- Include AutoMRP information Check this option to clone the Auto MRP information also. If it is not
 checked the Auto MRP data will not be cloned. Note: The Auto MRP information will not be available
 until a default manufacturing number is assigned to the cloned inventory item.
- Include User Defined Form Check this option to include the data in the fields in the user defined form.
- Include AKA Selling Information Check this box to include the AKA Selling information (including attached commodities). This will also clone the Internal and External AKA Documents.
- Include AKA Buying Information Check this box to include the AKA Buying information. This will also clone the Internal and External AKA Documents.
- **Include Inspection Setup Parameters** For users with the SPC module this box can be checked to include the inspection setup parameters and attached gages when cloning the item.
- **Include Costing Information** This will clone the standard costing information, including the standard calculation quantity. If it is not checked none of the cost information will be cloned.
- Include Internal Documents
- Include External Documents
- Include Email Correspondence
- **Include Forecast Group** If this is checked the item will be included in the forecast group that the source inventory item was assigned to.
- **Include Tier Discounts** If this option is checked the item will have the same Tier Discount assigned to it as the source inventory item.
- **Include Pricing Information** If checked the pricing from the source item will be assigned to the cloned item. This includes the active Buy/Sell Pricing and Standard Item Price.
- **Include General Information** If checked, when cloning the item, the information under the General tab will be copied to the new item.
- > Click [OK] to create the new item. All inventory item information is duplicated with the exception of the links to a BOM on the Manufacturing tab.

Notes:

The system will remember the state of each check box per user (checked or un-checked) from the last time it was used.

For purchased items the average cost is also cloned.

If the item is cloned to another EPlant, the Inventory Group will not be cloned if the group is not associated to that EPlant.

When cloning an Inventory item, the AKA Buying VMI locations will not carry over since each AKA Buying VMI location must be unique per Item/Vendor.

Security can be placed on the clone feature, including all check boxes.

When cloning an item that has an ICT eKanban trigger attached, the system does not clone the ICT eKanban information.

Inventory Options Menu

The options menu provides access to several key functions, as outlined below:

Show Additional Main Picklist Fields

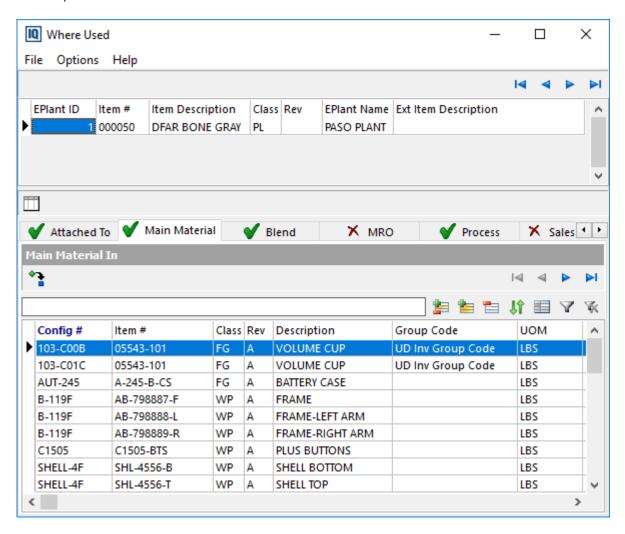
The Inventory pick list potentially will open slowly when the Non-Committed field is present. This feature gives users an option to not include that field to increase the speed of opening the pick list.

- If this option is checked, the Inventory pick list will display the Non-Committed field.
- If it is unchecked, the Inventory pick list will not display the Non-Committed field.

Where Used

Use this utility to quickly find where the item is used by manufacturing configurations, where it is used as a component in a blend, as an item or part in Maintenance, Repair and Overhaul, associated to a process or a sales configuration. This displays information such as: Config #, item information, Qty Per, Group Code, and on hand. This utility is particularly useful when replacing obsolete items with new versions. The relevant tabs for the item will have a green check mark, if not it will be a red x. To prevent this form from being hidden behind another open module, select the 'Stay on Top' feature from the options menu.

If the user is logged in to 'View All' EPlants the top grid will display items with a matching class, item number, and revision across all EPlants.



Attached To	Lists the BOMs that the item is attached to as a component or as a component of a process associated to a BOM. This is used primarily for manufactured items that are part of another assembly (usually via a Generic BOM) or for purchased components associated to processes.
Main Material	Lists the configurations where the item is the primary raw material being consumed.
Blend	Lists the blends that the item is used in.
MRO	Displays where the item is used in MRO Equipment as parts, or as attached inventory within a MRO Task.
Process	Lists processes of class 'AS' (i.e. ASSY1), and operations without an association to a BOM (ex: GENERIC, INJECTION).
Sales Config	This lists the Sales Configuration Templates where the item is attached to the Choice Details. If the Sales Configuration Template is inactive the record will be marked with a Y in the Inactive column.

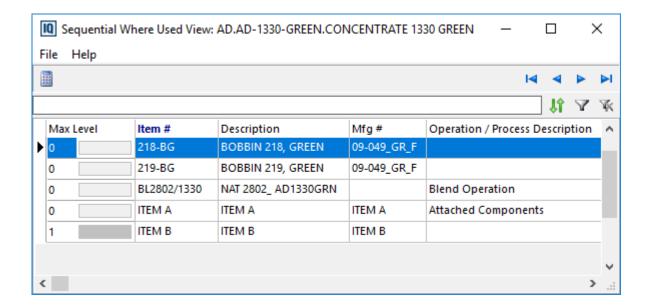
Item Inactive - On the Attached To, Main Material, and Blend tabs this column will have a Y in it if the manufactured inventory item is marked inactive.

BOM Inactive - On the Attached To and Main Material tabs, this This will have a Y if the BOM is marked inactive.

Process Inactive - On the Process tab if the process is inactive this box will be checked.

Sequential Where Used View

Select the Sequential Where Used View button to view the where used information for all items that contain the target component. This view includes the Max Level and a color scale for visual aid for each item.



This form includes the Filter Dataset (filter button) feature which allows users to filter the information based on the available columns. The information in the list can be exported to XML or Excel format from the right click menu.

Right Click Options

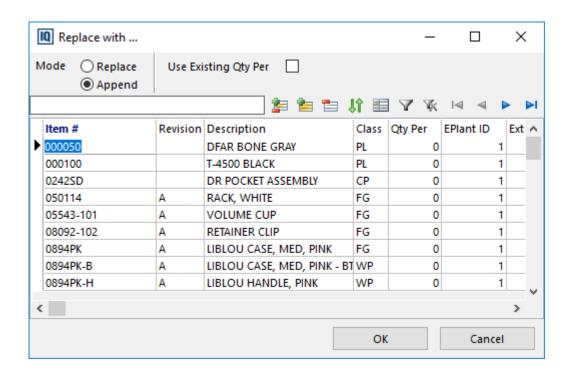
These options are available from the various relevant tabs.

- Where Used (Drill Down) The ability to drill down to the Where Used details for an item listed in the screen
- Where Used Work Order This will show all work orders for the highlighted Config #. A form will
 appear listing all the work orders associated to that configuration as well as work order details such
 as bucket number and cycles required.
- Where Used All work orders This will show all work orders for all Config #s listed in the same format
 as above. This grid includes a 'Scheduled On' column that displays the work center and position if the
 work order is scheduled.
- Jump to inventory Jump to inventory for the highlighted item.
- Jump to BOM Jump to the BOM for the highlighted item.
- Jump To MRO This option is available in the MRO section and will take the user to the Equipment record.
- Jump to Process This will open the process where the item is attached.
- Export Data This will export the data to either XML or Excel format
- Remove From This option is available on the Attached To, MRO, or Process tabs. For 'Attached To' the item(s) will be removed as an attached component on the BOM. For Process, the item will be removed from the Processes Material tab. On the MRO tab the user can remove item(s) from the Parts tab in MRO and/or from a Task.

Replace or Append Attached Item

From each tab (except MRO) there is an option to replace or append the attached record such as attached components, processes, and main material. To replace or append an attached item first highlight all of the records that the change should be made for by using the Shift or Ctrl keys or the select

buttons at the top of the form. Click on the replace speed button and pick list will appear from which you can choose the new item to replace the existing one or click on the append button to add a new attached item.



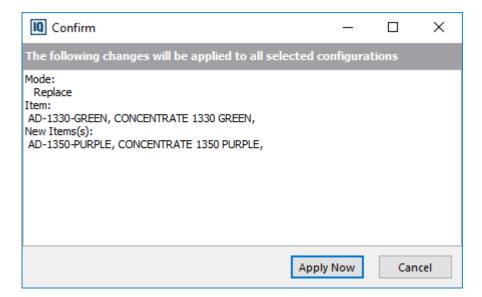
Note: When appending or replacing, only items with the same default unit of measure can be selected. For example, if the original attached item had a UOM of eaches, an item with a UOM of LBS cannot be selected. The user will receive an error.

When replacing Attached Components, users must fill in the quantity per field with the number of components per item required or select the 'Use Existing Qty Per' option. This option will use the quantity per associated to the original attached item for a specific BOM for the new item that is replacing it or being added. For example Insert B is replacing Insert A and Insert A was attached to a BOM X at a parts per of 2 and to BOM Z at a parts per of 4. With the Use Existing Qty Per selected Insert B will replace Insert A on BOM X with a parts per of 2, and on BOM Z with a parts per of 4. If the 'Use Existing Qty Per' is not checked the user must enter in the parts per and that value will be used for all highlighted BOM's. If nothing is entered a warning will appear stating, "A quantity and record(s) selection is required to continue; either select check box to 'Use Existing Qty Per' or enter value in 'Qty Per' column."

Select Replace or Append and then select OK. A confirm message will appear stating the changes that will be made, select Yes to make the change.

Note: For the multi-select option the parts per must be the same for all the BOM's or the user can check the 'Use Existing Qty Per' option.

Once the OK button is selected a pop up confirmation form will appear:



Select the 'Apply Now' button to make the changes. The Cancel button will return the user to the Where Used screen.

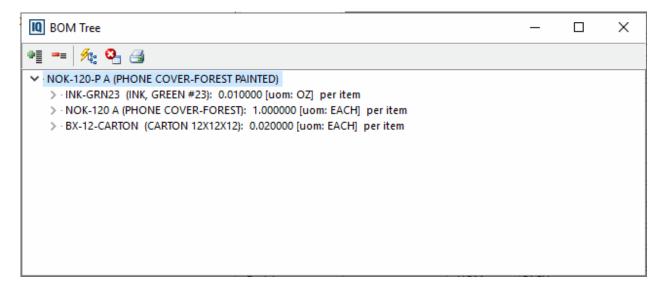
Note: When an item on a Sales Configuration Template is replaced through the Where Used screen in Inventory, a prompt will appear, "Would you like to remove dependencies when inventory item is changed?" The prompt will appear regardless if dependencies are attached to the item in the Sales Configuration Template. The prompt has a 'Yes', 'No', 'Yes to All' and 'No to All' options. If 'Yes' is selected the dependencies will be removed. If 'N'o is selected the dependencies will remain intact. If the user selects 'Yes to All' then the system will remove dependencies on all selected Sales Configuration Templates that were selected prior to selecting the Replace speed button. If the user selects 'No to All' then the system will not remove dependencies on all selected Sales Configuration Templates that were selected prior to selecting the Replace speed button. When a 'to all' option is selected the system will not resurface the prompt during this replace procedure. The prompt also includes a 'Do not show next time' option.

Create ECO

For users with a license for the ECO module a 'Create ECO' button will be available. This will create a new ECO. After selecting the Create ECO button enter the Effective Date from the calendar, then select the Template from the pick list. A new ECO is created and new ECO BOM(s) with the substitution changes are associated to the ECO. The ECO Description field will be populated with "'Where Used' mass replace".

BOM Tree

The BOM tree shows all items required for the production of the item. It is calculated based on the Standard values entered on the BOM. The information includes the quantity of the dependent items required per item manufactured including scrap if applicable. The quantities are in the native unit of measure (UOM), and the native UOM is displayed. (**Note**: The scrap is calculated exponentially, for example if a component has 5% scrap it will display a requirement of $1.052632 = (1+0.05)+(0.05^3)+(0.05^3)+(0.05^4)+(0.05^5)$).



Several tool bar functions are available in the BOM tree view. They are listed below for your reference.



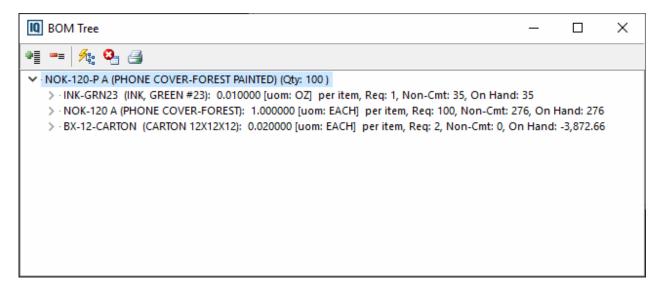
Full Expand - Shows detail on all the items that compose the final item.



Collapse - Collapses the BOM tree to show detail on only the main item.

BOM Explosion - The BOM Explosion can be used to obtain a guick calculation as to whether the item can be manufactured from the non-committed material on hand. This function will show the user how much material in inventory is not allocated towards other work orders. It also displays the total On Hand inventory.

To use the BOM function, click on the button, enter the amount of the item to be manufactured and click 'OK'. The BOM Explosion will show the amount of each item required to manufacture the amount of items and indicate the amount available in inventory.



Material Exception List - Select the Material Exception List button to open the BOM Tree Material Exceptions list. This list displays only the materials associated to the BOM that have a material exception.

Print - Prints the BOM Tree or the BOM Explosion. Note: The BOM tree prints directly to the printer. It does not require Microsoft Word be installed on the work station.

Jump To Options

Right click 'Jump To's' available from the BOM Tree include: BOM, Inventory, Transactions/Locations, or Inventory Availability.

BOM Tree Calculations

This example is for an Injection BOM with the following information:

- Runner/Sprue = 12
- Scrap = 5
- Part Weight = 100 grams
- Std. Cav = 1
- The Defined percentage of runner and sprue can be set up for Injection and Diecast MFG Types, and for Custom MFG Types that default to Injection and Diecast, from Mfg Types->File menu->Alter LBS/K Calculation. The default is 10%.

Calculation for Pounds per Item for Primary Material

If Regrind is >0% then one of the following formulas would apply depending on whether the process will produce enough regrind. The system does a comparison of shot weight less the shot weight times the regrind % to the cavity times part weight to determine which formula will be used. The first calculation checks to see if the Shot Weight less the Shot Weight times the Regrind Percentage is LESS than the Cavity weight total. If so, then the new Shot Weight (BB) will be equal to the total cavity weight plus the runner/sprue weight times defined percent of runner and sprue.

If the process will produce enough regrind:

Regrind = 10%,

(Part Weight + (Sprue/Std Cav)) / (1 – (Scrap/100)) * (1 – (Regrind / 100))

$$(100 + (12/1)) / (1 - (5/100) * (1 - (10/100))$$

- = 112 / 0.95 * 0.9 = 106.10526
- = 106.10526 / 453.59 = 0.233923 LBS

If the process will not produce enough regrind:

Regrind = 85%

((Part Weight + (Sprue/Std Cav) * (mfgtype.lbsk_percent_runner/100)

Inventory Management

```
(100 + (12/1 * 10/100)

= 100 + 1.2

= 101.2 / 453.59 = 0.223109 LBS

No Regrind:

((Part Weight + (Sprue/Std Cav) / (1 - (Scrap/100))

example: (100 + (12/1)) / (1 - (5/100) =

= 112 / .95

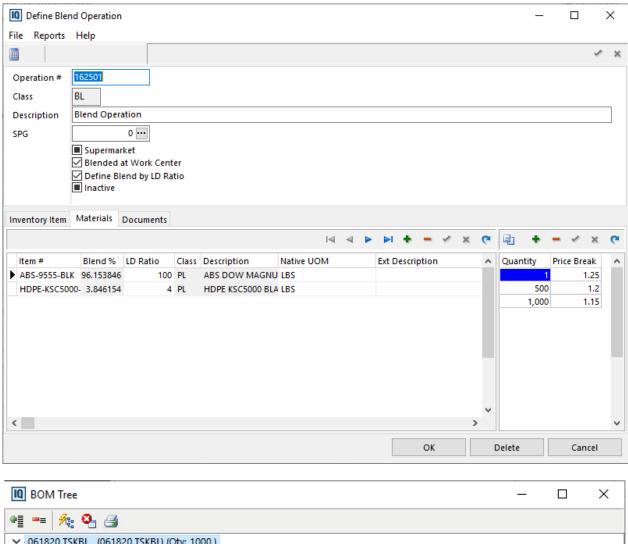
= 117.89473 / 453.59 = 0.259915 LBS
```

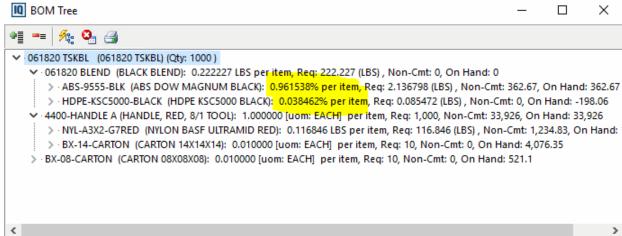
Note: If the runner and sprue is zero and the allowable regrind is greater than the scrap % the system will simply take the Part Weight * Std Cavity / 453.59 to determine the LBS/Item value.

Blends

Blend Operation - If the primary material is a Blend Operation the components of the blend will be listed below the material. The requirement per item for the components of the blend will be the Blend % value from the 'Define Blend Operation' form.

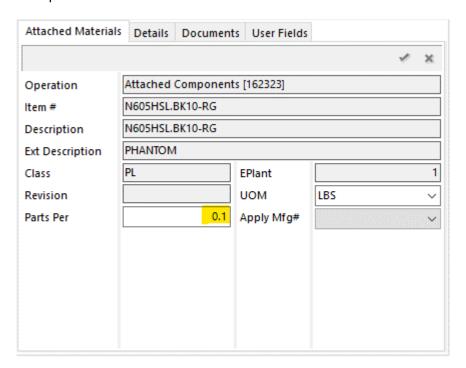
Example:

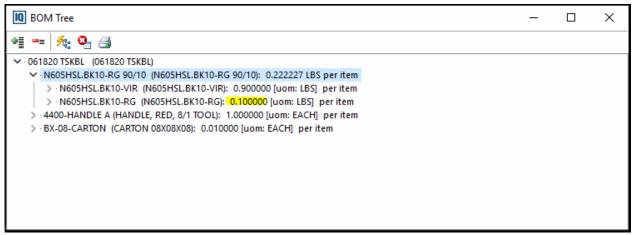




Phantom Blend - If the primary material is a Phantom Blend BOM, the components of the blend will be listed below the material. The requirement per item for the components of the phantom blend will be the Parts Per value from the Attached Materials section on the BOM.

Example:





Calculation for Requirements per Item for Class PK Items

The information for calculating requirements for packaging items comes from the Attached Materials section. Parts per is on the Attached Materials tab and the Scrap is on the Details tab.

For example:

- Parts Per = 100
- Scrap = 5%

Parts Per for the attached packaging item * (1 - Scrap/100)

```
100 * (1 - 5/100)
=100 * 0.95
```

= 95

Calculation for Requirements per Item for Non PK Class attached Items (purchased or manufactured)

The information for calculating requirements for packaging items comes from the Attached Materials section. For example:

- Parts Per = 1
- Scrap = 5%

Parts Per for the attached packaging item / (1 - Scrap/100)

```
1 / (1 - 5/100)
=1 / 0.95
```

= 1.052632

Note: If the item is manufactured and has a primary material and/or components, they will be listed below the item and the calculations for the requirements are as described above.

Total Required

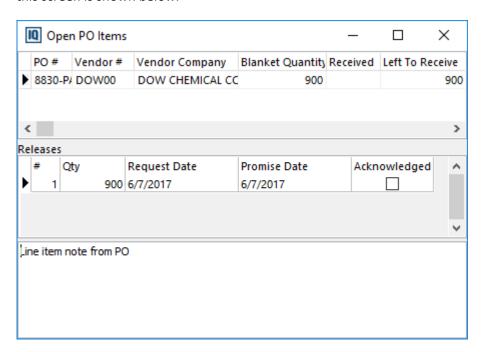
The calculation for the total required is the requirements per item multiplied by the 'BOM Quantity Explosion' the user entered.

For example, if the Pounds per Item is 1.124251 for a BOM Quantity Explosion of 1000, the Total Required = 1,124.251

On PO / Receive

On PO/Receive displays a summary list of open purchase orders that have not been fully received that the item is listed on. It displays the release information including Qty, Request and Promise dates, and the Acknowledged check box. The lower section displays line item notes. This information cannot be edited from this form.

The ability to **Jump to PO** or **Jump to Receiving** is available by right clicking in the top section. A sample of this screen is shown below.



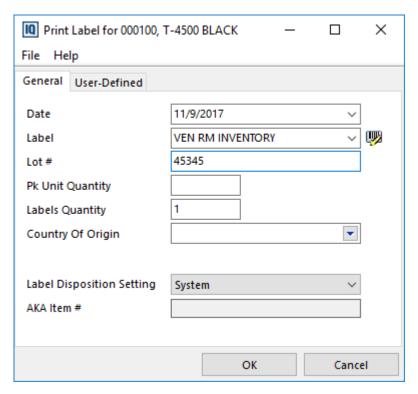
Labels

The user has the ability to print labels created in Label Matrix or CRW for inventory items. This feature may also be accessed from the speed button. Labels may be printed for any class of item in inventory. **EnterpriselQ** supports both manufactured and purchased materials labels with the label type being linked to whether the inventory item is manufactured (linked to a BOM) or purchased (no BOM link). The printing of each of these label types is discussed below.

NOTE: Label Matrix must be properly installed and linked to EnterpriselQ, the database files must be prepared, and the labels must be designed in Label Matrix or CRW before using this feature. This topic is covered in detail in the Label chapter, See Labels.

Printing Purchased Component Labels

> Select **Options**|**Labels** or click on the **Print Labels** button from the main inventory screen of the item that the labels are required for. If the selected item is purchased, the following screen will appear:



The date will fill in automatically with the system date.

- Select the Label type by clicking on the arrow down list or if the label is new, click on the New Label button. Creating a new label is discussed above.
- > Enter the Lot # and Box Qty fields, if applicable.

Note: If the item has the 'Lot # is Mandatory' option checked (Inventory->Additional tab) and a lot number is not entered on the label, a warning will appear when the user attempts to print the label stating, 'Lot # is Mandatory for 'Item #'. Continue?' Select No to return to the label form to enter the Lot#. If the user selects Yes, the label will be printed without a Lot#. Security can be added to this button. The pop up also includes a 'Do not show next time' check box.

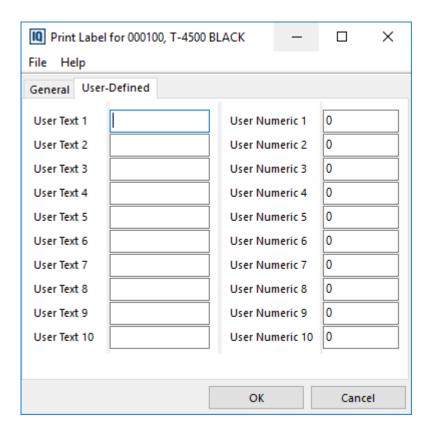
- Enter the Labels Quantity to tell the system how many labels to print or accept the default.
- Optionally enter the Country of Origin using the user defined drop down list or manually type the information.
- Printer If the selected label is a Label Matrix label this field will be visible for the user to select a specific printer. The selected printer will be remembered.
- ➤ Label Disposition This allows users to override the label disposition setting. The drop down choices are: System, Dispositioned, Non-Dispositioned.
- If the user does not touch the drop down it will be blank and the system will use the global parameter in System Parameters -> Label Setup -> Print all Labels (Purchased or Manufactured) based on whether the item is Purchased or Manufactured.
- If the user selects System, the global parameter will be used.
- If the user selects Dispositioned, the system will set all labels printed in this session as Master_label. Dispo Scan = Y.
- If the user selects Non-Dispositioned, it will set all labels printed in this session as Dispo_Scan=N
- The system does not remember the previous drop down selection, it will always default the field to blank, which uses the global setting.

AKA Item # - If the selected customer has AKA information the AKA Item# will populate in the Print Label screen.

User Fields for Labels

EnterpriselQ allows information entered in the User Fields within inventory to be printed on labels or the input of information onto the labels when printing the labels. These options are both supported using the User Fields, as described below:

From within the Print Labels screen, click on the User-Defined tab. The following screen will appear:



Information entered into the User Fields for the inventory item will automatically fill into the appropriate field, as shown above in the User Char 1 field.

- ➤ To change the field labels, right click on the field heading and click on Define Label Text. The User Defined Captions box will appear. In the New Value field, enter the new field caption and click on [OK] to return to the User Defined screen. The new heading will now be in place of the system default heading.
- ➤ Enter any information (or override existing information) in the comment fields that is to appear on the label.

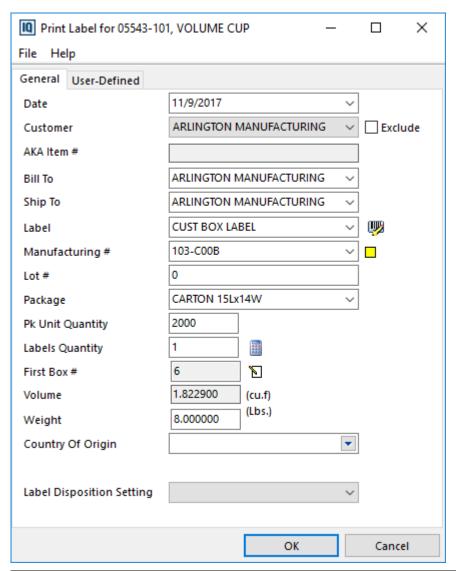
NOTE: The User Fields must be added to the label in order for the information to be printed on the label.

Click [OK] to print the labels.

Labels for Manufactured Items

Printing Manufactured Item Labels

> Select Options|Labels or click on the Print Labels button from the main inventory screen of the manufactured item. The following screen will appear:



Date	This will default to the current date but can be changed.
Customer	This will default to the customer associated with the manufactured item but can be changed if the item was shipped to a different customer by clicking on the drop down arrow list and selecting a different customer.
	Check the 'Exclude' box to print labels without a customer.
Order #	This is the order number associated with the shipped item. This field cannot be changed. This field is only visible on the form when printing from the print labels module on the Sales/Distribution tab of the Launcher Bar.

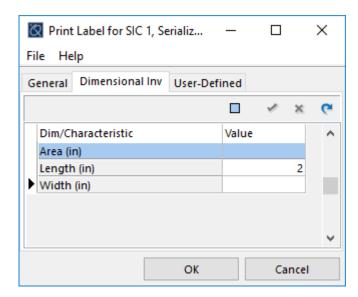
PO#	This is the purchase order associated with the order # for the item shipped. This field is only visible on the form when printing from the print labels module on the Sales/Distribution tab of the Launcher Bar.
AKA Item #	This will display the AKA Item # when applicable, such as when printing labels from sales orders and inventory. For sales orders this will populate based on the AKA # from the sales order. When printing labels from inventory if the user prints the label within inventory and selects a customer with AKA information set up for the item, the AKA # will populate. If the customer has multiple ship to addresses, the AKA # will populate based on the selected ship to.
Sales Order Qty	When printing labels from the Sales/Distribution tab this field will be visible and will display the blanket quantity from the sales order.
Bill To	This is the bill to address associated with the order. This can be changed if additional bill to addresses exist for the customer by clicking on the drop down arrow and choosing from the list.
Ship To	This is the ship to address associated with the order. This can be changed if additional ship to addresses exist for the customer by clicking on the drop down arrow and choosing from the list.
Label	This is the label that will be printed. To change the label type click on the drop down arrow. This is a list of the label menu titles that have been created.
	The drop down list will also display a 'Label Origin' column. Both manufactured and purchased items show the default label associated to the item (when applicable) on the first line of the Print Label drop down with origin = inventory. If a default label is specified for a manufactured item on the AKA Selling tab, then origin = AKA. Non-specified labels for manufacturing have origin = customer; for purchasing, the origin = labels.
Manufacturing #	This is the manufacturing number associated with the order/part. If the Manufacturing # is inactive it will display in yellow. Note: An inactive BOM is available for Mfg# selection only when a work order exists for the inactive BOM (even if an inactive BOM is the default Mfg# in Inventory).
Lot #	The user may type in a lot number to print on the label.
	When printing a label from a Packing Slip there will be a search button next to the Lot # field. The pick list will include values of Lot #s shipped within this packslip. The Lot # will populate in the labels form only when there is just one Lot# available for the item, otherwise a selection can be made if more than one Lot#.
	If the item has the 'Lot # is Mandatory' option checked (Inventory->Additional tab) and a lot number is not entered on the label, a warning will appear when the user attempts to print the label stating, 'Lot # is Mandatory for 'Item #'. Continue?' Select No to return to the label form to enter the Lot#. If the user selects Yes, the label will be printed without a Lot#. Security can be added to this button. The pop up also includes a 'Do not show next time' check box.
Package	The packaging item associated with the part. If more than one packaging item is associated with the item the user can select a different one from the drop down list.

Pk Unit Quantity	This is the number of items per packaging item. For manufactured items, this information comes from the BOM unless the the 'Use Inventory BOL Data for Packaging Quantity' setting in System Parameters->Label Setup is checked the system will use the BOL Data instead of the BOM. When printing labels from the Inventory module only, for purchased items this information comes from the Items Per Package field in BOL Data (Inventory->Options menu).
Labels Qty	This is the number of labels to be printed. This defaults to zero. The system will calculate this by clicking on the calculator icon (Qty/Box Qty = labels qty). The quantity used will depend on where the label is being printed from. For example, if printing from the Sales/Distribution tab the system uses the total quantity ordered.
	If a negative value is entered for an item marked as serialized control, a warning will appear stating, "SIC Inventory item - negative qty is not allowed. Operation aborted."
1st Box #	This is the number of the first box. The box # increments per part (not per packaging item). The user can edit this field by clicking on the icon next to the field and typing in the first box number.
Volume	This information populates with the volume data from the additional tab in inventory for the associated packaging item.
Weight	This information comes from the detail tab on the Items Details tab in BOM for the packaging item.
Country of Origin	This is the Country of Origin for the item. The user can select this from the user defined drop down list, or enter it manually. This will populate in the Master Label table.
Printer	If the selected label is a Label Matrix label this field will be visible for the user to select a specific printer. The selected printer will be remembered.
Label Disposition	This allows users to override the label disposition setting. The drop down choices are: System, Dispositioned, Non-Dispositioned.
	If the user does not touch the drop down it will be blank and the system will use the global parameter in System Parameters -> Label Setup -> Print all Labels (Purchased or Manufactured) based on whether the item is Purchased or Manufactured.
	■ If the user selects System, the global parameter will be used.
	 If the user selects Dispositioned, the system will set all labels printed in this session as Master_label. Dispo_Scan = Y.
	 If the user selects Non-Dispositioned, it will set all labels printed in this session as Dispo_Scan=N
	The system does not remember the previous drop down selection, it will always default the field to blank, which uses the global setting.

- > Edit the **User Fields**, as discussed above.
- Click [OK] to print the labels.
- Potential Label printing error: "Field, division, not found." Although this error in general means the .dbf needs to be recreated and label re-analyzed in the file path specified in System Parameters > Label Setup tab, the cause could be that the file path itself is not correct for the workstation where the label is being printed from. If the folder specified in the file path does not exist at all, user will get a different error indicating the path is not valid. However if the file path points to a folder that actually exists but without the .dbf in it, they will get the error: "Field, division, not found".

Dimensional Inv

For Serialized Inventory Control items only there will be an additional tab on the Print Label form.



The 'Dim/Characteristic' field populates with the information entered in the 'Dimensional Inventory/ Characteristics' form accessed by selecting the button next to the Serialized Inventory check box on the Main Inventory tab in Master Inventory. A 'Value' can be manually entered. Users can enter a 0 value for a mandatory field. This is informational only.

Inventory User Defined Form

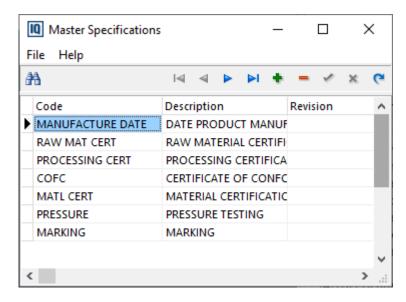
User defined forms allow the user to add new fields for a specific module. These fields can then be used in customized reports. This option can also be accessed from the speed button

To set up the form see User Defined Forms in the Common Form Functions section of the Using EnterpriseIQ manual.

Item Specifications

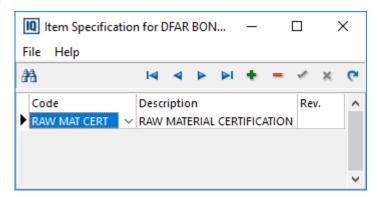
The **Item Specifications** screen allows the user to tie any specifications or special codes to an particular item. Item Specifications can be used in User defined reports.

➤ The first step is to set up under the Master Specification table which can be accessed by selecting Misc|Master Specifications from the inventory menu or Sys Setup|System Parameters| Lists|Master Specifications.



Enter the **Codes**, **Descriptions** and **Revision** level of each specification. (Note: The 'Code' field must be unique).

> The next step is to assign the Master Specifications to an inventory item. Select **Options**| **Item Specifications** from the inventory menu to access the Item Specifications table.



> Item Specifications can be added by clicking on the [+] key and selecting from the arrow down list.

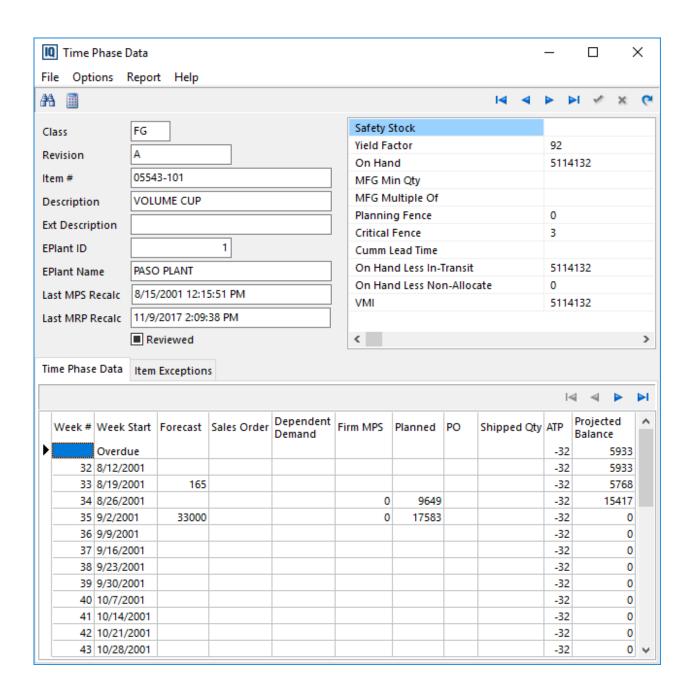
MPS Time Phase

From the inventory module, **Options/MPS Time Phase** you can jump to the Master Planning Schedule information for a particular item. If the item has not been set up as a MPS Item (the MPS Item option is not checked on the Manufacturing tab in Inventory) a pop up confirm message will appear asking, "Add Item 'xxxx' to MPS Time Phase Data?" If the user selects Yes, the system will automatically check the MPS item check box and open the MPS Time Phase Data form. If the user answers No the Time Phase Data form will open blank and the MPS Item Check box will not be checked. If the user selects Cancel the MPS Time Phase form will not open and the user will be taken back to Inventory.

Note: Only items with the MPS item check box will be visible in the MPS Time Phase Data form.

MPS stands for Master Production Scheduling, a method of viewing time phased data pertaining to a part number. This can include demand (forecast, sales order and dependent), current work orders (firm, generated, manual) and projected on hand balances (availability).

The system supports this information to be setup by part number. However, not all part numbers should be included in this system. Generally, only those items that are sold (final products) are normally associated with the MPS. This is because scheduling these items will also affect the manufacturing and purchasing of the lower level components, negating the need to directly include these in the MPS system.



This view illustrates, weekly, the supply, demand, available to promise and the running balance of the item. This information is completely based on the current sales order situation, the forecast, dependent demand (demand for this part based on another part consuming it) and availability. The number of weeks displayed is based on the scheduling scope in days set in the scheduling module under Options/Scheduling Parameters.

NOTE: To view the most current information the Time Phase Data must be calculated by clicking on the calculator speed button. When MPS reports are run a procedure called 'Populate Time Phase Data' is executed prior to printing that will recalculate the Time Phase Data to insure the reports contain up to date information.

The upper left grid area shows the basic item information from inventory, including On Hand, On Hand less Non-Allocate, and On Hand less In-Transit.

The upper right grid area shows the current status of the part, with information such as the safety stock level (ReOrd Point), the yield factor, on hand, MFG Min Qty, MFG Multiple Of, and MPS data, all taken from the Inventory record or the BOM.

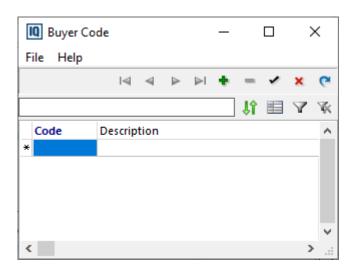
The bottom section of the form represents a summary of the production week. For specific information on each field refer to the MPS Time Phase section in the help files, see Time Phase Data.

On SO/PO

This option has been removed. Please use the On PO/Receive or Sales Order Activity options.

Buyer Code

This option brings up the Buyer Code list. This list is used to assign a buyer code to an inventory item. The code associated with the inventory item is displayed in the Material Exceptions and Daily Projected Material requirements.



To add buyer codes, select the ADD (+) button and enter a Code and Description. Codes can only be deleted if they are not assigned to any inventory item.		

BOL Data

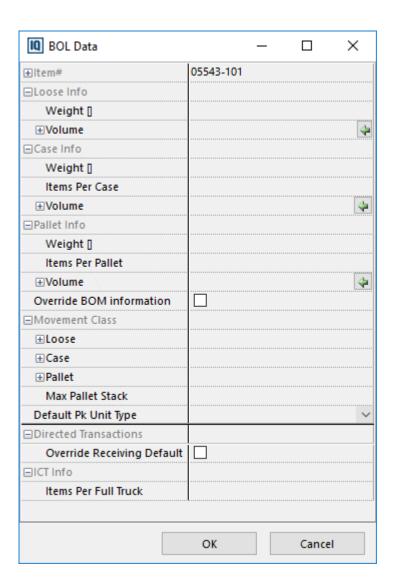
This options allows the user to set up case and pallet information for calculating the Bill of Lading when shipping a purchased item. The package information (not the pallet) will be used to calculate the Bill of Lading for the purchased item when selecting 'Calculate BOL based on default system values' option in Packing Slips and Multiple packing slip BOLs. (See Calculate BOL based on default system values for more information).

It can also be used for manufactured items by checking the 'Override BOM information' box. If this is checked, the system will use the BOL Data to calculate the BOL shipping information and not the information from the BOM or label.

BOL Data is also used in conjunction with the Pick Ticket parameter, 'Enable volume\weight calculations'. This parameter is a tool to determine how many boxes and pallets can fit into the container/trailer before starting a new container/trailer. As items are added or removed to the pick ticket the calculations will recalculate to determine the volume and weight. (Please see Shipment Volume / Weight Calculations for more information).

The Movement Class portion is used to describe the relative frequency of transactions involving the UOM in the warehouse for the item.

The Movement Class portion is only available if licensed for 'Advanced WMS'.

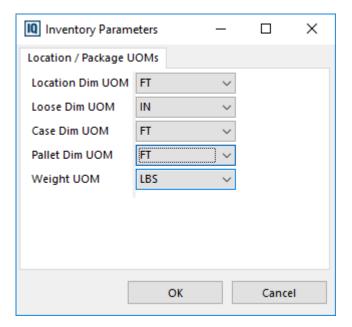


The data can be entered for loose, case, or pallet info or all:

- Weight The Loose weight is the individual weight of one single item and does not include packaging items. For manufactured items this is the same field as the weight field on the Additional tab in Inventory. Case weight is the weight of one case, and Pallet weight is the weight of one pallet.
- Items per (Case, Pallet) The number of items per case, i.e. quantity of items in a box. The number of items per pallet.
- Volume the volume of the loose item, case or pallet. This value can be entered or calculated. To calculate the volume select the + to expand the field and enter the Length, Width, and Height. Next, select the double arrow button to calculate the volume.

Note: For Advance WMS, if using Loose for the Default PK Unit all requests for Inventory movement must be in whole numbers. When using 'Loose' there is no Parts Per as it is always one.

Location and Package UOM Setup - The UOMs for weight and volume can be setup in 'Location/Pkg UOMs' accessed from the File menu in the Location Type module.



Movement Class

A movement class is used to describe the relative frequency of transactions involving the UOM (loose, case, pallet) in the warehouse for the item. Use the drop down list to select a movement class. The Movement Classes can be configured from System Parameters->Lists->Inventory Movement Class or from Inventory->Miscellaneous->Inventory Location Info->Movement Class Maintenance. Enter the maximum Max Pallet Stack for the item (the maximum = 99). If a movement class is manually changed for an item check the 'Lock Move Class' check box under the specific movement class to prevent the system from reverting back to the calculated class when the movement ranking is recalculated.

Select the 'Default PK Unit Type' for the item from the drop down list: E-Loose, C-Case, P-Pallet. This is used in Inventory Movement Ranking. This will populate in TRANSLOG.PK UNIT TYPE.

Override Receiving Default - This is used by the Inventory Transaction Planning engine to determine if the Receiving Designated Location should or should not be used. With the option selected, when receiving through IQRF the system ignores any default Receiving Designator locations and always prompts for a location. If this option is not selected, the system will add a location for the default receiving location (matching the division/warehouse of the PO line item) if they do not already exist for the item.

ICT Info

This will only be visible for users licensed for ICT.

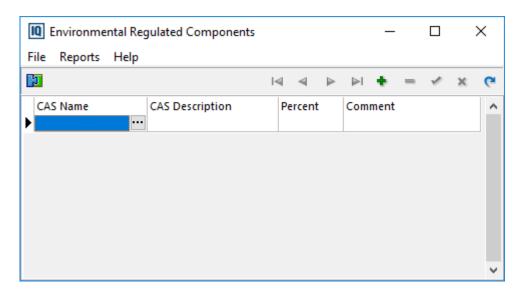
Items Per Full Truck - Enter the quantity of items per full truck. This is used to calculate the freight cost in Intercompany Receiving. During Intercompany receiving the freight cost can be calculated which will add a landed cost to the actual cost for the location. There is a check box in Intercompany Receiving to calculate the Freight Cost when using the 'Receive All' button, or it can be calculated for an individual item by selecting the calculator button in the Freight Cost/Item field. This value can also be manually entered. On Posting ICT Receipts for an item with a freight cost the locations actual cost (FGMULTI.ACT_COST) is increased by the Freight Cost per Item amount. The system will add a second row to the main Translog table in Data Dictionary with the Item information (CLASS, ITEMNO, REV, DESCRIP, and UNIT) with a transaction type = 'LANDED COST'. This row will allow tracing where the additional act cost came from.

The calculation is: Full Truck Rate based on the EPlant/Division From and To in the Full Truck Table in ICT / Items Per Full Truck from the ICT Info in BOL Data for the item being received.

Environmental Regulated Components

This is a list of Environmental Regulated Components associated to the inventory item. This utilizes the information entered in the Chemical Abstract Service (CAS) list (Chemical Abstract Service) and the Environmental Regulations list (Environmental Regulations).

Users will first enter Environmental Regulations, then enter the Chemical Abstract Services. The Environmental Regulations are then associated to Chemical Abstract Services. Once this information has been entered go to an item where a regulated component applies and enter the details in the Environmental Regulated Components form.



Click the ellipsis button in the 'CAS Name' field to access the CAS pick list. Select the applicable item. The CAS list can be accessed for adding or editing items from this form by clicking on the CAS speed button.

Next, enter the Percent and a comment if desired.

Once this information is entered users can print reports of declarable substances to comply with regulations.

Physical Inventory/Cycle Counting

See the Physical Inventory section below.

Inventory Accounts

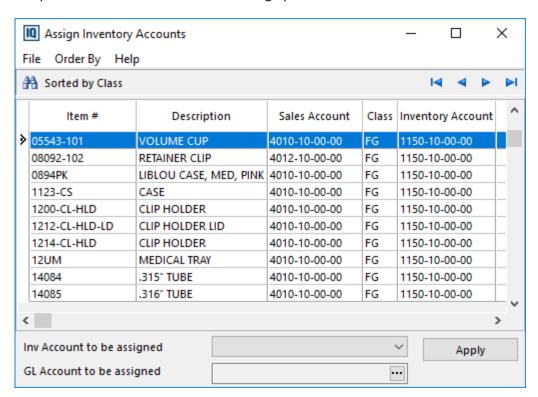
The default Sales, Inventory and Purchase Price Variance (PPV) accounts can be manually overridden for each inventory item on a global basis by using the Inventory Accounts feature.

To access this feature, select **Options|Inventory Accounts** from the inventory menu. The following screen will appear

NOTE: Some fields in the screen may be 'grayed out'. This indicates that the item is a purchased (inventory accounts are set up through the cost element screen) or a manufactured item that is not tied to a BOM.

How the list is ordered will display in the top section (i.e. 'Sorted by Class'). To change the order, select the Order By menu option and select an option from the list.

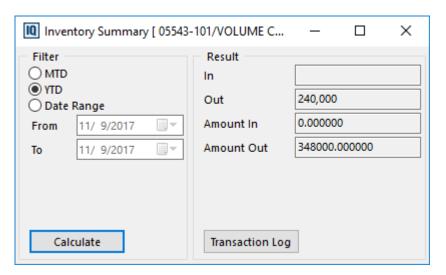
There is also a search button to access the pick list of items which allows users to sort on any column. The pick list includes the Advanced filtering option.



- Select the item to be modified (or select multiple items by clicking on the first row and holding down the Ctrl or Shift keys and click on the ending row).
- Select the Inv Account to be Assigned to from the arrow down list.
- > Select the **GL** Account to be Assigned from the arrow down list.
- Click on 'Apply' when finished. The new GL accounts will fill in as in the screen above.

MTD/YTD

The MTD/YTD function displays a summary of the quantity and cost information for a particular item for any specified time period.



- Select the filter method to be used (MTD (month to date), YTD (year to date), or a date range) by clicking on the button adjacent to the label. For Date Range, select the range of dates by clicking on the arrow down and accessing the calendars.
- > Click on Calculate to view the information for the selected filter.

The system will look at 6 decimals places for the calculation, but display the result rounded to 2 decimal places. The formulas used for the amount calculations are as follows:

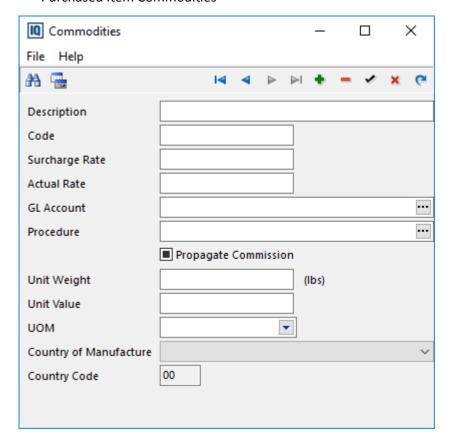
Purchased Components	Dollar Value = Quantity from Translog * Actual Cost
	Actual Cost for In transactions comes from the PO. Actual Cost for the Out transactions is based on a weighted average and can be viewed either on the Location and Transaction Screen or the Translog.
Manufactured Items	Dollar Value = Quantity from Translog * Std. Item Price
NoC	The Std. Item Price is entered on the Pricing Tab of the Inventory Screen. If the Std. Item Price is 0.00 or left blank, the In and Out amounts will be 0.00.

The quantity excludes the following transaction types: MOVE_LOCATION, VMI MOVE_LOCATION, and VMI INTERPLANT XFER. If there is a Void PO transaction the original PO receipt and the Void PO quantities are excluded from the IN / OUT counts.

Commodities

The Commodities form is used for three distinct purposes:

- AKA Commodities
- Shipping Manifest Commodities
- Purchased Item Commodities



AKA Commodities

The AKA commodities functionality allows the user to associate a commodities charge with an AKA item. The commodities charge will automatically be added to the AR Invoice as a separate miscellaneous line item with a quantity of one and a unit price calculated based on the selected procedure.

The following fields are used for AKA Commodities:

Description	The description of the AKA Commodity.
Code	Optionally enter a code.
Surcharge Rate	The rate used in calculating the commodity when using the AMOUNT_SUR_RATE and PRCENT_SUR_RATE procedures.
Actual Rate	Informational only field used to describe the actual rate.
GL Account	The GL account to be used when posting the AR Invoice. Select the GL account from the pick list which is accessed by clicking on the ellipsis button.
Procedure	Click the ellipsis button to access the list of procedures. See AKA Commodities for more information on the specific procedures.
Propagate Commission	If the Propagate Commission option is checked when the commodity is added to the AR invoice, along with the inventory item, the commodity will have the same commission as the inventory item.

Shipment Manager Commodities

The following fields are used for Shipping Manager Commodities. These commodities are used for international shipping manifests in the Shipping Manager module only.

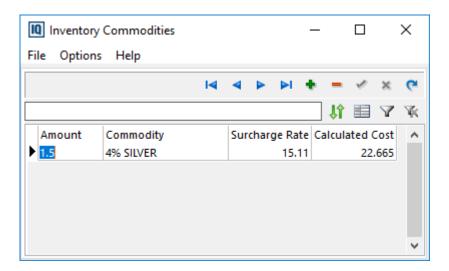
Description	Description of the Shipping Manager Commodity.
Code	Optionally enter a code.
GL Account	A GL account is required to save the entry but is not used for the shipping manager record. We recommend using the freight GL account.
Unit Weight	Weight of the commodity corresponding to the unit of measure. (this will always be LBS until further changes).
Unit Value	Customs value for one unit of the commodity. This is the selling price, or cost if not sold, of the commodity.
UOM	The UOM field is the default unit to be used with quantity and unit value, when the commodity is listed on a shipment. Right click and select 'Edit User Defined List' to create the UOM options then select the UOM from the created list, or manually type the UOM in the field.
Country of Manufacture	Where the commodity was originally manufactured or produced.
Country Code	The code associated to the Country of Manufacture.

Purchased Item Commodities

Commodities can be associated to purchased inventory items, then when creating the AP Invoice the actual cost on commodities can be entered which will allow for a comparison to the commodities standard cost.

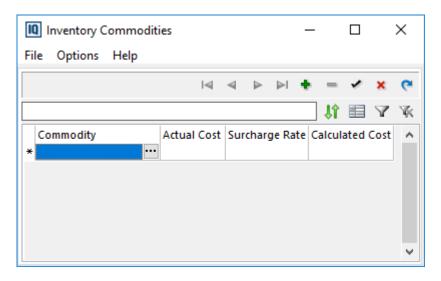
Description	Description of the Purchased Item Commodity.
Code	Optionally enter a code.
Surcharge Rate	Enter the 'standard' commodity cost. this will then be used to compare to the actual cost entered from the AP Invoice.
GL Account	A GL account is required to save the entry but is not used for commodities associated to purchased items.

Once purchased item commodities have been created they are associated to an item by selecting 'Attached Commodities' from the right click menu in Master Inventory.



Select the insert record button then click in the Commodity field to access the pick list of commodities. Select the commodity to associate to the item from the list. The Commodity name and Surcharge Rate will populate. An Amount can be entered which is used to calculate the Calculated Cost (Surcharge Rate * Amount = Calculated Cost).

To enter the actual cost, from the AP Invoice line item section, right click and select 'Add/Edit Commodity Price Information'. A pop up form will appear listing the items commodities with a field to enter the Actual Cost.



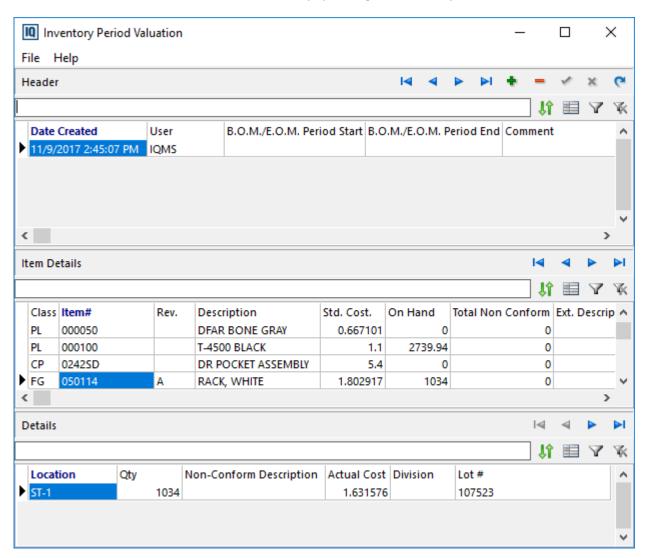
After posting the AP Invoice the Standard Cost and Actual Cost information for the commodity will be linked in the view: V_AP_COMMODITIES. Reports can be written to show actual and standard cost comparisons.

Inventory Period Valuation

This option allows the user to view inventory information for a specific moment in time. It middle section includes the item details such as standard cost, on hand and total non conform information. The lower section displays the location detail for the highlighted item including the location name, quantity, actual cost, lot #, division, and non-conform description. The data is put into the tables at the time of the 'Date Created' and will display the current data at that particular time. The relevant tables for this information are: ARINVT_PERIOD_VAL and ARINVT_PERIOD_VAL_DTL.

The BOM/EOM Period Start and End dates are informational for reporting purposes. A comment can be added for additional information by the user.

Note: Once a header row has been deleted, the data from that 'point in time' will be lost since the 'Date Created' field determines the date/time used for populating the inventory std cost and on hand data.



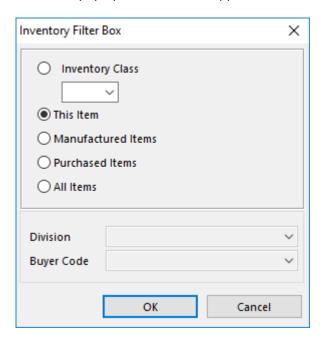
Inventory Miscellaneous Menu

Cost Calculation

The Cost Calculation feature calculates the standard cost for manufactured items. This is the same function as the Calculate Cost button on the standard cost tab. See Standard Costs for Manufactured Items for details.

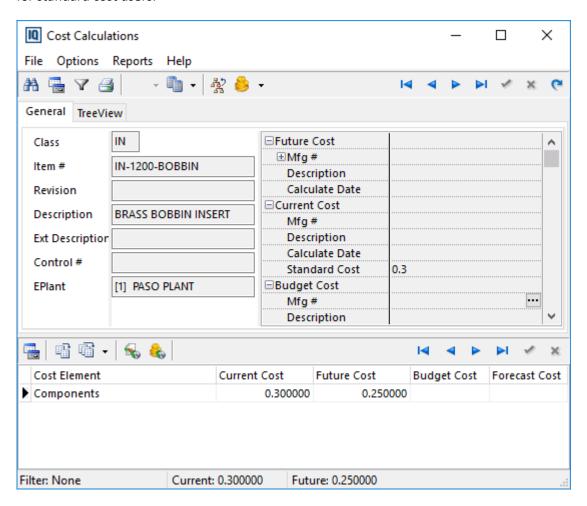
Roll Average Cost to Standard

This function will roll the average cost to the future cost for selected items. A warning will appear first stating, "This option rolls average cost to future cost. Are you sure you want to continue?". When 'Yes' is selected a pop up filter form will appear to select for which items to roll the costs for.



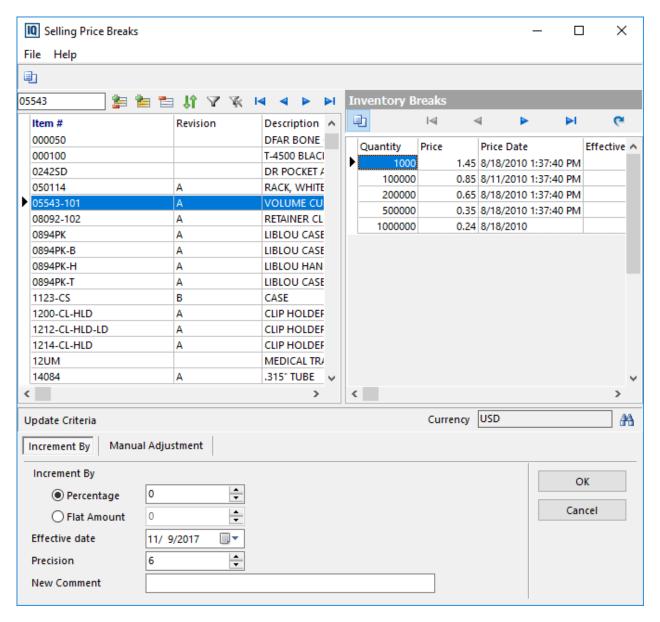
The user may select a certain class, manufactured items, purchased items, all items, or 'this item'.

This will populate the average cost into the future cost field located in the calculate cost screen so that the user may then roll it to the current costs, generating the general journal entry to revalue inventory for standard cost users.



Mass Update Pricing

From these options users can update buying or selling pricing based on a percentage increase or decrease or a flat amount with an effective date for specific items. Pricing can also be manually adjusted. Select Mass Update Selling Pricing or Mass Update Buying Pricing, based on the pricing to be updated, from the Miscellaneous menu in Inventory.



To update pricing find the item(s) in the list that you would like to change the price breaks on. To find a specific item, enter information in the white box at the top of the form based on the sort criteria chosen (Item #, Rev, Description, Class, Ext Description, Inventory Group, Product Code, EPlant, AKA Description, AKA Item #, or AKA Rev). Advanced filtering is also available. By default only active items will be displayed. To view inactive items select the Active/Inactive toggle button. Multiple items may be selected using the toggle buttons or the Ctrl and Shift buttons on your keyboard.

For users with Multi-Currency set up (System Parameters->Regional tab) the pricing displayed is based on the selected currency, and price breaks cannot be entered without a currency. Use the search button next to the Currency field to select the currency from the pick list to view pricing for. The pricing will only be updated for the price breaks associated to the selected currency.

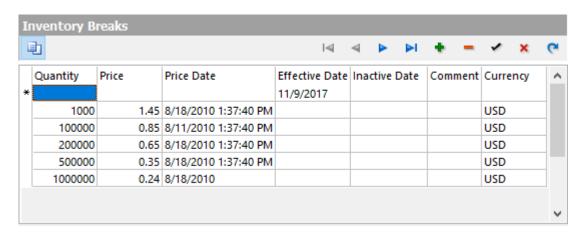
Increment By

Select the Increment By option in the Update Criteria section. Find the item(s) in the list that you would like to change the price breaks on. Once the item(s) are selected the prices can be changed based on a Percentage or Flat Amount. Select the option and then enter the corresponding value. (To enter a decrease put in a negative number). Enter the effective date from the drop down calendar and the decimal precision level required (up to six decimals). The effective date can be a date prior to the current date. A comment (up to 255 characters) can be entered which will populate in the price break grid in inventory Selling or AKA Selling (depending on whether the customer is the Default or listed on the AKA Selling tab).

Click on the OK button and the system will calculate the new pricing and populate the selling or buying price section on the Buy/Sell Pricing tab. The Price Date field will populate with the current system date.

Manual Adjustment

Select the Manual Adjustment option in the Update Criteria section. Enter the Effective Date for the new manually entered pricing using the drop down calendar. Find the item in the list that you would like to change the price breaks on. To create *new* prices breaks select the insert record (+) button. Enter the Quantity and Price. The Effective date will populate with the selected date. It can be overridden for an individual price break by choosing a different date from the drop down calendar in the field. Price breaks can be deleted by selecting the delete (-) button.



Enter a Price Date and an Inactive Date. If the effective date is in the future or the inactive date has passed, the line item will display in gray. (Note: If only the effective date is entered without an inactive date the line item will always be white). Enter the Inactive Date on old prices if applicable. To hide inactive pricing select the Hide Inactive toggle button. A comment (up to 255 characters) may also be entered.

Existing pricing can be manually adjusted by overriding the current value in any field except currency.

Additionally, the user can right click on an item in the list to jump to inventory.

There are also modules for updating the pricing in Customer Maintenance (See Inventory Pricing Maintenance), and in Vendor Maintenance (See Vendor Inventory Pricing Maintenance). These modules will display items associated to the customer and vendor respectively.

Inventory Location Information

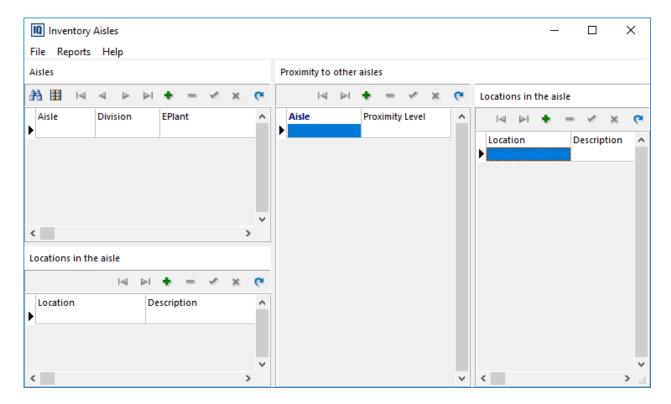
Inventory Locations are made up of several pieces of information including Location Types, Aisles, and Zones. The sections below will discuss each of the options available under the Inventory Location Information menu (Inventory->Miscellaneous menu).

If the system does not have "Advanced WMS" licensing these lists will not be visible.

Inventory Aisles

This option is only available if licensed for 'Advanced WMS'.

Aisles can be accessed from System Parameters > Lists > Inventory Aisles, Inventory > Miscellaneous > Inventory Location Info > Inventory Aisles, or from the File menu in Inventory Transaction Rules on the WMS Control tab.



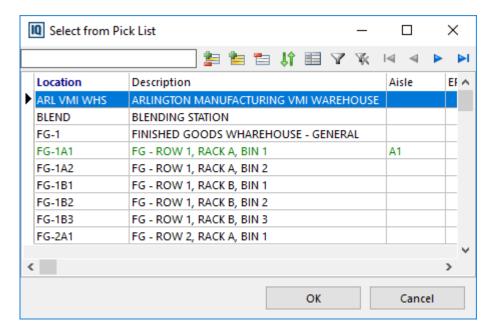
Create Aisles

From this form users can created Aisles and associate locations to the Aisles. The proximity relationship to other aisles with a Proximity Level can be created for aisles.

To add an Aisle select the insert record button in the Aisles section and enter the Aisle name. A Warehouse/Division can be associated to the aisle by selecting it from the drop down list. The EPlant will be assigned automatically based on the EPlant the user is logged into but can be changed by clicking the ellipsis button in the field to access the Assign EPlant form. The pick list will show aisles associated to the logged in EPlant as well as those not associated to an EPlant.

Associate Locations to Aisles

Associate locations to the Aisle by selecting the insert button in the Location in the Aisle section. Select the Location(s) from the list using the toggle buttons or the keyboard Shift and Ctrl buttons. Locations that are already associated to the current Aisle will display in green. Locations that are assigned to other Aisles will be gray.



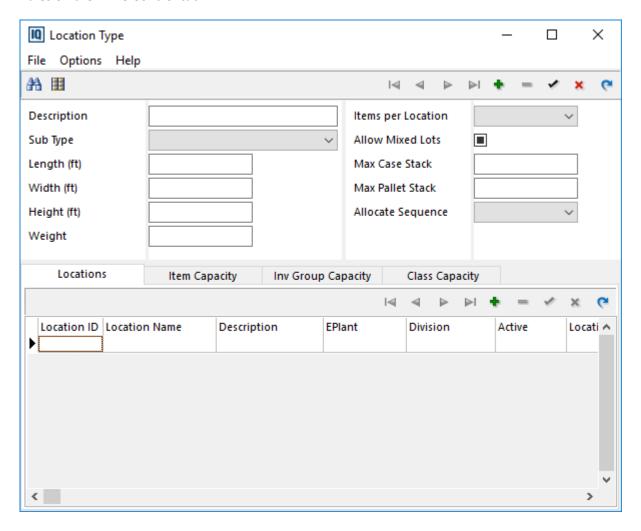
Proximity to Other Aisles

This section will display the proximity to other Aisles and the proximity level. When creating a new Aisle, the system will add that Aisle in this section with a proximity level of one. To add other Aisles select the insert record button and enter a proximity level. The locations associated to the aisles will display in the right grid.

Location Types

This option is only available if licensed for 'Advanced WMS'.

Location Types can be accessed from System Parameters > Lists > Inventory Location Types, Inventory > Miscellaneous > Inventory Location Info > Location Types, or from the File menu in Inventory Transaction Rules on the WMS Control tab.



Location Type maintains all types of locations where product is stored within a warehouse. Location types primarily define dimensional information and storage preferences such as, number of items per location and stacking limitations.

Description	Description of the Location Type
Sub Type	Select the Sub Type from the drop down list: Default, Raw Material Staging, Milk Run, and Shuttle Trailer.
Length	Length dimension of the location type. Max length value = 9999
Width	Width dimension of the location type. Max width value = 9999

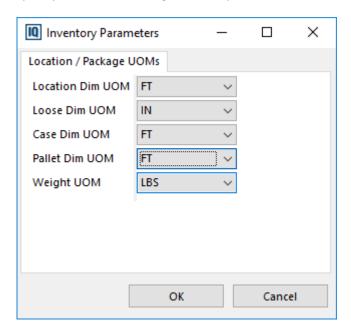
Height	Height dimension of the location type. Max height value = 9999
Weight	Location type maximum weight. Max weight value = 9999
Items per Location	Specifies how many different items may be simultaneously stored in a location with this location type. Valid options are 1-9 or Multiple.
Allow Mixed Lots	Indicates whether a location is allowed to have multiple lots of the same item.
Max Case Stack	Maximum number of cases that can be stacked in this location type. Max value = 999
Max Pallet Stack	Maximum number of pallets that can be stacked in this location type. Max value = 999
	Note: The Max Pallet Stack will be visible when hitting the F2 hotkey in several areas of IQRF such as: Search->Query label, and several Move and Disposition options. If the Max Pallet Stack is greater than 0 in inventory (ARINVT), IQRF will display the lowest (non-zero) value of the Max Pallet Stack between the inventory item (BOL Data) and the target location's Location Type.
Allocate Sequence	Specifies the sequence in which items are allocated. Valid options are FIFO or LIFO.

Lower Section Tabs:

- The Locations tab displays the locations associated to the Location Type. When adding, a pick list of locations will appear that will allow the user to multi-select locations to add. When removing locations, the user can multi-select locations, right click, and choose 'Disassociate Selected Locations'.
- The Item Capacity tab allows the user to select specific items associated to the Location Type. Select the item(s) from the pick list accessed by clicking the ellipsis button in the Item # or Description field.
- The Inv Group Capacity tab allows the user to select specific item groups associated to the Location Type. Select the inventory group(s) from the pick list accessed by clicking the ellipsis button in the Item # or Description field.
- The Class Capacity tab allows the user to select specific classes associated to the Location Type.
 Access the pick list from the ellipsis button in the Class or Description field.

Menu Options:

File Menu: Location / Package UOMs – This allows the user to specify the UOM of dimensions for the Location, Loose, Case, and Pallet. Valid options are: FT, IN, M, CM, and YD. There is also an option to specify the UOM for weights. The options are: LBS, KG, OZ, and GR.

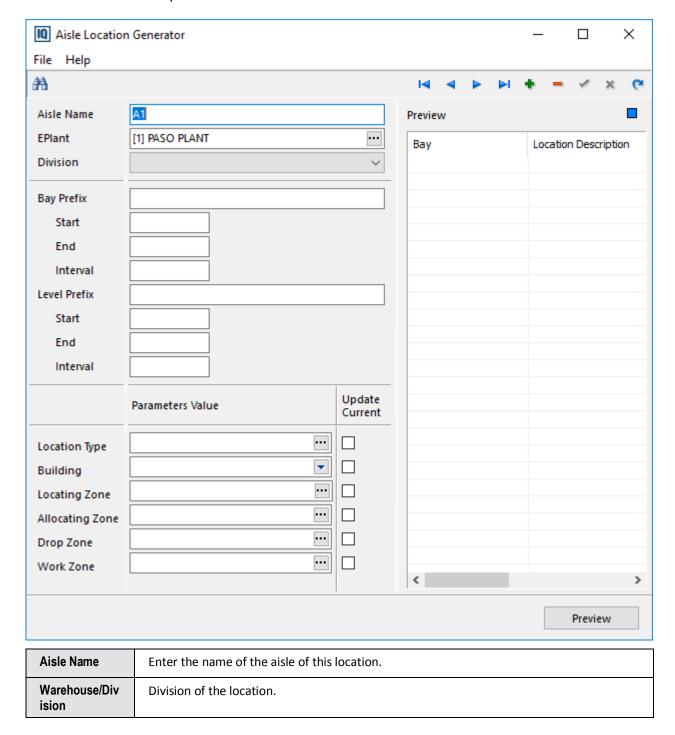


Options Menu: Parameters - WMS - Verify Location Check Digit

Aisle Location Generator

Select the speed button to access the Aisle Location Generator. This feature allows the user to generate locations based on an aisle, bay, and level.

Select an Aisle from the pick list or select the New button to create a new aisle.



EPlant	The EPlant the locations will be created for. Note: The EPlant can only be changed if you are logged in as View All.
Bay Prefix	Enter the prefix that represents the bay of this location.
	Start: Enter the starting number for the bay
	■ End: Enter the ending number for the bay
	 Interval: Enter the amount to increment each bay when going from the starting location to the ending location.
Level Prefix	Enter the prefix that represents the level of this location
	Start: Enter the starting number for the level
	■ End: Enter the ending number for the level
	 Interval: Enter the amount to increment each level when going from the starting location to the ending location

Parameters Value

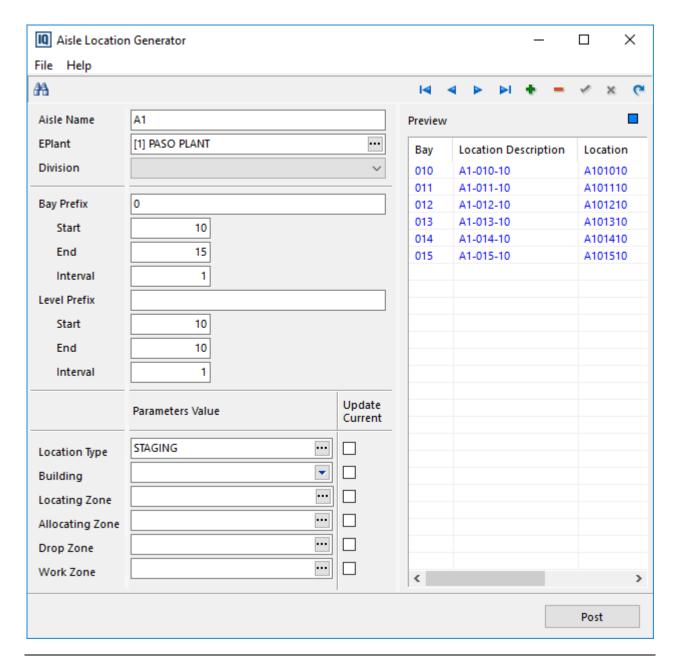
Values can be selected from the corresponding pick list in these fields to be populated to the generated locations.

- Location Type
- Building: Select the building from the user defined drop down list. This is the same list from master locations
- Locating Zone, Allocating Zone, Drop Zone, and Work Zone: Allows the user to select zone types to associate with the location

Update Current – Check this box next to the field(s) that should be updated for the existing locations.

Once all of the information is entered, select Preview. The system will display a preview of locations that are existing in black, and new ones that will be generated in blue. Click Post to allow the system to generate the new locations, and/or update the parameters for existing locations. A confirmation will appear stating 'About to create <#> new locations in the master location table. Please confirm to continue.' When selecting Yes, the system will create/update the locations. When selecting No, the system will remain on the Aisle Location Generator to allow the user to modify any of the Parameters. If a parameter is modified, the user can select Preview again to review the locations that will be created.

Note: The Start/End parameters in the Aisle Location Generator are numeric without leading zeros. To include leading zeros, create the locations in batches by setting the prefixes with the appropriate number of leading zeros. For example, enter 0 in the Bay Prefix field, then to create the first set of locations, enter 10 in the start field and 15 in the end field with an interval of 1. This will create 6 locations starting with A1-010-10 through A1-015-10.

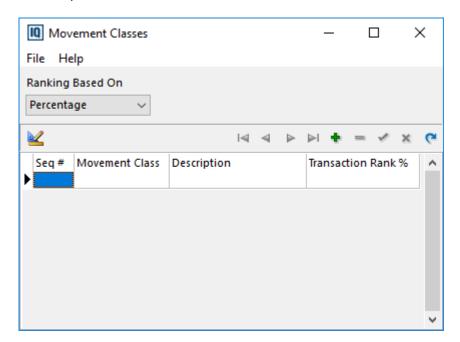


Note: When a location is created through the Aisle Location Generator the Location Type information (such as Items per Location, Allow Mixed Lots, etc.) will be carried over to the master location. If the location type information changes, the information will not change on the associated master locations.

Movement Class Maintenance

This option is only available if licensed for 'Advanced WMS'.

Movement Classes can be access from System Parameters > Lists > Inventory Movement Class, Inventory > Miscellaneous > Inventory Location Info > Movement Class Maintenance, or from the File menu in Inventory Transaction Rules on the WMS Control tab.



Inventory Movement Classes describe the frequency of transactions for the item. It is used in Inventory Transaction Rules for driving product to various locations and how pick rules or locating rules may be assigned. Each inventory item should be assigned a movement class for it's loose, case, and/or pallet movement. This movement class may be the same and should be based on the variations in the movement of the item.

Ranking Based On

This defines how the movement classes are ranked. The movement classes can be ranked based on percentage or defined amounts (equating to 'Next').

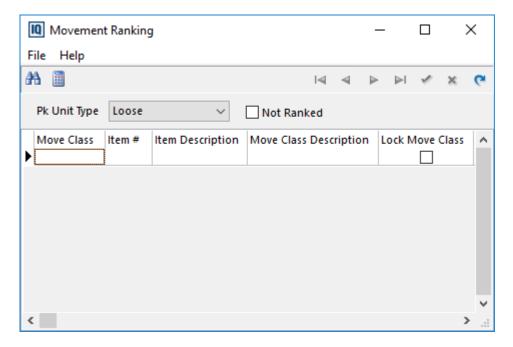
If Percentage is selected, when adding movement classes, the total rank percentage must add up to 100%. If Defined Amounts is selected, when adding movement classes, the user can specify the top x amount of items, the next x amount of items, and so on.

Lower Section Fields

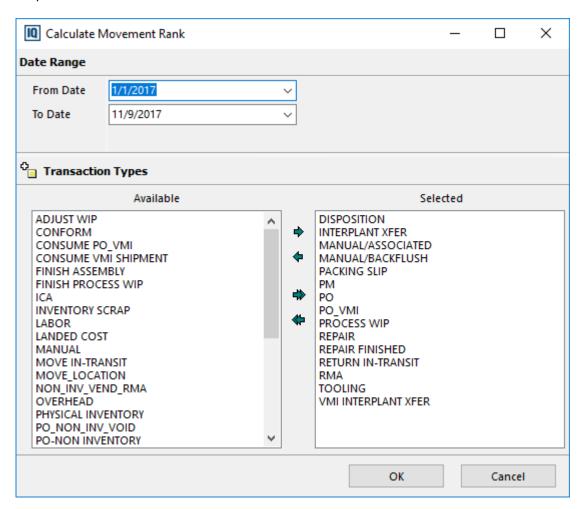
- Seq #: Sequence number to define the order of the movement classes.
- Movement Class: Code for the movement class
- Description: Description of the movement class
- Transaction Rank % or Defined Amount: percentage of the ranking or amount of the ranking

Movement Ranking

Inventory Movement Ranking allows the system to suggest movement classes based on transactions in the Translog. To access this form select the button.



Select the Pk Unit Type, then select the Recalculate button to calculate the movement rank for that Pk Unit Type. When calculating the movement ranking, the system looks at the TRANSLOG.PK_UNIT_TYPE based on the selected Transaction Types. The system will calculate for all PK Unit Types. The Pk Unit Type drop down is used to filter the data on the screen.

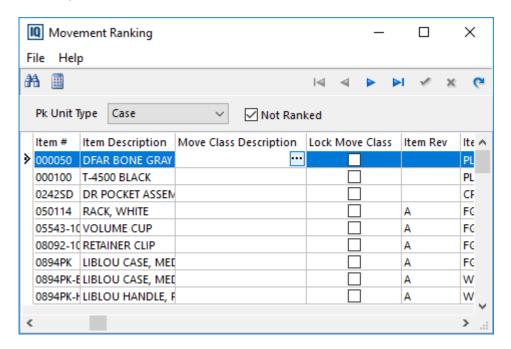


Select a From and To Date range. (Note: To include transactions for today's date, set the To Date to the next date) Select which transaction types the system should look at on the Available side and use the arrow buttons to send them to the Selected side and click OK. Select Yes on the warning to continue. The system will look at TRANSLOG records with the associated Pk Unit Type for the selected transaction types, within the selected date range.

PK Unit Type allows the user to view the movement ranking for that unit type. If the system could not rank an item, check the 'Not Ranked' checkbox to view those items.

The movement class for an item can be modified by clicking in the Move Class Description field and selecting the ellipsis button, or from the right click 'Assign Movement Class' option. If a movement class is manually changed for an item check the 'Lock Move Class' check box to prevent the system from reverting back to the calculated class when the movement ranking is recalculated.

Other Jump To Options – Right click from the Movement Ranking screen to access: Jump to Inventory and Jump to BOL Data / Movement Class.



Notes:

When performing a transaction without a serial number, the system will populate TRANSLOG.PK_UNIT_TYPE with the default PK Unit Type from the item's BOL Data.

When performing a transaction with a serial number, the system will look at MASTER_LABEL.IS_PALLET. If IS_PALLET = N, then TRANSLOG.PK_UNIT_TYPE will be populated with C. If IS_PALLET = Y, then TRANSLOG.PK_UNIT_TYPE will be populated with P.

Locations

EnterpriselQ requires that all inventory items exist in locations. The system may have an unlimited number of locations, but must have at least one location.

Locations can be of any type. Some typical locations include:

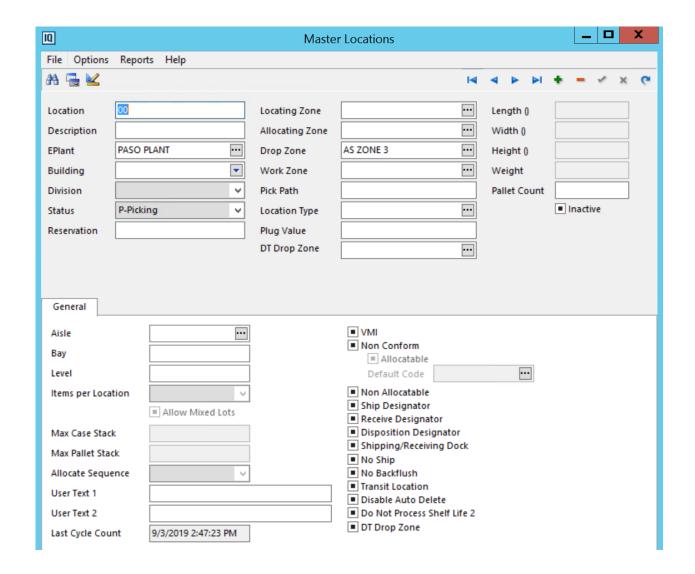
- Shelves and racking
- Bins
- Machines
- Floor locations
- Staging
- Material
- QC Inspection
- Quarantine
- Inspection stations
- Non-Conforming / Non-Allocatable

The Location designation can contain up to 30 characters and includes the ability to have a description for the location. Locations may be *logical locations*, where the physical location of two or more items are the same, but the lot numbers are different.

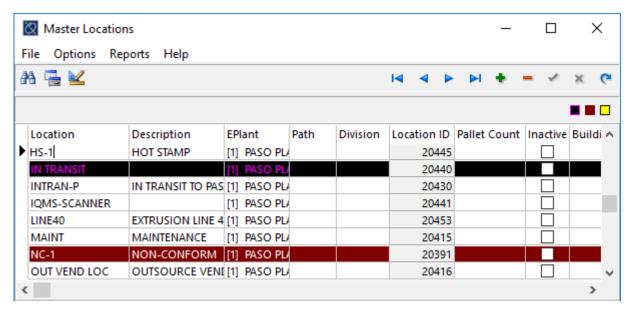
NOTE: EnterpriselQ will allow the same location to be assigned to the item multiple times for different lot numbers. The system will track all the material separately because of the different lot numbers.

Setting Up the Locations Table

To set up the **Locations** table, select **Misc|Locations** from the menu in Inventory or select **Lists|Locations** from the menu in **Sys Setup|System Parameters**. A pick list of existing locations will appear. Select a location or select the New button to add a new location.



This form can be toggled to table view which will display the top half as a table that will display applicable color attributes for In-Transit, Non-Conform, and VMI locations.



Field Listing

Note: Several fields on the Locations form are only applicable to users licensed for 'Advanced WMS'. Some of these fields are editable, but will be informational only.

Location	Location Name
Description	Location Description
EPlant	The EPlant will fill in based on the plant you are logged into. To change the EPlant select the ellipsis button in the field and select the desired plant.
Building	Optionally users can associate a building to a location. To create the Building list right click and select 'Edit User Defined List'. Once the list is created users can use the drop down to select the building. This field will be visible in pick lists.
Warehouse/Divis ion	You can associate the location with a Division/Warehouse by selecting from the drop down list. Divisions/Warehouses are used to further define inventory locations. (See the Warehouse/Division https://my.iqms.com/cfs-file.ashx/_key/Technote/Warehouse_2D00_and_2D00_Divisions.pdf TechNote for more information).

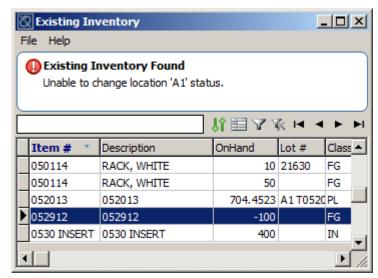
Status

This field only applies to users licensed for 'Advanced WMS'.

Choose the location's status from the drop down list. The options are:

- E-Empty The location is empty
- P-Picking The location is used for picking
- S-Storage The location is used for storage

If a user tries to set the Status to E-Empty, the system will check to see if there are any FGMULTI rows with On Hand > 0. If so, a message stating, 'Existing Inventory Found Unable to change location 'xx' status.' with a grid of Items that are in that Location will display.



Users can set the Location Status to P-Picking or S-Storage as long as there are FGMULTI rows with an On Hand >0.

From Receiving -> When the user transacts into a location, if the status of the location was E-Empty the system will set it to S-Storage. If the status was not E-Empty the status will not change..

From the Pick Ticket and Packing Slip -> When an FGMulti is chosen to be picked, if the location status is S-Storage the system will change it to P-Picking. If the status was not S-Storage the status will not change.

Reservation

This field only applies to users licensed for 'Advanced WMS'.

This will display the WO # and Item # for a Transaction Plan that has been reserved to the location. Locations can be reserved from the Transaction Location Plan accessed in the Work Order Material Staging->Work Order Planning tab

Locating Zone

This field only applies to users licensed for 'Advanced WMS'.

A Locating Zone can be associated to the location. Click the ellipsis button int the field to access the Locating Zones pick list.

Allocating Zone

This field only applies to users licensed for 'Advanced WMS'.

An Allocating Zone can be associated to the location. Click the ellipsis button int the field to access the Allocating Zones pick list.

Drop Zone

This field only applies to users licensed for 'Advanced WMS'.

Drop zones allow users to process directed tasks that cross work zones when the users do not have access to the tasks' end locations. The user without access will be prompted to drop off the material in a drop zone so that a user who does have access can pick it up from the drop zone and complete the task.

To be able to pick up the material from a drop zone and complete the directed task, a user must have access to work both in the drop zone and in the end location's work zone.

A drop zone may have any number of drop zone locations within it.

A Drop Zone can be associated to the location. Click the ellipsis button int the field to access the Drop Zones pick list.

Note: If a directed task's end location belongs to a drop zone that does not have any drop zone locations assigned, the user is directed to drop off the material in the end location itself.

To add a drop zone location to a drop zone, access the drop zone within the 'Inventory Zones' list and access its 'Drop Zone Locations' tab in the lower half of the window. Users may add drop zone locations and move drop zone locations up and down the list by order of priority.

Note: If the user processing a directed task either does not belong to a WMS team or belongs to a WMS team that has not been authorized to work in any work zones, the user will not be directed to a drop zone.

Work Zone

A Work Zone is a section of locations in the warehouse. Work zones allow users to assign teams to particular sections of locations and restrict them from working in other sections. Since the teams work in specific zones, this ensures that each zone uses the appropriate resources.

A Work Zone can be associated to the location. Click the ellipsis button in the field to access the Work Zones pick list. In the Work Order->Material Allocation screen there is a Filter options that allows the user to specify the Division and/or Work Zone to filter the available Inventory Locations by.

Note: When a user begins processing a directed task with a start and end location, the system checks whether the end location's work zone matches a work zone to which the user's WMS team has been granted access.

If the end location's work zone does not match any of the user's WMS team's approved work zones, the system then checks whether the end location belongs to a drop zone.

If the end location does belong to a drop zone, the user is prompted to drop off the material in the drop zone location in first position in the sequence in the work zone. This allows a second user who has the necessary access to the end location's work zone to pick up the material from the drop zone and complete the task.

To view the drop zone location sequence order for a work zone, access the work zone within the 'Inventory Zones' list and access its 'Drop Zone Locations' tab in the lower half of the window. Users may add drop zone locations and move drop zone locations up and down the list to change the sequence order.

Note: If there are no users with access to the drop zone, this will cause a problem - no user will be able to drop off the material at the drop zone nor pick it up. To resolve this problem, access the 'WMS Teams' module and add the end location's drop zone to the list of work zones in which the WMS team's members are allowed to work.

Users may also use this method to authorize a team's members to work directly in the end location's work zone itself. This would allow the team's members to skip the drop zone and move the material directly to the end location.

Pick Path

This is a numeric information field used to designate the picking route in the warehouse (up to 22 numbers in length). This is used in IQRF for two different shipping features.

- One is when the user profile is set to picking in Item mode and the Pick Path option is set to Y. The system will display the picking order using first in first out logic and then re-sorting for the picking path.
- This is also used when the 'Serialized Routing' Pick Ticket parameter is checked. With this option checked when scanning items to a pick ticket using serial numbers the system will tell the user which serial number to scan based on the locations picking path. (For more information please see the IQRF documentation).

Location Type

This field only applies to users licensed for 'Advanced WMS'

Select the Location Type to associate to the location from the drop down list. See Location Types for more information.

Plug Value	This is used for informational purposes only.
DT Drop Zone	Use this setting to associate a 'Directed Task Drop Zone' with the location. Click the ellipsis to choose from a list of available DT Drop Zones, filtered by EPlant.
	Note: If the location itself has been set as a DT Drop Zone, this setting is disabled. To enable this setting, uncheck the 'DT Drop Zone' checkbox in the lower half of the screen.
	Note: If a partial amount is moved into the original end location as part of a directed task, the 'D-Drop Zone' option is not accessible for the remaining material.
	Note: If a partial amount is dropped into a drop zone as part of a directed task, the remaining material may only be dropped into the same drop zone.
Dimensions	These fields only apply to users licensed for 'Advanced WMS'.
	The Length, Width and Height for the location. This information comes from the Location Type associated to the location and cannot be manually entered.
Weight	This field only applies to users licensed for 'Advanced WMS'.
	The locations maximum weight. This information comes from the Location Type associated to the location and cannot be manually entered.
Pallet Count	This field designates how many pallets a dock can hold. It provides information on the Pick Ticket if a Shipping Dock has been selected. If the number of pallets on the pick ticket exceeds the ship dock location's capacity it will display in yellow in the middle section alerting the user.
Inactive	Select this box to mark a location as inactive which will hide it from pick lists. If the location is associated to an item it will still be visible in the locations screen. Under the options menu, users can view all locations, view active locations or view inactive locations. Note: Users are still able to select these inactive locations when toggling the pick list to view inactive, and assign them as new locations for inventory items as well as move inventory in and out of these inactive locations.

General Fields in the Lower Section:

Note: If the location was created from the Aisle Location Generator in Location Types these fields will be populated automatically.

Aisle	The Aisle associated to the location. See Inventory Aisles for details.
	This field only applies to users licensed for 'Advanced WMS'.
Bay	The Bay associated to the location.
	This field is informational only unless licensed for 'Advanced WMS'.
Level	The Level associated to the location.
	This field is informational only unless licensed for 'Advanced WMS'.
Items per Location	Specifies how many different items may be simultaneously stored in a location with this location type. Valid options are 1-9 or Multiple. This information comes from the Location Type associated to the location and cannot be manually entered.
	This field is informational only unless licensed for 'Advanced WMS'.

Allow Mixed Lots	Indicates whether a location is allowed to have multiple lots of the same item. This information comes from the Location Type associated to the location and cannot be manually entered.
	This field is informational only unless licensed for 'Advanced WMS'.
Max Case Stack	Maximum number of cases that can be stacked in this location type. This information comes from the Location Type associated to the location and cannot be manually entered.
	This field is informational only unless licensed for 'Advanced WMS'.
Max Pallet Stack	Maximum number of pallets that can be stacked in this location type. This information comes from the Location Type associated to the location and cannot be manually entered.
	Note: When evaluating remaining capacity we will adjust the location type height to be the lesser between location type height and item height \ast max stack.
	This field is informational only unless licensed for 'Advanced WMS'.
Allocate Sequence	Specifies the sequence in which items are allocated. Valid options are FIFO or LIFO. This information comes from the Location Type associated to the location and cannot be manually entered.
	This field only applies to users licensed for 'Advanced WMS'.
User Fields	Two alpha-numeric user fields are available to enter additional information about the location. To change the field name right click and select 'Define label Text'.
Last Cycle Count	This will display the date the location was last cycle counted when doing a Physical Inventory by Location. This field is read only.

Location Attributes:

Note: The system will not allow users to toggle location attributes on or off if on-hand exists in the location. This applies to all attributes except 'Disable Auto Delete'. If attempted the user will get an error similar to the following: "General SQL error. ORA-20100: Unable to toggle location [LOCATION] Item # [ITEM #] is found in location ORA-06512: at "IQMS.TU_LOCATIONS", line 35 ORA-04088: error during execution of trigger 'IQMS.TU_LOCATIONS'".

VMI	The location can be designated as a VMI location (Vendor Managed Inventory). VMI is used to 'ship' parts to a VMI location and invoice when the customer has consumed the parts.
	VMI locations are excluded when performing a physical inventory.
	Items in a VMI location are not considered for MRP purposes.

Non Conform The location can be designated as a Non Conform location. By default items in a non conform location are not included in the On Hand quantity and are not considered for MRP purposes. However, if the **Allocatable** box is checked the quantity in that location will be allocated and included in On-Hand quantity. Master locations marked Non-Conform are automatically created as allocatable or non-allocatable according to whether the Allocatable check box was marked in Master Locations. When adding as a new location in Transactions and Locations (and assigning the reason) the Allocatable check box is not available. The allocatable attribute on master Non Conform locations can only be overridden from the Lot Control tab in Transactions and Locations. A **Default Non Conform Code** can be assigned to the location. This code will be used by default when dispositioning into a non-conform location so the reason is not N/A. This does not apply when adding the non-conform location to an item manually. An Authorization Required warning will appear when a user attempts to ship from a Non Conform location. Only users with security to select OK can proceed. Non Allocatable The location can be designated as a **Non Allocatable** location. Non-allocated indicates to EnterpriseIQ that the quantity is part of the On Hand inventory amount, but is not considered during the MRP evaluation. **Ship Designator** The location can be designated as a Ship Designator location. This is used in Pick Tickets and Packing slips. It is a default location where items that are shipped are removed from. When creating a packing slip, if a location associated to the item being shipped is marked as a shipping designator the user will only see shipping designator locations in the Assign Qty box. If the item does not have a shipping designator location assigned, then all locations will appear for the user to choose from. Ship Designator locations can be set up for a specific division/warehouse. Pick tickets can then be filtered for a specific division/warehouse and if using ship designators the system will pull from the correct location based on the division/warehouse. Note: Only one ship designator location is allowed per division/warehouse, or if not using divisions, then only one per EPlant. If a location has been marked as the ship designator and another location for the same division/warehouse or EPlant is marked as the ship designator, the first location will now be unselected as the ship designator.

Receive Designator

A Receive Designator master location can be created. For EPlant users Receiving Designator locations can be created for a specific Division or EPlant. When receiving an item where the matching default receive fgmulti location does not exist yet in Transaction and Locations, when posting the receipt in EIQ (not IQRF/WMS) a message surfaces: "Location XXXXX is the designated receiving location. Use this location for the receipt?" If there are Receive Designator locations set up for null divisions and specific division(s), the default receiving location is selected based on the Division associated to the item being received (PO DETAIL.DIVISION ID). With one default receive location assigned (for null division or one specific division), the system prompts the user with the default receive location regardless of PO Detail Division. If the user answers Yes, the location is added and received into. If the user answers No, for a null division item the pick list includes all existing fgmulti locations; for a division item, the system uses a soft division filter for the pick list. The user can select a location from the list or create a new location. Note that regardless of location received into, for a different Lot# the user will still need to create a new location. During receiving, if a Receive Designator location is associated to the item the system will automatically use that location on the receipt screen when receiving an item using EnterpriseIQ or IQRF/WMS. When receiving from EIQ, the location can be changed by selecting the ellipsis button in the location field. When a default Receive Designator location is being used, a new Location or Lot# cannot be added from a scanner.

A Receive Designator location can also be a Non Conform or Ship Designator location, but it cannot be a VMI location.

Note: Only one receive designator location is allowed. For users with EPlants and Divisions, only one receive designator location is allowed per Division. If divisions are not used then only one Receive Designator can be set up per EPlant. For example, if there are two divisions per an EPlant, the EPlant could have three default receiving locations. One for each division and a one without a division.

When selecting the Receive Designator check box on a location, the system will first check if another master location would be unselected as the Receive Designator if the user continues (i.e. due to a record that already exists that has Receive Designator option checked, with a matching EPlant ID and Division ID). If so, a message displays, 'Location XXXX will no longer be marked as a Receive Designator. Continue?', with security on the Yes button and the 'Do not show next time' check box.

When selecting/unselecting the Receive Designator check box and the location exists is associated to items, a message displays, 'Location XXXX is currently attached to item(s) in Transactions and Locations. Continue?'. Security is available on the Yes button and the 'Do not show next time' check box. Note: This message will surface after the check for a current Receive Designator location.

Disposition Designator

Check this box to mark the location as a Disposition Designator. Multiple locations may have this option selected. When a location is marked with this option, when it is associated to an item it will be automatically marked as a disposition designator and will be used during auto dispositioning in production reporting. The 'Set as Default...' and 'Clear Designation...' options will be grayed out on the Assign Auto Disposition Designator form in Transactions (accessed by selecting the Edit button next to the Dispo Designator field).

Shipping/Receiving Dock

Multiple locations can be designated as a Shipping/Receiving Dock location. The locations with the 'Shipping/Receiving Dock' designation will display in the 'Shipping Dock' field in the pick ticket header, the Expected Receipts form, and in the Dock Scheduler module.

If 'Verify Inventory' is not checked in pick ticket parameters, the Dock field is informational only.

If 'Verify Inventory' is checked, when the pick ticket is converted to a packing slip, instead of placing the inventory in an 'In Transit' location, it will be put in the Dock location indicated on the pick ticket header. This dock location is treated just like an 'In Transit' location, it is marked purple and locked from other transactions.

No Ship

If a user tries to ship from a location marked 'No Ship' through pick tickets and packing slips a status exception will display stating the location is marked No Ship. Depending on security the user can select OK to proceed or the cancel button may be the only option which will prevent the location being used to ship from.

In RF/WMS the results will vary depending on whether Pick by Item or Serial is selected and whether the item is a serialized inventory control (SIC) item or not.

Pick by Item: All locations where fgmulti.no_ship = null or N are available to pick from (including 'No Ship' master locations toggled to Ship). No locations are available where fgmulti.no_ship = Y.

Pick by Serial:

For a Non-SIC item:

- Users cannot pick from a 'No Ship' master location even when the location is toggled to Ship.
 The user will receive a warning "Serial # xxxxx location is marked no-ship".
- Users can pick from regular locations toggled to 'no ship' without a warning. A new location (fgmulti record) is created 'on the fly' for this location description, while the system retains the original fgmulti_id for the serial number in the master_label table. When a pick ticket is converted to a packing slip, the inventory is removed from the new location that was created, driving it negative.

For a Serialized item:

The system considers the individual fgmulti location status to determine whether serials can be picked from these locations. For example, a regular location toggled to 'No Ship' in Transactions and Locations will surface a warning when picking (and picking is prevented). Conversely, a 'No Ship' master location toggled to 'Ship' in Transactions and Locations will allow serials in that location to be picked without warning.

Note: The On Hand in a No Ship location is considered in MRP for allocation towards demand.

No Backflush

A user cannot backflush OUT of a location marked 'No Backflush' during production reporting auto dispositioning, PRA backflush, and IQRF/WMS backflushing.

If a 'No Backflush' location is marked as a disposition designator, the system will put items into that location but it will create a temporary location to remove parts from. It will not pull from the 'No Backflush' location.

(IN transactions are allowed with 'No Backflush' checked. OUT transactions are not allowed).

In Transit The In Transit location is used by the Intercompany Transfer module (ICT), Outsource Central Location and when the 'Verify Inventory' pick ticket parameter is checked. By default, an In Transit location is locked preventing users from manually adding or removing items. In transit locations are not included in physical inventories. If the Inventory Parameter 'Allow To Drive In transit Location Negative' (Miscellaneous menu) is checked, when receiving Outsourced items and backflushing the system will allow an In Transit location to be driven negative. If it is not checked users will not be able to backflush more than what is in transit. Note: This type of location should not be manually added to an inventory item. The system will add an In Transit location to an item when required. Note: The system does allow Outsource child inventory to be reallocated to a different parent from the Locations and Transactions module using a drag and drop from one In-Transit location to another if they have the same Vendor. Serialized Inventory Control items are able to be selected by serial number to move. This updates the Child Location in the database. **Disable Auto** If the user has the 'Delete Empty Location' parameter checked in Inventory it can be Delete overridden for specific locations by checking this box. This will prevent the location from being automatically removed when an out transaction brings the location quantity to zero. Do Not Process A Shelf Life 2 value can be assigned to inventory items. It can be used to track multiple shelf Shelf Life 2 lives for raw materials. This is typically used for items that require refrigeration. While in refrigeration the system applies the Shelf Life. When the items are removed from a refrigerated location then the Shelf Life 2 value in days will kick in. Locations can be set to 'Do Not Process Shelf Life 2' to establish rules for if/when the shelf life 2 will kick in. Location Shelf Life2 examples: Type A = Process Shelf Life 2 Type B = Do Not Process Shelf Life 2 Moving from Type B to Type A Maintains Unique Date In – assigns System Date as In Date Moving from Type A to Type A Maintains Unique Date In – current In Date stays the same Moving from Type B to Type B No change from current system, uses standard Unique Date In rules Moving from Type A to Type B No change from current system, uses standard Unique Date In rules Receiving New Inventory to Type A Maintains Unique Date In – assigns System Date as In Date Receiving New Inventory to Type B No change from current system, uses standard Unique Date In rules Inventory Out either Type A or B No change from current system, uses standard Unique Date In rules See the information on 'Unique Date In' in the Additional Tab in Inventory section for details.

DT Drop Zone

Use this check box to designate this location as a 'Directed Task Drop Zone.' This designates the location to process directed tasks and their associated material.

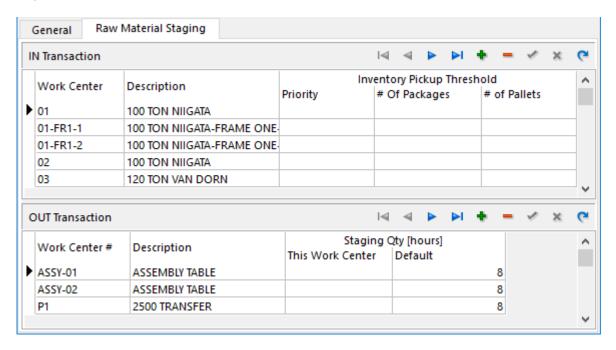
Once this location has been designated as a DT Drop Zone, other locations may designate this location as their DT Drop Zone to send their directed tasks and drop their associated material.

Note: If this location has been designated as a DT Drop Zone itself, it will not be able to designate another location as its DT Drop Zone. The 'DT Drop Zone' field in the upper half of the screen will be disabled.

Raw Material Staging

(Only applies to users licensed for 'Advanced WMS').

If the location is associated to a Location Type with a Raw Material Sub Type a Raw Material Staging tab will be visible. This will list the work centers that have this location as their IN and OUT Transaction disposition location.



IN Transaction

This section includes the following columns: Work Center #, Work Center Description, Inventory Pickup Threshold with linked columns below for Priority, # of Packages and # of Pallets.

To add a work center to IN transaction select the insert record (+) button and then click on the ellipsis button in the Work Center to field to access the pick list of work centers. Work Centers that are associated to another location will be gray in the pick list. They can be selected and the system will update the Shop Floor Disposition Parameters 'IN Transaction' field (Options menu in the Work Center module) with the location. Work Centers that are already have this location as it's IN transaction disposition location will be in green text in the pick list.

To remove a work center select the Delete (-) button. The work center will no longer have an IN Transaction disposition location associated to it.

Inventory Pickup Threshold - These settings are used for the system to compare the Dispo In items->BOL Data->Package or Pallet Items per (depending on the listed Default Packaging Type) to the quantity of items in the Dispo IN location. If the Dispo IN location Qty has any Pickup rows in TRANS_ALERT for this item that are greater than the Work Center based Inventory Pickup Threshold the system will add a row to TRANS_ALERT with: INV_ZONE_ID = the Dispo In LOCATION.WK_INV_ZONE; TRANS_IN_OUT = OUT; ALERT_DESCRIP = "Pickup XXXXXXX from LLLLL" where XXXX = the Items Description and LLLL = the LOC DESC.

- Priority The choices are: 1= High Priority, 2= Med Priority and 3= Low Priority
- # of Packages
- # of Pallets

Note: If the # of Packages or # of Pallets is defined this location cannot be assigned as a Dispo Out location for any Work Center.

OUT Transaction

This section includes the following columns: Work Center #, Work Center Description, Staging Qty [hours] with linked columns for Default (non-editable) and This Work Center (editable).

Work Centers can be added or deleted from this section as described above for IN Transactions.

Staging Qty (hours) - This is the number of hours the system will use to determine the staging quantity of materials required for the 'Work Order Materials & Components' module (ShopData and Assy Data). This defaults to 8 hours but can be changed from this field or a specific value can be assigned to a work center that will override the default.

- Default This field cannot be edited from here.
- This work center This field can be edited from this table.

Milk Run Staging Tab

(Only applies to users licensed for 'Advanced WMS').

If the Location has a Location Type with a Sub Type of Milk Run an additional tab will be visible from the Master Locations module. From this tab users can link in specific sales orders.

The Milk Run Staging grid has the following columns: Order #, Item#, Item Description, Customer, Ship To

Select the insert (+) button to add an order from the pick list. Select the minus button to remove an order.

Note: If the Sales Order Detail line item is deleted it will be removed from this grid.

File Menu

Parameters (only applies to users licensed for 'Advanced WMS') - Do Not Allow Duplicate Master Inventory Locations by Division - When this box is checked, the system will not allow a new or updated location to be a duplicate within the same EPlant.

Options Menu

- Aisles and Location Types (only applies to users licensed for 'Advanced WMS').
- Zones
- View Options View All, View Inactive, or View Active

- For Advanced WMS users only. Select the Transaction Plans button to access a pick list of transaction plans associated to the location. From the pick list can select a plan to view.

Note: The locations table can also be accessed any time a transaction is being made to allow for quick input of new locations.

Deleting a Location from the table - A location that does not have any detail records (such as items in the location or work center disposition designator) can be deleted by selecting the Delete Record (-) button. If the location is associated to an MRO record a message will appear stating, 'This location is associated to MRO, do you wish to continue?'. If Yes is selected the system will remove the Location and Location_ID from the MRO record (in PMEqmt table), if No is selected the user is returned back to the master locations form. Security can be placed on this message.

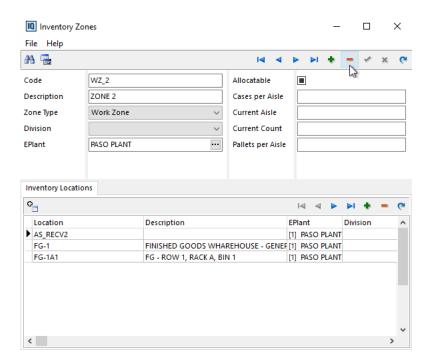
Inventory Zones

Zones can be accessed from System Parameters > Lists > Inventory Location Zones, Inventory > Miscellaneous > Inventory Location Info > Location Zones, or from the File menu in Inventory Transaction Rules on the WMS Control tab.

For Non Advanced WMS Users

For users that are not licensed for Advanced WMS, the only applicable inventory zone is a 'Work Zone'. Inventory Work Zones can be created, then locations and users are associated to the work zone. A location can only belong to a single work zone. Users can be attached to multiple work zones. Once set up this can be used to filter the available locations for allocating materials in work orders. When the 'Work Zone Locations' option is selected from the Advanced Filter option in the Allocated Materials screen, only locations associated to Work Zones that the employee is associated to will be available to choose from for allocating materials to the work order. Employees are associated to work zones from the WMS Profile module (System Parameters->Lists menu). Select the User Zones option in the Available Modules section.

For Advanced WMS Users



Zones are used to group warehouse locations based on similar function and work teams. There are four zones:

- 1 Locating Zone
- 2 Allocation Zone
- 3 Work Zone
- 4 Drop Zone

These zones are assigned to individual locations. The system uses the zones, in conjunction with inventory transaction rules, to assign put-away and picks from the most efficient locations.

Code	Code for the inventory location zone
Description	Description of the inventory location zone
Zone Type	 Locating Zone: Use this zone to establish the different location groups the system should use to move product to. For example, many warehouses establish one zone for piece picking for 'A' movers and a different zone for pallet picking for 'A' movers. Allocating Zone: Use this zone to establish the different location groups to move product from. When the system runs the allocation plan, it will search the Picking Rule Sets to determine which allocation zones to process. Drop Zone: Use this zone to establish drop zones in the warehouse. Drop zones are used to
	'hold' inventory in-transit to a location until the process can be complete. Drop zones are useful during the following processes: put-away, replenishment, and shuttle transfer, cross-docking and shipping dock.
	Work Zone: Use this zone to assign teams to particular locations. Configure the warehouse so each section requiring different equipment or picking constraints is a unique zone. Since teams work specific zones, this ensures that the appropriate resources are used in each zone.
Division/Wareho use	Division of the inventory location zone. Select this from the drop down list if applicable.
EPlant	EPlant of the inventory location zone. The pick list will show zones associated to the logged in EPlant as well as those not associated to an EPlant. If the Division/Warehouse field is populated the system will populate the corresponding EPlant automatically.
Allocatable	Determines whether inventory can be allocated from this zone.
Cases per Aisle	The number of cases that can be located to an aisle in this zone before the system attempts to find a different aisle. Max value: 999
Current Aisle	The aisle that cases or pallets are currently being located to within a particular zone.
Current Count	The number of cases or pallets that have been successively located to the current aisle.
Pallets per Aisle	The number of pallets that can be located to an aisle in this zone before the system attempts to find a different aisle.

Inventory Locations Tab

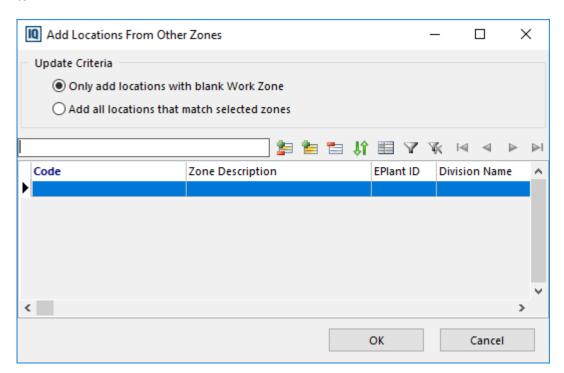
The bottom grid will display the locations associated to the inventory location zone.

To add location(s) select the insert (+) button. A pick list of locations will appear that will allow the user to multi-select locations to add. The pick list is filtered based on Division and EPlant.

To remove location(s), highlight the location(s) using the Shift or Ctrl keyboard buttons, then right click and choose 'Disassociate Selected Locations'.

To access a location, right click and select 'Jump to Location'.

Add Locations from other types of zones – Select the button in the bottom section to add locations from other zones. A pop up form will display with zones with types other than the one adding locations to.



Update Criteria

There are two mutually exclusive choices for updating the locations to the current zone:

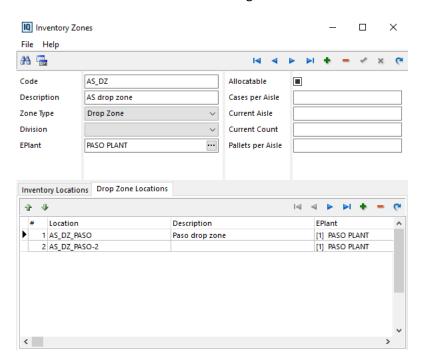
- Only add location with blank locating zone When this option is selected only locations that do not already have a corresponding zone will be added. For example, if adding locations from an allocating zone to a work zone, only the items associated to the allocating zone with a blank work zone will be added.
- Add all location that match selected zones This option will add all the locations from the selected zone and update the zone field in master inventory with the selected one.

Drop Zone Locations Tab

Some inventory zones are categorized as 'Drop Zones.' Drop zones allow users to process directed tasks that cross work zones when the users do not have access to the end location. The user without access is prompted to drop off the material in a drop zone in the first position in the sequence so that a user who does have access to the end location can pick it up from the drop zone and complete the task.

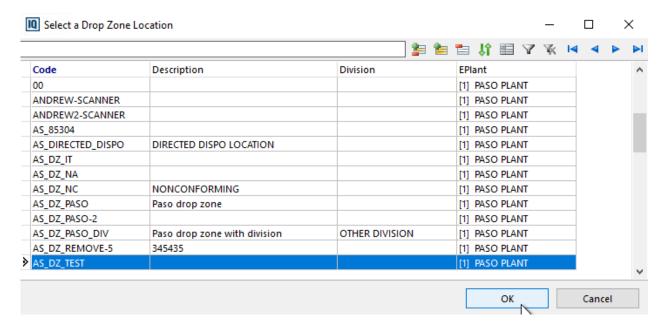
A drop zone may have any number of drop zone locations within it.

If the inventory zone has a zone type of 'Drop Zone,' its drop zone locations will be listed in the 'Drop Zone Locations' tab above the bottom grid.



Users can use the arrows above the grid to move drop zone locations up or down the list to change the sequence order. The system will always use the drop zone location in first position in the sequence by default.

Users can also use the 'Drop Zone Locations' tab to add drop zone locations to the work zone.



Note: Not all teams are authorized to work in any given work zone. When a user begins processing a directed task with a start and end location, the system checks whether the end location's work zone matches a work zone to which the user's WMS team has been granted access.

If the end location's work zone does not match any of the user's WMS team's approved work zones, the system then checks whether the end location belongs to a drop zone.

If the end location does belong to a drop zone, the user is prompted to drop off the material in the drop zone location in first position in the work zone. This allows a second user who has the necessary authorization to work in the end location's work zone to pick up the material from the drop zone and complete the task.

To view the drop zone location sequence order for a work zone, access the work zone within the 'Inventory Zones' list and access its 'Drop Zone Locations' tab in the lower half of the window. Users may add drop zone locations and move drop zone locations up and down the list to change the sequence order.

Note: If there are no users with access to the drop zone, this will cause a problem - no user will be able to drop off the material at the drop zone nor pick it up. To resolve this problem, access the 'WMS Teams' module under the 'WMS Control' tab and add the end location's drop zone to the team's list of approved work zones.

Users may also use this method to authorize a team's members to work directly in the end location's work zone itself. This would allow the team's members to skip the drop zone and move the material directly to the end location.

Inventory Codes

From the Miscellaneous menu->Inventory Codes the user may access various lists: Non Conform Codes, Non Allocate Codes, Inventory Transaction Codes, Product Codes, Cycle Count Codes, Color Group Codes, UPC Codes and Tariff Codes.

See the various sections below for details.

Discount Pricing

There are several methods for discounting prices in EnterpriseIQ:

- Tier Pricing
- Aggregate Tier Pricing
- Volume Pricing
- SAC Discounts
- BOGO Discounts
- Threshold Discounts

The following sections will discuss these methods.

Tier Pricing

In many cases, proprietary manufacturers need to offer different pricing structures to different types of buyers. EnterpriseIQ supports the concept of Tier Level pricing, designed to provide a flexible mechanism for handling unique pricing levels.

Pricing is based on the existing price structure supported in EnterpriseIQ. This serves as the basic price list. Discounts are applied against this list during Order Entry, and are automatically reflected on the order during entry.

The system uses the AR Discount Tiers table to match Customer # to Item #, Customer # to Item Type, Customer Type to Item #, or Customer Type to the Item Type to determine the percentage discount. Depending on how the AR Discounts are set up, the system will use either the Tier Price Breaks, the Tier Discount Price, selling price breaks (AKA or if none the Sell tab prices) or the Std Item Price for the basis to deduct the discount from. Please see the Discount Pricing flow chart below.

Notes:

Discount Pricing does not apply to items that have the 'Use Lot Charge' option checked. If the item has a Lot Charge entered instead of price breaks the price field will be zero. When this is checked, when a sales order is created and the item is added, the system will pop up a field to allow the user to edit or enter the lot charge. Once the lot charge is entered, a separate line will be created automatically for a miscellaneous item, with an item description of Lot Charge, a blanket quantity of 1, and the lot charge populated in the price field.

If the 'AKA Pricing override Tier discount pricing' option in System Parameters->Purchase Order and Sales Order Setup tab is checked, during order entry the system will use the following hierarchy: 1. AKA Pricing on inventory item, 2. If AKA pricing has expired then use Tier Price, 3. If Tier Price does not exist or has expired use Buy/Sell Pricing, 4. If Buy/Sell Pricing has expired or does not exist use Std. Item Price. Note: If an AKA Price exists, the system will use that price only with no further discounting.

The system will also evaluate the Effective and Inactive dates associated to AKA pricing records. If the AKA pricing Effective date is in the future it will use the Buy/Sell Pricing, if not available, it will use Std Price. If the AKA pricing Inactive date occurs in the past, the system will use the Buy/Sell Pricing, if not available, it will use Std Price.

Customer Tier Types can be assigned at the customer level, or the ship to level. The Tier Type Hierarchy will look at Ship To first and if null use the Tier Type at the Customer level (Customer/Credit Data tab). AR Tier Discounts can be set up for specific ship to addresses. If the Tier is associated to a customer, a specific ship to address can be selected by clicking on the ellipsis button in the ship to field to access the pick list. When looking up tier pricing, if the Customer+Ship To from the sales order matches, the system will use that Tier for the discount. If the sales order's Customer matches but not a Ship To the system will use the Tier for the Customer. A tier with a blank Ship To will match any sales order Customer Ship To but if the Ship To is defined for a Tier it is only used when the sales order has the Customer and Ship To.

If an order detail item has a unit of measure (UOM) that is not the default from inventory, the system will convert it to the default (native) UOM before looking to Selling, AKA, or Tier tables for pricing.

The last discount applied is the 'Threshold discount' based on the Total price after any additional discounts. See the Threshold Discounts section for details.

Defining Customer Types

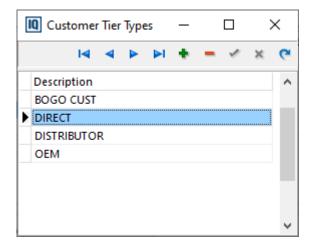
To utilize Tier Pricing a few lists must be created:

- Customer Types
- Inventory Types

Defining Customer Types

The first step in defining Tier Types is to set each customer with a user defined Customer Type that is used to classify the customers. The Customer Types table is located under the File | Customer Types from within the Tier Type table (the Tier Type table may be accessed by selecting Misc | Tiers from the Inventory menu) or under Sys Setup | System Parameters | Lists | Discount Tiers form.

In the example below, three separate levels of customers have been created based on amount of product purchased. A "Platinum Dealer" is the largest buyer of product, a "Gold Dealer" is a second level buyer, and a "Silver Dealer" is the third type of customer.



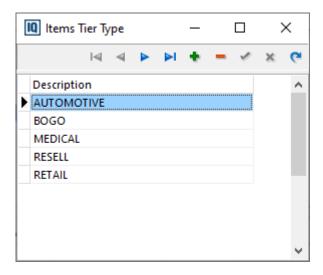
Customer Tier Types can be assigned at the customer level, or the ship to level. The Tier Type Hierarchy will look at Ship To first and if null use the Tier Type at the Customer level (Customer/Credit Data tab).

AR Tier Discounts can be set up for specific ship to addresses. If the Tier is associated to a customer, a specific ship to address can be selected by clicking on the ellipsis button in the ship to field to access the pick list. When looking up tier pricing, if the Customer+Ship To from the sales order matches, the system will use that Tier for the discount. If the sales order's Customer matches but not a Ship To the system will use the Tier for the Customer. A tier with a blank Ship To will match any sales order Customer Ship To but if the Ship To is defined for a Tier it is only used when the sales order has the Customer and Ship To.

Defining Inventory Types

The second step is to create Inventory Types. Each inventory item, like customers, can be designated a particular type. The Inventory Types table is located under the File | Customer Types from within the Tier Type table (the Tier Type table may be accessed by selecting Misc | Tiers from the Inventory menu) or under Sys Setup | System Parameters | Lists | Discount Tiers form.

In the example below, three separate levels of inventory items have been created based industry classification. The products are classified as type "Electronics" or "Automotive" or "Computer."



Linking Inventory Items to Inventory Types

• To link inventory items to a specific inventory tier type, select a tier type from the drop down menu on the Buy/Sell Pricing tab of the inventory item.

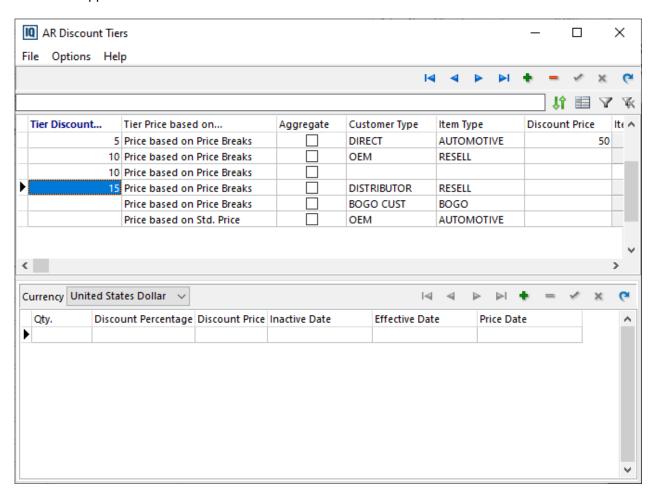
Linking Customers to Customer Types - To link customers to Customer Types, follow the steps below.

- Open up the Customer Maintenance screen and select the customer.
- Find the Tier Type field on the main tab and select a Tier Type to assign to that customer from the arrow down list.

Creating the Tier Types Table

The final step is to create a 'Tier Type' by creating the links (Customer # to Item #, Customer # to Item Type, Customer Type to Item #, or Customer Type to the Item Type), assigning a discount amount, and telling the system where to obtain the pricing information. As many Tier Types as needed may be created, each with a different discount percentage. The net result of this is that a customer may receive a discount based on both the type of customer and the product purchased.

The Tier Type table may be accessed by selecting Misc|Tiers from the Inventory menu. The following screen will appear:



Field Listing for Upper Section:

The state of the s					
Aggregate	This only applies to Customer Type/Item Type tiers (not specific customer tiers). If the Aggregate Tier box is checked in the AR Discount Tiers form the customer / item tier handles pricing discounts based on the price breaks setup in tiers in the lower grid and the aggregate calculation is based on the first release date of the sales order. (See the Aggregate Tier Type Pricing section below for more information).				
	Aggregate her type themig section below for more imormation).				

BOGO	This box is checked for BOGO type discounts. When a qualifying line item is added to a Sales Order, the "Add Child BOGO Items" button will become enabled. When the "Add Child BOGO Items" is clicked, a pick list with all items that are associated to the specific BOGO discount item will display. The BOGO discounts are setup in the AR Discount Tiers screen by utilizing customer type and item type, and checking the BOGO check box. See BOGO Discounts for more information.			
Cust #/Customer	When an Item Type tier is used a specific customer number can be linked to it. When a sales order is entered for that customer for an item associated to that item type the discounts will be based on that combination using the pricing hierarchy.			
Customer Type	Tiers can be created based on a Customer Type. The Customer Type can be associated to a specific Item number or an Item Type. Select the Customer type from the drop down list in the field. If a Customer Type is selected the Cust # field will be grayed out making it not available for editing.			
Discount Price	This is a field to enter the discount price that will be used for the Tier record when the 'Tier Price Based on' is set to 'Price Based on Std. Price'. A value up to six decimals can be entered. This value is not used if the 'Tier Price Based on' is set to use Price Breaks.			
Item #/Description/Class/R ev	When a Customer Type tier is used a specific item number can be linked to it. When a sales order is entered for that item for a customer associated to that customer type the discounts will be based on that combination using the pricing hierarchy.			
Item Type	Tiers can be created based on an Item Type. The Item Type can be associated to a specific customer or a Customer Type. Select the Item type from the drop down list in the field. If an Item Type is selected the Item # field will be grayed out making it not available for editing.			
Less Than Min. Upcharge %	A value between 0 to 100 % can be entered in this field to add an upcharge when the quantity ordered is less than the Selling Multiples Of (Main Inventory>General section). (In order for this to apply the Minimum Sell Qty and the Selling Multiples Of fields must be populated in Inventory). If a value is entered in this field and the Selling Multiples Of is populated, and the Minimum Sell Qty is less than Selling Multiples Of, when the blanket quantity is less than the Selling Multiples Of the upcharge will apply. If they are equal, then standard tier pricing applies. The system will calculate the price break or Std price (based on the on 'Tier Price based on' setting) * Upcharge %. (Price + (Price *Upcharge %)). For example: With a tier price of \$10.00 and an Upcharge of 20%, the Selling price = \$12.00 If the Upcharge field is null no additional charge is applied. If the blanket quantity is greater than Selling Multiples Of no additional charge is applied.			
Ship To	If the Tier is associated to a customer, a specific ship to address can be selected by clicking on the ellipsis button in the ship to field to access the pick list. When looking up tier pricing, if the Customer+Ship To from the sales order matches, the system will use that Tier for the discount. If the sales order's Customer matches but not a Ship To the system will use the Tier for the Customer. A tier with a blank Ship To will match any sales order Customer Ship To but if the Ship To is defined for a Tier it is only used when the sales order has the Customer and Ship To.			

Tier Discount	This is the percentage of discount offered for the Tier record when the 'Tier Based on' is set to 'Price Based on Price Breaks'. This field does not apply if the based on is set to Std. Price. This is entered as a whole number.				
Tier Price based on	Select the pricing that the discount will be applied to. Choose from:				
	Price based on Price Break – This will use the price breaks based on the following hierarchy:				
	1. Tier Price Breaks				
	2. AKA Selling Price Breaks				
	3. Selling Price Breaks (Buy/Sell Pricing tab)				
	4. Standard Item Price (Buy/Sell Pricing tab)				
	 Price based on Std. Price – This will use the Discount Price entered in the top section of the Tier table. 				
	Note: If the 'AKA Pricing override Tier discount pricing' option in System Parameters- >Purchase Order and Sales Order Setup tab is checked, during order entry the system will use the following hierarchy:				
	1. AKA Pricing on inventory item,				
	2. If AKA pricing has expired then use Tier Price,				
	3. If Tier Price does not exist or has expired use Buy/Sell Pricing,				
	4. If Buy/Sell Pricing has expired or does not exist use Std. Item Price.				
	Note: If an AKA Price exists, the system will use that price only with no further discounting.				
Waterfall	Select the Waterfall type from the drop down list if applicable. See Waterfall Pricing for more information.				

Price Breaks

In the lower section the user can enter price breaks (2 decimal precision) or a Discount percentage to be used with AKA Selling or Selling price breaks entered in Inventory. The price breaks will be used when the 'Tier Price Based on' field is set to use Price Breaks. Dates can be added to the Inactive, Effective and Price Date fields in order to enter future price information.

Currency	The price breaks can be set to a specific currency by selecting a currency from the drop down list. The system will match the tier price breaks to the customer currency, and if there is a tier price set for the currency it will use that, with no conversion. If there is not a tier price for the customer currency, and there is an inventory price break for the currency it will use that, with no conversion. If neither apply, it will use the STD item price, converted to the customer's currency.	
Discount Percentage	A discount percentage can be entered which will be used to discount the price breaks entered in Inventory based on the standard hierarchy:	
	AKA Selling Price Breaks	
	■ Selling Price Breaks (Buy/Sell Pricing tab)	
	Note: The Discount Percentage is not used in conjunction with the Discount Price entered.	

Discount Price	Specific discount price breaks can be entered. If price breaks are entered here they will be used for pricing without further discounts. The Discount Percentage value does not apply when Discounts Prices are entered.			
Dates	Select the dates from the drop down calendar if desired.			
	■ Effective Date – The date the price is effective			
	■ Inactive Date – The date the price becomes inactive			
	■ Price Date – The price date			

To create a Tier Type:

- Click on Add [+] to create a new record.
- Use the arrow down list to select a Customer Type and the Item Type from the tables.
- Enter the Discount%.
- Select what price to apply the discount to by selecting Price Based on Price Breaks or Price Based on Std Price from the arrow down list.

Once this is all set up when a user enters a sales order the system will check if tier types are associated to the item/customer combination and if so use the appropriate discount to determine the sales order price.

Tier Pricing Flow Charts

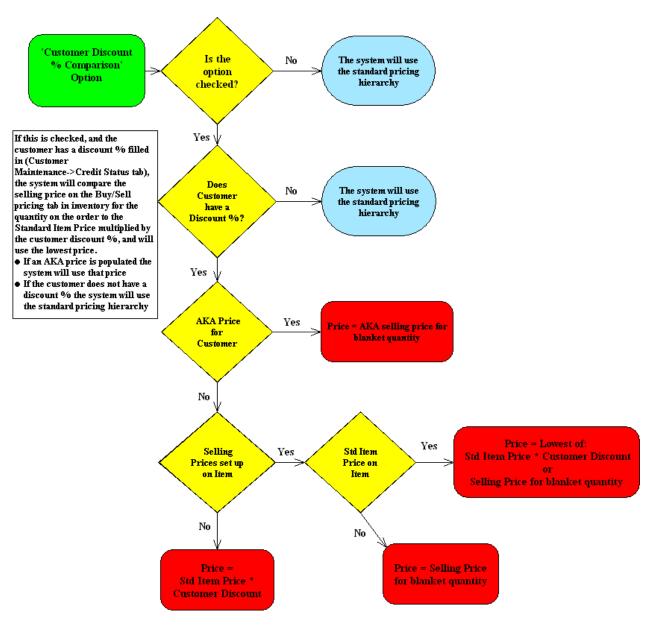
The flow charts below display how a price is determined depending on the discounts used. The flow charts are split into four sections, each section is relevant to how the system matches the item and customer: Customer #/Item #, Customer #/Item Type, Customer Type/Item #, and Customer Type/Item Type.

Note: The flowcharts are not available in the pdf version of the manual as they are too large. Please refer to the online help (Inventory module->Help->Contents).

Customer Discount % Comparison Option

The 'Customer discount % comparison' option is in System Parameters on the Purchase Order and Sales Order Setup tab. If this option is checked, and the customer has a discount % filled in (Customer Maintenance->Credit Status tab), the system will compare the selling price on the Buy/Sell pricing tab in inventory for the quantity on the order to the Standard Item Price multiplied by the customer discount %, and will use the lowest price. If an AKA price is populated the system will use that price. If the customer does not have a discount % the system will use the standard pricing hierarchy.

Note: Tier discount pricing is not used, and instead the Discount % on the customer record Credit Status tab is used (whether there is one set there or not).



Aggregate Tier Type Pricing

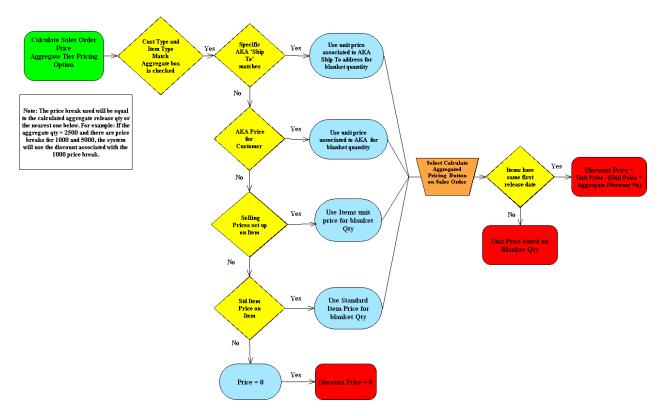
The Aggregate Tier Type pricing option is used only for Customer Type/Item Type tier pricing combination. If the Aggregate Tier box is checked in the AR Discount Tiers form, the customer / item tier handles pricing discounts based on the price breaks setup in tiers in the lower grid and the aggregate calculation is based on the first release date of the sales order. If the first release date on several items is the same date, the aggregate pricing calculation (sales order/options/calculate aggregate pricing) will sum the quantity and then look into the tier pricing table and apply discount into the price column.

If the dates are not the same the discount percentage will be based on the blanket quantity for each item instead of the total ordered for all the items.

Placing an Order Using Aggregate Tier Pricing

To utilize the Aggregate Tier pricing feature in sales orders the user must select the Tier Discount option in Sys Setup->System Parameters-> PO & Order Setup tab in the Calculate Aggregate Pricing field.

Once this is established and the links between a customer and a Customer Type and the inventory items and the Inventory Types are made, when a Sales Order is created, the discount will be applied by clicking on the Calculate Aggregate Pricing speed button or go to the Options menu from the Sales Order and select Calculate Aggregate Pricing.



Volume Pricing in EnterpriseIQ

The system can automatically calculate volume discounts when creating sales orders for items that have been set up with product codes. There are two pricing options, the system can be set to use the Product Code price breaks only, or a hierarchy option where it will check for Price Book prices first, then AKA prices. To utilize this feature, product codes are established with price breaks and items are then assigned to the specific product code. When a sales order is created for items related to a product code the user can select the Calculate Aggregate Discount option and the system will accumulate the order quantity for all items on the sales order with the same product code to determine the correct pricing. The pricing comes from the Product Code pricing, Price Book pricing, or AKA depending on the System Parameter setting. (The Selling Pricing and Tier table pricing is not used).

The information below outlines the set up steps required and the sales order creation process.

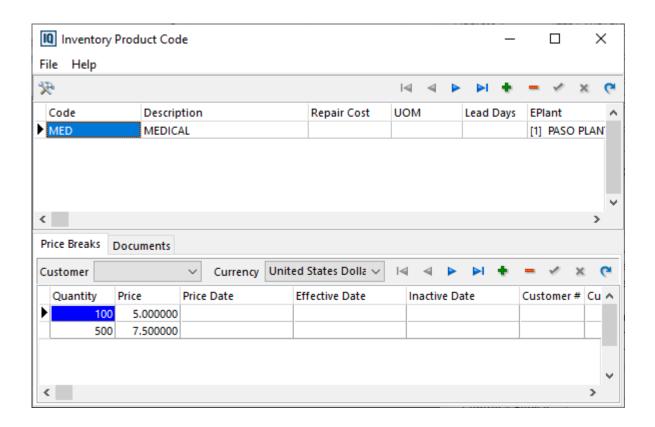
System Setup

Before using the volume discount feature based on product codes, the user will have to set up the aggregate pricing method. To do this, go to **Sys Setup->System Parameters->PO & Order Setup** tab. From the drop down box next to the 'Calculate aggregate pricing method based on' select Product Code or Product Code / AKA Pricing.

- Product Code If items with the same product codes are added to a sales order the user can choose to calculate the aggregate pricing and adjust the pricing based on the volume of items ordered. This will tell the system to use the price breaks set up on the Product Code form only to determine the volume discounts per sales order.
- Product Code / AKA Pricing / Price Book If this is checked the system will use a hierarchy to determine the aggregate pricing. It will first check to see if the item has Price Book pricing and if so it will use that for the aggregate calculation. If not then it will look at the AKA pricing, and if found it will use that. If not, then it will use product code pricing for aggregate calculation. (Refer to the Price Book Maintenance section for details on Price Book pricing).

Inventory Product Codes

Inventory Product Codes are used to group like products. This list defines the product groupings that have the same price breaks used to determine the volume discounts. These product codes are then linked to your actual inventory items.



To create a new product code, select Inventory Product Codes from the Misc menu in Inventory. Click on the ADD (+) button on the top navigator bar and enter the information in the related fields:

Code	This is user defined code describing the products types that will be linked to the code. This field is alpha-numeric.			
Description	This is the description of the product code.			
Repair Cost	This is related to RMA (Return Material Authorization) Work Orders only. The repair cost will be used to populate the unit price on the sales order created when the RMA work order is closed if the failure code is not warranty.			
UOM	This is the Unit of Measure associated with the price breaks.			
Lead Days	This is related to RMA Work Orders only. This is the number of lead days to perform the repair. This field will be used to calculate the Due Date for the work order (Start Date + Lead Days = Due Date).			
EPlant	EPlant name associated to the product code.			
Decimal Precision	Enter a value from 1 - 6 for the decimal precision the system will use when populating the price on the sales order.			
Plug Value	This is used for informational purposes only			
Price Breaks	Enter the price breaks associated with the product code. These price breaks will be used to determine the correct price on a sales order based on the total quantities ordered for items linked to the product code when the 'Product Code' aggregate pricing method is selected. The system will calculate the aggregate pricing based on the volume of items ordered for a specific product code.			
	If the 'Product Code / AKA Pricing' aggregate option is checked the system will use a hierarchy to determine the aggregate pricing, first looking at AKA Selling then at Product Codes.			
	To add a new price break click on the ADD (+) button on the bottom navigator bar and enter the quantity, price, and date information. Continue this process until all price breaks have been added.			
	Product codes can be associated to a specific customer's price breaks. To link a customer, select them from the drop down list in the Customer field. Customer specific price breaks will be used when a sales order is entered for that customer rather than the non customer specific price breaks.			
Currency	For Multi-Currency users: A specific currency code can be associated to a Product Code. If an item is priced using a product code the program will look for the customers native currency and apply the correct price based on the product code.			

Documents

Internal and/or external documents may be linked to a product code. These documents can be printed with the RMA Work Order or used for additional information associated with a specific product code.

Assigning Product Codes to Inventory Items

Once product codes are created they can be assigned to specific inventory items. On the Additional tab in Inventory there is a Product Code field to link the inventory item to the product code. Use the drop down arrow next to the field to link the item to a product code.

Creating Sales Orders using Volume Pricing

Once the user has set up the product codes, assigned them to inventory items, and established the aggregate pricing method in System Parameters, the Volume Discount feature can be used to determine the correct pricing when creating new sales orders.

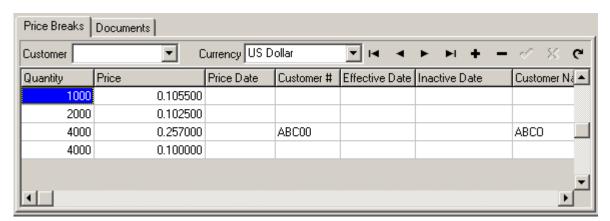
From the Sales Order module select New from the pick list or select the Add (+) button from an existing sales order to create a new order. Enter all of the customer information and the items and quantities they are ordering. Once all items have been added to the sales order, click on the Calculate aggregate

pricing speed button or select **Calculate Aggregate Price** from the **Options** menu. The system will prompt you with a Confirm message, select Yes to continue. The system will then determine the items with like product codes, accumulate the totals, and determine the correct pricing from the price breaks from AKA or from the Product Code form (depending on the System Parameter setting).

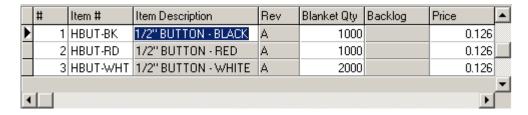
Note: All items must be entered in the detail section of the sales order before you Calculate Aggregate Pricing.

Example:

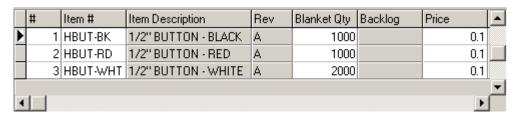
Three items are linked to a product code with the following price breaks.



A sales order is created with all three items entered in the detail section with varying quantities. Before the Calculate Aggregate Price option is selected the system determines the pricing based on the selling price entered on the Buy/Sell tab or the AKA tab in Inventory for each individual item.



After the 'Calculate Aggregate Pricing based on Product Code' button is selected the system will prompt the user with a Confirm message, select Yes to continue. The system will then determine the items with like product codes, accumulate the totals, and determine the correct pricing from the price breaks from AKA or the Product Code form based on volume quantity and the specific customer if applicable. The system changes the pricing to reflect the volume quantity and uses the correct price break from the Product Code form. In this example the customer ordered a total of 4000 items linked to the "Buttons" Product Code so the correct pricing for each item is \$0.1000 based on the 4000 piece price. (If the sales order was for the Customer ABCO, the pricing would be 0.257).



Waterfall Pricing

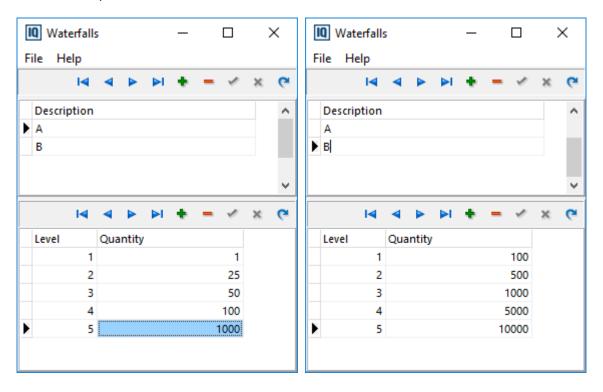
Utilizing the Waterfall feature allows users to create sets of price breaks (Waterfalls) which can then be assigned to Items. Then waterfall tier records can be created by checking the 'Use Waterfall' check box. With this checked the bottom grid of the AR Discount Tier table shows a quantity level instead of a specific quantity. Specific Discount Percentages are associated to the Waterfall levels. If a waterfall is selected on an item it will only find tiers with the 'Use Waterfall' and use the tier record that matches the Customer Type and Item Type.

Setup

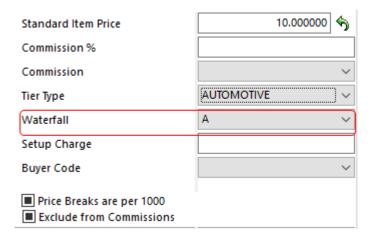
From the AR Discount Tier table select the File menu to access the Waterfall table.

Enter a Description in the top section. From the lower section select the insert record button to create levels and associated quantities.

Continue this process until all waterfall records have been created.



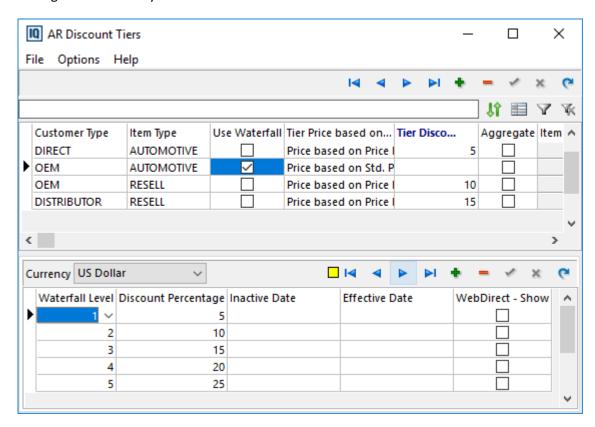
On the Buy/Sell Pricing tab in Inventory select the Waterfall to associate to the item from the drop down list.



On the AR Discount Tier table create a record with the desired Customer Type and Item Type combination. Select the Waterfall type to assign to the record from the drop down list in the Waterfall field.

The 'Tier Price based on...' field must be set to 'Price based on Std. Price'. It will automatically set to that and the field is grayed out so users cannot make a change.

Note: The system uses the Standard Item Price associated to the specific item, found on the Buy/Sell Pricing tab in Inventory.



In the lower section add the Waterfall Levels by selecting the + button. Enter the Discount Percentage for each level. A zero value is allowed.

Effective and Inactive dates can also be entered.

If a level is entered that is not found to be associated to the selected waterfall, the record will be highlighted in yellow.

Levels can be added by selecting 'Add All Levels' from the right-click menu in the lower grid of the tier setup. This will add all the possible levels from all Waterfalls.

If the WebDirect Settings option 'Waterfall Price Breaks - Default to Hidden' (System Parameters->Company File Information->Web tab) is checked, the waterfall price breaks marked 'WebDirect-Show' will display in WebDirect B2B.

Notes:

The system will only allow one unique combination of customer or customer type and item or item type.

The Aggregate check box is disabled if 'Use Waterfall' is checked.

If Multi-Currency is used, the customer must be assigned a currency and there must be discounts setup for that specific currency.

Example:

Customer Type is OEM and Item Type is Automotive with the Waterfall 'A' assigned. If the standard item price on the item is 10.00, using the screen shots from above, the system would determine the pricing as follows:

Sales Order Blanket Qty	SO Price	Calculation	Notes
1	10.00	10 – (10 * 5%) = 9.50	Qty of 1 is level 1 with a 5% discount
24	10.00	10 - (10 * 5%) = 9.50	Qty of 24 is level 1 with a 5% discount
25	9.50	10 – (10 * 15%) = 8.50	Qty of 25 is level 2 with a 15% discount
100	8.50	10 - (10 * 20%) = 8.00	Qty of 100 is level 4 with a 20% discount

SAC Discounts

This Discount option allows users to manually add SAC Discounts and process EDI SAC discounts, both at the Sales Order Header and Item levels. These discounts are automatically applied to invoices. The system uses the information in the Discount Parameters and Discount Group tables for SAC Discounts for Customers with the 'Use Discount Parameters' option checked.

Setup

Customer Maintenance:

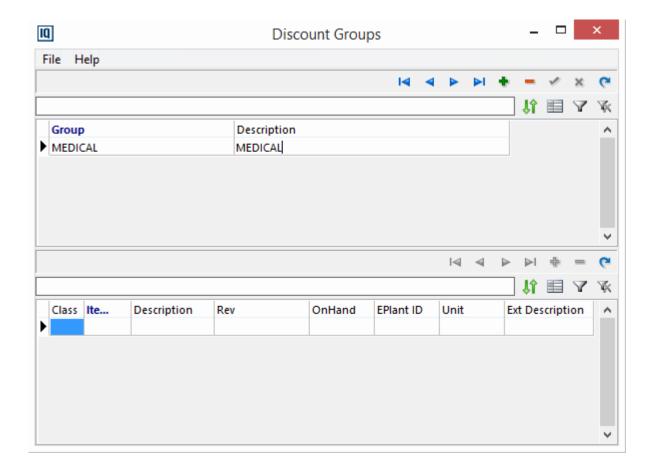
To utilize this discount option the customer must have the 'Use Discount Parameters' option checked (Customer Maintenance->Credit Status tab). When this check box is checked:

- No other discounts or price breaks will be applied to items on sales orders or invoices for the customer.
- An item's standard price will be used when the item is manually added to a sales order.
- The Discount field will take the place of the Discount % field in the header section of the sales order for the customer.
- The Tier Type, Discount Tier Price, and Discount % fields cannot be edited.
- There is another option available in Customer Maintenance called Reverse Discount Order that can be checked if the 'Use Discount Parameters' option is checked. When this option is checked sales order discounts are applied before item discounts for the customer. (The default is to apply item discounts first).

System Parameters:

Discount Groups

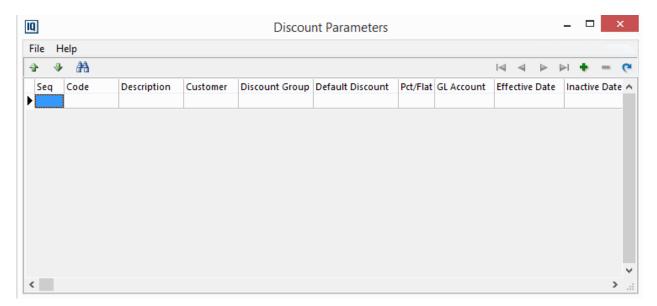
Discount Groups can be created and inventory items can be associated to the Discount Group. To create a Discount Group, select the insert record button in the top section and enter the group name and description. To associate items to the Discount Group select the insert record button in the lower section and choose items from the pick list. Multiple items can be added by highlighting them using the toggle buttons or the Shift/Ctrl keyboard buttons.



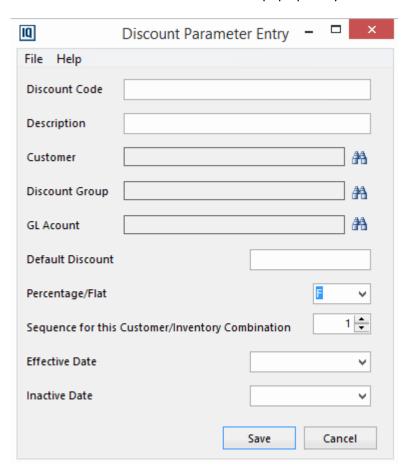
Note: A Discount Group can also be applied to an item in the Inventory module (Inventory->Main Inventory tab->Additional tab->Discount Group).

Discount Parameters

This is the list of SAC Discount Parameters. The list contents are shown in sequence order, which is the order in which the discounts will be applied. Discounts can be created for Customers and/or Customer/Discount Group combinations. The Sales Order header discounts are listed first.



Double-clicking an existing row in the list or clicking the Insert Record button at the top of the list will bring up the Discount Parameter Entry screen to either edit an existing discount or add a new discount. Enter the SAC Discount information in the pop up entry form. Once complete, select the Save button.



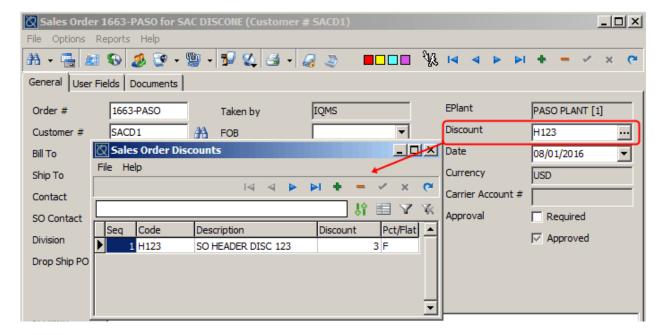
Field Listing:

Discount Code and Description	The SAC Discount Code and Description
Customer	A customer is required. Select the customer to associate to the discount from the pick list accessed from the search button. Only customers with the 'Use Discount Parameters' check box checked will be in the list.
Discount Group	A Discount Group can be associated to the SAC Discount by selecting it from the pick list.
GL Account The GL Account is required. Select the GL Account to associate to the discount from the list.	
Default Discount	Enter the default discount value. The discount can be set as either a percentage or as a flat discount.
Percentage/Flat	Select Percentage or Flat from the drop down list.

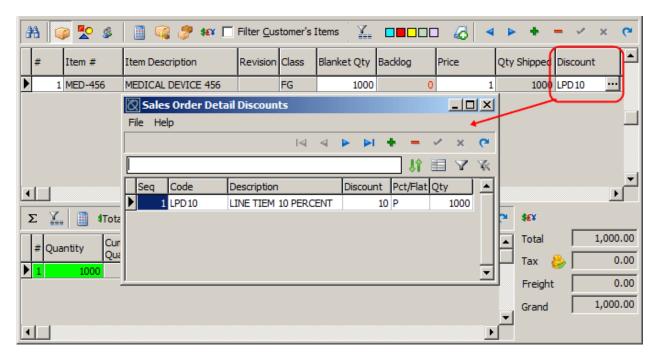
Sequence for this Customer/Inventory Combination	This is the discount sequence. Use the up/down arrows to change the sequence number. Duplicate sequence numbers are allowed and mean that those discounts will be applied to the same price or subtotal. Sequence numbers can be repeated by manually editing the discount. Sequence numbers cannot be skipped.
	From the Discount Parameters list the discounts in the list can be re-ordered by selecting a row and using the up/down arrows at the top of the screen. A record with sequence 1 within a Customer/Discount Group combination cannot be moved up. A record with the highest sequence number within a Customer/Discount Group combination cannot be moved down. Duplicate sequence numbers which have the highest number in a sequence can be moved down to get a higher sequence number.
Effective and Inactive Dates	Select the Effective and Inactive Dates from the drop down calendars in the corresponding field.

Sales Orders

When a sales order is created manually for a customer using Discount Parameters the Discount field in the header section changes from Discount % to Discount. To select the discount(s) to apply, click the ellipsis button in the Discount field and then select the insert record (+) button. A pick list of discounts associated to the customer without a Discount Group assigned will display in the pick list to choose from. Once selected, click the ellipsis button to view the discounts that will be applied to the sales order.

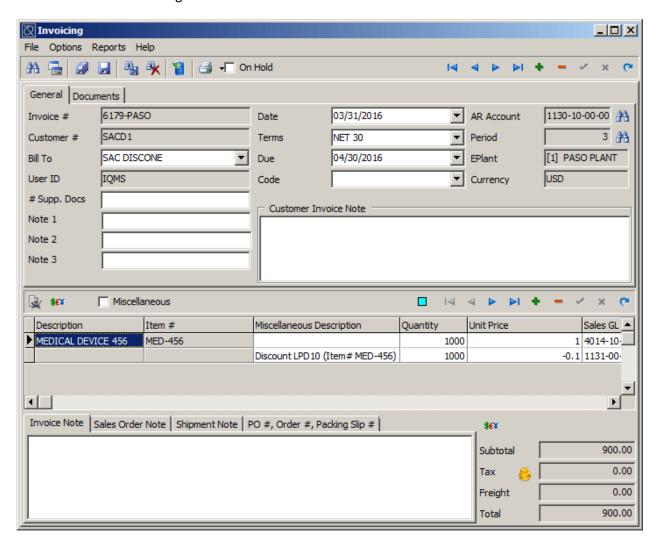


Discounts can also be added at the line item level. If an item is associated to a Discount Group users can click the ellipsis button in the Discount field and then select the insert record (+) button. A pick list of discounts associated to the item's Discount Group will display in the pick list to choose from. Once selected, click the ellipsis button to view the discounts that will be applied to the line item.



AR Invoices

A miscellaneous item line for each discount found on the related sales order will be added for each item on the invoice with a quantity equal to the quantity assigned to the discount on the sales order. The Unit Price will be shown as a negative amount.



Examples:

Discount Parameters:

	Seq	Code	Description	Default Discount	Pct/Flat
Þ	1	X1	SO HEADER DISC 4P	4	P
	1	Z1	HEADER DISCOUNT 3F	3	F
	1	A1	LINE TIEM .5 FLAT	0.5	F
	2	B2	LINE ITEM DISCOUNT 2P	2	P

Example 1:

'Reverse Discount Order' not checked (Item discounts apply first).

All discounts are applied to the sales order (both header discounts and both item discounts with a quantity of 100)

Quantity Invoiced = 50 at \$10.00 each

AR Invoice Example:

Miscellaneous Description	Quantity	Unit Price	Total Before Tax
	50	10	500.00
Discount A1 (Item# SAC2 FG)	50	-0.5	(25.00)
Discount B2 (Item# SAC2 FG)	100	-0.2	(20.00)
Discount X1 (Order Discount), Seq 1	1	-18.2	(18.20)
Discount Z1 (Order Discount), Seq 1	1	-3	(3.00)

DISC PARAMETER	QTY	UNIT PRICE	DISCOUNT	TOTAL
Item	50	10.00		500.00
A1 (0.5 F)	50	50 * 0.50	-25.00	475.00
B2 (2 %)	100	100 * 0.02 = 20	-20.00	455.00
X1 (4%)	1	455.00 * 0.04 = 18.20	-18.20	436.80
Z1 (3 F)	1	1 * 3.00	-3.00	433.80

Example 2:

'Reverse Discount Order' is checked (Header discounts apply first).

All discounts are applied to the sales order (both header discounts and both item discounts with a quantity of 100)

Quantity Invoiced = 50 at \$10.00 each

Miscellaneous Description	Quantity	Unit Price	Total Before Tax	
	50	10	500.00	
Discount X1 (Order Discount), Seq 1	1	-20	(20.00)	
Discount Z1 (Order Discount), Seq 1	1	-3	(3.00)	
Discount A1 (Item# SAC2 FG)	50	-0.5	(25.00)	
Discount B2 (Item# SAC2 FG)	100	-0.2	(20.00)	

DISC PARAMETER	QTY	UNIT PRICE	DISCOUNT	TOTAL
Item	50	10.00		500.00
X1 (4%)	1	500.00 * 0.04 = 20.00	- 20.00	480.00
Z1 (3 F)	1	1 * 3.00	- 3.00	477.00

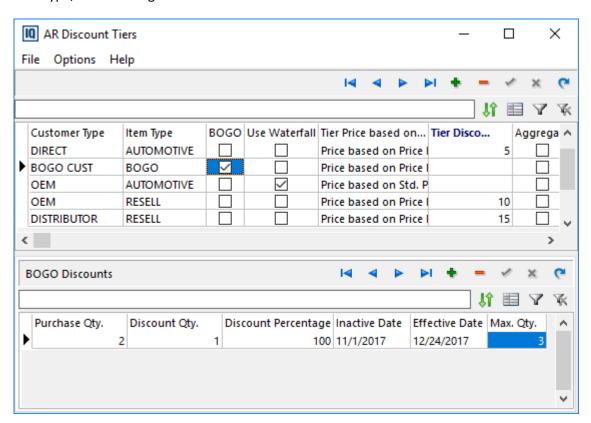
A1	(0.5 F)	50	50 * 0.50	- 25.00	452.00
В2	(2 %)	100	100 * 0.02 = 20	- 20.00	432.00

EDI

In order to process SAC Discounts from an EDI file parsed through the eCommerce module, specific SQL scripting will need to be added to the after-parse script to add discount information to the EDI_ORD_DETAIL_DISC table. When the EDI Order is converted, that discount information will be applied to the resulting sales order.

BOGO Discounts

In the AR Discount Tiers form BOGO type discounts can be set up. When a qualifying line item is added to a Sales Order, the "Add Child BOGO Items" button will become enabled. When the "Add Child BOGO Items" is clicked, a pick list with all items that are associated to the specific BOGO discount item will display. The BOGO discounts are setup in the AR Discount Tiers screen by utilizing customer type and item type, and checking the BOGO check box.



Create a BOGO Discount Tier

Select the insert record button in the AR Discount Tiers form. Select the desired Customer Type and Item Type from the drop down list in each field. Check the BOGO check box. Note: If BOGO is checked, then the Tier Discount, Use Waterfall, and Discount Price options cannot be populated.

In the bottom portion of the form enter the BOGO Discounts.

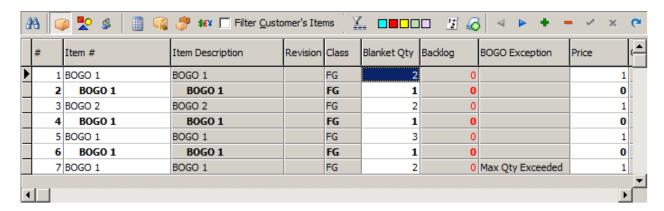
Field Definitions:

- Purchase Qty The minimum quantity to purchase for the parent item on a sales order in order to qualify for that number of discounted items.
- Discount Qty The quantity that will be auto populated on the item when the discounted item is added to the order.
- Max Qty The maximum quantity that the discounted item can be assigned on the sales order line item level. This is a required field. Note: If a Max Qty is not entered an error will occur, "Max. Qty. cannot be null and must be greater than 0"
- Discount Percent The amount that the line item is discounted. The discount percent will apply to the price calculated for the specified item without current pricing rules.
- Effective Date The date the tier is effective.
- Inactive Date The date the tier is inactive.

Example:

Purchase Qty = 2; Discount Qty = 1; Discount Percentage = 100; Max Qty = 3

When the customer buys 2 items they will get 1 free (100% off) up to a maximum of 3.



Note: BOGO items are limited to one child item type per one parent line item, to accommodate multiple child items the user will need to add multiple parent line items.

Note: When a parent item is removed from the Sales Order the child item will automatically be removed as well.

Note: After the BOGO Child item is added, it will be read-only and users will not be able to edit the line item. If attempted an error will surface: "Child of BOGO Item, cannot edit."

The child quantity can be increased by increasing the parent quantity until the child quantity reaches the max qty that was defined on the BOGO tier.

BOGO Exceptions on the Sales Order

There is a field in the line item detail section of sales orders called 'BOGO Exception' that will display any validation errors that may occur when a parent item is updated to a state where the child item no longer qualifies for the BOGO discount in its current state. At that time the child item will display one of the following BOGO Exceptions:

- Max Qty Exceeded
- BOGO Disqualified
- BOGO Expired

This will be evaluated/updated each time the parent item on the sales order is updated.

Example BOGO discount: Buy 2 of an item, get 1 item free, max of 3. The start date for discount: 8/4; end date for discount: 8/6

• Max Qty Exceeded: If the user enters a 4th line item for the item, where there is already 3 lines with a free discounted child, the exception message of "Max Qty Exceeded" will appear on the 4th line item and the button to add a BOGO item will not be enabled.

	#	Item #	Item Description	Revision	Class	Blanket Qty	Backlog	BOGO Exception
Þ	1	BOGO 1	BOGO 1		FG	2	0	
	2	BOGO 1	BOGO 1		FG	1	0	
	3	BOGO 2	BOGO 2		FG	2	0	
	4	BOGO 1	BOGO 1		FG	1	0	
	5	BOGO 1	BOGO 1		FG	3	0	
	6	BOGO 1	BOGO 1		FG	1	0	
	7	BOGO 1	BOGO 1		FG	2	0	Max Qty Exceeded

 BOGO Disqualified: If the quantity on the line item is decreased from 2 to 1, this line item no longer qualifies for a BOGO discount. The child line item is deleted and the exception message of "BOGO disqualified" is populated on the parent line item that was changed to have a quantity of 1.

	#	Item #	Item Description	Revision	Class	Blanket Qty	Backlog	BOGO Exception
	1	BOGO 1	BOGO 1		FG	2	0	
	2	BOGO 1	BOGO 1		FG	1	0	
	3	BOGO 2	BOGO 2		FG	2	0	
	4	BOGO 1	BOGO 1		FG	1	0	
Þ	5	BOGO 1	BOGO 1		FG	1	0	BOGO disqualified

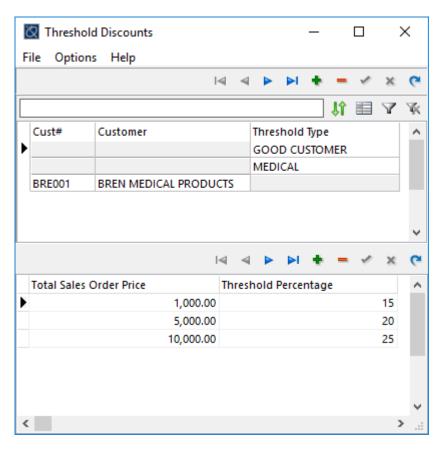
■ BOGO Expired: This exception will populate when there are changes made to a sales order after the BOGO discount has expired since the creation of the sales order. This exception applies if the user makes an adjustment to a line item on a sales order on or after the inactive date (in this example on 8/6). The exception message of "BOGO Expired" is surfaced on the line and the button to add the discounted child item is not enabled.

	#	Item #	Item Description	Revision	Class	Blanket Qty	Backlog	BOGO Exception
	1	BOGO 1	BOGO 1		FG	2	0	
	2	BOGO 1	BOGO 1		FG	1	0	
Þ	3	BOGO 2	BOGO 2		FG	3	0	BOGO Expired

Note: If a user attempts to add a new item to a sales order on or after the inactive date the "BOGO Expired" exception does not surface. The button to add the discounted child item will be enabled but the pick list will be empty indicating there are no items that can be discounted.

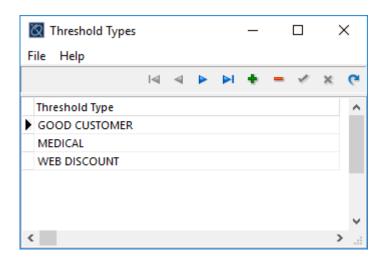
Threshold Discounts

This option allows users to set up discounts that will be determined by the total Sales Order amount. Select this option from the AR Discount Tiers File menu and the following form will display.



Create Threshold Types

The Threshold Types list is accessed from the Options menu. These discount types are used to create the Threshold Discounts with specific discount ranges, which can be associated to customers.



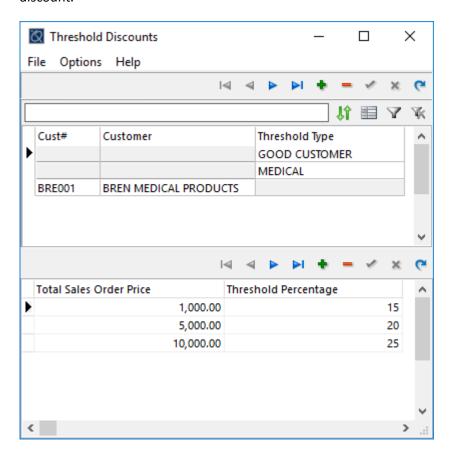
Select the insert (+) button and enter the description of the Threshold Type. Continue this process until all Threshold Types have been created.

Note: If a user attempts to delete a Threshold Type that is linked to other records an error will appear stating: "Discount tiers exist - unable to delete".

Create Threshold Discounts

In this form the user can create a discount for a specific customer or for several customers under the same Threshold Type.

Select the insert (+) button and select a customer or a Threshold Type. If a user attempts to add both, a warning message will display stating: "A customer and discount type both cannot be assigned". Once a Customer/Cust# or a Threshold Type is created users can then create tiers for a Total Sales Order Price range. Enter the Total Sales Order Price and Threshold Percentage in the bottom section for each discount.



For example: Based on the screen shot above, a customer assigned the 'Good Customer' Threshold Type would receive a 15% discount off of the total sales order price if the amount on the sales order total is between \$1,000.00 and \$4,999.99 A customer would receive a 20% discount if the sales order total is between \$5,000.00 and \$9,999.99, and so on.

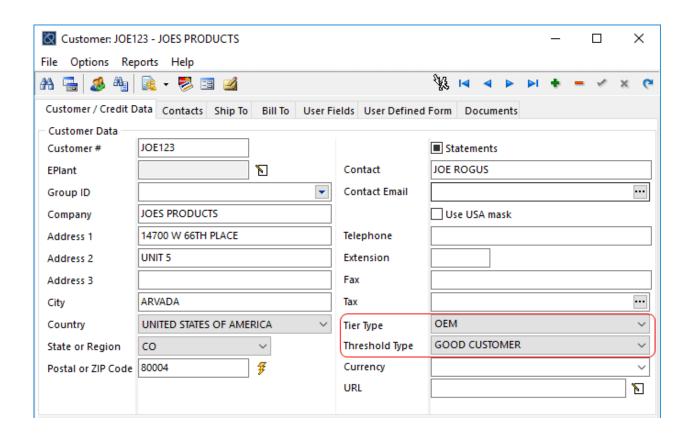
A Threshold Type can be changed by selecting the ellipsis and selecting a different type. The Customer associated to a discount can also be changed by selecting a different customer from the pick list accessed by clicking the ellipsis in the Cust# field. A confirmation warning will appear stating: "Are you sure you want to change the customer associated with this discount tier?" The warning includes a Yes and No button, as well as a 'Do not show next time' check box. The fields can be cleared by using the right click options: 'Clear Threshold Type' and 'Clear Customer'.

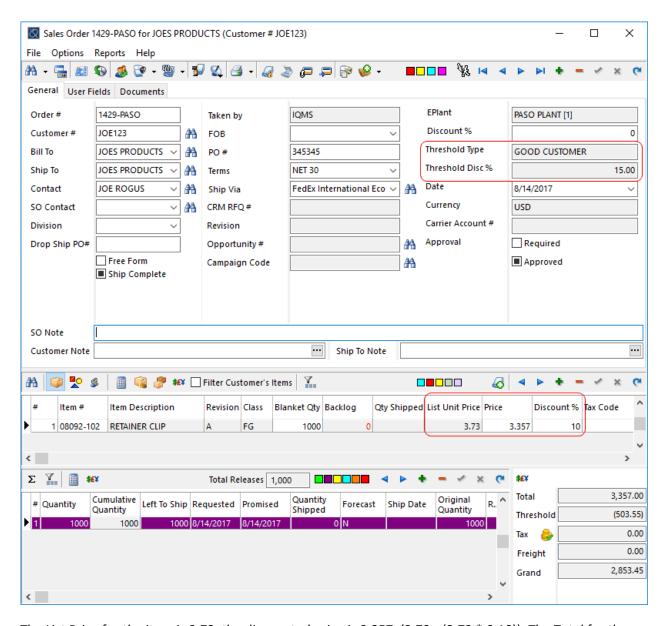
The discount is assigned on the Customer Maintenance record in the 'Threshold Type' field on the Customer/Credit Data tab. Once assigned, if a sales order is created for the customer, the customer will receive a Threshold Discount based on the tier created for that specific Threshold Type. The 'Threshold Type' and 'Threshold Discow' will display in the top section of the Sales Order. The 'Threshold Type' field will populate based on the 'Threshold Type' associated to the customer record if one exists. The Threshold Discount % will be based on the current total amount associated to the sales order (prior to taxes and freight) for the appropriate discount % based on the tiers that have been setup.

Note: All item and additional customer specific discounts will still apply. The last discount applied is the 'Threshold discount' based on the Total price after any additional discounts.

Example:

Customer is assigned the 'Good Customer' Threshold Type. They also are assigned the 'OEM' Tier Type, and the item on the sales order is assigned to a specific Item Type, which results in a tier discount of 10%.





The List Price for the item is 3.73, the discounted price is 3.357, (3.73 - (3.73 * 0.10)). The Total for the sales order is 1000 * 3.357 = 3,357.00. This falls under the 15% Total Sales Order Price tier. So the Discount = 3357.00 * 0.15 = 503.55.

Using Product Codes for converting prices for UOM Conversions

You can use product codes to convert pricing on a sales order for inventory items stored in one unit of measure with pricing in another. For example, this is useful for extrusion items that are stored in inventory in eaches and sold in feet. Below lists the set up steps:

- Set the Calculate aggregate pricing method to 'Product Code' in Sys Setup->System Parameters->PO
 & Order Setup.
- In the product code setup, select the UOM of the product code to be the one that pricing is established for.
- Set up your price breaks to be per the selected UOM.
- Attach this product code to the inventory item.
- Using the Conversion Factor option on the inventory item, create the conversion from the native UOM to the pricing UOM.

In the sales order, select Options->calculate aggregate price or use the speed button. This will take the quantity of product ordered, convert from the native UOM to the Pricing UOM. The system will use the price breaks found in the product code setup to determine the price. The system will then convert the price back from the pricing UOM to the native UOM on the sales order.

Example:

In this example there are three parts stored in inventory with a unit of measure of feet (FT) and sold as each.

The user must set up the UOM Conversion to calculate the correct conversion form the inventory UOM to the Order Entry UOM. This is done in the Inventory module from the UOM Conversion form. (Please see the Unit of Measure conversion section in the Manufacturing Manual for more details).

In this example the items have a conversion factor of .5. The check box in the OE Default designates the unit of measure to be used on the sales order.

When the sales order is created for these items it will first display the pricing based on the selling price entered on the Buy/Sell tab or the AKA tab in Inventory for each individual item as with example one.

As soon as the Calculate Aggregate Pricing button is selected the pricing will reflect the Product code pricing based on the total quantity on the sales order.

The information below describes this example:

Sales Order:	Item	Qty		ft conversion
Line item #1:	TUBE-01	30	Χ	1ft. = 30
Line item #2:	TUBE-02	30	Χ	2ft. = 60
Line item #3:	TUBE-03	30	Х	3ft. = 90

Total ft. for the order = 180 ft

Price Breaks:

Qty.	Price Break
0-99	\$2.00 per ft.
100-249	\$1.50 per ft.
250-up	\$1.00 per ft.

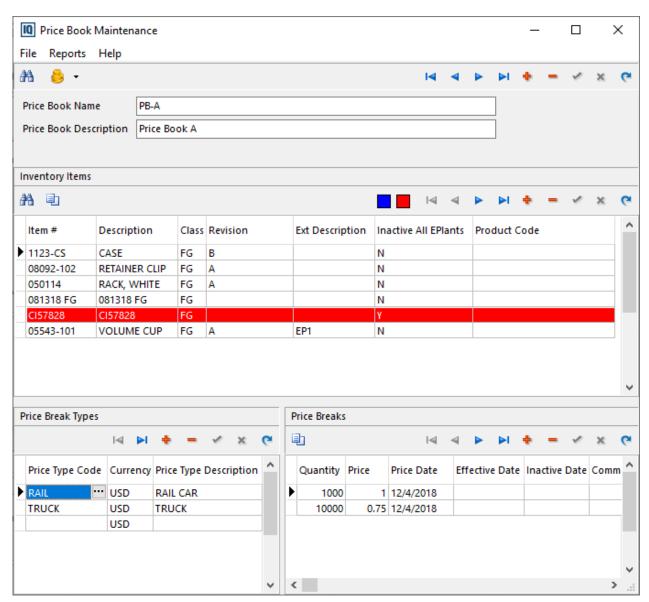
Based on the total feet for the sales order, the customer qualifies for the \$1.50 per ft. price break x ft. per line item. Using the \$1.50 per ft. price break, the price per line item on the sales order will will be as follows:

		Item	Qty	Price	Total Price
Line item #1:	TUBE-01	30	\$1.50	\$ 45.00	
Line item #2	TUBE-02	30	\$3.00	\$ 90.00	
Line item #3	TUBE-03	30	\$4.50	\$135.00	

Price Book Maintenance

A price book can be created per customer or for a specific customer ship to address and can contain multiple inventory items to enable users to update pricing in an efficient way. The price breaks added for items in a Price Book are relevant for all items in all EPlants with the same Item #/Class/Revision. The prices are used to populate sales orders based on the global pricing for the item if it belongs to a price book linked to the customer or ship to address. The display of price book and price type details are only available in the sales orders module. Price Book Price Types can also be utilized to create unique pricing based on user defined types such as shipment methods. The system uses the Price Book and Price Type associated to the item to determine sales order pricing.

To create a Price Book select 'Price Book Maintenance' from the Options menu in Customer Maintenance or in Inventory under the Miscellaneous menu. A pick list of Price Books will display. Select an existing record, or select 'New' to create a new price book and the following form will appear:



Enter the 'Name' and 'Description' of the Price Book in the corresponding fields and save the record.

Inventory Items Section:

Item Information	This includes the item's: Item #, Description, Class, Revision, and Ext Description.
Inactive All If the item is inactive in all EPlants, this column will display 'Y'.	
EPlants	If the item is active in at least one EPlant, this column will display 'N'.
Product Code	This is the product code associated to the item. If there are more than one matching item it will pull in the product code from the first item found.

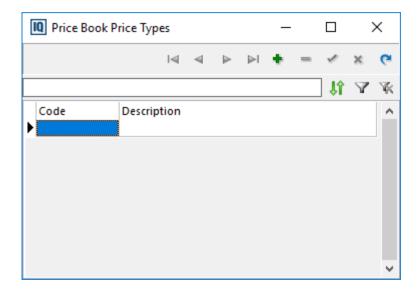
Color Codes:

- Red When an item is set to inactive in all EPlants it will be highlighted in red.
- Blue If the product code is not the same across all items for different EPlants it will be highlighted in blue. If one item has a product code and another does not it will also be marked blue.

Price Types

Price Types will allow users to define price breaks based on a price type for an item to control pricing based on shipping method or any other user defined price type. The price types, as well as a null price type, can then be associated to items on a price book. Price types associated to an item must be unique. Each item/price type combination can have different price breaks. Price Types can also be associated to a Customer and or Customer Ship To (in Customer Maintenance). The system will use the assigned Price Types to determine pricing when entering a sales order. (Refer to the flowchart below).

Select Price Types from the File menu in Price Book Maintenance to create Price Types.



Enter a Code and Description. The Price Type Code field is 25 characters and the Price Type Description is 255 characters. Price types must be unique. The user will receive a unique constraint error if the same price type code is entered.

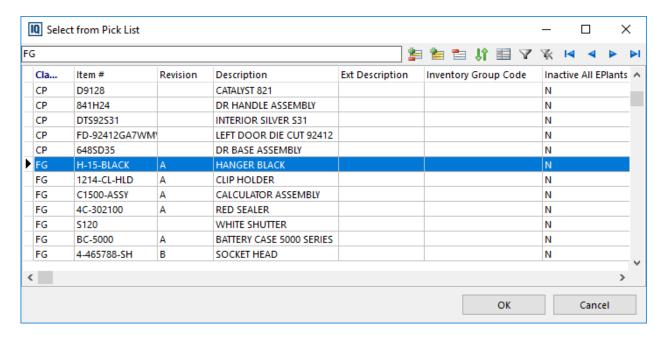
Adding Inventory Items

A price book can contain one to many inventory items. Select the + button in the left grid to add items. The inventory pick list includes columns for Item #, Class, Revision, Description, Ext Description and the user defined 'Group Code' in Inventory (Inventory->Additional tab). The pick list has filtering capability to enable users to quickly find items to add to the price book. When logged in as View All the user will see all items belonging to all EPlants in the pick list. If there is more than one record with a match on Revision, Item # and Class, the user will only see that item displayed once, since the Price Books are "EPlant agnostic". When logged into an EPlant, the pick list will only display items belonging to that EPlant. Once the item is selected, the Item #/Class/Revision that was created first will be displayed on the Price Book Maintenance form. For example, if there is an Item A, class = FG, Rev A in more than one EPlant, and the item in EPlant 1 was created first, that will be the one that displays in the list. The price breaks added for the item in the Price Book are relevant for all items in all EPlants with the same Item #/Class/Revision.

Multiple items may be selected at one time to quickly add several records. In addition to the item information such as Item #, Description, Class Group Code, and Rev, the pick list includes a column called 'Inactive All EPlants'.

- If the item is inactive in all EPlants, this column will display 'Y'.
- If the item is active in at least one EPlant, this column will display 'N'.

All columns can be sorted and filtered on in the pick list.



The 'Inactive All EPlants' column is also visible in the Inventory Items section on the main Price Book Maintenance form and functions the same as in the pick list. In addition to the column, when an item is set to inactive in *all* EPlants it will be highlighted in red. Inactive items can be hidden by toggling the Filter Inactive Items button

Once items have been added to a price book, there is a search option available in the Inventory Items section to enable users to find specific items.

Price Break Types

In the lower left grid users can enter Price Break Types and Currency combinations to apply price breaks to. Select the insert button and select a Price Break Type from the pick list accessed from the ellipsis button in the Price Type Code field. The Price Type Description will populate based on the selected code. The Price Type Code field can be left null and prices can be associated to the null price code type. The price type codes must be unique. If the user selects a Price Type Code that is already assigned to the item a 'Unique Constraint' error will surface.

The Currency will default to the Native Currency associated to the EPlant the user is logged into. A different currency can be selected from the pick list accessed from the ellipsis button in the field. Pricing may be entered and stored for multiple Currencies and Price Type Code combinations. Price breaks in different currencies will be visible for the item regardless of the EPlant the user is logged into.

Price Breaks

Price breaks can be added to each item for a specific Price Type Code and Currency combination. If a Price Type Code or a null code is not created prior to entering price breaks and error will display stating: "Please add a Price Break Type before trying to add Price Breaks".

The price breaks will affect the Item #/Class/Revision that matches in all EPlants.

To enter the price breaks, click on the + button and enter the price break information using the field description below as a reference. Users can enter in as many quantities and price breaks as they like. The maximum decimal places is six.

Quantity	The quantity associated with the price.
Price	The price of the item at that quantity.
Price Date	Optional. The date the price was created or revised.
Effective Date	Optional . The date that this price will be in effect. If the date is in the future the line item will be gray until the effective date.
Inactive Date	Optional . The date when this price will no longer be in effect. The system recognizes the inactive date as the date entered however the line item will not turn gray until after that date has passed. To show/hide inactive price breaks select the Inactive toggle button.
Comment	A price break comment (up to 255 characters) can be entered in this field.

Right Click Options

- A right click option 'Assigned To...' in the top section will access a pick list to allow the user to view which customer(s) and/or ship to(s) the price book is assigned to. The pick list includes a column for 'Attached To' that will indicate either Customer or Ship To. There is a soft EPlant filter in the 'Assigned To' pick list. The user can then select the Customer or Customer Ship To to jump to the record.
- Users can right click on an item in the middle section and jump to Inventory.

Active/Inactive Toggle - Select the toggle button in the price breaks section to toggle between viewing just active or both active and inactive.

Note: When deleting an inventory item from the inventory module that is in multiple EPlants, the Price Book item and the Price Book price break records will not be deleted until all of the inventory item records with the same item number in all EPlants are deleted.

Update Pricing

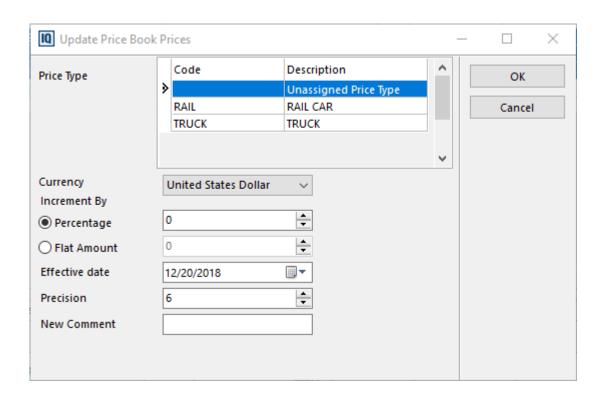
Pricing can be quickly updated using the 'Update Price Book Prices' button. There are two options to update the pricing in the Price Book:

- Update Pricing for Selected Items This will update the pricing for the selected items. Items can be multi-selected using the Shift/Ctrl keyboard buttons.
- Update Pricing for all Items This will update the pricing for all items in the Price Book. Only the visible items in the Price Book will be updated. When logged into an EPlant, the price book will only display items belonging to that EPlant, so items in another EPlant will not get updated even if they are in the same Price Book. If the item belongs to both EPlants, the system will update the price in the price book which will be applicable to both items in both EPlants.

Select an option from the drop down next to the speed button on the Price Book Maintenance form

. When using the 'Update Pricing for Selected Items', if no items are selected an error will display stating: "Please Select Records".

Once a selection is made the following form will appear:



Select the Price Type(s) from the list that you want to updated pricing for. Multiple price types can be selected by using the Shift/Ctrl keyboard buttons.

Use the drop down list next to the Currency field to select which currency to update pricing for.

The pricing will only be updated for the price breaks associated to the selected currency and Price Type. If the user selects a currency/price type to update pricing and there are no price breaks for that currency/price type on an item the system will skip updating it.

- Prices can be changed based on a Percentage or Flat Amount. Select the Increment By option and then enter the corresponding value. (To enter a decrease put in a negative number). The value cannot be zero, if a zero is entered an error message will display.
- Enter the effective date from the drop down calendar. The effective date can be a date prior to the current date.
- Enter a decimal precision value. This defaults to six. The decimal precision level required.
- A comment (up to 50 characters) can be entered which will populate in the price break grid in the Price Book.

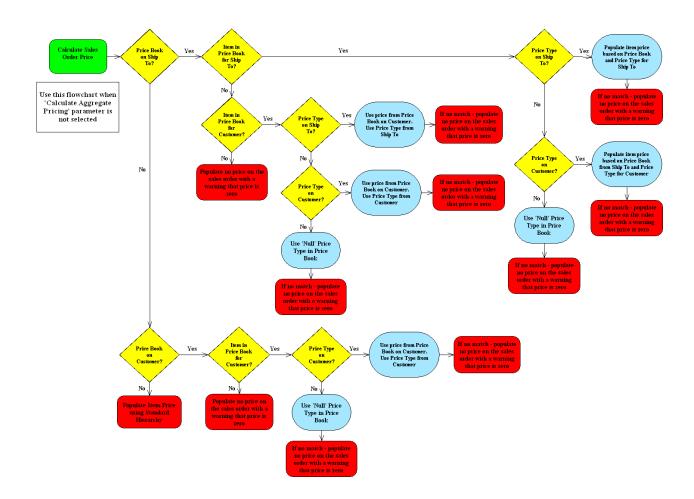
Click on the OK button. A confirm message will display with Yes and No buttons. Select No to return to the 'Update Price Book Prices' form with no changes, or select Yes to continue and the system will calculate the new pricing and populate the price section in the Price Book. The system will update the price breaks that have an effective date equal to or before the new effective date and without an inactive date or the inactive date is after system date. The Price Date field will populate with the current system date. The old prices will be marked inactive automatically, the lines will be highlighted in gray and the Inactive date populates automatically with Effective Date of the new pricing. The Active/Inactive toggle button can be used to view active or both inactive and active.

Adding Items to Sales Order

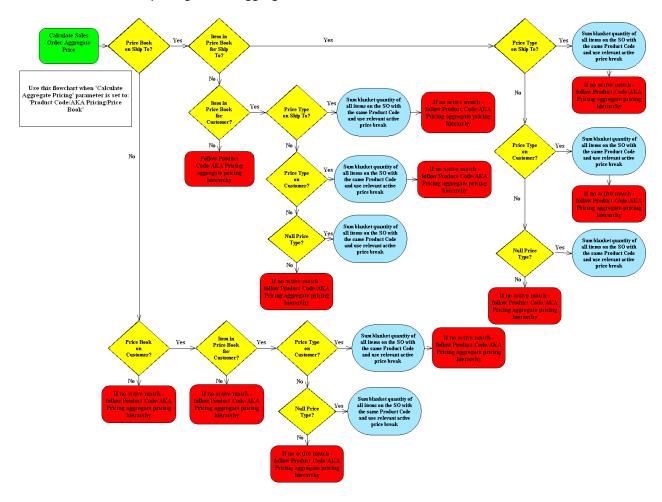
When creating a sales order (in regular sales order mode, quick order entry, WebDirect B2B, and WebDirect B2C) or a sales quote and adding an item to the order/quote the system will use one of the following flowcharts to enter the price. Which flowchart applies depends on whether the Calculate Aggregate Pricing parameter is set to 'Product Code /AKA Pricing/ Price Book'. This parameter is found in System Parameters under the Purchase Order and Sales Order Setup tab->Sales Order section.

Note: Price Book pricing does not apply to orders created from EDI.

The system will use this flowchart when the Calculate aggregate pricing method is not checked:



If the calculate aggregate pricing parameter is set to 'Product Code /AKA Pricing/ Price Book', the system will use a hierarchy to determine the aggregate pricing. It will first check to see if the item has Price Book pricing, and if so it will use that for the aggregate calculation. If not, the system will check to see if the item has AKA pricing, and if so it will use that for the aggregate calculation. If not, the system will use the Product Code pricing for the aggregate calculation.



Warnings:

The following warnings will only surface for customers that have a price book assigned at the ship to or customer level:

- If the item is assigned to a Price Book but does not have a price at all, or there is not a match on the currency, a warning with an OK button will display stating: "Item # xxxx is assigned to a price book, but has no pricing." Once OK is selected the item is added to the sales order with a price of \$0.00.
- If the item is not assigned to a Price Book, a warning with an OK button will display stating: "Item # xxxx is not assigned to a price book." Once OK is selected the item is added to the sales order with a price of \$0.00 and 0% discount.
- If a Price Book item has an alternate item assigned, when the alternate item is selected a warning will appear stating it is not a Price Book item and the price will be 0.
- If a non-Price Book item is added to a Price Book customer sales order and then an alternate item is selected, a warning will appear stating it is not a Price Book item and the price will be 0.

Notes on Discounting:

Note: Sales Order Discounts will be applied after determining the price pulled from the price book.

Note: The customer 'Price Break Quantity' (Customer Maintenance->Miscellaneous tab) is not applicable for Price Books.

The price will update in the following conditions:

- When a new item is added
- When the item is replaced
- When the blanket quantity is modified
- When the tax is added/modified
- When the discount is added/modified
- When a customer or ship to address is replaced on the sales order header, the price will automatically be updated based on the customer/ship to price book.

Price Book Features on Sales Orders

On the sales order (including Quick Order Entry), next to the Customer # and Ship To fields there is a button that will indicate whether a price book is attached at the customer and/or ship to level. The user can select the button to quickly jump to the price book. The button will be grayed out if a price book is not attached.

In the sales order detail section, the Price Book field will display the price book the item is attached to. Users can right click in the middle section of the Sales Order and select 'Jump to Price Book' to access the Price Book associated to the item.

The 'Price Book Price Type' field in the Sales Order detail section displays the Price Type associated to the price book associated to the customer or ship to. The Price Type per item can be overridden on the Sales Order by selecting the ellipsis button in the 'Price Book Price Type' field. The Price Type pick list will display only those price types associated to the item; not including the null price type. If the user would like to use the null price type, the existing Price Type must be deleted from the field in the order detail first. When the price type is overridden and there are active price breaks then the line item price will be updated to use the appropriate pricing based on the quantity breaks. When the price book changes on the customer header record due to changing the customer or ship to, the price type will reset to override at the item detail level based on the price book hierarchy flow chart. If the Price Type assigned to an item only has inactive or no price breaks, a warning will surface stating the item is assigned to a price book but has no pricing. This warning will also surface if the user overrides the Price Type where there is no pricing or only inactive pricing for the item. If no price book is assigned to the customer or ship to, the system will follow the default pricing hierarchy and the Price Type field will be read only.

With an inventory item that does not have any selling prices (AKA Selling or Selling on the Buy/Sell pricing tab), when switching from a Customer/Ship To on a sales order that has a price book to a Customer/Ship To that does not have a price book, the sell price in the Item Detail section is cleared out, and the price, price book and price type will all be blank.

Note: The 'Update Sales Price' right click option in the item details section of a Sales Order also applies to Price Book items. Refer to the Update Sales Price section for more information.

Note: If a price book is not assigned at the customer or ship to level, the price of the item(s) will use the standard pricing hierarchy (Refer to Sales Order Line Item Details and Discount Pricing for more information).

Note: When un-archiving Sales Orders, when using Price Books, if the price books have not changed the system will populate the original price book and price type, and the actual sales order price will come over as is, with no update. If the price book or price type is not the same a warning will display stating: "Order # xxx has one or more price book or price type mismatches in its order details, please investigate to ensure correct pricing". The system will assign the same price from the archived order and set the book/type to null. For example, the warning will appear if the price type is manually changed before archiving, a price book assigned to the customer or ship to is deleted after archiving, or a price type assigned to the customer or ship to is deleted after archiving. The system will not attempt to grab current price book/type or pricing on unarchive.

Price Book Volume Pricing

When the 'Calculate aggregate pricing method' parameter (in System Parameters->Purchase Order and Sales Order Setup tab) is set to 'Product Code /AKA Pricing/ Price Book', the system will use the following hierarchy to determine the aggregate pricing:

- 1 Price Book pricing
- 2 AKA pricing
- 3 Product Code pricing

When creating a Sales Order or Sales Quote, users can select the 'Calculate aggregate pricing' button to calculate volume pricing based on a Price Book. The system will sum all quantities for items that have the same product code regardless of the price type. The system will look at price type assigned to the item to determine the price breaks to use based on the sum of all quantities. The price of the item will update accordingly.

Volume Pricing Examples:

Scenario 1:

If a customer has a Price Book assigned with no Price Type:

- Item A with Product Code 'PC-A' has a blanket quantity of 5 with assigned Price Type 'L' in the order detail.
- Item B with Product Code 'PC-A' has a blanket quantity of 5 with assigned Price Type 'T' in the order detail.
- When looking up the price in the Price Book price breaks, the system will use the quantity break at 10 for Price Type 'L' for Item A, and the quantity break at 10 for Price Type 'T' for Item B.

Scenario 2:

If a customer has a Price Book assigned with Price Type 'X' assigned at the customer level:

- Item A with Product Code 'PC-A' has a blanket quantity of 5 with no assigned Price Type in the order detail.
- Item B with Product Code 'PC-A' has a blanket quantity of 5 with no assigned Price Type in the order detail.
- ➤ When looking up the price in the Price Book price breaks, the system will use the quantity break at 10 for Price Type 'X'. If the Price Book does not have a matching Price Type 'X' for the item, then the normal pricing hierarchy will be used to determine the price for the item.

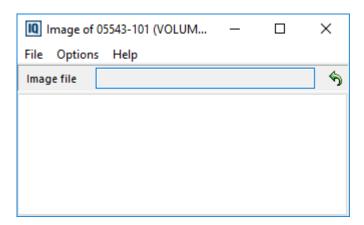
Scenario 3:

If a customer has a Price Book assigned with Price Type 'X' assigned at the customer level.

- Item A with Product Code 'PC-A' has a blanket quantity of 5 with no assigned Price Type in the order detail.
- Item B with Product Code 'PC-A' has a blanket quantity of 5 with Price Type 'T' in the order detail.
- When looking up the price in the Price Book price breaks, the system will use the quantity break at 10 for Price Type 'X' for Item A and quantity break at 10 for Price Type 'T' for Item B. Note: If the Price Book does not have a Price Type 'X' for Item A, the normal pricing hierarchy will be used to determine the price for the item.

Image File

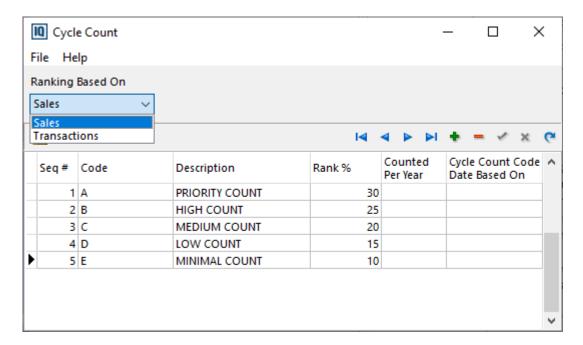
From the Image File form the user can associate an image to the inventory item. This image is used to display on the WebDirect product list for customers.



To attach an image select the Assign Image speed button Select the image file from the Images folder in your master home IQMS directory.

Cycle Count Codes

Cycle Count Codes is a user defined list used in Physical Inventory to perform Cycle Counts for items. To create the list click on the ADD (+) button and enter the Code, Description, Sales Rank %, and Counted Per Year.



Codes can be assigned to inventory items manually or based on a Sales Rank % or Transaction velocity. Typically the Sales Rank % is used for manufactured items as it uses AR Invoices, and the Transactions option is used for raw materials.

Seq#	Enter the sequence number of the ranking.
Code	The Code can be up to 15 characters.
Description	The description of the Cycle Count Code.

Sales Rank %

In order to have the system assign a code automatically based on a Sales Rank % select 'Sales' from the 'Ranking Based On' drop down list. Enter the sales % rank to be associated with the cycle count code. The system can calculate the sales for an item and assign the appropriate cycle count code automatically based on the sales % rank. The highest Sales Rank % entered indicates both the highest cost items and the percentage of items to include in a specific code category (the code itself is arbitrary).

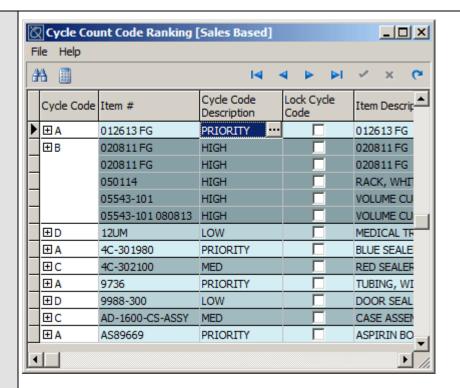
The system considers all items with posted invoices for cycle count code assignment (regardless of standard cost). The items with posted invoices are sorted in descending order by highest total standard cost for each item. The system assigns the cycle count code with highest Sales Rank % to the same percentage of total items starting with the highest standard cost, and so on for each cycle count code.

Example: Cycle Count Code A has the highest Sales Rank of 40% and there are a total of 100 items with posted invoices. Cycle Count Code A will be assigned to the top 40 items according to the item's total standard cost for posted invoices – even if that quantity is zero. If Cycle Count Code B has a Sales Rank of 30%, then the next 30 items according to total standard cost will be assigned, etc.

Note: For items with the same total standard cost (including zero), items could potentially be assigned different codes because system uses Sales Rank % to determine the number of items included within each code category.

If this option is used, each code must have a % entered and the total of all Sales Rank %'s must equal 100%. If it does not add up to 100% a warning will appear stating, 'Every Sales Rank % must be assigned and the total must equal 100.'

To automatically assign codes select the Recalculate button on the Cycle Count list and select Yes. The following form will appear listing the codes and the items associated to each code based on sales % rank:



Select the calculator button and select Yes on the confirm message. A Date Range form will appear. By default the calculation looks back 365 days each time it is recalculated. A user defined date range can be entered by selecting different dates/times in the in the From and To fields. Select Ok to proceed. It only evaluates the items associated to the EPlant the user is logged into. It uses the AR Invoice detail quantity * standard cost to determine the value of each item sold during that time. Then it determines the top X% based on the sales rank % for each code.

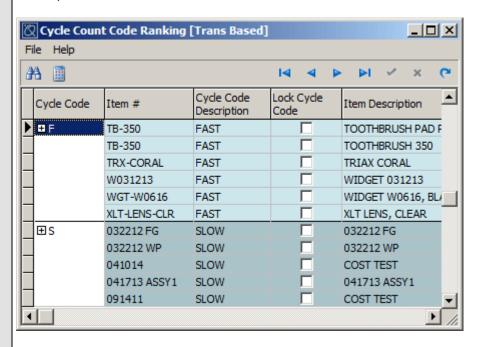
The cycle code for an item can be modified by clicking in the Cycle Code Description field and selecting the ellipsis button. If a cycle code is manually changed for an item check the 'Lock Cycle Code' check box to prevent the system from reverting back to the calculated code when the transaction ranking is recalculated.

Note: This only affects Inventory Items that are on an AR Invoice. This allows users to use the Transaction based calculations for raw materials then use the sales based calculations for Invoiced items without wiping out the cycle codes on non-invoiced inventory items.

Transactions

In order to have the system assign a code automatically based on Transaction Velocity select 'Transactions' from the 'Ranking Based On' drop down list. Enter the Rank % for each code to include based on the the frequency of transactions for the item.

To automatically assign codes select the Recalculate button on the Cycle Count list and select Yes. The system will look at TRANSLOG records for the items. The following form will appear listing the codes and the items associated to each code based on transaction velocity.



The movement class for an item can be modified by clicking in the Cycle Code Description field and selecting the ellipsis button. If a cycle code is manually changed for an item check the 'Lock Cycle Code' check box to prevent the system from reverting back to the calculated code when the transaction ranking is recalculated.

Counted Per Year

This is the number of times this code should be counted per year. This is used to determine if the item should be counted during a physical inventory when using the worksheet->cycle count code method. The system will utilizes the 'Last Cycle Count' date (Inventory->Additional tab) to determine if the item needs to be counted.

For example: If the Counted Per Year = 4 and the item has been counted during the last three months (based on the Last Cycle Count date) it will not be added to the work sheet for counting again until the date is past three months.

Note: Physical Inventory tags will NOT be created when 'Counted Per Year' is 0 and Physical Inventory tags will ALWAYS be created if 'Counted Per Year' is NULL.

Cycle Count Code Based On

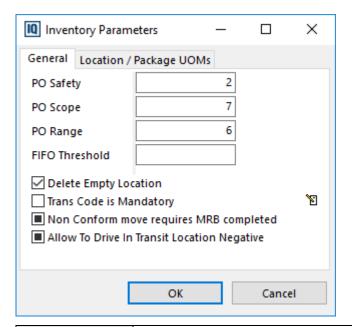
In the drop down list select from 'Adjustment Date' (default) or 'Transaction Date'. The Adjustment date is the date it is posted (system date), where the transaction date is the day the cycle count was started.

In Physical inventory when Recording Inventory Adjustments the system will update the 'Last Cycle Count' date (Arinvt.cycle_count_code_date) with either the current Adjustment Date or the Transaction Date based on the option selected for the code and the code associated to the item.

When doing Physical Inventory "Worksheet" method using the cycle count codes, once adjustments have been posted, the cycle count date will be updated with the adjusted date and time. The translog reason will be Physical Inventory Adjustment, WS-Cycle Count.

To manually associate a Cycle Code Code to an item, go to Inventory->Additional tab and select the code from the drop down list in the Cycle Count Code field.

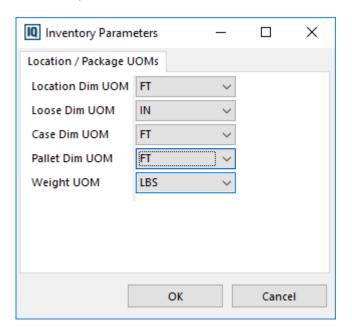
Parameters



PO Safety	Adds additional days to the lead days of the material when calculating the Must Order By date in the Material Exception List.
PO Scope	Used to determine the number of days of material requirements that should be entered as a single PO line item in the Material Exception List. Controls how much material to receive in against blanket order (i.e. only want to order enough material to complete production requirements over the next 7, 14, 21 days, etc.).

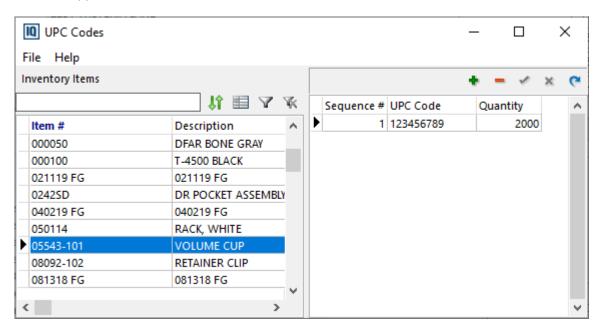
PO Range	Used in conjunction with the Ideal vs. Existing PO evaluation tool in the Material Exception List. This tool makes recommendations on how your current purchase orders might be re-arranged to acquire materials more efficiently. The Range value provides a baseline for making some of these assumptions. It is a date function that helps determine when you might want to bring the materials in.
FIFO Threshold	This option is used for the RackTruck module only (a module specifically designed to aid in the movement of product in a large warehouse using Vehicle/Fixed-Mount Mobile Computer Devices).
	Each inventory item can have a specific FIFO Threshold (in days) established which will tell the system if product must be shipped prior to shipping production.
Delete Empty Location	If this option is checked the system will delete a location during a transaction if the on-hand inventory drops to zero. Refer to the Automatic Deletion of Locations for more information (Linking Locations to Items).
	Note: When using Actual Costing, the empty location is deleted once the items removed from the location are both shipped and invoiced.
Transaction Code is Mandatory	If this option is checked it will force the user to select a transaction code when doing a manual transaction (in or out), and when receiving. (This does not affect Floor Dispositions as it is not a manual transaction). To edit the list of transaction codes select the edit button to the right of this field or go the menu and select Misc/Inventory Trans Codes. Note: If this field is checked and you are using Pending ASN Receipts it is REQUIRED to enter a transaction code in the Vendor Maintenance record (Miscellaneous tab).
Non Conform move requires MRB completed	If this option is checked it restricts inventory in a Non-Conform location linked to an active MRB from moving to a conforming location until the MRB has been approved (MRB Approval Date filled in). This also applies to moves made with a scanner.
	Note: Users are not prevented from moving material from one Non-Conform location to another Non-Conform location.
Allow To Drive In Transit Location Negative	If this parameter is checked when receiving Outsourced items and backflushing the system will allow an In Transit location to be driven negative. If it is not checked, users are unable to backflush more than what is in transit.

If licensed for 'Advanced WMS' another tab will be visible called **Location / Package UOMs**. This allows the user to specify the UOM of dimensions for the Location, Case, and Pallet. Valid options are: FT, IN, M, CM, and YD. There is also an option to specify the UOM for weights. The options are: LBS, KG, OZ, and GR. These parameters can also be accessed from the File menu in the Location Types module.



Edit UPC Codes

Multiple UPC (Universal Product Codes) can be entered for an inventory item. Multiple items can share the same UPC code. From the Miscellaneous menu in Inventory select Edit UPC Codes and the following form will appear:



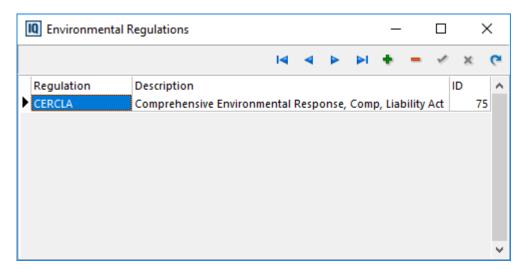
The left side displays all of the items in Master Inventory. This list can be sorted by any column. Use the white box to type the known information to locate the desired item. To enter UPC Codes select the ADD (+) button and enter the UPC Code and quantity. The Qty field indicates the quantity of inventory this UPC code represents. The sequence number will automatically fill in based on the order the UPC Codes are entered or it can be manually typed in.

The first two UPC codes, sequence 1 and 2, will be captured in Master Label, the dbf and LMINVTRY. The fields are UPC_Code and UPC_Code2 respectively.

Environmental Regulations

This is a list of Environmental Regulations used in Environmental Regulatory Reporting.

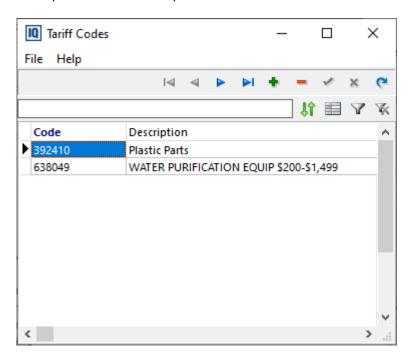
Enter the Regulation and Description for each. These regulations are then associated to the Chemical Abstract Service (Inventory->Miscellaneous menu) See Chemical Abstract Service.



Tariff Codes

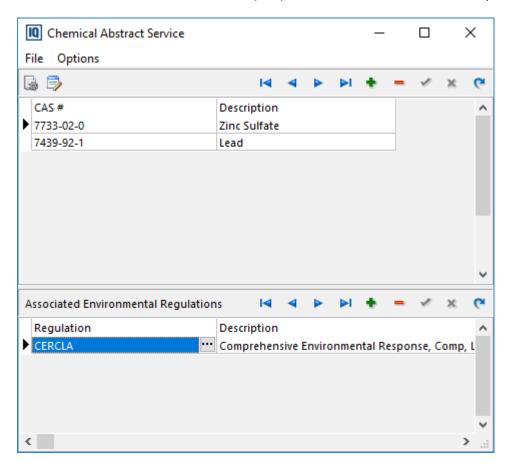
This is the list of Tariff Codes that can be assigned to inventory items in the Tariff Code field on the Miscellaneous tab. A tariff code is a number assigned to each type of product sold internationally. Each tariff code is issued by the World Customs Organization (WCO) through a database called the Harmonized System. The number of digits for each product ranges from six digits for common products to 10 digits for niche items. This information can be added to official shipping documents such as Commercial Invoices and Shippers Export Declaration.

Select Tariff Codes from the Miscellaneous menu in inventory, or this list can also be accessed from Lists menu in System Parameters. From this form enter the Tariff Code and description for all codes relevant to the products you ship. Select the insert (+) button and enter the code and corresponding description. Continue this process until all codes are created.



Chemical Abstract Service

This is a list of Chemical Abstract Service (CAS) items. Enter the CAS # and Description for each item.

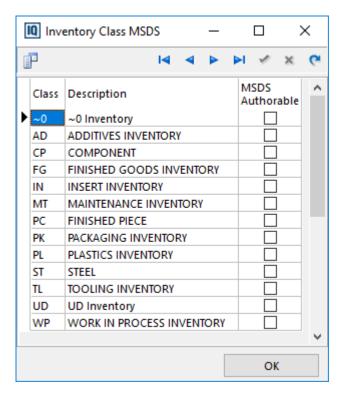


Next, associate the applicable Environmental Regulation(s) by clicking on the ellipsis button in the Regulation field to access the Environmental Regulation pick list. This list can be accessed from this form by selecting the Environmental Regulations speed button at the top.

Once both lists (CAS and Environmental Regulations Environmental Regulations) have been created this information is used in Environmental Regulatory Reporting (Inventory->Options menu). See Environmental Regulated Components.

Options Menu:

Inventory Class MSDS Setup - From this option users can establish which classes of inventory should be enabled for the MSDS documentation requirements. This option can also be accessed from the speed button on this form. When selected the following screen will appear. Place a check in the box for the inventory class that is MSDS Authorable. Authorable items are uploaded to the MSDS provider in order to allow the user to see them on the website and setup documentation for that item. There are two levels that MSDS can be authorable, at the inventory class level and the item master level. The class level allows users to enable an entire class of inventory items to be MSDS enabled. If an inventory class is not enabled as a whole, then individual inventory items can be enabled via the MSDS Authorable checkbox on the Additional tab in inventory.



Enable MSDS Tracking – This turns on/off MSDS triggers on customers, orders and inventory that track whether an item needs to be uploaded to the web services. Note that enabling MSDS could take several minutes as the system evaluates all inventory, customers and orders for MSDS tracking.

Modify GL Accounts for Inventory Items

Use this feature to modify the default GL accounts for **this** item, as defined under **System Setup|System Parameters|GL Setup**. This is the same function as on the Buy/Sell Pricing tab. To modify the GL accounts for more that one item, select **Misc|Inventory Accounts** from the menu. (See Buy/Sell Pricing Tab for details).

Inventory Transactions

Transactions are at the root of inventory control in **EnterpriselQ**. All inventory items exist in locations and any change to an inventory quantity or a change in location is accomplished by completing a transaction. Each transaction is logged to the Transaction Log, providing a comprehensive history of activity.

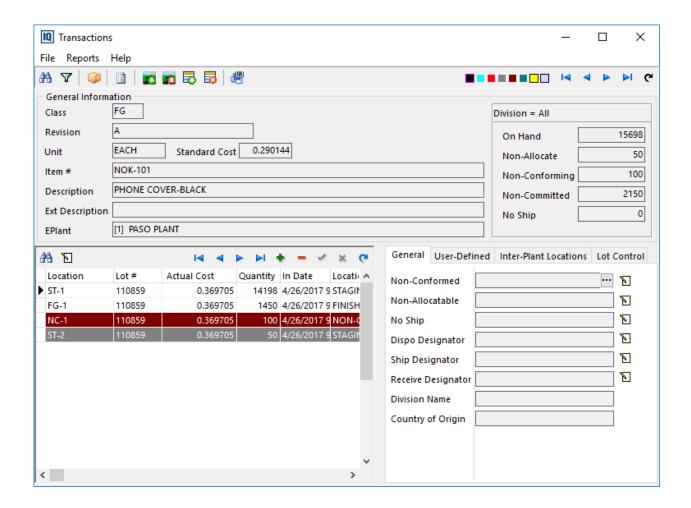
Transactions are used to add, subtract and move inventory. Below is a listing of some of the types of transactions that **EnterpriselQ** supports:

- Receiving Receipt of material into inventory.
- Location to Location Movement of inventory items between inventory locations.
- InterPlant transfers To transfer items from one EPlant to another EPlant location.
- Manual/Backflush Manual inventory adjustments into and out of inventory.
- Manual/Associate Manual transaction where the 'Associate with In' option was selected.
- **Disposition** Moving manufactured items into inventory and relieving raw materials to document the production process.
- **Floor Disposition** Moving manufactured items into inventory before the shift change is complete (from RealTime only).
- Packing Slip (Void Packing Slip) Shipping inventory items to a customer.
- Vendor Managed Inventory managing inventory at the customer site.
- Physical Inventory Physical inventory adjustments.
- RMA (Void RMA) Returned items are received back into inventory.
- Labor Dispositioning labor for Job Costing.
- Overhead Dispositioning overhead for Job Costing.

All inventory includes a location and an optional lot number. The user can create as many locations as needed, and then use the location list to easily identify where inventory resides. **EnterpriselQ** includes a transaction engine that is used in production reporting to update many inventory items in succession.

The Location and Transaction Form

The Location and Transaction screen is the same for all classes of inventory. This form can be accessed from the Locations and transactions button on the Inventory form or directly from the Launcher bar.



Upper Section Fields:

The upper portion shows the current item, with class, revision, unit of measure, item number and description, Ext description, Standard Cost (security can be placed on this field to hide it if desired), and EPlant. This section also shows the current On Hand, Non-Allocate, Non-Conforming, Non-Committed and No Ship amounts across all locations.

Lower Section Details:

The lower left grid lists the locations that the item is linked to, including the location, location description, lot#, cost, quantity in that location, Container number (entered during receiving), and the date the item was placed in that location. Other fields include:

- The **In Transit Origin** field indicates the origin either as ICT or Outsource Vendor.
- The Hard Allocated To field will display the work order the location has been hard allocated to.
- For Outsource Central users the **Outsource Vendor** field displays the vendor the items are in transit to. (For more information please see the Outsource Central help file).
- The Lot Date field can be used to enter the date of the lot for locations with a lot number. Select the ellipsis button to access the pop up calendar to select the Lot Date. If the location does not have a lot number the pop up calendar will not appear. Lot Dates can also be entered during PO Receiving through EIQ or RF. If the item has a value in the shelf life field other than zero on the Additional tab in inventory, when the difference between the system date and the lot date exceeds the shelf life the location will automatically be marked in red indicating it is expired.
- Make To Order (SO/Line#) This field will display the Make To Order sales order and line number that the items in the location have been allocated to. The line will display as lavender.
- Last In Date This field is updated when any transaction greater than zero adds a quantity to the location (FGMULTI) record.
- Last Cycle Count This will display the date the location was last cycle counted when doing a Physical Inventory by Location. This field is read only.
- **Exp Date** This is the expiration date of the location for items where a lot number and lot expiration date are mandatory.
- MRB # This will display the MRB # the location is linked to if applicable.

Costs Associated to Locations

The **Actual Cost** field for **purchased items** populates with the purchase order price. For standard cost users, if the item has a landed cost associated to it it will be included. If the purchase order price is zero and the item is received to a new location the cost associated with that location will be zero. If an item with a zero PO price is received into a location with a cost already associated with it, the cost will remain at that value (it will not average). If the purchase order price is different than the cost for the location the system will do a weighted average. For manual transactions (not PO receiving), the system will use the average cost for this field. (The average cost field is displayed on the Standard Costing tab).

The **Actual Cost** field for **manufactured items** is based on the actual costs associated to the cost elements recorded during production. This populates whether Actual Costing or Standard Costing is enabled.

Note: For users with the 'Use Actual Cost during Posting Transaction' option checked, and the option 'Do not use Average or Standard Cost for Transactions' is also checked (both in System Parameters-Inventory tab->Actual Cost Postings section), when doing a manual transaction or a disposition transaction, the Cost field in the Transactions module (FGMULTI.ACT_COST) will not be populated with the average or standard cost.

Note: Outsource Items - The Actual Cost (which will appear in Translog, PIT and Process Costing) equals the PO unit price + the roll up from the component. The PPV is calculated off of the PO Unit Price.

When performing Physical Inventory and adding inventory on hand, the actual cost of the IN transaction will be determined by the following hierarchy: 1. If the FGMulti already exists for the item, the system will use the actual cost of the existing FGMulti. 2. If a new FGMulti is created, with existing Lot # entered, system will scan and see if prior FGMultis, with the same lot # for that item exist. If an existing FGMulti is found, the actual cost of the existing FGMulti will be used. If multiple FGMultis, with the same lot #, the actual cost will be an average of the actual costs related to the multiple existing FGMultis. 3. If a new FGMulti, with a new lot # is created, the standard cost of the item will be used as the actual cost. 3a. If "Use Actual Costing during Post Transactions" and "Do not use Average or Standard Cost for Transactions" are both checked in System Parameters->Inventory Setup, the system will use 0 for the actual cost.

When voiding a Packing Slip to a *new* location, the Actual Cost recorded on the location and in Translog will equal the Actual Cost of the original Packing Slip. If multiple locations were selected on the original Packing Slip, when voiding to a new location, a weighted average Actual Cost will be used.

Location Color Codes

These color codes are also used in pick lists throughout the system.

- White normal location.
- Rust This is a non conforming location. The reason the location is non conforming is displayed on the right side of the form.
- Gray This is a non allocatable location. The reason is displayed on the right side of the form.
- Yellow This is a VMI (Vendor Managed Inventory) location.
- Blue/Green The skid option is obsolete.
- Red The lot has expired. The system determines the lot is expired based on the lot date associated to the location/Lot and the Shelf Life value associated to the item (Inventory->Additional tab). For example, if the Shelf Life = 10 days and the lot date = 10/15, the lot will be marked expired on 10/26. The count starts the first full day after the lot date and expires the first full day after the shelf life number of days.

- Purple/Black The In Transit location is used by the Intercompany Transfer module (ICT), Outsource Central and when the 'Verify Inventory' pick ticket parameter is checked. By default, an In Transit location is locked preventing users from manually adding or removing items. If the Inventory Parameter 'Allow To Drive In transit Location Negative' (Miscellaneous menu) is checked, when receiving Outsourced items and backflushing the system will allow an In Transit location to be driven negative. Also, the system will allow moves to and from In Transit locations, regardless of the In Transit Origin (and in the case of outsource origin, regardless of whether the Vendor's match). Note: This type of location should not be manually added to an inventory item. The system will add an In Transit location to an item when required.
- Aqua Blue This indicates the quantity of items that have been hard allocated to a work order. The work order number will appear in the 'Hard Allocated To' field associated to the location. Material cannot be removed or added to a location that has been hard allocated to a work order. An error will appear, "Location is marked as hard allocated to WO# XXXX. Transaction aborted." The hard allocation can be released by right clicking on the location and selecting 'Release Work order Hard Allocation'. If the work order has cycles required a warning will appear stating the work order is not complete. Depending on security the user will be able to select OK to continue with the release or Cancel to not release the hard allocation. Once the transaction is complete, the location will no longer have the work order associated to it and the color will go from aqua to white. The hard allocation will be disassociated from the work order.

Material Hard Allocated to a work order can be moved to another location based on the following rules:

When moving from a hard allocated location to:

Another hard allocated location associated with the same work order, a regular move is executed.

Another hard allocated location associated with a different work order, a new location is created. (In the same manner as when lot #'s do not match).

Any non hard allocated location, a new location is created like when lot #'s do not match.

When moving from a non hard allocated location to:

A hard allocated location an error is raised.

Any non hard allocated location, a regular move is executed.

(For more information on Hard Allocation to a work order see Hard Allocation).

- Lavender - This indicates the items have been allocated to a Make To Order sales order. The sales
 order and line number will appear in the Make To Order field. To release the Make To Order
 allocation use the right click option.
 - When moving from a MTO allocated location to:

Another MTO allocated location associated with the same sales order, a regular move is executed for this MTO sales order.

Another MTO allocated location associated with a different sales order, a new MTO allocated location is created for the source MTO sales order using the target location name.

A non-MTO location, this creates a new MTO allocated location using the target location name.

A non-MTO location that is a default non-conforming location, this creates an MTO location that is non-conformed using the source MTO sales order.

Note: An MTO location can also be toggled to non-conform with the option to make it allocatable. This works similar to moving to a non-conform location except the existing location is being updated rather than a new location being created. Users can also toggle the location back to Conform with the MTO Sales Order linkage maintained.

When moving from a non-MTO location to:

A MTO allocated location, this creates a new non-MTO location using the target location name.

A non-MTO allocated location, a regular move is executed.

For a complete discussion on this feature, please see the *Make To Order https://my.iqms.com/cfs-file.ashx/__key/Technote/Make_2D00_To_2D00_Order.pdf* TechNote.

Additional Information (four Tabs):

- The **General** tab is used to set the status of the item as it exists in the location highlighted on the lower left side. The location can be set as non conforming, non allocatable, no ship, as the disposition designator, the default shipping location, or receive designator, and may include a division designation (See the Locations section for details on the location status types, i.e. No Ship and Receive Designator).
 - The **Country of Origin** applies to purchased items. It automatically populates with the country associated to the Vendor the item was received from if the location has a lot number. This information is also available as a right click option in the Transaction Log, within the Lot Control tab, and the Lot Tracking module. A numeric value will appear in this field, which signifies the following: 1 = ICT, 2 = Outsource Central, and 3 = Verify Inventory.

- The **User Defined** tab supports three fields (up to 250 characters each) that can be used for any purpose. These fields are visible in the translog. The data entered in one of these fields will appear on the transaction line in the Translog under the corresponding CUser column. The CUser1 field is filled in automatically if the user enters a Vendor Lot # during receiving. To change the user field name, right click and select Define Title. Type in the new title in the New Value field. When a title is changed for a user defined field on a inventory item other than PL it will be that name for all classes of material except PL. PL class inventory items can have a different user defined field label. NOTE: The column headings in the translog will not automatically change to the newly defined label text. The user must change the column title in the translog as well.
- The InterPlant Locations tab is used to transfer items from one EPlant to another EPlant location. This
 will be discussed in more detail later in this section.
- Lot Control From within this tab there are two sections, the Supporting Lot Documents displays the documents scanned during receiving. During the receiving process the user can scan in a document associated to the Lot Number using a Twain compatible bed/image scanner. Note: A list of compatible scanners can be found at http://skylinetools.com/imagelib/index.html. From the website, on the left find Support -> Scanner Support, scroll down on the Scanner Support page and the list of compatible scanners is on the right side. External documents can also be added here and set to print with the Certificate of Conformance. The Lot Settings allow users to view information and make changes to entire lots of material which may be in several locations. This section will only be visible if the highlighted location has a lot number. Refer to the Lot Control section for details.

This form also allows access to the translog via the translog button. Other icon options include direct access to various transaction methods.

Location and transactions Screen Menu Functions

Tool Bar Functions

At the top of the Transactions Screen are several tool bar functions. They are listed below for your reference.

Search for Item - Used to access the inventory pick list. This pick list includes the sort and scope functionality. There is also a Search button in the lower location section of the form that allows users to search for a specific location associated to the item. This pick list will be color coded based on the location status.



Jump to Master Inventory - This will jump to the Master Inventory record for the current item.

Item's Transaction Log - Choose this function to view all transactions made to this particular item as shown in the screen below:

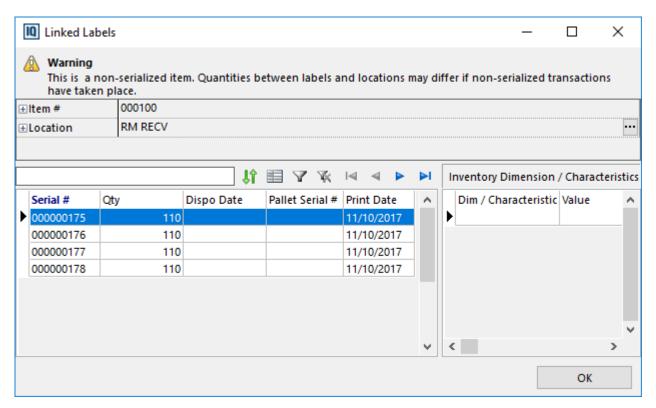
Create New Location - Select this button to link a new location to the item.

Delete Location - Use this function to delete an empty location. If the location contains inventory, the material must be removed prior to deleting the location.

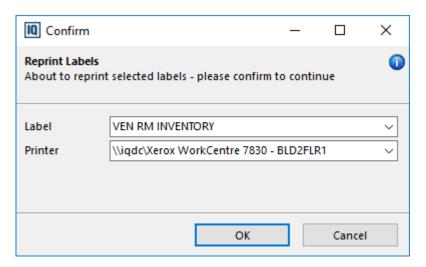
Add to Location - Select this function to add a quantity received to a particular location.

Remove from Location - This function allows you to 'subtract' a transaction amount from a particular location.

Show Linked Labels - This button is used to show the serialized labels that are linked to the serialized inventory item. (See Serialized Inventory Control for more information). The linked label form is also available for non-serialized items, however a warning will appear at the top of the form stating, 'This is a non-serialized item. Quantities between labels and locations may differ if non-serialized transactions have taken place'.



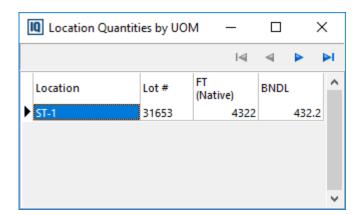
Reprint Selected Labels - Highlight the labels to be reprinted using the Shift or Ctrl keyboard buttons, then right click and select 'Reprint Selected Labels'. A popup form will appear to select the label and printer.



Location Listing Section Buttons

Search - Select this to access a pick list of locations associated to the item.

Show Location Quantities by UOM - This will open a list of the locations associated to the item and the quantities in the Native UOM as well as any other UOMs that have been set up as conversion factors for the item. The system will display the number of conversions associated with this item next to this button.



Right Click Options

From the upper General section users can **Jump to MPS Time Phase**. The rest of the right click options are available from the lower section:

- Add to Location Select this function to add a quantity to the location. Same as the speed button function
- Remove from Location Select this function to remove a quantity to the location. Same as the speed button function.
- Location to Location When this option is selected from the right click menu the user will receive the following message: 'For location to location transaction use your mouse to drag FROM location and drop TO location'.
- **Translog for this Location** This will show the translog form with transactions that are for just the highlighted row (the specific FGMULTI record).
- Link Inspection for Non-Conform Inventory This will be available on a non-conform location created during receiving for an item that requires an inspection, based on the when the 'Count' equals the 'Rec Insp Threshold' (set up in Inventory->Additional tab). When selected, Quick Inspection will open to create a new inspection or link an existing inspection from the 'Past Inspections' button on the 'Select from SPC Quick Inspections' list. If a failed inspection is linked to the location, and a user moves items to a conforming location, after selecting 'Yes' on the "Are you sure you want to move non-conforming/conforming?" confirm message, a warning with Yes and No buttons will appear stating, "Location Quantity Inspection has failed. Are you sure you want to continue?" Security can be placed on the Yes button.
- Jump to Non-Conform Inspection This will jump to the Non-Conform Inspection in SPC that was created for the Non-Conform Inspection type for the item.
- Toggle to Non-Conform/Conform This toggles the location from Non-Conform to Conform and vice versa. This functions the same as the toggle button as described in Material Status (Non-Conforming and Non-Allocated). Note: This option will not be available on master non-conform locations (locations set to 'Non Conform' in the locations list).
- Toggle to Non-Allocate/Allocate This toggles the location from Non-Allocate to Allocate and vice
- Toggle to No-Ship/Ship This toggles the location from No-Ship to Ship. A Y will populate in the No Ship field if it has been marked as No-Ship. If it is toggled back to Ship a N will be in the field. For locations that have never been marked as no ship this field will be blank. If a user tries to ship from a location marked 'No Ship' through pick tickets and packing slips a status exception may display stating the location is marked No Ship. (See Inventory Locations for more information on the No Ship location designation).
- New Location Links a new location to the item just as the speed button option.
- Delete Location Deletes a location linked to the item just as the speed button option.
- Clear Location This option will reduce the location to zero by performing a remove or add to
 location transaction. If the Delete Empty Location parameter is checked the location will be deleted
 (unless it is marked as a dispo designator). If it is not checked the location will remain linked to the
 item with a zero quantity.

- Change In-Date This will pop up a calendar form for the user to choose a different In Date to
 associate to the highlighted record. When the in date is changed it will only show a date and not a
 time. Note: A specific time cannot be added to a modified In Date.
- Jump to Lot Tracking If the location has a lot number the user can jump to Lot Number Tracking
 form with the item/lot # displayed. If the location does not have a lot # the menu option will be
 grayed out.
- Release Work order Hard Allocation Work order hard allocations can be released by selecting this option. If the work order has cycles required a warning will appear stating the work order is not complete. Depending on security the user will be able to select OK to continue with the release or Cancel to not release the hard allocation. Once the transaction is complete, the location will no longer have the work order associated to it and the color will go from aqua to white. The hard allocation will be disassociated from the work order.
- Release MakeToOrder Allocation This option will release the Make To Order allocation. Once selected a message will appear stating: 'Are you sure you want to deallocate MakeToOrder inventory location?'. Select Yes to continue and a pop up will appear to enter the quantity to be released (this defaults to the location quantity). Accept or enter the quantity and press OK to continue. Note: MTO allocations are released when the Sales Order is archived. (For more information see the Make To Order https://my.iqms.com/cfs-file.ashx/_key/Technote/Make_2D00_To_2D00_Order.pdf TechNote).
- Inventory Cost Adjustment This allows users to update the actual cost of a location to include additional costs (such as freight costs) for items received. This process will also create a GL entry for the costs incurred that will update the inventory and expense accounts as well. See Inventory Cost Adjustment below for details.
- Edit Lot Number Select this option to change the lot number for all locations with a matching lot number. This updates all matching master label and transaction records accordingly, including FG Lot# of consumed item transactions. The new lot # is entered in the pop up box. For example: Three locations for a SIC item, none have a lot #. Print five labels for five each, with no lot #. Add one label to one location. Edit the lot # on any location using the right click -> Edit Lot # option. All of the locations and all of the labels update with the new lot # because they all share the same lot #, in this case null. This is not allowed if there is an OUT transaction found in translog for the item/lot #. If a user attempts to edit the Lot Number after any OUT transaction has occurred for this item's Lot# a message will appear stating, 'OUT transactions found in the translog - lot number cannot be modified.' This rule applies specifically to an Item/Lot# combo regardless of new/existing location, (i.e Moves, Add to New Location), and includes a RG Quantity OUT transaction for PL items. feature can also be used during physical inventory, in which the system updates records accordingly including current tags and resulting backup records. (The system will check and change the following tables: Translog, fgmulti, PO_receipts, arinvt_lot_docs, ica_dtl, taginv, master_label, Vendor_Asn). This information is recorded to the Event Log with a class of INVENTORY TRANS so there is a record of who changed it and when. Note: Since some large history tables are involved in the update it may take a while to finish the lot # change.
- Jump To MakeToOrder sales order If the location is allocated to a Make To Order sales order this option will be available to jump to the sales order.
- Jump to Pack Slip This will be enabled for In Transit fgmulti locations with an In Transit Origin of 'Shipment Staging'. This allows users to jump to the packing slip to verify the inventory.
- Jump to BOM If the location has a Disposition Designator set to 'Associate with a Manufacturing #' this option will be available to jump to the associated BOM.

- Jump to Location this will open the Master Location module for the highlighted location.
- Jump to MRB Jumps to the linked MRB if applicable.
- Link to MRB This option allows users to link a non-conforming location to an MRB. A pick list of
 existing MRBs will appear to choose from, or the user can select New from the list to create a new
 MRB.
- Unlink to MRB This option allows users to unlink a non-conforming location from an MRB.
- Trace This option brings up the trace form to view changes to the fields set up in the Trace Tables.
- Print Labels Labels can be printed for non-serialized items in a specific location. Right click on a
 location and select Print Labels and the Print Label form will appear with the Box quantity equal to
 the Location quantity, and the Location field will populate with the location description. (Note: The
 Dispo_Scan field in the Master Label table will be marked as Y for manufactured items).
- Show Location Linked Labels This will show the labels linked to this location for both serialized and non-serialized inventory items. Right click and select 'Reprint Selected Labels' to reprint the highlighted labels.
- Show All Locations Linked Labels This will show the labels linked to all locations for both serialized and non-serialized inventory items. For non-serialized items a warning will appear at the top of the form stating, 'This is a non-serialized item. Quantities between labels and locations may differ if non-serialized transactions have taken place'. Right click and select 'Reprint Selected Labels' to reprint the highlighted labels.

Transaction Security

Transaction security can be associated to specific users to prevent them from doing an In or Out transaction for the following location types: Non-Conform, Non-Allocate, and No Ship. Please see the 'Excluded Inv Trans' section in Additional Tabs in Security Inspector.

Note: Users can select the 'Freeze locations during worksheet' option (Physical Inventory->Options menu) to prevent transactions from occurring in a location that is associated to a Physical Inventory. When this option is checked, users will receive a violation message, 'Location XXXX is part of active physical inventory count - operation aborted' immediately after the location is scanned/selected when attempting to perform a transaction on a location that is associated to an active Physical Inventory.

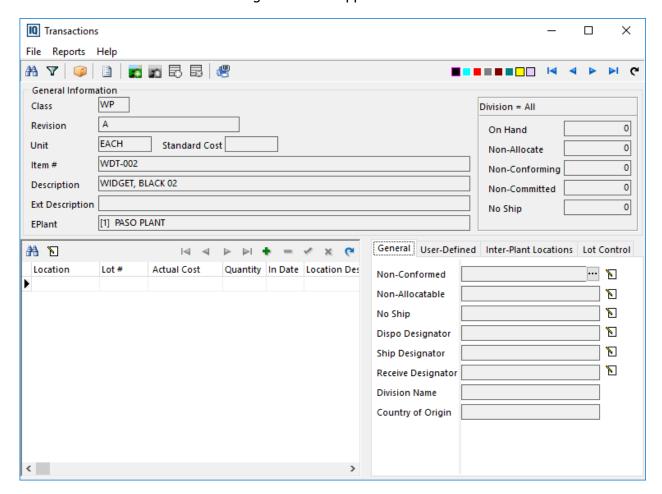
Linking Locations to Items

As noted above, **EnterpriselQ** requires that all inventory items exist in locations. The first step in creating locations is to create the master locations table.

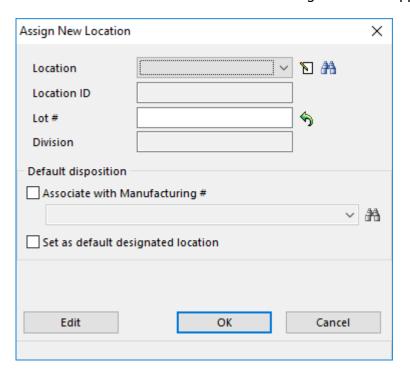
Linking Locations with Inventory Items

To create the Master Locations table and link a location to an inventory item, complete the following:

> Select Transactions|Locations and Transactions from the menu or click on Locations and Transactions button. The following screen will appear:



> Select File|Create New Location from the menu, click on the Create New Location button, or right click and select New Location. The following screen will appear:



If the location table has already been created, select the location from the arrow down list by scrolling down to the location or type in the first character of the location and the system will 'hyperbrowse' to the location, or select the search button to access the pick list of locations.

To create the master Locations table click on the Edit Master Location button to the right of the location field. See Inventory Locations for more information.

- Once you have chosen or added a location, the system will update the Location ID field (this field cannot be manually changed).
- ➤ Lot # Enter in the Lot Number of the item, if applicable. In the case of a manufactured item the user may enter the lot number or click on the arrow icon and the program will bring over the current lot number from the BOM.
- > Exp. Date If the item has the 'Expiration Date is Mandatory' option checked (Inventory->Additional tab) this field will be visible. Select a date from the drop down calendar or click on the arrow icon and the program will bring over the current expiration date for the lot #.
- The new location can be specified as a Default Disposition location. This is used during auto dispositioning in production reporting. If an item has a default location set up it will be used when adding or removing inventory during auto dispositioning. To set the location to be a default designator click on the check box next to the Associate with Mfg# or select the Set as Default Designated Location box next to this field. Both options can also be selected. These fields are discussed in greater detail in the Auto Dispositioning section in the Production Reporting chapter.
- Note: Locations can also be set as a Disposition Designator in the Master Locations list. When a location is marked with this option, when it is associated to an item it will be automatically marked as a disposition designator. The 'Set as Default...' and 'Clear Designation...' options will be grayed out on the Assign Auto Disposition Designator form in Transactions (accessed by selecting the Edit button next to the Dispo Designator field).
- > Click [OK] to finish the entry and link the location to the inventory item .

Note: If a user attempts to add a Non-Conform location to an item and select the 'Set as default designated location' option at the same time, a status exception message box will appear requiring authorization to continue. Select the OK button to continue to mark the default location as non-conform.

Note: If a Master Non-Conform location is added to an item, for users licensed for the Quality modules a pop up message will appear asking, "Would you like to create an MRB?" If Yes is selected a pick list of existing MRBs will appear to add the item to, or select the New button to create a new MRB. If No is selected the material will be toggled to non-conform without being associated to an MRB.

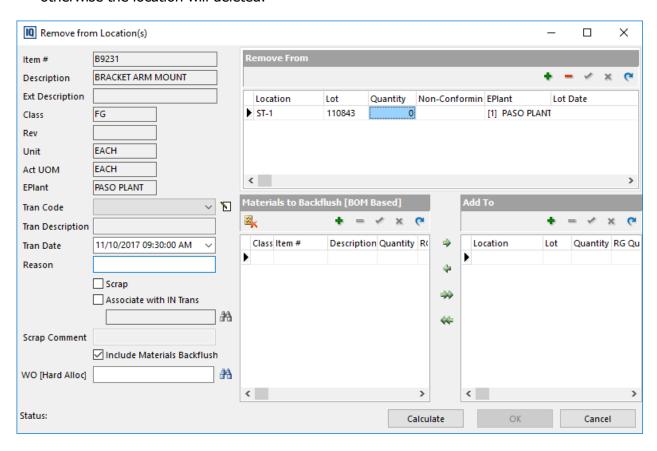
Deleting a Location Link with an Inventory Item

To delete a location linked to an inventory item, the quantity in the location must be zero. If a location contains inventory, the inventory must be removed prior to deleting. The Remove From Location form will automatically appear to remove the material. Once removed the location will be deleted.

To **DELETE** a location:

Select **Transactions**|**Locations and Transactions** from the menu or click on **Locations and Transactions** button.

Select File|Delete Location from the menu, click on the Delete Location button, or right click and select Delete Location. If the location has a quantity, the following screen will appear otherwise the location will deleted:

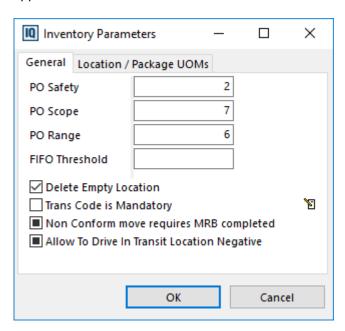


- > Accept or edit the Quantity to be removed.
- ➤ The user can enter a Reason, Transaction Code, or other Options. See Removing Material from Inventory for more information.

The location will no longer show in the list of locations associated with the inventory item.

Automatic Deletion of Locations

EnterpriselQ can be set so that locations will be automatically deleted if the on-hand quantity in the location is brought to zero. This applies to all transaction types except Physical Inventory adjustments and and phantom in/out on-fly dispositions, in which the empty location will not be removed by the system. To enable this feature, click on **Misc|Parameters** from the menu and the following screen will appear:



Click on the Delete Empty Location check box to tell the system to delete empty locations for all items. Locations currently at zero will not be automatically removed but will be removed on the next transaction taking the location to zero. If using Actual Costing, the empty location is deleted once the inventory taken from the location is both shipped and invoiced.

NOTE: Locations which are set to be Disposition Designator or Shipping Designator locations in inventory, as well as VMI locations will not be automatically deleted from the list of locations associated with an inventory item. However, if the location was marked as a Disposition Designator because it was hard allocated to a work order, when the location goes to zero it will be deleted. Disposition locations associated to a work center are not an inventory Disposition Designator so they will be deleted (unless it is a phantom in/out on-fly disposition).

Users may also override this option per location by checking the **Disable Auto Delete** box in the Master Location table for a specific location.

The MASTER_LABEL.LOC_DESC will not be removed from the label when the quantity scanned brings a negative location to 0 and Delete Empty Location is turned on.

Clear Location

Selecting this function clears the quantity from that location. Right click and select "Clear Location" and the same screen as shown above in "Deleting a Location" will appear. Follow the steps above for removing the quantity from that location.

Manual Inventory Transactions

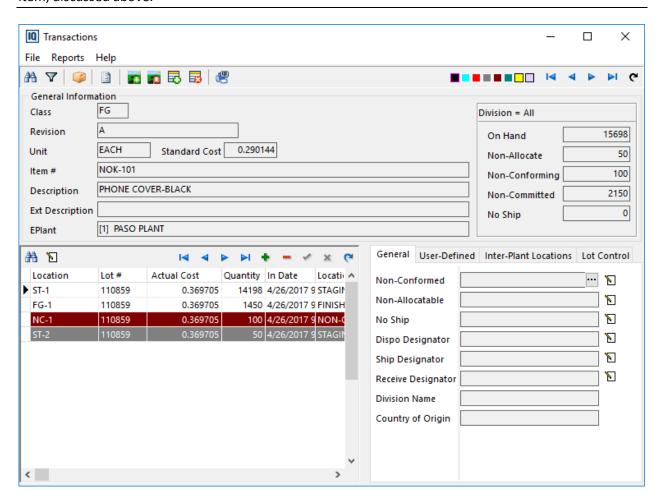
The general use of manual transactions pertain to virtually all items of class. However, some of the functionality changes depending on what class you are working with. These differences will be covered in the following pages.

Adding Material to Inventory

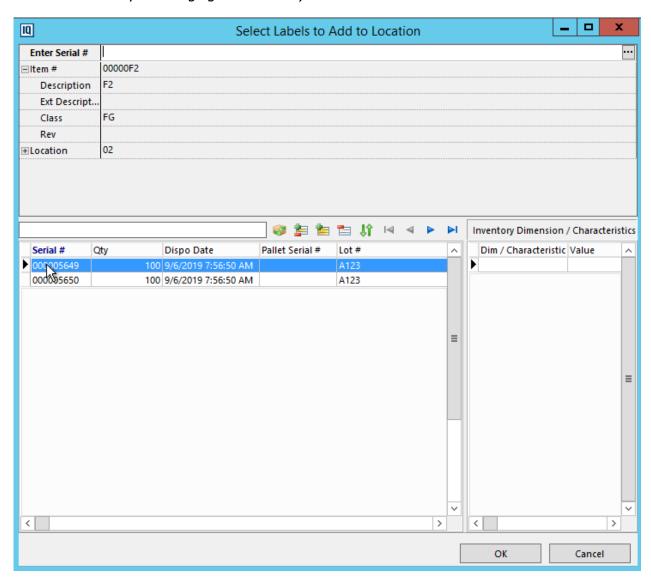
To add material to inventory:

- Select the inventory item that you want to add inventory to.
- Next, select Transactions|Locations and Transactions from the menu or click on Locations and Transactions button. The following screen will appear:

NOTE: If no Locations are associated with the inventory item, refer to Adding Locations to an inventory item, discussed above.



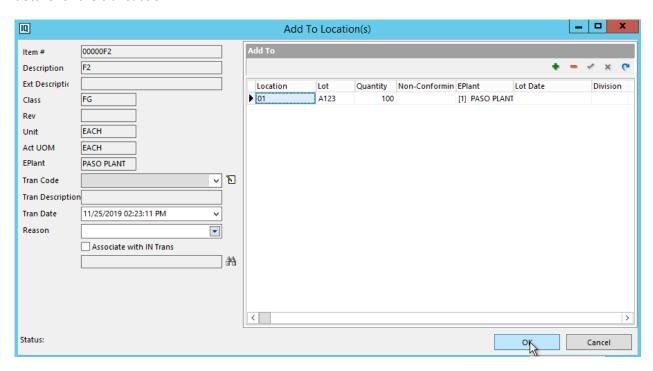
- > Highlight the location that material will be added to.
- Right click and select Add to Location from the menu, click on File located on the main menu bar and select the same option, or click on the Add to Location speed button. The following screen will appear:
- NOTE: When this screen opens, in the Add to section, the system will always default to the third column from the left (which, by default is Quantity, but this can be changed as the user sees fit by rearranging the columns).



➤ The location field is populated based on the location that was highlighted when the Add to location option was selected. The location can be changed by clicking on the ellipsis button in the field and selecting a different location from the color coded pick list of locations associated to the item. Enter the Quantity to be added to the location (if adding an item of class PL, the option to enter a Regrind Quantity will also be available).

PLEASE NOTE: Regrind quantity entry is only available when working with PL inventory items. However, note that this information is not used in actual or standard costing. It is recommended that regrind of a specific plastic have it's own inventory master record.

Once you have finished scanning your label or manually selecting a label to add to the location, click 'OK' to execute the transaction. Doing so will launch a second window which will allow you to specify more details for the transaction.

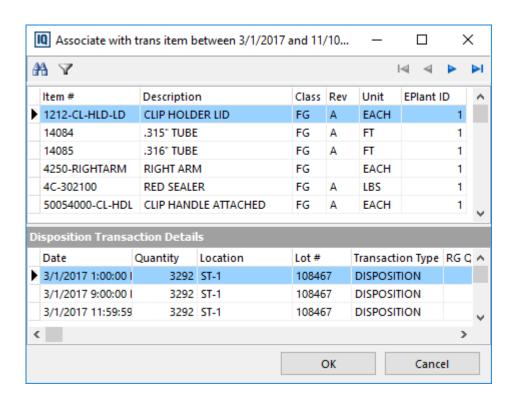


- > In the 'Add To' grid, there are additional fields:
- Lot Date If the location has a lot number a Lot date can be entered. Select the ellipsis button in the field to access the pop up calendar to enter a Lot Date for the record.
- **Country** If the location has a lot number a Country can be entered. Select the ellipsis button in the field to access the pick list.
- Lot Expiry Date If the location has a lot number a Lot Expiry Date can be entered. Select the ellipsis button in the field to access the pop up calendar to enter a Lot Expiry Date for the record. If the Lot Expiry date is already populated it can only be edited if allowed via security. If not allowed, the date can be edited in Locations and Transactions on the Lot Control tab.
- Enter a Reason for the transaction (optional). You may specify the 'Reason' by entering it in the field, or you may select an established 'Reason' from the drop down menu.
- Enter a Transaction Code from the arrow down list, if desired.

NOTE: The Transaction Code arrow down list can be defined under **Misc/Inventory Trans Codes** or in **Sys Setup| System Parameters|Lists|Inventory Trans Codes**. The **Trans Code** can also be made mandatory by toggling a switch under **Inventory|Misc|Parameters**.

➤ Enter the Transaction Date. The date will default to the date/time based on the time zone setting of the EPlant the user is logged into. The user has the option to change it by selecting a different date from the drop down calendar. The Process Inventory Transactions function will look at the transaction date not the system date.

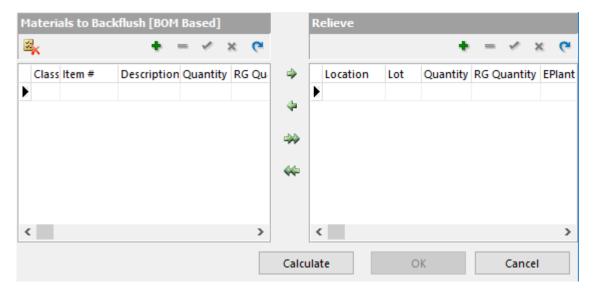
(Optional) Check the **Associate with IN transaction box** if a dispositioned quantity for a manufactured item needs to be corrected due to an adjustment to the raw material. By clicking on the pick list button, the user can select the disposition transaction this 'Add To' should effect. The scope defaults to one month back, and will only display Disposition type transactions. The scope can be changed by selecting the Scope button and entering different From and To dates. The scope will be remembered the next time the 'Associate with In' option is used. Once the desired transaction is selected, the translog entry will be posted including the FG Lot Number, MFG #, and work order that was associated to the production report. The actual cost in Process Costing will reflect the change. (Note: This will not change the production report).



Once the desired transaction is selected, the translog entry will be posted including the FG Lot Number, MFG #, and work order that was associated to the production report. The system will also adjust the process cost accordingly. (This will not change the production report).

(Optional) The Include Materials Backflush box can be used if an item to be added to inventory is being manufactured and the materials that should have been consumed in the process should be removed from inventory. The system will remove the raw materials from inventory when the manufactured item is moved into inventory. The process is similar to the Production Reporting process in that the materials backflush requirements are by default calculated and presented based upon the BOM, but can be adjusted. A work order can be assigned in the 'WO [Hard Alloc]' field by selecting one from the pick list. When calculating the materials to backflush, they will be based on the work order. The Materials to Backflush section will reflect whether it is BOM Based or Hard Alloc Based.

To use this option, check the box next to **Include Materials Backflush**, and the following screen will be added to the bottom of the Add to Location screen:



Click on the **Calculate** button to calculate the materials consumed based on the amount of items to be added to inventory, adjust the amounts as necessary. The system will always calculate the materials according to the default BOM attached to the item. The system will use the decimal precision setting in Production Reporting->Options->Parameters to determine how many decimal places to go out to during backflushing.

- Arrow over the material one at a time using the single arrow button, to the Relieve section and choose the location you want to remove it from by clicking on the button in the location field to access the pick list of locations associated with the material.
- Or select the double arrow button to move all the material to the relieve side. A warning will appear stating, "Are you sure you want to reassign all 'Relieve' records?' Select Yes and the system will populate the locations based on the same rules applicable in production reporting during auto backflush (see Auto Dispositioning for the disposition hierarchy information). The location can be changed by clicking the ellipsis button in the location field and selecting a different location from the pick list.
- You may exclude labor and overhead from being recorded to the translog by clicking on the 'exclude' button near the Add (+) button on the left. (The labor and overhead transaction information will still be posted if you are using standard costing).
- ➤ If all entries are correct, click [**OK**] to execute the transaction or click [**Cancel**] to cancel the current transaction.

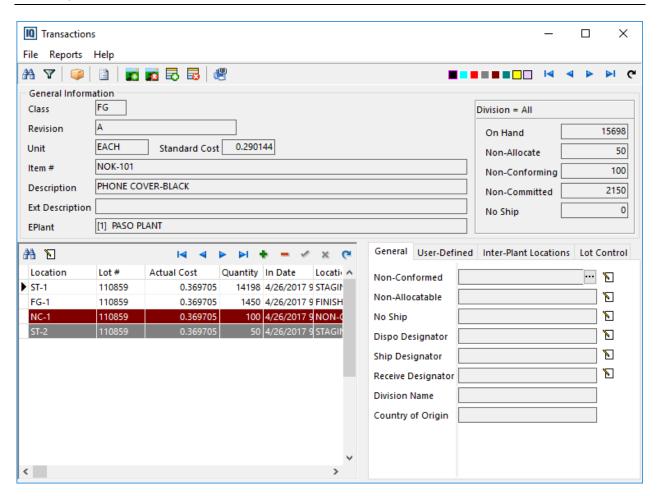
The new quantity is added to the **Location** and the **On Hand** quantity is updated. To view the transaction, press the items Transaction Log button to show the new transaction.

Location to Location Transfers

EnterpriselQ supports the ability to move material from one location to another location or to create a new location within the same inventory item. The procedure for the movements is very similar and is described below. This can be done via the Location to Location right click option, or by drag and drop.

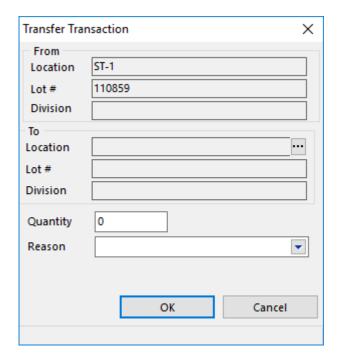
- Select the inventory item to be moved from one location to another.
- Next, select Transactions|Locations and Transactions from the menu or click on Locations and Transactions button. The following screen will appear:

Note: If there are no Locations are associated with the inventory item, refer to Adding Locations to an inventory item, discussed above.



Move Using the Location to Location Right Click Feature

Right click on the location to be removed from and select 'Location to Location'. A pop up form will appear listing the highlighted location in the From section.



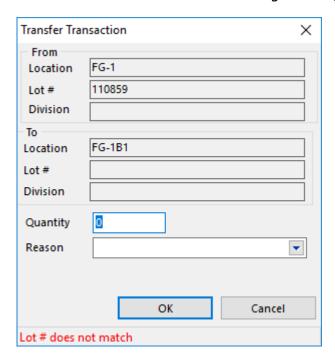
Select the ellipsis button in the 'To Location' field and select the location to move the items to from the pick list of locations associated to the item, or select the New button on the pick list to associate a new location to the item from the Assign New Location form. Select the new location from the drop down list in the Location field or click the search button to select from the location pick list. Once a location is selected, enter a Quantity and Reason. The reason can be typed manually or selected from the user defined list. To create the reason list, right click and select edit User Defined List and enter reasons in the Text field. The reason and regrind fields are optional but a quantity must be entered.

Click [OK] to make the transfer and the quantity will be added to the To Location and subtracted from the From location. If the From location's lot number did not match the To location's lot number, a new location will be created for the selected To location with the From location's lot number.

Move to an Existing Location using Drag and Drop

To move the items between two existing locations:

- > Left click on the location that material will be removed from and hold the left mouse button down.
- Move the cursor to the location that the item is being moved to and release the mouse button. If the location is and existing location, the following screen will appear:



The From and To locations will be shown. Enter in the **Quantity** (for class PL items a regrind field is also available) to be moved and a **Reason** for the move. The reason can be typed manually or selected from the user defined list. To create the reason list, right click and select edit User Defined List and enter reasons in the Text field. The reason and regrind fields are optional but a quantity must be entered.

Click **[OK]** to make the transfer and the quantity will be added to the To **Location** and subtracted from the From location.

Note: If the Lot Numbers or the In Dates (if using Unique Date In) in the two locations do not match, a new entry will be made in the Locations list.

Note: When moving from a conforming location to an existing non-conform location by either dragging and dropping or location to location moves, the Non-Conform Reason form pops up after entering in the quantity of the amount to move. A non-conform reason must be selected from the drop down list. The location will be updated with the selected non-conform reason. If it is not desired to change the reason associated to the existing non-conform location, be sure to select the same reason that was already assigned to it.

Note: If moving an item to a non-conform location that already has an existing MRB, if a different Non-Conform Code is used the system will create a new location (FGMulti) regardless of whether a new MRB is created or if associating it to an existing MRB. If a different non-conform code is selected during the move and the user answers No to creating a new MRB, a new location is created without a link to an MRB. If the same Non-Conform Code is used a new location will not be created and the MRB will be updated with the new quantity. The MRB related transactions can be viewed from the MRB right click option 'MRB Transaction Log'. This provides accurate traceability of the rejected components.

Note: If the item has the Default FIFO method set to 'Lot # Based FIFO', and the user is moving an item to a 'Disposition Out' location, the system will compare the lot # of the item being moved to the oldest lot# for the item. If the moving Lot# is not the oldest a list of locations that contain older Lot#s will display ('Non-Conform' locations are excluded) with buttons for Continue or Cancel.

Note: The Regrind quantity information is not used in actual or standard costing. It is recommended that regrind of a specific plastic have it's own inventory master record.

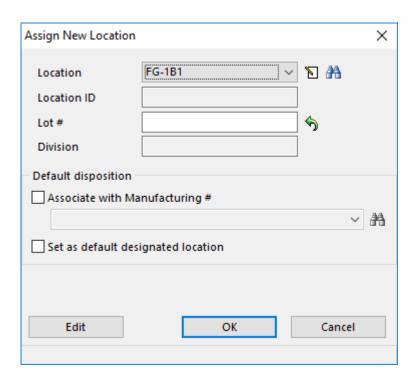
Note: When attempting to move a child serial number through the drag and drop feature that is part of a pallet that has been associated to a pick ticket, the following error will occur: "This serial number is part of a shipment. Move is not allowed".

To view the transaction, press the items Transaction Log button to show the new transaction.

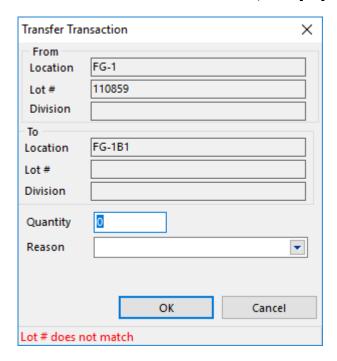
Move to a New Location Using Drag and Drop

To move the items from one location to a new location:

- Left click on the location that material will be removed from and hold the left mouse button down.
- Move the cursor to a place in the list of locations that does not correspond to any location (the plain white area) and release the mouse button. The following screen will appear:



- > Select the new location from the arrow down list next to the location field.
- > Enter a Lot # if desired.
- The new location can be specified as a Default Disposition location. This is used during auto dispositioning in production reporting. If an item has a default location set up it will be used when adding or removing inventory during auto dispositioning. To set the location to be a default designator click on the check box next to the Associate with Mfg# or select the Set as Default Designated Location box next to this field. Both options can also be selected. These fields are discussed in greater detail in the Production Reporting chapter (See the Disposition Hierarchy information in Auto Dispositions).
- ➤ Once the new location is selected, click [OK] and the following screen will appear:



The From and To locations will be shown. Enter in the **Quantity** to be moved and a **Reason** for the move. The reason can be typed manually or selected from the user defined list. To create the reason list, right click and select 'Edit User Defined List' and enter reasons in the Text field.

Click **[OK]** to make the transfer and the quantity will be added to the **To** Location and subtracted from the **From** location.

To view the transaction, press the items Transaction Log button to show the new transaction.

Removing Material from Inventory

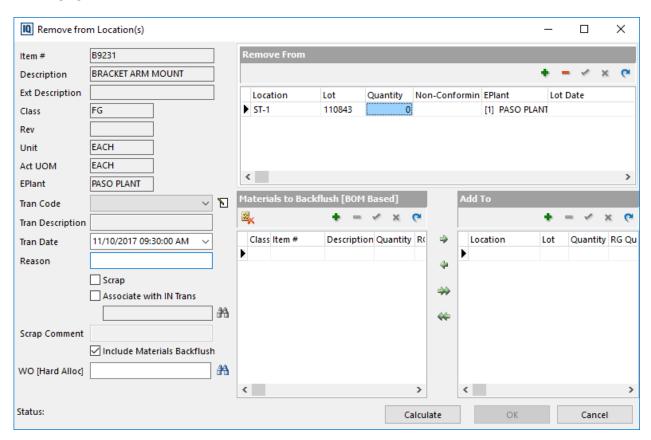
To remove material from inventory:

Select the inventory item to be removed from inventory.

Next, select **Transactions**|**Locations** and **Transactions** from the menu or click on **Locations** and **Transactions** button.

- Highlight the location that material will be removed from.
- Right click and select Remove from Location from the menu, click on Transactions located on the main menu bar and select the same option, or click on the Remove from Location speed button. The following screen will appear:

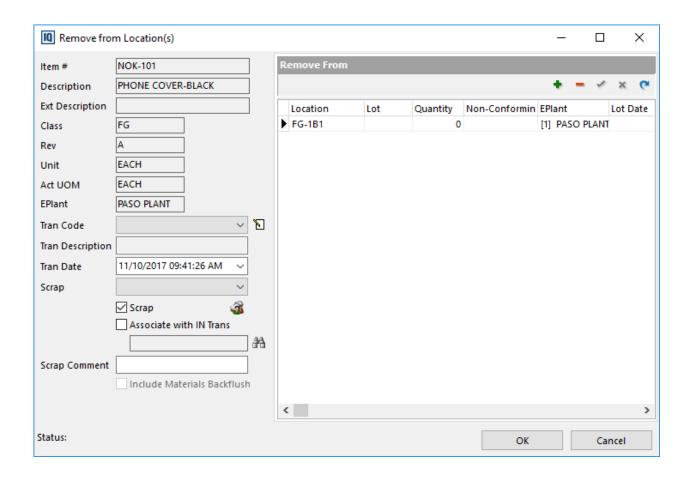
NOTE: When this screen opens, in the Remove From section, the system will always default to the third column from the left (which, by default is Quantity, but this can be changed as the user sees fit by rearranging the columns).



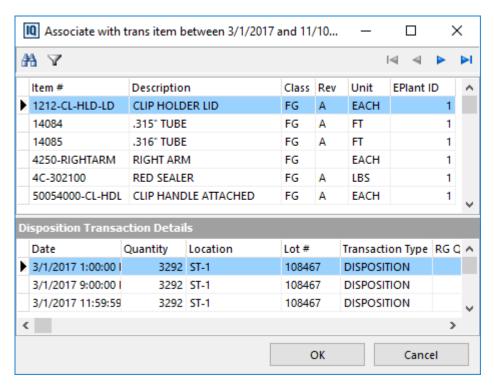
- Enter the Quantity to be removed from the location (if removing an item of class PL, the option to enter a Regrind Quantity will also be available).
- Enter a Reason for the transaction (optional).
- ➤ Enter a Transaction Code from the arrow down list, if desired. (The Transaction Code arrow down list can be defined under Miscellaneous/Inventory Transaction Codes in the inventory module, or in System Setup/System Parameters/Lists/Inventory Transaction Codes).
- > Enter the Transaction Date. The date will default to the date/time based on the time zone setting of the EPlant the user is logged into. The user has the option to change it by selecting a different date from the drop down calendar. The Process Inventory Transactions function will look at the transaction date not the system date.
- Scrap If the material to be removed from inventory is going to be scrapped, check the Scrap box and select the Scrap Code from the arrow down list in the Scrap Code field. When entering scrap the system will look up the manufacturing cell on the BOM and only surface the reject codes with a cell that matches the BOM. Reject codes with no manufacturing cell will also display. When entering scrap where the BOM does not have a cell, the system will only surface the reject codes with no cell associated to them. Scrap transactions are written to the rejects table. You can also associate the scrapped parts with a particular production report, basically reducing the good parts. To do this click on the production report icon next to the Scrap check box. This will bring up a pick list of production reports associated with the item you are scrapping. This will change the production report to show the parts as scrapped and the Transaction Log will note that the material was removed to scrap. A Scrap Comment can be entered to provide additional information as to why the items are being scrapped. The scrap comment will display in the 'Comment' field in translog.

Note: When removing a manufactured item from inventory, when the Scrap box is checked the Include Materials Backflush box will become disabled and be grayed out. Users are not allowed to backflush materials during a scrap transaction.

Note: Security can be placed on the Scrap check box (the security item is: chkScrap).



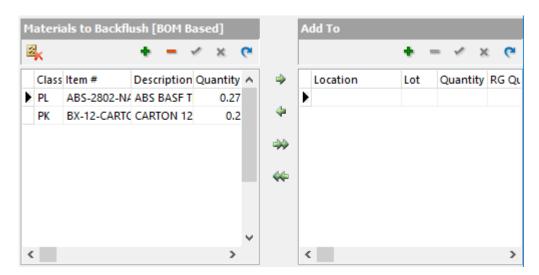
(Optional) Check the Associate with IN transaction box if a dispositioned quantity for a manufactured item needs to be corrected due to an adjustment to the raw material. By clicking on the pick list button, the user can select the disposition transaction this 'Remove from' should effect. The scope defaults to one month back, and will only display Disposition type transactions. The scope can be changed by selecting the Scope button and entering different From and To dates. The scope will be remembered the next time the 'Associate with In' option is used. Once the desired transaction is selected, the translog entry will be posted including the FG Lot Number, MFG #, and work order that was associated to the production report. The actual cost in Process Costing will reflect the change. (Note: This will not change the production report).



(Optional) The Include Materials Backflush box can be used when removing an item from inventory and the materials that were consumed in the process should be replaced into inventory. The process is similar to undoing the Production Reporting process in that the materials backflush requirements are calculated and presented based upon the BOM, or work order, but can be adjusted. To select a work order click the search button next to the WO [Hard Alloc] field. If the user selects a work order, when selecting Calculate, the system will populate the materials to backflush based on the work order. If the work order does not exist, a message will pop up stating 'Work Order does not exist. Materials to backflush will be BOM based. Add/Remove material if necessary.' If the user does not select a work order, the materials to backflush will be BOM based. The system will then put the raw materials (or regrind for PL) into inventory when the manufactured item is removed from inventory.

Note: This option will not be available if the Scrap box is checked, the Include Materials Backflush box will become disabled and be grayed out. Users are not allowed to backflush materials during a scrap transaction.

To use this option, check the box next to **Include Materials Backflush**, and the following screen will be added to the bottom of the **Remove from Location** screen:

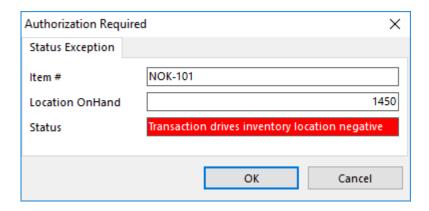


Click on the **Calculate** button to calculate the materials generated based on the amount of items to be removed from inventory, adjust the amounts as necessary. The system will always calculate the materials according to the default BOM attached to the item. The system will use the decimal precision setting in Production Reporting->Options->Parameters to determine how many decimal places to go out to during backflushing.

- Arrow over the material one at a time using the single arrow button, to the Add To section and choose the location you want to add it to by clicking on the button in the location field to access the pick list of locations associated with the material.
- Or select the double arrow button to move all the material to the Add To side. A warning will appear stating, "Are you sure you want to reassign all 'Add To' records?' Select Yes and the system will populate the locations based on the same rules applicable in production reporting during auto backflush (see Auto Dispositioning for the disposition hierarchy information). The location can be changed by clicking the ellipsis button in the location field and selecting a different location from the pick list.
- You may exclude labor and overhead from being recorded to the translog by clicking on the 'exclude' button near the Add (+) button on the left. (The labor and overhead transaction information will still be posted if you are using standard costing).
- ➤ If all entries are correct, click [**OK**] to execute the transaction or click [**Cancel**] to cancel the current transaction.

The new quantity is removed from the **Location** and the **On Hand** quantity is updated.

If the quantity will drive the location negative a warning will display:



Only users with security to select the OK button will be able to proceed, otherwise the transaction will be canceled. (Note: When setting security for this status exception be sure to click the OK button so the selected security settings will be established. Aborting the transaction that will rollback any changes including the security inspector settings).

To view the posted transaction, press the items Transaction Log button to show the new transaction.

Material Status (Non-Conforming, Non-Allocated, Receive Designator, and No-Ship)

EnterpriseIQ supports the ability to change the status of an item. The status can be normal, non-conforming, non-allocatable, or non-conforming and non-allocatable. Because EnterpriseIQ supports multi-locations for an item, the status is set on a location by location basis.

The status of an item affects the MRP evaluation in the following ways:

- **Normal** The item is included in the **On Hand** inventory amount, is available to be included in the MRP run and will be included in the MRP evaluation.
- Non-Conforming This indicates that some problem exists with the item. When set to non-conforming, by default the item is NOT included in the On Hand inventory amount, but is tracked separately under the Non Conforming amount (displayed just below the On Hand quantity). For MRP consideration, any item under non conforming status will NOT be included in the MRP evaluation. An Authorization Required warning will appear when a user attempts to ship from a Non Conform location. Only users with security to select OK can proceed. However, if the Allocatable box is checked the quantity in that location will be allocated and included in On-Hand quantity. Non conforming items will be shown in the Location and Transaction screen with brown shading to ensure that users know the material is non conforming. The non conform reason will display in the Non-Conformed field, and if it has been marked allocatable that will show next to the reason in parenthesis.
- Non-Allocated Setting an item to non-allocated indicates to EnterpriseIQ that the quantity IS part of the On Hand inventory amount, but is NOT considered during the MRP evaluation. This situation is typically used when an item has been received or is in stock, but is on hold for some reason. Setting an item to non-allocated is a temporary way to tell EnterpriseIQ to ignore the quantity during the system evaluation, but maintain it in the On Hand inventory. Users can ship from a Non Allocate location.
- No-Ship If a user tries to ship from a location marked 'No Ship' through pick tickets and packing slips a status exception will display stating the location is marked No Ship. Depending on security the user can select OK to proceed or the cancel button may be the only option which will prevent the location being used to ship from.

In RF/WMS the results will vary depending on whether Pick by Item or Serial is selected and whether the item is a serialized inventory control (SIC) item or not.

Pick by Item: All locations where fgmulti.no_ship = null or N are available to pick from (including 'No Ship' master locations toggled to Ship). No locations are available where fgmulti.no ship = Y.

Pick by Serial:

For a Non-SIC item - Users cannot pick from a 'No Ship' master location even when the location is toggled to Ship. The user will receive a warning "Serial # xxxxx location is marked no-ship". Users can pick from regular locations toggled to 'no ship' without a warning. A new location (fgmulti record) is created 'on the fly' for this location description, while the system retains the original fgmulti_id for the serial number in the master_label table. When a pick ticket is converted to a packing slip, the inventory is removed from the new location that was created, driving it negative.

For a Serialized item - The system considers the individual fgmulti location status only to determine whether serials can be picked from these locations. For example, a regular location toggled to 'No Ship' in Transactions and Locations will surface a warning when picking (and picking is prevented). Conversely, a 'No Ship' master location toggled to 'Ship' in Transactions and Locations will allow serials in that location to be picked without warning.

• **Combined** - Under most circumstances, there is little reason to set all of these toggles. If the item is completely unavailable to production, and the user doesn't want it included in the inventory, use the non-conforming status.

Receive Designator

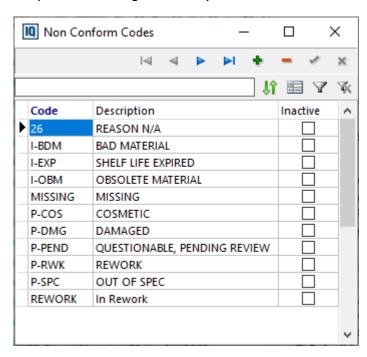
When selecting the Receive Designator check box on a location, the system will first check if another master location would be unselected as the Receive Designator if the user continues (i.e. due to a record that already exists that has Receive Designator option checked, with a matching EPlant ID and Division ID). If so, a message displays, 'Location XXXX will no longer be marked as a Receive Designator. Continue?', with security on the Yes button and the 'Do not show next time' check box.

When selecting/unselecting the Receive Designator check box and the location exists is associated to items, a message displays, 'Location XXXX is currently attached to item(s) in Transactions and Locations. Continue?'. Security is available on the Yes button and the 'Do not show next time' check box. Note: This message will surface after the check for a current Receive Designator location.

Non Conform Materials

The first step in the non conform material status function is to define the non conform codes. Unlimited non-conform codes may be entered into the **Non Conform Code** table. To access the table:

- Select Misc from the Inventory screen menu.
- > Select **Non Conform Codes** from the submenu. The non conform codes box will appear as shown here. The user can view, create new or delete codes from this screen by using the functions on the Navigator Bar. The codes can be marked inactive which will hide them from pick lists throughout the system.

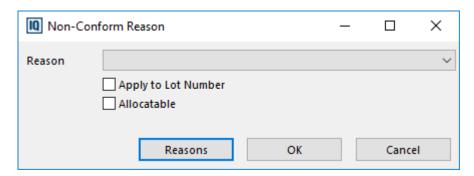


Note: The deletion of non conform codes is not recommended as the codes may be linked to other inventory items. Deleting a code that is linked to an item may cause an error. The user may, however, edit the description field.

Changing the Status of an Item to Non Conform

To set a location to non conform status, complete the following steps:

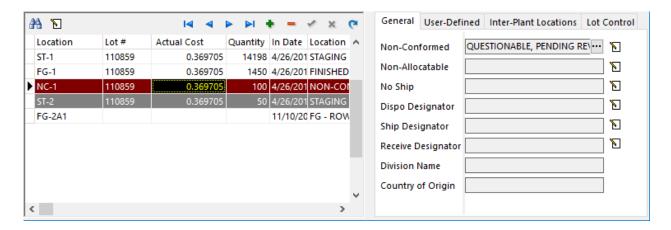
- > From the **Transactions** screen, highlight the location to be made non conforming in the lower left grid.
- ➤ With the **General** tab showing on the lower right side of the form, click on the icon to the right of the **Non Conformed** field. The following screen will appear:



- Select a Reason from the arrow down list. The Reasons button accesses the Non Conform Codes list. Security can be put on the Reasons button in order to prevent users from adding reasons to the list. They will only be able to select an existing one from the list.
- For users licensed for the Quality modules a pop up message will appear asking, "Would you like to create an MRB?" If Yes is selected a pick list of existing MRBs will appear to add the item to, or select the New button to create a new MRB. If No is selected the material will be toggled to non-conform without being associated to an MRB. Security can be placed on this message.
- > Select the Apply to Lot Number option if all of the locations with the same lot number as the highlighted location should be toggled to non-conform. This option will only be visible if the highlighted location has a lot number associated to it. (Refer to the Lot Control section for details). Note: VMI locations are excluded, they will not be toggled to non-conform if it is the same lot number. Note: If a user selects the 'Toggle Conformed' button from the General tab on a location/lot that was set to non-conform using the Apply to Lot Number option, they will receive a message stating, "Insufficient rights, setting is being enforced on the Lot Control level or Master Location is marked Non-Conform".
- ➤ Select the Allocatable box if the items should be allocatable and be included in the on hand quantity. Note: The Allocatable box will not be available for locations marked as non conform in the Master Locations list. This attribute is established in Master Locations for that specific non conform location. The allocatable attribute on master non conform locations can only be overridden from the Lot Control tab in Transactions and Locations.
- Click on [OK] when finished. The location will now be highlighted in a rusty brown color and the General tab of the Transactions screen will now reflect the entire non-conform code as shown in the screen below, and the On Hand and Non Conform inventory amounts will be affected.

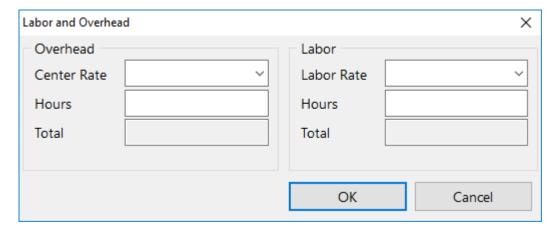
Note: If a user attempts to toggle a default designated location to non-conforming, or mark a non-conforming location as a default designator, a status exception message box will appear requiring authorization to continue. Only users with security rights can select the OK button to continue to mark the default location as non-conform.

Note: If the location is associated to a pick ticket a warning will appear stating, "This lot is currently associated to Pick Ticket # xxx. Please make the necessary adjustments to the Pick Ticket". After selecting OK the Non Conform Reason form will appear for the user to continue toggling it to non conform, or selecting cancel to return to the transaction screen with no changes.



Change Reason - The Reason can be changed by selecting the ellipsis button in the Non-Conformed field and selecting a Non-Conform code from the pick list. Note: If a non-conform reason was applied to the Lot# (Lot Control tab), if the user attempts to select the ellipsis button a message surfaces, "Insufficient rights or setting is being enforced on the Lot Control level."

When toggling the material back to conforming a pop up box will appear where the user can enter any labor or overhead required to make the items conforming again.



To add overhead, select a work center form the drop down list or type an overhead rate in the field. Enter in the number of hours. To add labor select a labor rate from the drop down list or type in an amount in the field and enter in the number of labor hours. The labor rate list is established in the Quote module under Misc/Rates and Parameters/Direct Labor Rates. This information will appear in the translog for the item as well as in the Process Cost module as part of the actual costs. Security can be placed on the fields and buttons on this form.

Note: If the Inventory parameter option 'Non Conform move requires MRB completed' is checked, and the Non-Conform location is linked to an **active** MRB, users will not be able to move to a conforming location until the MRB has been approved (MRB Approval Date filled in). A message will appear stating, "MRB# XXX that has not been approved is associated with the non-conform location being moved - operation aborted."

Note: Users are not prevented from moving material from one Non-Conform location to another Non-Conform location.

Note: When dragging and dropping inventory from a Conform to Non-Conform, or Non-Conform to Conform location, a confirm pop up will display: "Are you sure you want to move conforming/non-conforming to non-conforming/conforming?". Select Yes to continue the move, or No to return to the screen with no changes. It also includes a 'Do not show next time' check box. Security can be placed on this form, the Yes button and check box.

Note: If a failed inspection is linked to a location, and a user moves items to a conforming location, after selecting 'Yes' on the "Are you sure you want to move non-conforming/conforming?" confirm message, a warning with Yes and No buttons will appear stating, "Location Quantity Inspection has failed. Are you sure you want to continue?" Security can be placed on the Yes button. (Linking an inspection is only available on a non-conform location created during receiving for an item that requires an inspection, based on the when the 'Count' equals the 'Rec Insp Threshold').

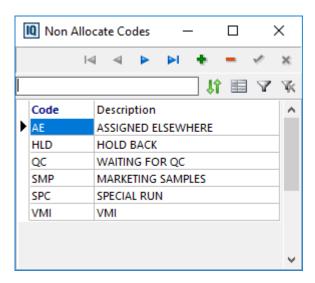
Master Non-Conform Locations

Master Non-Conform locations can be created (locations marked as Non Conform in the Locations list). A master non-conform location can be added to the item and then product moved into that location. Note that a master non-conform location cannot be toggled to conform. The right click option 'Toggle to Conform' will not be visible, and if the user selects the 'Toggle Conformed' button they will receive a message stating, "Insufficient rights, setting is being enforced on the Lot Control level or Master Location is marked Non-Conform".

Non Allocate Materials

As with non conform materials, the non allocate codes must be set up prior to assigning them to an inventory item. To access the non allocate table:

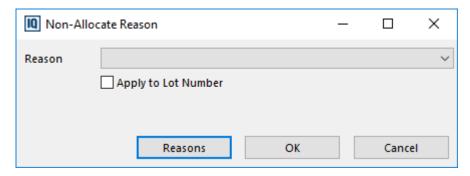
- Select Misc from the Inventory screen menu.
- Select Non Allocate Codes from the submenu. The non-allocate codes box will appear as shown here. Create new codes or delete codes from this screen by using the functions on the Navigator Bar.



Changing the Status of an Item to Non Allocate

To set a location to a non allocatable status, complete the following steps:

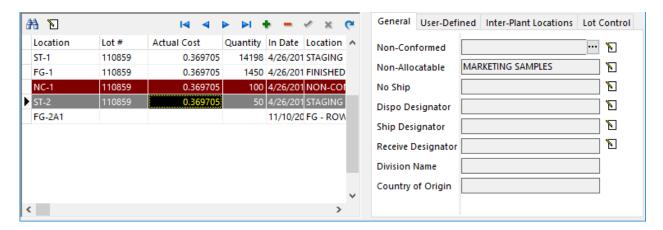
- From the **Transactions** screen, highlight the location to be made non allocatable.
- > On the General tab on the lower right side of the form, click on the icon to the right of the Non Allocatable field. The following screen will appear:



- > Select a **Reason** from the arrow down list. The Reasons button accesses the Non Allocate Codes list. Security can be put on the Reasons button in order to prevent users from adding reasons to the list. They will only be able to select an existing one from the list.
- Select the Apply to Lot Number option if all of the locations with the same lot number as the highlighted location should be toggled to non-allocate. This option will only be visible if the highlighted location has a lot number associated to it. (Refer to the Lot Control section for details). Note: VMI locations are excluded, they will not be toggled to non-allocate if it is the same lot number.
- Click on [OK] when finished. The location will now be highlighted in a gray color and the General tab of the Transactions screen will now reflect the non allocate code as shown in the screen below.

NOTE: The On Hand inventory amounts will not be affected because non allocatable material is tracked within the On Hand amount.

NOTE: If the Non Allocatable location is a marked 'Non Allocatable' in the Locations table, it cannot be toggled to allocatable. Only the reason can be changed when clicking the toggle button. If the material is no longer non allocatable it must be moved to a location not marked as non allocatable.



Marking a Location as No-Ship

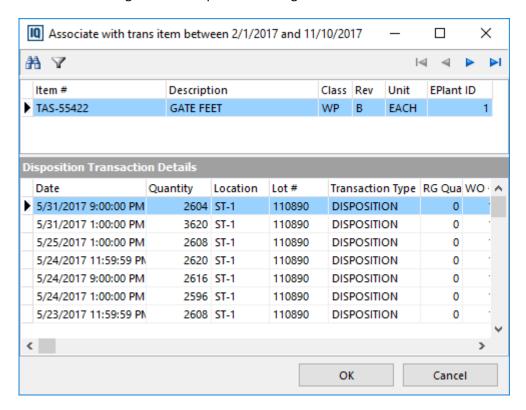
To set a location to a no-ship status, complete the following steps:

From the **Transactions** screen, highlight the location to be marked no-ship.

On the **General** tab on the lower right side of the form, click on the icon to the right of the **No-Ship** field. A Confirm message will appear, select Yes to continue or No to not mark the location as No-Ship.

Zero Adjust with Associate

This feature is designed to easily make adjustments to component inventories at the end of a manufacturing run. The components must have an 'Associate with MFG#' disposition designator location set up. When the item is dispositioned it will pull from that location. Then to easily adjust end-of-run quantities, right-click on the Locations and Transactions form for the item and select **Zero Adjust w/ Associate** from the menu. This will display the last transaction made to this component and what manufacturing number it was made from. The user can then easily associate the adjustment to inventory to a manufacturing number for process costing.

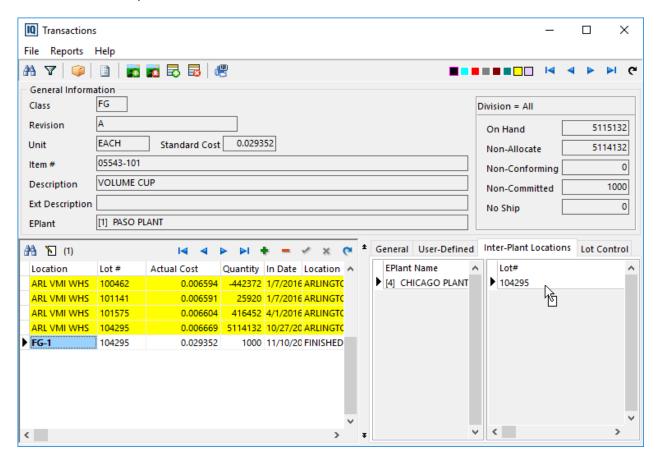


To zero adjust the inventory, highlight the manufacturing number to associate the transaction with and select OK. This will remove all of the parts from the location and create an out entry in the translog with a transaction type of Manual/Associated.

InterPlant Inventory Transfers

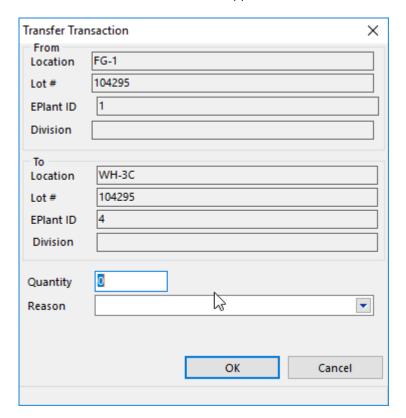
Items may be transferred from one EPlant to another EPlant. The item must have the same Class, Item number, and Rev in order for a transfer to be made between EPlants. The item must also have a location associated with it. An InterPlant transaction may not be made if no location exists for the item at the EPlant the item is being transferred to. Please note: If an item is manufactured in one EPlant, but not manufactured in the other, it is important for users to evaluate how they would like to handle the inventory item's standard costing within the secondary EPlant. If the item should be handled as a purchased, non-manufactured item in the secondary EPlant, please ensure that there is one cost element associated to the item. There should not be more than one cost element on a purchased component. If it should be handled as a manufactured item, please ensure that there is a BOM associated to the record on the Manufacturing tab. This BOM can be marked Inactive if so desired.

To transfer inventory from one EPlant to another select the **InterPlant Loc's** tab.



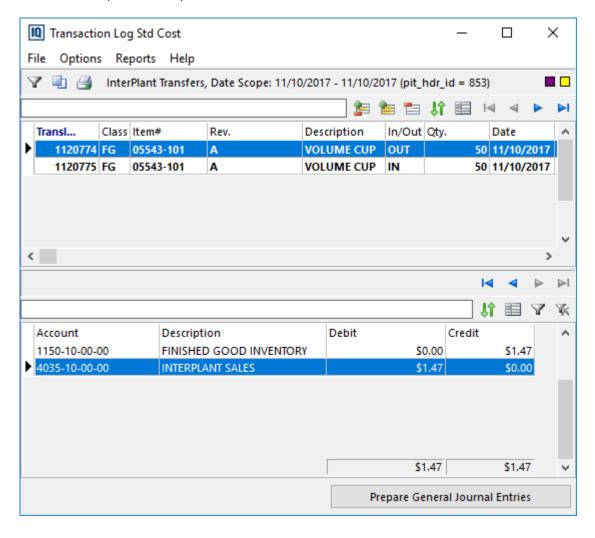
This tab shows the EPlant name(s) that have this exact item and the corresponding location(s) for that EPlant. To move the item from one EPlant location to another highlight the location you would like to move the material from on the left side of the form and drag it to the location you would like to move the item to by holding the left mouse button down. (The locations in the other EPlant include the color coding for Non-Conform, Non-Allocate, VMI, MTO, Expired, Intransit, and Hard-Allocated status types).

The Transfer Transaction form will appear:



Enter in the quantity and a reason (optional). To create the reason list, right click and select 'Edit User Defined List' and enter reasons in the Text field. If the lot number does not match a new location will be created. The product is now transferred. This transaction is recorded in the Transaction log as an INTERPLANT XFER.

For Standard Cost users the journal entry is created using Post Inventory Transactions and selecting **InterPlant Transfers** as the transaction type. (Note: You cannot be logged into an EPlant to do InterPlant PIT transactions). The system will create a journal entry using the Recv/Dispo GL account associated to the inventory item on the Standard Costing tab for each EPlant. The entry will credit inventory for the EPlant the items were transferred from and debit inventory for the EPlant the items were transferred to. Below is a sample inventory transaction.

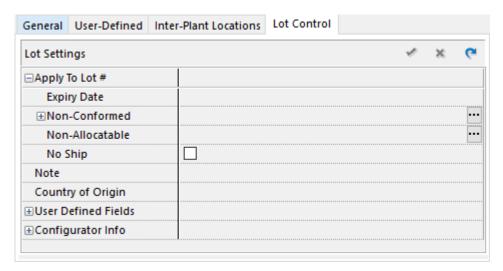


Lot Control

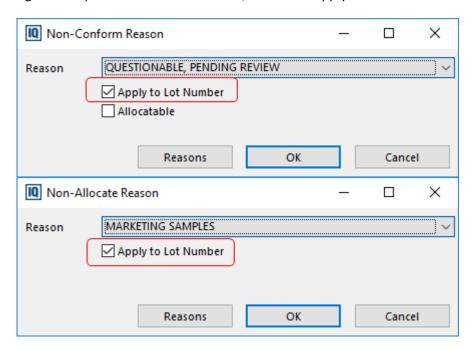
The information on this tab will only be visible if the location has a lot number. The Lot Control tab has two sections:

Lot Settings

This section will only be visible if the highlighted location has a lot number associated to it. From here users can apply a status such as Non-Conform and Non-Allocate to a specific lot number of material that may be in more than one location.



To mark an entire lot of material as non-conform or non-allocate, after selecting the toggle button or right click option from the **General** tab, check the 'Apply to Lot Number' box on the Reason pop up form.

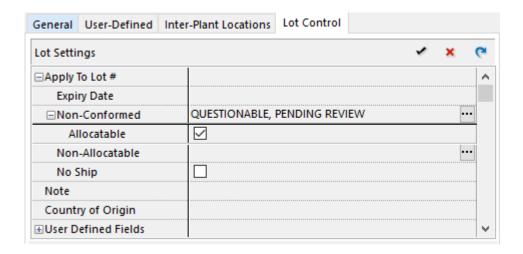


This will mark all locations with the same lot number as non conform or non allocate for the selected reason. The reason will display in the corresponding field (non-conformed or non-allocatable) on the Lot Control tab. Once a lot is marked with an attribute, such as non-conform, anywhere that lot is moved the attribute will stay with it.

Note: VMI locations are excluded, they will not be toggled to non-conform or non-allocate if it is the same lot number.

Note: If a user selects the 'Toggle Conformed' button from the General tab on a location/lot that was set to non-conform using the Apply to Lot Number option, they will receive a message stating, "Insufficient rights, setting is being enforced on the Lot Control level or Master Location is marked Non-Conform".

Non Conform items can be marked **Allocatable** by selecting the box on the Non Conform reason pop up box, or from the Lot Control tab. When a non conform location is marked allocatable the items will be in the On Hand quantity and not in Non-conforming, and they will be allocatable.



From the **Lot Settings** tab the Non-Conformed and Non-Allocatable reason can be cleared and a new reason can be assigned to all locations with the same lot number. Select the ellipsis button in the field to access the two options. Select **Assign** to associate a reason to all locations with the same lot number by selecting one from the pick list. Select **Clear** to remove the reason. A pop up message will appear stating, 'Select 'Yes' to apply to the entire lot number or 'No' to apply to the selected location only'. The pop up also includes a cancel button which will return the user to the form with no changes.

Note that when assigning a non-conform reason to a lot or clearing a reason for the entire lot, no transactions will occur in the transaction log. However, when toggling a single location back to conforming an In Conform transaction will be written to the transaction log.

Expiry Date - An Expiry Date can be associated to a lot #. This can be entered during receiving or a date can be selected from the Lot Control tab. All locations with Lot # past the Expiry Date are marked 'Expired' (red) in Transactions and Locations.

No Ship - All locations associated to a single lot number can be toggled to no ship by checking this box. If a user tries to ship from a location marked 'No Ship' through pick tickets and packing slips a status exception will display stating the location is marked No Ship. Depending on security the user can select OK to proceed or the cancel button may be the only option which will prevent the location being used to ship from.

Note field- The note field can be used to enter up to 4000 characters of information specific to the lot number. Select the ellipsis button in the field to access the Lot Note pop up form.

Country of Origin - For purchased items this field automatically populates with the country associated to the Vendor the item was received from if the location has a lot number. This information can be manually changed, if the user has security to do so, by typing in this field. This allows users to populate the Country of Origin per lot number for manufactured or purchased items.

User Defined Fields - There are five character user fields, five numeric user fields, and five user date fields to add specific lot details. The field names can be changed by right clicking and selecting 'Define Label Text'. The five character user fields are also visible when receiving into a new location and from the Lot Tracking module.

Configurator Information - This includes the Cost, Price, and Weight of the items in the highlighted location. This only applies to items that were configured in the CRM Quote module using the Sales Configuration Template feature.

- Cost This is the cost of the item. It equals the sum of unit price from the CRM Quote detail of the Sales Configuration Item plus the associated choices.
- Price This is the price of the item. It equals the sum of list unit price from the CRM Quote detail of the Sales Configuration Item plus the associated choices.
- Weight This is the weight of the item which includes the weight of all components.

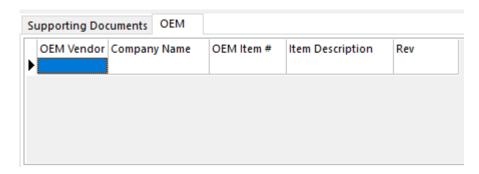
(For more information on Sales Configuration Templates please see the CRM help file).

Supporting Lot Control Documents

This displays the documents scanned during receiving. During the receiving process the user can scan in a document associated to the Lot Number using a Twain compatible bed/image scanner. External documents can also be added here and set to print with the Certificate of Conformance and/or the Packing Slip. When an item on a packing slip is shipped from a location/lot with the document assigned, when the COC or packing slip is printed, the system will print the attached documents. These documents are also visible from Lot Tracking.

OEM Tab

This tab will display the OEM Vendor, OEM Vendor Description, OEM Item #, OEM Item Description, and OEM Item Rev when applicable.

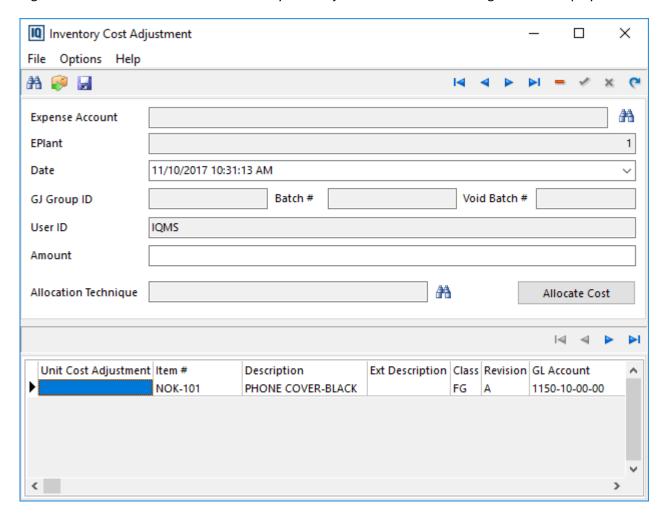


Inventory Cost Adjustment (ICA)

This allows users to update the actual cost of a location to include additional costs (such as changes for labor and any additional costs that are not AP) for items received. This process will also create a GL entry for the costs incurred that will update the inventory and expense accounts as well.

Note: There is also an ICA feature in the AP Invoice that can be used to adjustments due to Commodities/Freight increases. See Inventory Cost Adjustment (ICA) in the Accounts Payable section for more information.

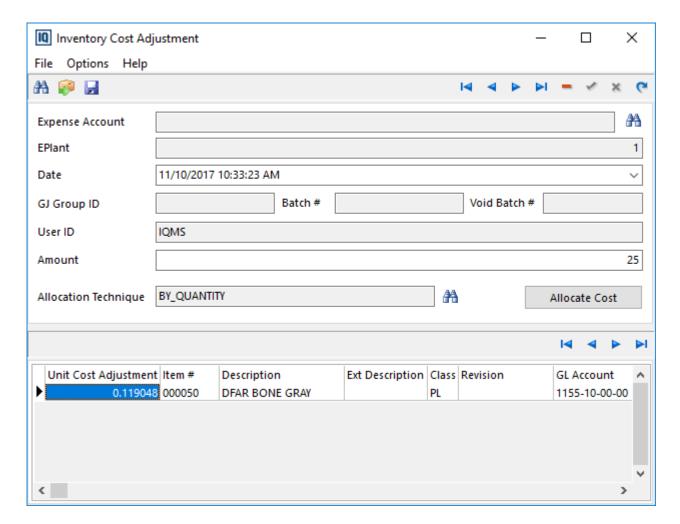
Right click on a location and select Inventory Cost Adjustment and the following form will display.



- > Select an Expense Account from the pick list accessed by clicking the Search button.
- > The Date defaults to the current system date and time. A different date may be selected from the drop down calendar.
- > Enter the Amount to be allocated.
- > Select the Allocation Technique from the pick list. There are two options:
- Flat Amount This will add the amount entered to the actual cost of the location.
- By Quantity This option will allocate the amount across the quantity in the location.
- > Select the Allocate Cost button at the top of the form or in the middle. This will calculate the Unit Cost Adjustment based on the amount and allocation technique.
- ➤ A reason may be entered in the Reason column to provide additional information as to the cost adjustment.
- > Select the **Post** button to post to the general ledger and update the location's actual cost. The GJ Group ID and Batch # are populated when the journal is posted. The general journal entry will be a debit to the Inventory Asset Account for the Amount, and a credit to the Expense Account for the same amount.

For example:

Location quantity is 210 with an actual cost of 0.702418; 25.00 is allocated by quantity to the location. The actual cost of the location is adjusted by 0.119048 (25 / 210) to a new value of 0.821466.



When preparing the journal the following would get posted to GL Prepost:

If allocation technique = BY QUANTITY:

Debit – Inventory Asset Account for the Amount

Credit – Expense Account for the same amount

If allocation technique = FLAT AMOUNT:

Debit – Inventory Asset Account for the Amount * On Hand

Credit – Expense Account for the same amount

If the Flat Amount allocation technique is selected, the amount entered is added to the actual cost of the location. For example, with a flat amount of 10.00 entered, for a location with a cost of 0.702418, the new cost would be 10.702418 (10 + 0.702418).

Serialized Inventory Control

For items that have the Serialized Inventory Control option selected on the Additional tab in the main inventory screen all transactions will be tracked by the serial number of the label. During any transaction in the Location and Transaction screen the user will be prompted to pick from the available serial numbers.

NOTES:

IQMS does not recommend using Serialized Inventory Control for material and components due to strict backflush location requirements in comparison to non-serialized items. For example, if sufficient inventory does not exist in the backflush location found according to the hierarchy, the user will not be able to complete dispositioning a manufactured item in many areas of the software until sufficient serialized inventory is moved to the correct backflush location. Labels can still be used on material and components, but it is recommended to not check the Serialized Inventory Control box.

If an item is marked "Serialized Inventory Control" the system will automatically choose "Do not disposition partials" because all serialized items should be floor dispositioned.

There is an option in Divisions/Warehouses called "Override Serialized Inventory Control". If this is checked the system will allow the following transactions within the Division/Warehouse to occur without selecting specific serial numbers: drag and drop between locations (not moves), Pick Ticket, Receive Intercompany Shipments, and Physical Inventory.

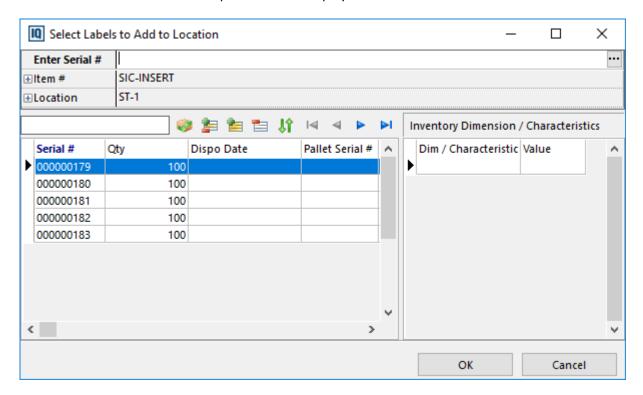
In order to prevent SIC items from going negative, an "ORA-20400: Insufficient SIC inventory. Transaction cancelled" message will surface whenever a transaction is about to drive a SIC item negative. This message will surface for all OUT transaction types where SIC items will be drawn negative.

The information in the next section just discusses inventory transactions such as add, move or remove for items marked Serialized Inventory Control. For a complete discussion on Serialized Inventory Control please refer to the *Serialized Inventory https://my.iqms.com/cfs-file.ashx/__key/Technote/Serialized-Inventory.pdf* TechNote.

Add, Remove, and Move Transactions for SIC Items

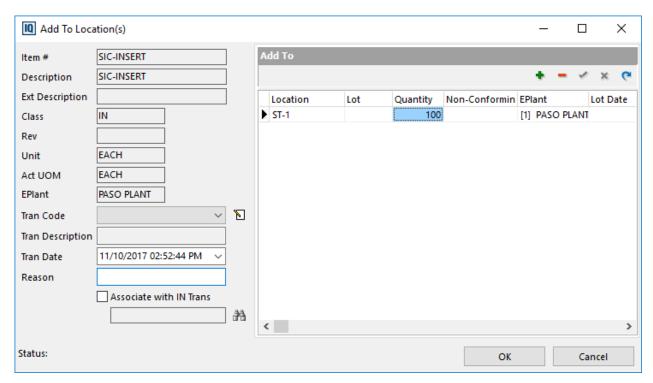
To adjust inventory for serialized items within Locations and Transactions, right click or use the speed buttons and choose add to or remove from location, or drag and drop to move to another location (or use the right click 'Location to Location' option). The select labels screen will appear.

Enter the Serial # or select the ellipsis button to display the available labels.



Add to Location

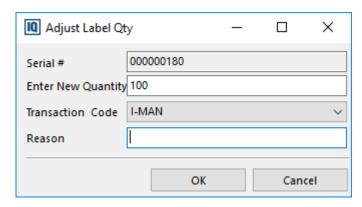
- ➤ Highlight the label(s) to add using the toggle buttons.
- > Select OK.
- > The Add to Location(s) form will appear with the location and quantity filled in. If the item has the Backflush Material option checked in Inventory, the Materials to Backflush portion will appear at the bottom of the screen.



Note: When backflushing a serialized component, users can alter the quantity as long as it is less than the full label quantity. If a user attempts to change the quantity to greater than the label quantity an error will display: "SIC item entered quantity cannot exceed quantity on the label - operation aborted".

Change Quantity (Add):

- Highlight the label(s) to add using the toggle buttons.
- > If the quantity needs to be adjusted for a label click on the Adjust Labels Qty button and the Adjust Label Qty box will appear, enter the new quantity for the label.



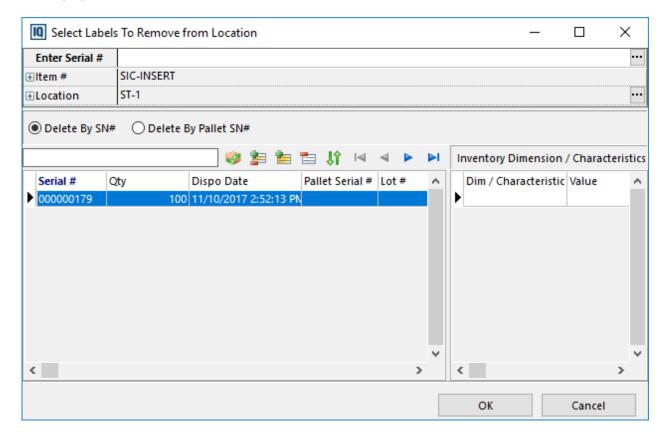
- > Enter a Transaction Code and reason if required or desired.
- Once all adjustments are made select OK.

Note: If two users attempt to simultaneously add the same serial number a message will appear stating: 'The location(s) associated with the label(s) in this transaction are no longer current - operation aborted.'

Remove from Location

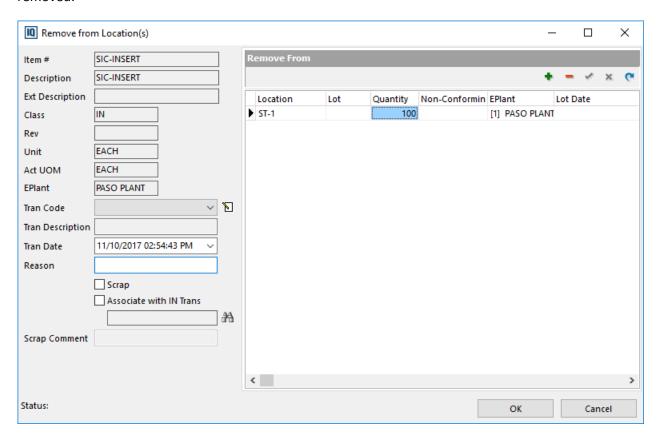
After selecting Remove from Location the Select Labels form will display the labels associated to the highlighted location.

Choose either 'Delete By SN#', or 'Delete By Pallet SN#' by clicking one of the radio buttons. The screen will display the available labels.



- > Highlight the labels to be removed using the toggle buttons.
- Select OK.
- > The Remove from Location(s) form will appear with the location and quantity populated. If the item has the Backflush Material option checked in Inventory, the Materials to Backflush portion will appear at the bottom of the screen.

Note: Once the remove transaction is complete the loc_desc is removed from master_label, the dispo_scan field is set to 'N' and the dispo_date is changed to the date and time when the inventory was removed.

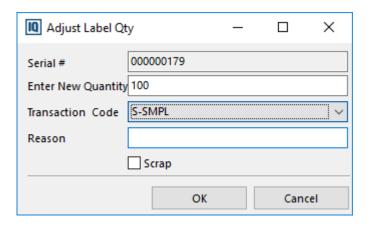


Note: If the serial number is associated to a pick ticket, the user is prevented from removing the serial numbers from inventory. A message is surfaced stating "Serial# xxxx is assigned to a pickticket - transaction aborted."

Note: When deleting inventory by pallet serial or individual serial, the link between child and parent serial is maintained. When deleting by pallet serial and there are different locations (FG_MULTI) with the same location ID, the correct quantities are removed from each FG_MULTI.

Change Quantity (Remove):

> If the quantity needs to be adjusted for a label click on the Adjust Labels Qty button and the Adjust Label Qty box will appear, enter the new quantity for the label.



- > If the adjustment is due to scrap put a check in the scrap box and select the reason from the list.
- Enter a transaction code if desired or required.
- Click OK to complete the transaction and click OK again to exit the Select Labels screen.

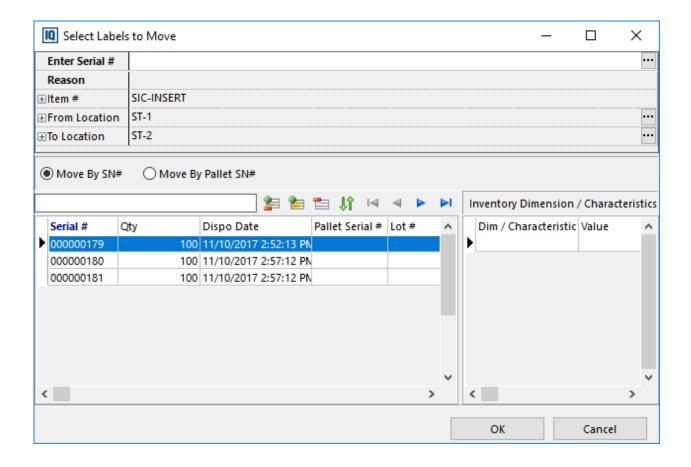
Note: When increasing or decreasing the quantity of a serial from the Linked Labels screen, the transaction is recorded in translog_master_label and displays the serial number in the transaction log right-click option to 'Show Serial Numbers'.

Move Locations

Drag and drop from one location to another to move the items. A form will appear to select the serial numbers to be moved. Users can select the 'Move By SN#' to move individual serial numbers, or 'Move By Pallet SN#' to move by pallets.

Notes:

- The target location will dictate what labels will appear. For instance, if the target location is not an intransit location then only non in-transit labels will display. If the target location is an in-transit location then only "similar" in-transit labels should show.
- If the user moves the pallet, the boxes will retain their link to the pallet (parent_id). If the user moves the boxes they will lose their link to the pallet.
- When moving a mixed lot pallet for a Serialized Inventory Control (SIC) item using the 'Move by Pallet SN' radio button the scanner must be used. If attempted from Inventory->Transactions and Locations a message will appear, "Move by Pallet SN not allowed for mixed lot pallets, please use scanner instead."



Highlight the correct Serial #(s) and select OK.

If items are moved into a negative on-hand location, the system will consume the label(s) based on the label amount. For example, if the location is -250 on hand and the user moves 1000 pieces, the label will be consumed by 250 pieces and be updated to 750 pieces total.

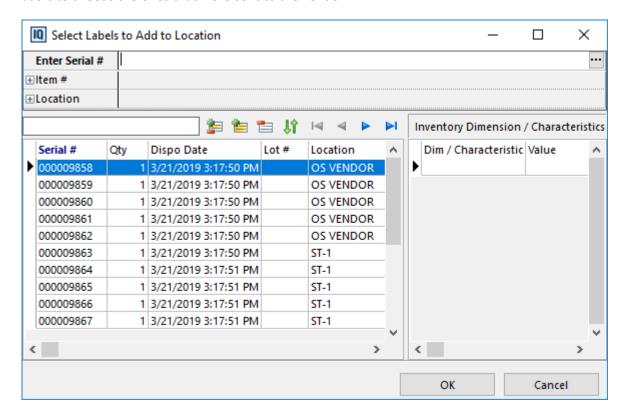
NOTE: Manual Add or remove transactions that can have a transaction code applied, can be done on existing labels from the Linked Labels form. See Change Quantity on Existing Labels below for more information.

Backflushing Serialized Inventory Control Items

SIC items attached as consumed items on BOMs can be backflushed based on the serial numbers. This includes receiving Outsource items with a SIC consumed item. When backflushing a SIC item the system will open the 'Select Labels' form. Click on the ellipsis button in the Enter Serial # field to display the serial numbers.

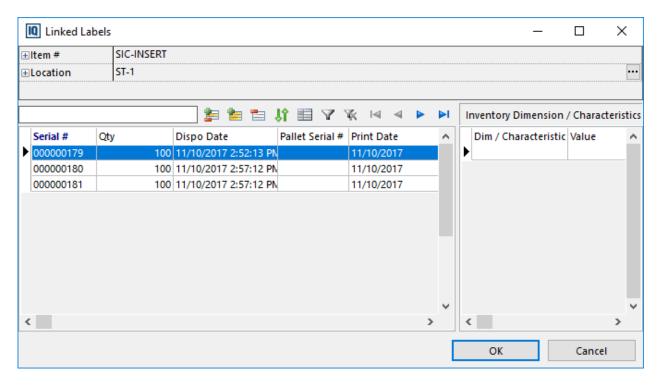
When Outsource Central is used, when backflushing during receiving an Outsource item the pick list will display the serial numbers in the In-Transit location (the serials sent to the vendor). When backflushing during a transaction the pick list will display all serial numbers available to consume (it will not show those In-transit or in a VMI location).

If Outsource Central is not used when selecting the double arrow option the system will backflush based on FIFO. When using the single arrow option the screen will display all of the labels for the item, not just the ones sent to the vendor. (This is because the system does not have the required links to the sent serial numbers as it would when using Outsource Central). The Location is listed in the grid to enable users to choose the ones that were sent to the vendor.



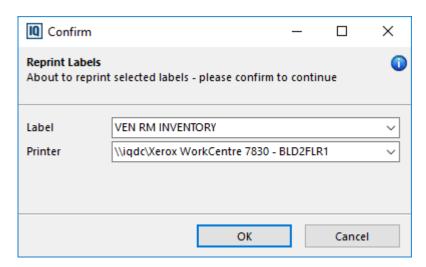
View Linked Labels

For Serialized Items only - From within the Locations form the user can right click on a location or select the **Linked Labels** speed button to view the labels associated to that location. A form will appear listing the serial number(s).



To view all linked labels for all locations right click and select '**Show All Locations Linked Labels**. A form similar to above will appear listing all linked labels for the item and there corresponding location disposition date, and label print date.

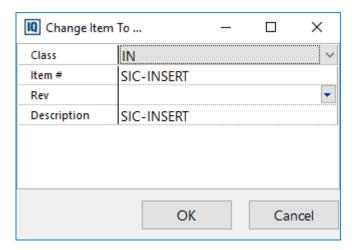
Reprint Selected Labels - Highlight the labels to be reprinted using the Shift or Ctrl keyboard buttons, then right click and select 'Reprint Selected Labels'. A popup form will appear to select the label and printer.



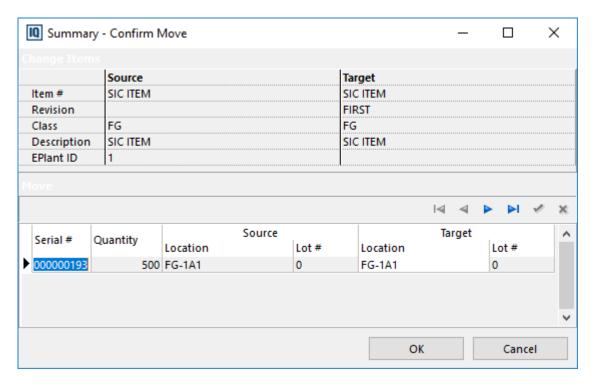
NOTE: If the location is a VMI location there will not be any labels to view because the item has been shipped. In other words, once the shipment detail is filled into the Master_Label table, those labels will not show when you are in inventory.

Change Item

From within the linked labels form the user can change the item the linked label is associated to. Typically this is used to change the Rev/Grade of the item but can also be used to move the label to an existing item or create an entirely new item number. Right click and select 'Change Item'. A form will appear to enter the item information that this label will be changed to.



Enter the information to be changed and select OK. A new item can be created by changing the Class, Item # or Rev or the label can be transferred to an existing item by typing the exact information for that item in the fields. Once the information is entered a 'Summary - Confirm Move' form will appear showing the source and target information. When creating a new item the location the items will be transferred to defaults to the same location it came from but can be changed using the ellipsis button in the Target Location field. The actual cost associated with the from location will also be associated to the new item and location.



Select OK to continue. If an existing item was selected the quantity and label Transaction Log as a manual transaction with the reason as Change Item.

If a new item was created the system will create a new inventory item and move this label to that new item. The item that gets created is similar to being cloned; it has all the aspects of the original item but will include the changes that were made to the class, Item #, or Rev/Grade. The new item will have the same BOM attached in order to keep Post Inventory Transactions working properly.

If a user clicks OK on the 'Change Item To' form without changing a key field a message will appear stating, 'Unable to create new item - one or more key fields such as class, item# or rev must be changed.'

Change Quantity on Existing Labels

The quantity of a label can be changed from the Linked Labels screen by right clicking on a label and selecting Increase Qty or Decrease Qty. With either the increase or decrease type transaction, a Manual/Backflush type transaction will be recorded to the transaction log. When the Increase Qty option is selected the 'Add to Location(s)' form will appear. Enter the quantity to add to the specific label. The user can also select a transaction code to apply to the transaction. When the Decrease Qty option is selected The 'Remove from Location(s)' form will appear.

Copy/Paste Cells within Linked Labels - Individual cells can be copied from this form and pasted elsewhere by highlighting the cell and selecting 'Copy Cell to Clipboard' from the right click menu. The entire line will be highlighted blue, but only the data in the actual individual cell (e.g. Serial #) will be copied.

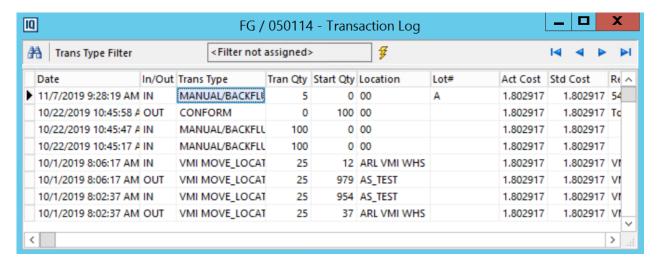
Jump to Serial Tracking

Select this right click option to jump to the label in the Serial Tracking module (See Serial Number Tracking for module details). Note: If the user has multi-selected labels then this option will be grayed out.

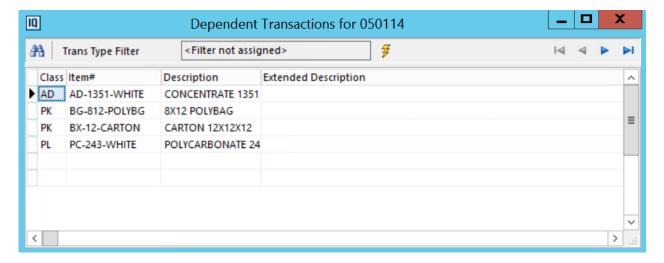
Transaction Log

All inventory transactions are recorded and permanently stored in the Transaction Log. Select the Transaction Log button from Master Inventory or from Locations and Transactions. The following form will appear.

(Note: Other modules can be opened while the Transaction Log form is open).

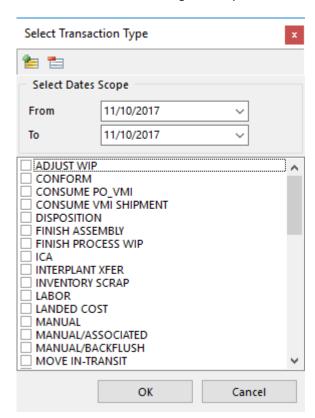


Drill down capability is also provided in the Transaction Log to allow for the **viewing of dependent transactions**. For example, if the transaction is a Disposition Transaction, then drill down capability is available to allow the user to view the dependent raw material, overhead and labor transactions that were recorded when the disposition occurred. This will include the specific item # that was dispositioned at the time the transaction occurred. The dependent transactions in Translog are filtered by batch + sub_batch, therefore only the records associated with the sub_batch are displayed.



Users can search for a specific transaction by selecting the Search button and using the pick list functionality. This pick list includes the sort and scope functionality.

The Transaction Log can be filtered to display specific transaction type(s), for a specific date range. Select the 'Apply Trans Type Filter' button , then select the desired transaction types from the list by placing a check in the box. The selected transactions can be filtered for a specific date range by entering the From and To dates using the drop down calendars in the corresponding fields.



The transaction log will just display the transactions that match the selected type(s) for the specified date range. To see all transactions again, unselect all transaction types using the 'Unselect All' button.

Right Click Options

By right clicking in the form the user can jump to PO, Packing Slip, Vendor or Customer RMA, or Production Reporting if applicable to the highlighted line item. The Production reporting jump will be available for IN Disposition transactions only.

Other right click options include:

Exclude from Report - This toggle allows the user to filter out inventory items from custom written reports. If checked the item will not appear in a custom written inventory report. Note that all of the stock reports ignore this setting.

Parent Item - The parent Item is the main item a transaction was done for which caused the transaction for the 'child' item. To view the information for the parent transaction, right click and choose Parent Item. A box will appear showing the parent item #, description, and transaction information. This displays the Sub Batch information for the specific record to allow for tracing back separate Floor Dispositions.

Consumed VMI SN# - For Consume VMI Shipment transactions the user can right click to view the label serial number associated with the transaction.

Edit Item Lot # - This option allows the user to correct the item's lot number. Right click and enter the correct lot number in the pop up box. This will only change the lot number field. It will not affect the FG Lot Number for manufactured items. Security can be placed on this feature.

Show Serial Numbers - This option displays serial numbers associated to individual transactions for the item made from anywhere in the system, including IQRF and WMSIQ. (This information is recorded in the TRANSLOG_MASTER_LABEL table in Data Dictionary). Select the lock button to ensure the serial number(s) remain in the pop up when another show serial numbers form is opened. If it is not locked when a subsequent Show Serial Numbers form is opened the previously opened one will refresh to display the second forms serial numbers.

Country of Origin - The Country of Origin applies to purchased items. It automatically populates with the country associated to the Vendor the item was received from. This information is also available as a right click option in the Lot Tracking module, and is visible in the Transactions and Locations module.

The table below lists the various transaction types and the possible corresponding reasons. Also each transaction type has a transaction type code associated to it, that populates in the Translog table (Trans Type Code), which is also shown in the table below.

Trans Type	Code	Description	Possible Reasons
ADJUST WIP	42	ASSY MFG Type WIP adjustment.	 Process WIP Rejects Void ASSY Reject MFG Parts Void ASSY Reject Components
CONFORM	01	When product is toggled from non conforming to conforming. The reason field will populate with Toggle to Conform or Non Conform.	Toggle to ConformToggle to Non-Conform
CONSUME PO VMI	44	When purchased items are moved from a VMI location to a non VMI location	•
CONSUME VMI SHIPMENT	25	Out transaction showing the amount consumed from a VMI location.	 Consume VMI Shipment Web Consume VMI Shipment (from WebDirect) Manual Reference #
DISPOSITION	13	Transaction made as a result of production reporting using various methods RT Scan to inventory.	 Floor Disposition Floor RG Disposition Floor Disposition/Backflush Non RT RF Disposition
FINISH PROCESS WIP	39	ASSY MFG Type Finish Process WIP transaction.	Final Assembly
ICA	45	Inventory Cost Adjustment	ICA in AP Invoice
INTERPLANT TRANSFER	27	Transfer between two EPlants.	Receive IntercompanyIn-Transit PS# xxx
INVENTORY SCRAP	22	Out transaction where the Scrap box is checked.	Reject Code selected
LABOR	19	Associated Labor record for transaction	Reason from parent
LANDED COST	46	The Landed Cost record associated to a received item.	Receiving PO# xxx
LANDED COST-ICT	50	The Landed Cost record associated to an intercompany received item.	Receiving PO# xxx

Shipment Staging PS# xxx Move Receive Intercompany In-Transit PS # xxx Transaction Code User Entry Repack NEW ITEM O An entry is made in the log when the item is					
Void ASSY Reject Components	MANUAL	02	Manual transaction	•	Process WIP Rejects
Reject Code Recycle Tag # xxx User Entry Receiving without PO Reject In-Transit Outsource Inventory MANUAL / ASSOCIATED 16 A manual transaction that has been Associated to an IN transaction. MANUAL / BACKFLUSH 14 A manual (non system generated) transaction into or out of inventory. 15 Scan/Backflush Rejects Backflush JobShop Dispo Shop Data Rejects Reject Code User entry during Add/Out transactions in RF/WMS MOVE IN TRANSIT 32 This transaction is created when a packing slip that has not been verified is voided. MOVE LOCATION 33 A location to location transfer. 34 Iocation to location transfer. 35 Outsource Transit PS# xxx Batch Transfer Direct Move WO MTO Allocation, SO# xxx Scanner Pick Items Scanner Pick Items Scanner Direct Move Hard Material Allocation, SO #xxx Shipment Staging PS# xxx Move Receive Intercompany In-Transit PS# xxx Transaction Code User Entry Repack NEW ITEM O An entry is made in the log when the item is				•	Void ASSY Reject MFG Parts
## Recycle Tag # xxx User Entry Receiving without PO Reject In-Transit Outsource Inventory ## Receiving without PO Reject In-Transit Outsource Inventory ## User Entry Scan/Backflush				•	Void ASSY Reject Components
## User Entry ## Receiving without PO ## Reject In-Transit Outsource Inventory ## NANUAL / Associated to an IN transaction that has been Associated Inventory ## NANUAL / BACKFLUSH ## A manual (non system generated) transaction into or out of inventory. ## A manual (non system generated) transaction into or out of inventory. ## Scan/Backflush ## JobShop Dispo ## Shop Data Rejects ## Reject Code ## User entry during Add/Out transactions in RF/WMS ## Word IN TRANSIT ## NOVE IN TRANSIT ## NOVE LOCATION ## Outsource Transit PS# xxx ## Batch Transfer ## Direct Move WO ## MTO Allocation, SO# xxx ## Scanner Move ## Scanner Direct Move ## Hard Material Allocation, SO #xxx ## Scanner Direct Move ## Hard Material Allocation, SO #xxx ## Scanner Direct Move ## Receive Intercompany In-Transit PS# xxx ## Move ## Receive Intercompany In-Transit PS# xxx ## Transaction Code ## User Entry ## User Entry ## Repack ## NEW ITEM ## O # An entry is made in the log when the item is				•	Reject Code
## Receiving without PO ## Reject In-Transit Outsource Inventory ## NANUAL / ASSOCIATED ## A manual transaction that has been Associated to an IN transaction. ## A manual (non system generated) transaction into or out of inventory. ## A manual (non system generated) transaction into or out of inventory. ## A manual (non system generated) transaction into or out of inventory. ## Scan/Backflush ## Rejects Backflush ## JobShop Dispo ## Shop Data Rejects ## Reject Code ## User entry during Add/Out transactions in RF/WMS ## Wold In-transit, PS # xxx ## Wold In-transit, PS # xxx ## Wold In-transit, PS # xxx ## Batch Transfer ## Direct Move WO ## MTO Allocation, SO# xxx ## Scanner Direct Move ## Scanner Direct Move ## Hard Material Allocation, SO #xxx ## Scanner Direct Move ## Hard Material Allocation, SO #xxx ## Move ## Receive Intercompany In-Transit PS # xxx ## Move ## Receive Intercompany In-Transit PS # xxx ## Transaction Code ## User Entry ## Repack ## NEW ITEM ## O An entry is made in the log when the item is				•	Recycle Tag # xxx
Reject In-Transit Outsource Inventory				•	User Entry
MANUAL / ASSOCIATED 16				•	Receiving without PO
ASSOCIATED to an IN transaction. MANUAL / BACKFLUSH 14 A manual (non system generated) transaction into or out of inventory. **Scan/Backflush** **Rejects Backflush** **JobShop Dispo** **Shop Data Rejects** **Reject Code** **User entry during Add/Out transactions in RF/WMS** **MOVE IN TRANSIT** 32 This transaction is created when a packing slip that has not been verified is voided. **MOVE LOCATION** **Outsource Transit, PS # xxx** **Batch Transfer** **Direct Move WO** **MTO Allocation, SO# xxx** **Scanner Divect Move** **Scanner Divect Move** **Hard Material Allocation, SO #xxx** **Move** **Receive Intercompany In-Transit PS # xxx** **Move** **Receive Intercompany In-Transit PS # xxx** **Transaction Code** **User Entry** **Repack** **NEW ITEM** **O An entry is made in the log when the item is				•	
## Rejects Backflush Into or out of inventory. ## Rejects Backflush JobShop Dispo ## Shop Data Rejects Reject Code ## User entry during Add/Out transactions in RF/WMS ## Word In Transit, PS # xxx ## Word In Transit, PS # xxx ## Word In Transit, PS # xxx ## Word In Transit PS# xxx ## Word In Transit PS# xxx ## Batch Transfer Direct Move WO ## MTO Allocation, SO# xxx ## Scanner Move ## Scanner Direct Move ## Hard Material Allocation, SO #xxx ## Shipment Staging PS# xxx ## Move ## Rejects Backflush ## PobShop Dispo ## Word In Transit PS # xxx ## Batch Transit PS # xxx ## Batch Transfer ## Direct Move WO ## Hard Material Allocation, SO #xxx ## Shipment Staging PS# xxx ## Move ## Receive Intercompany In-Transit PS # xxx ## Transaction Code ## User Entry ## Rejects Backflush ## PobShop Dispo ## Obshop Dispo ## Nodd In Transit PS # xxx ## Nodd In Transit PS # xxx ## Move ## Rejects Backflush ## Obshop Dispo ## Nodd In Transit PS # xxx ## Move ## Reject Code ## User Entry ## Rejects Backflush ## Obshop Dispo ## Nodd In Transit PS # xxx ## Nodd In Transit PS # xxx ## Move ## Rejects Backflush ## Obshop Dispo ## Obshop Dispo ## Ovid In Transit PS # xxx ## Outsource Transit PS # xxx ## Direct Move WO ## Hard Material Allocation, SO #xxx ## Shipment Staging PS# xxx ## Move ## Rejects Backflush ## Outsource Transit PS # xxx ## Direct Move WO ## Hard Material Allocation, SO #xxx ## Shipment Staging PS# xxx ## Move ## Direct Move ##		16		•	User Entry
JobShop Dispo	MANUAL /	14	A manual (non system generated) transaction	•	Scan/Backflush
# Shop Data Rejects # Reject Code # User entry during Add/Out transactions in RF/WMS MOVE IN TRANSIT 32 This transaction is created when a packing slip that has not been verified is voided. MOVE LOCATION 33 A location to location transfer. 4 Outsource Transit PS# xxx 5 Batch Transfer 7 Direct Move WO 7 MTO Allocation, SO# xxx 7 Scanner Move 8 Scanner Move 9 Scanner Pick Items 9 Scanner Direct Move 1 Hard Material Allocation, SO #xxx 1 Shipment Staging PS# xxx 1 Move 1 Receive Intercompany In-Transit PS # xxx 1 Transaction Code 1 User Entry 1 Repack NEW ITEM O An entry is made in the log when the item is	BACKFLUSH		into or out of inventory.	•	Rejects Backflush
Reject Code User entry during Add/Out transactions in RF/WMS MOVE IN TRANSIT 32 This transaction is created when a packing slip that has not been verified is voided. MOVE LOCATION 33 A location to location transfer. 4 Outsource Transit PS# xxx 5 Batch Transfer 6 Direct Move WO 7 MTO Allocation, SO# xxx 8 Scanner Move 8 Scanner Pick Items 9 Scanner Direct Move 1 Hard Material Allocation, SO #xxx 9 Shipment Staging PS# xxx 1 Move 1 Receive Intercompany In-Transit PS# xxx 1 Transaction Code 1 User Entry 1 Repack NEW ITEM O An entry is made in the log when the item is				•	JobShop Dispo
User entry during Add/Out transactions in RF/WMS				•	Shop Data Rejects
MOVE IN TRANSIT 32 This transaction is created when a packing slip that has not been verified is voided. MOVE LOCATION 33 A location to location transfer. 4 Outsource Transit PS# xxx 5 Batch Transfer 1 Direct Move WO 1 MTO Allocation, SO# xxx 2 Scanner Move 3 Scanner Direct Move 4 Hard Material Allocation, SO #xxx 5 Shipment Staging PS# xxx 6 Move 7 Receive Intercompany In-Transit PS# xxx 7 Transaction Code 8 User Entry 8 Repack NEW ITEM O An entry is made in the log when the item is				•	Reject Code
that has not been verified is voided. MOVE LOCATION O3 A location to location transfer. Batch Transfer Direct Move WO MTO Allocation, SO# xxx Scanner Move Scanner Pick Items Scanner Direct Move Hard Material Allocation, SO #xxx Shipment Staging PS# xxx Move Receive Intercompany In-Transit PS# xxx Transaction Code User Entry Repack NEW ITEM O An entry is made in the log when the item is				•	• •
Batch Transfer Direct Move WO MTO Allocation, SO# xxx Scanner Move Scanner Direct Move Hard Material Allocation, SO #xxx Shipment Staging PS# xxx Move Receive Intercompany In-Transit PS # xxx Transaction Code User Entry Repack NEW ITEM O An entry is made in the log when the item is	MOVE IN TRANSIT	32		•	Void In-transit, PS # xxx
Direct Move WO MTO Allocation, SO# xxx Scanner Move Scanner Pick Items Scanner Direct Move Hard Material Allocation, SO #xxx Shipment Staging PS# xxx Move Receive Intercompany In-Transit PS # xxx Transaction Code User Entry Repack NEW ITEM O An entry is made in the log when the item is	MOVE LOCATION	03	A location to location transfer.	-	Outsource Transit PS# xxx
MTO Allocation, SO# xxx Scanner Move Scanner Pick Items Scanner Direct Move Hard Material Allocation, SO #xxx Shipment Staging PS# xxx Move Receive Intercompany In-Transit PS # xxx Transaction Code User Entry Repack NEW ITEM				•	Batch Transfer
Scanner Move Scanner Pick Items Scanner Direct Move Hard Material Allocation, SO #xxx Shipment Staging PS# xxx Move Receive Intercompany In-Transit PS # xxx Transaction Code User Entry Repack NEW ITEM				•	Direct Move WO
Scanner Pick Items Scanner Direct Move Hard Material Allocation, SO #xxx Shipment Staging PS# xxx Move Receive Intercompany In-Transit PS # xxx Transaction Code User Entry Repack NEW ITEM O An entry is made in the log when the item is				•	MTO Allocation, SO# xxx
Scanner Direct Move Hard Material Allocation, SO #xxx Shipment Staging PS# xxx Move Receive Intercompany In-Transit PS # xxx Transaction Code User Entry Repack NEW ITEM O An entry is made in the log when the item is				•	Scanner Move
Hard Material Allocation, SO #xxx Shipment Staging PS# xxx Move Receive Intercompany In-Transit PS # xxx Transaction Code User Entry Repack NEW ITEM O An entry is made in the log when the item is				•	Scanner Pick Items
Shipment Staging PS# xxx Move Receive Intercompany In-Transit PS # xxx Transaction Code User Entry Repack NEW ITEM O An entry is made in the log when the item is				•	Scanner Direct Move
■ Move ■ Receive Intercompany In-Transit PS # xxx ■ Transaction Code ■ User Entry ■ Repack NEW ITEM O An entry is made in the log when the item is				•	Hard Material Allocation, SO #xxx
Receive Intercompany In-Transit PS # xxx Transaction Code User Entry Repack NEW ITEM O An entry is made in the log when the item is				•	Shipment Staging PS# xxx
PS # xxx Transaction Code User Entry Repack NEW ITEM O An entry is made in the log when the item is				•	Move
■ User Entry ■ Repack NEW ITEM 0 An entry is made in the log when the item is				•	• •
■ Repack NEW ITEM 0 An entry is made in the log when the item is				-	Transaction Code
NEW ITEM 0 An entry is made in the log when the item is				-	User Entry
				-	Repack
created.	NEW ITEM	0	An entry is made in the log when the item is created.		

NON INV VEND RMA	0	Entry is made in the log when a miscellaneous item is rejected on a Vendor RMA.	■ Vendor RMA# xxx
OVERHEAD	18	Associated Overhead record for transaction	Reason from parent
PACKING SLIP	04	Out transaction when a packing slip is created.	 Relieve In-transit PS# xxx PO# xxx Packing Slip # xxx
PHYSICAL INVENTORY	17	Inventory adjustment made during a physical inventory.	 Physical Inventory Adjustment. 'Type' such as WS-Class/Loc or Cycle Count
РМ	20	An Out transaction for an item consumed in a PM work order.	Consumed by PM
PO	08	Received from a purchase order.	Receiving PO# xxxReceiving without PO
PO NON INVENTORY	33	Receipt Record for non inventory or miscellaneous item.	Receiving PO # xxxVoided Receiving PO # xxx
PO NON INV VOID	34	Used when a receipt on a PO has been voided	■ Void PO Receipt
PO VMI	43	Used when a PO is posted to a VMI location	Receiving PO# xxx
PROCESS WIP	38	ASSY1 MFG Type Process WIP transaction.	 Report Process WIP
REJECT PO	12	Reject material from a purchase order receipt.	Rejected Receiving PO # xxx
REPAIR	29	Consumed from Repair work order from RMA	Repair
REPAIR FINISHED	30	Finished Repair - Close work order from RMA	Repair Finished
RETURN IN TRANSIT	37	Outsource Central Return	■ User Entry
REVERSE BACKFLUSH	41	ASSY MFG Type voids	Void ASSY Good PartsVoid ASSY Reject Mfg Parts
REV CHANGE		Revision change to item which occurs when the "Update to Rev" is selected.	Prior Rev: xxx
REWORK	35	Consumed from Repair work order from MRB	■ Rework
REWORK FINISHED	36	Finished Repair – Close work order from MRB	Rework Finished
RMA	06	Adding inventory based on a returned item.	RMA Trans RMA# xxx

TOOLING	21	Consumed in the Project Manager module	•	Consumed by Tooling
VENDOR RMA	23	A transaction to remove material for a Vendor RMA.	•	Vendor RMA# xxx
VMI INTERPLANT TRANSFER	28			
VMI MOVE LOCATION	26	A transfer from a non VMI location to a VMI location via a packing slip	•	VMI Packing Slip # xxx VMI Void PackSlip Disbursement, PS # xxx
VMI RETURN	31	Return VMI	•	Return VMI
VOID PACKING SLIP	05	In transaction when a packing slip is deleted	•	Pack Slip Disbursement, PS # xxx RMA Transaction, RMA # xxx
VOID RECEIVED PO	11	Void of a purchase order receipt	•	Void Receiving PO # xxx
VOID REJECTED PO	10	Void Rejected quantity in Receiving	•	Void Rejected PO # xxx
VOID RMA	07	Removing inventory based on a canceling receipt of a returned item.	•	RMA Void
VOID VENDOR RMA	24	This transaction occurs when the quantity returned on a vendor RMA is deleted.	•	Void Vendor RMA # xxx

The log consists of the following information (field listing is in alphabetical order):

Act Cost	The actual cost of the purchased item at the time of the transaction. This is the cost on the purchase order when the item is received. If the PO cost = 0, upon receipt the system will use the location.act_cost in translog.
	The cost field for manufactured items is typically zero unless using Actual Costing or the Production Reporting by Work Order module is used with the 'Post Actual Cost to Inv' Costing Parameter is checked. When the 'Use Actual Cost during Post Transactions' parameter is checked (System Parameters->Inventory Setup tab) the system will populate this field with the weighted average.
Batch	A batch is a group of transactions associated with one transaction. For example, if an item is dispositioned, the batch number is given for that item and all associated products consumed. The dependent transactions in Translog are filtered by batch + sub_batch. This prevents transactions from all records of the same batch from displaying when double-clicking the IN transaction to see the associated OUT transactions. Only the records associated with the sub_batch are displayed.
	Reports can also group by batch + sub-batch to get all associated items with specific transactions.

Comment	This displays the transaction comment if applicable, such as the 'Scrap Comment' from
	inventory scrap transactions, or the PO Receipt 'Transaction Comment'.
Cost Element	The cost element assigned to the inventory item.
CUser1 - CUser3	User-definable titles and fields. Right click on the heading and select the Define Column Title option to change the column name. These can be used for user defined reports or for additional information on the screen. Information entered in the CUser1-3 fields in the Transactions and Locations screen will appear here.
	If a Vendor Lot # is entered at the time an item is received the information will populate the CUSER1 field.
Date	The date and time of the transaction based on the transaction date; not necessarily the system date.
	If the EPlant has a Time Zone associated to it (System Parameters->Enterprise tab) the date for transactions will be adjusted forward or backward according to EPlant time zone change. (The time zone will not be mentioned in the date field).
	Note: When a shift crosses midnight, the date for floor dispositions will be the date of the production with a time of 11:59:59pm. When that shift is Production Reported the disposition transactions will have the date of the production with a time of 11:59:59pm. This will ensure that the floor dispositions and disposition records are together in PIT, and ensure the transactions show up properly when Work Order Reconciliation is enabled for Actual Costing. The user can still see the actual time by looking at the system date in translog.
	For Prod Report by WO: The Translog shows the current date/time, it does alter time for the time zone differential.
Division	The division associated with the item.
End Qty	After a transaction, this displays the total On Hand quantity for all locations. For PL class items, there is an 'End RG Qty' column to display the total RG On Hand quantity after a transaction.
EPlant ID	The EPlant ID associated with the transaction.
FG Lot#	If this item was used to create a manufactured item, the FG Lot number of the item will be shown.
In/Out	Indicates whether the transaction added or removed items from the particular location.
Item Information	This includes the item #, class, description, extended description, and revision for the item associated to the transaction.
Location	The location affected by the transaction. Note that a MOVE transaction creates two transaction records - IN and OUT.
Location Description	The description associated with the location affected by the transaction.
Location ID	The Location ID associated to the record.
Lot#	The lot number associated with the location.
MFG#	The MFG # associated to the transaction.

Parent Item#	The parent Item is the main item a transaction was done for which caused the transaction for the 'child' item. For example, when a FG item is dispositioned into inventory the materials used to create that item are dispositioned out. The FG item is the 'Parent' and the raw material is the 'child'. To view the information for the parent transaction, right click and choose Parent Item. A box will appear showing the parent item #, description, and transaction information. (If this field is applicable it will say 'Right Click to See P').
Posted	This field will display a Y if the transaction was posted through the Post Inventory Transactions or Inventory Activity Cost Journal modules.
Reason	The reason for the transaction. This field is optional, but is often filled in automatically by EnterpriseIQ. (Maximum 50 characters). Please see the Transaction Types table above for details.
Receipt #	Receipt Id Number from the Receiving transaction. The original receipt # also displays for PO rejects and void PO rejects.
Start Qty	The amount of material initially in the location affected by the transaction.
Start RG	The amount of regrind initially in the location affected by the transaction.
Std Cost	The standard cost of the item at the time of the transaction.
System Date	This is the actual date and time the transaction was made based on the Oracle Server time (matching System Parameters > Regional time zone).
Total Start Qty	This is the total quantity on hand in all locations before the current transaction. (Non allocatable Non-conform locations quantities are not included in the total).
Total Start RG	This is the total amount of regrind on hand in all locations before the current transaction. (Non allocatable Non-conform locations quantities are not included in the total).
Tran Code	The transaction code assigned to the transaction.
Tran Descrip.	The transaction description associated with the transaction code.
Tran Qty	The amount of material involved in the transaction. The quantity will be based on the default UOM for the item.
Trans RG	The amount of regrind (if any) involved in the transaction.
Trans Type	The transaction type. See the table above for details.
User	The ID of the user who performed the transaction.
WO #	Work Order number associated to the transaction, such as a Disposition transaction.
	This will populate with the WO # for hard allocated materials on the IN transaction.

Note: Additional fields such as Program Name (the program used when the transaction was made) exist in the TRANSLOG table and can be used for troubleshooting.

Inventory By Locations

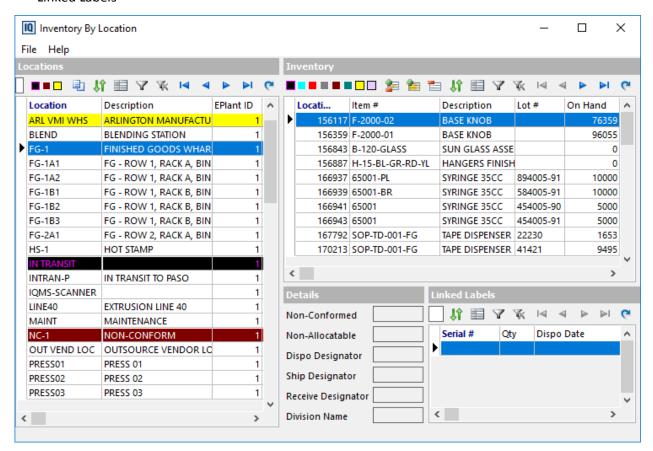
The Inventory by Location module displays all of the locations and the items in that location. To access

this module select the speed button from the Manufacturing tab on the launcher bar



This form consists of four sections:

- Locations
- Inventory
- Details
- Linked Labels



Locations

The locations section lists all locations in the logged in EPlant. This section includes the Location name, description, warehouse, EPlant ID, and Location ID. Locations will be color coded based on their attributes (yellow = VMI, Rust = Non Conform, and Purple/Black = In-Transit).

Additional Speed Button Options:

- By default only active locations display. To view inactive locations select the Show Active/Inactive toggle button.
- Select the multiple sort criteria (green arrow button) to select multiple columns for sorting. This feature is also available in the Inventory section.
- The locations list can be filtered using the Filter Dataset button. This feature is also available in the Inventory section.

For more information on these features refer to the Pick Lists section of the Using EnterpriseIQ manual.

Inventory

This section shows all of the items associated to the highlighted location. This information is very similar to the data in the lower left grid of the Locations and Transactions module except it lists all items in that location. It includes the item information such as; Item Number, Item Description, Class, Rev, and Ext Description. It also displays the On Hand, Lot#, Cost, and In Date, Lot Date. Other fields include: In Transit Origin, Hard Allocated To Outsource Vendor #, Make To Order (SO/Line#), Container #, Serialized, and Last In Date. The locations will be color coded if applicable. For more information on these fields please see Inventory Transactions.

Note: Security is available on many fields such as cost.

From within this section there are several right click options available:

- Jump to Locations and Transactions for the highlighted item.
- Jump to Inventory
- Change In Date This will pop up a calendar form for the user to choose a different In Date to
 associate to the highlighted record. When the in date is changed it will not have a time associated to
 it.
- Toggle to Non-Conform This toggles the location from Non-Conform to Conform and vice versa. This
 functions the same as the toggle button as described in Material Status (Non-Conforming and NonAllocated).
- Toggle to Non-Allocate This toggles the location from Non-Allocate to Allocate and vice versa.
- Toggle to No Ship This toggles the location from No-Ship to Ship. A Y will populate in the No Ship field if it has been marked as No-Ship. If it is toggled back to Ship a N will be in the field. For locations that have never been marked as no ship this field will be blank.

- Release Work order Hard Allocation Work order hard allocations can be released by selecting this option. If the work order has cycles required a warning will appear stating the work order is not complete. Depending on security the user will be able to select OK to continue with the release or Cancel to not release the hard allocation. Once the transaction is complete, the location will no longer have the work order associated to it and the color will go from aqua to white. The hard allocation will be disassociated from the work order.
- Release MakeToOrder Allocation This option will release the Make To Order allocation. Once selected a message will appear stating: 'Are you sure you want to deallocate MakeToOrder inventory location?'. Select Yes to continue and a pop up will appear to enter the quantity to be released (this defaults to the location quantity). Accept or enter the quantity and press OK to continue. (For more information see the Make To Order https://my.iqms.com/cfs-file.ashx/_key/Technote/Make_2D00_To_2D00_Order.pdf TechNote).
- Print Labels Labels can be printed for non-serialized items in a specific location. Right click on a location and select Print Labels and the Print Label form will appear with the Box quantity equal to the Location quantity. (Note: The Dispo_Scan field in the Master Label table will be marked as Y for manufactured items). Note: This option is not available for Serialized Inventory Control items.

Details

This will list the details associated to the location/item number combination. The details include: Non-Conformed reason, Non-Allocatable reason, Dispo Designator type, Ship Designator, and Warehouse name.

Linked Labels

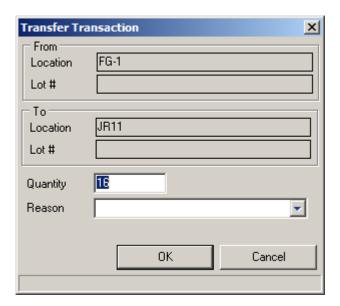
This will list the linked labels associated to the location/item number combination for serialized items. The fields displayed include: Serial #, Quantity, Dispo Date, Pallet Serial #, and Print Date.

Note: Users cannot sort on the following columns as they are calculated fields: Hard Allocated To, In Transit Origin, Outsource Vendor#, and Make To Order (SO/Line#).

Move Inventory

Inventory can be moved from one location to another using the drag and drop functionality.

To move a single item - Highlight a record in the Inventory grid and then using the mouse button drag it over to the Location you would like to move it to. To scroll up or down to a specific location that is not visible in the list, drag the mouse over the 'hot spots' at the top of the form and the very bottom. The form may optionally be opened twice for ease of target-source location moves. A confirmation box will appear, select Yes to continue with the move or No to not move the inventory. Mark the 'Do not show next time' box to not see this message when moving product from here. (It can be turned back on from the Dialog Check Boxes list in System Parameters). Once yes is selected a Transfer Transaction form showing the From and To locations will appear:



The Quantity will default to the full quantity that was in the from location but it can be changed by typing a different value in the field. A Reason can be entered manually or selected from the user defined drop down list, which will populate in the reason field in Translog. The system will create a new FGMULTI record and add an In and Out MOVE_LOCATION transaction type to the translog.

To Move Multiple Items - Multiple items in a location can be moved at one time by either using the built in toggle speed buttons or the Ctrl or Shift keys. Once all of the desired locations are highlighted, drag them to the Location they are to be moved to. Select Yes on the confirmation box and the items will be moved. Note that when moving multiple items the entire quantity will be moved. The Transfer Transaction form will not appear to enter a different quantity.

Inventory Reports

All Inventory Reports can be found by selecting **Reports** from the menu bar (within Inventory or Locations and Transactions). Selecting this function will bring up a Reports dialog box that will list the reports available for viewing or printing. The reports listed in the reports menu will be based on the class of the item the user is currently viewing. Each inventory class has specific reports. Each report can be printed to the workstation screen, output to a printer, or printed to a file.

Vendor Managed Inventory for Customers - VMI

EnterpriseIQ supports the ability to manage inventory stored at another location (such as the customer's site or a local warehouse). The system includes the ability to ship the product to the customer, manage the shipment and quantity as another location within the inventory item master file, and support the invoicing of the product when it is actually consumed by the customer or at the time of packing slip.

VMI uses the customer Ship To records and a special location as the basis for this functionality. Basically, a Ship To location is linked to a special inventory location, marked as a "VMI Location". Whenever an item is shipped to this shipping address, via the packing slip function, the inventory transaction is actually recorded in the item master file. When viewing the item information, the VMI location is displayed, with the current quantity available.

When the customer consumes the item, the EnterpriseIQ user can then manage the creation of the invoice and adjust the inventory level in the VMI location or the invoice can be created at the time the packing slip is done. VMI supports partial consumption of the item, so that multiple invoices can be created to handle the one or many transactions that occur on your customers floor.

Initial Setup

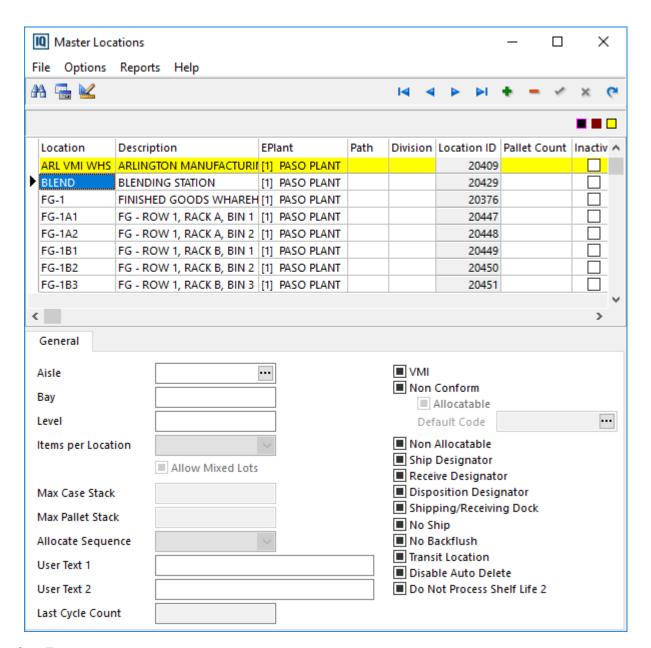
The first two steps involve creating a VMI location, then linking it to a Ship To address.

Access the Master Locations list from the Miscellaneous->Inventory Location Info menu in the Inventory module. (This can also be accessed from the Lists menu in System Parameters).

Step One

Create the VMI location in the Inventory table:

Create a new location with the standard location and description information, and the optional eplant information. The location name and description can be virtually anything, though you may find it helpful to describe it as a VMI location for easy reference later. The description used here will be displayed within the inventory locations record, so it is helpful to clearly identify the location. Find the VMI Location column and click the check box. Note that the location record changes color to a yellow background, indicating this is a VMI location. An example is shown below:

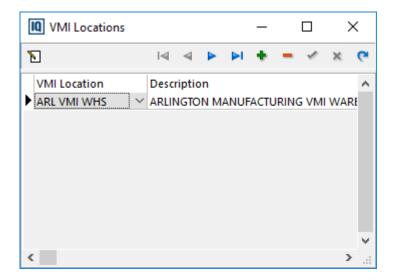


Step Two

Link the VMI Location to a Ship To Address:

Next, access Customer Maintenance and locate the customer record that requires the VMI service, then click the Ship To tab. In some cases you may need to create a new Ship To address. Note that you can have multiple records for the same location. This is useful when you want to handle some shipments of items in the normal, non-VMI fashion, and others with the VMI designation. It may be helpful to clearly describe the location, using the Company Name field, for example, to clearly show this is a VMI location.

The lower right area of the screen contains a VMI Invoice option and a VMI button. Use this button to bring up the list to find the inventory location created in step one.



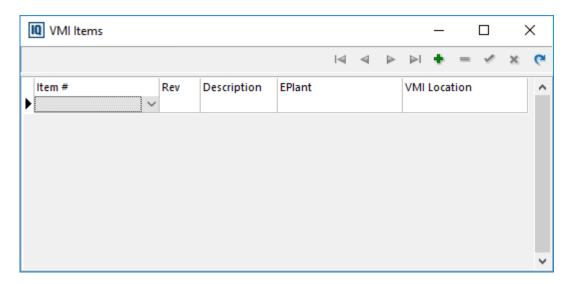
The VMI location must be unique for each customer SHIP TO address. This VMI location must also be unique for each customer. In other words, you cannot use the same VMI location for different customers.

From this screen you can also edit the Master Locations list by clicking on the button in the upper, left corner of the form.

This action now links the Ship To address with a VMI location(s). From this point on, any sales orders that ship to this exact address will create the necessary records to track the activity within the VMI location.

From this screen the user may choose when to invoice for the items sent to a VMI location. The two options are Invoice on Consume or Invoice on Pack Slip. Invoicing on Consume will invoice when the items are consumed through the VMI module. Invoicing on Pack Slip will invoice when the items have been 'shipped' on a packing slip (prior to consumption).

VMI Items



If a VMI Location is associated to the Ship To address this option will be available to associate specific items that will ship to the VMI Location. Select the item(s) from the drop down list and associate a VMI Location. Once an item has been added, then any time any inventory is shipped to this Ship To, only the items indicated in the VMI Items grid will go to the VMI location, anything else shipped to the same Ship To will process as a non-VMI shipment.

Inventory Locations and VMI

It is important to understand that a VMI location is simply another location linked to the item (all items in EnterpriseIQ can be maintained in multiple locations). However, there are important differences:

- Items cannot be manually transferred into or out of VMI locations from **non** VMI locations except through the packing slip module and a special module that handles VMI inventory. This includes manual transfer/move activity. However, transfers may be made between VMI locations if the location address is the same. The result is that users can see what is in inventory by location, but cannot directly manipulate these values without going through the proper channels.
- VMI quantities are not taken into account when calculating available to promise in Inventory Availability. A VMI location is automatically marked Non-Allocatable.
- VMI locations are also not included in the Physical Inventory counts.

When viewing the Inventory Locations form, the VMI locations are shown with a background of yellow.

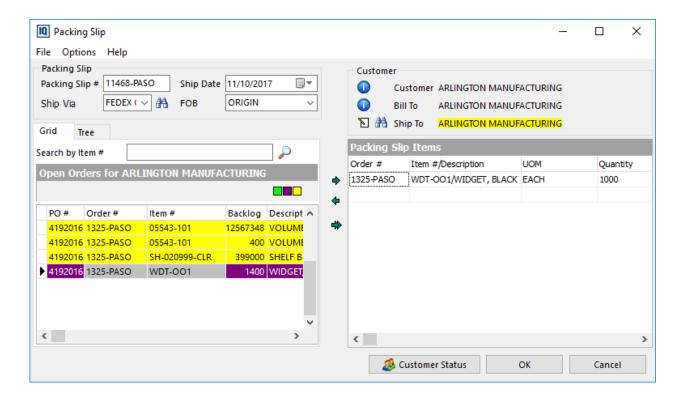
Note that inventory in a VMI location is automatically set to "Non-Allocatable". This prevents the MRP engine from including these items in the work order calculations. Because the items have been shipped, the demand for the item has already been reduced buy the amount shipped, just as if you shipped the items using the standard procedure. If the items were not set to non-allocatable, then they would be included as on-hand and therefore available to ship. In this case, the system would not generate the proper work order amounts to fulfill actual demand.

Sales Orders and VMI

The sales order is the beginning of the transaction chain for VMI. Placing an order to be shipped to a VMI location uses the same procedures as any other sales order. However, the Ship To address MUST be one of the VMI Ship To addresses described earlier. This is where it is helpful to make sure the VMI address is clearly denoted so that it is easy to find on the pick list, especially if the customer has many Ship To locations.

Moving Products to the VMI Location - the Packing Slip

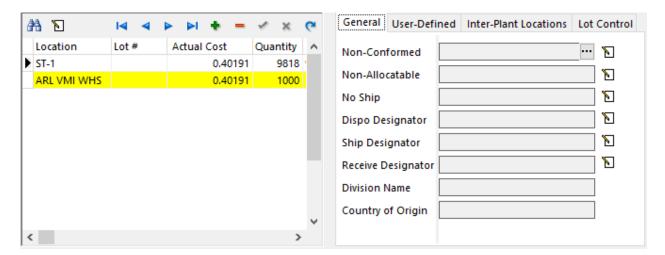
As mentioned earlier, you cannot directly move inventory into a VMI location. However, by creating and posting a packing slip - just like any other sales order during the shipment process - EnterpriselQ will automatically make the correct inventory transactions. Therefore, to 'ship' the VMI item to the customer, simply create a standard packing slip for the item and post the record. The VMI location record will be automatically added (if it had not been added manually by the user) to the list of locations for the item, with the correct amount 'shipped' in the Qty column.



In the example above, the 'Create Packing Slip from Sales Order' option, from the Sales Order screen, was used to generate the packing slip record. Note that the Ship To Address has been color coded (yellow) to show that this shipment is actually going to a VMI location. Post the packing slip by clicking the OK button.

In the example above, only 1000 of the 1400 parts on order were shipped. The Sales Order reflects the partial shipment, and reduces the total demand, as it normally would if this was not a VMI transaction.

The inventory record for the item has been adjusted as shown below, following the post process:



Note that the On Hand quantity remains the total of those items physically on-hand (9380) and those in the VMI location (1000). However, the 1000 VMI parts have been marked as Non Allocatable. As mentioned earlier, this prevents the MRP engine from assuming these are physically on hand for future shipments against the new demand.

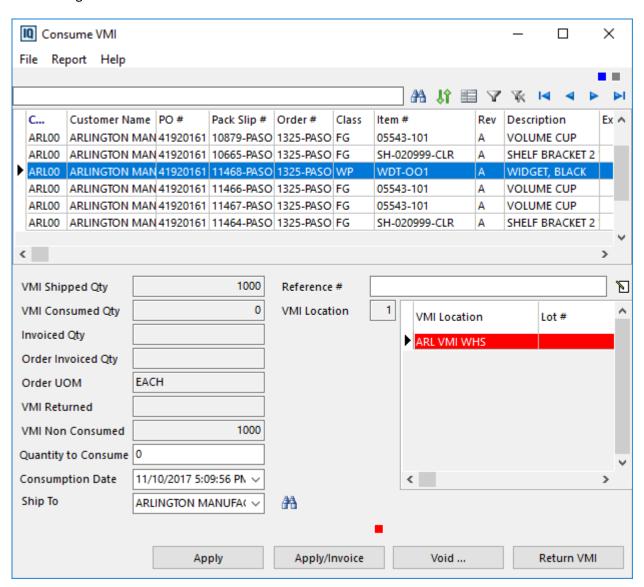
Consuming a VMI

Invoice on Consume

The user has two options for invoicing a VMI item. The first option is Invoice on Consume. With this option a shipped VMI item DOES NOT automatically create a record to be invoiced based on the shipment. The VMI item is held in a temporary state until the customer indicates he has consumed the item. When this occurs, the VMI shipment is then made available to invoicing. This includes the Auto-Invoicing function.

Consuming a VMI

To access the Consume VMI form, go to the Sales/Distribution tab of the EIQ Launcher Bar displaying all outstanding VMI items.



The form displays the shipping information of each VMI item, including the packing slip number, the amount shipped to that location, consumed to date, and the amount invoiced to date. The upper section also includes an 'In-Date' which is the packing slip date + customer ship to ship time.

To locate a specific item select the Search button.

The table below lists all the fields in the lower section of the form.

VMI Shipped Qty	The quantity shipped to a VMI address.
VMI Consumed Qty	The quantity consumed.
Invoiced Qty	The quantity invoiced associated to the packing slip.
Order Invoiced Qty	The quantity invoiced associated to the sales order.
Order UOM	The unit of measure associated to the sales order. The VMI consumption will be based on this UOM.
	Note: When consuming a VMI for an item with a UOM factor, the system is looking at the ord_detail.UOM_Factor, not the current UOM factor associated to the item. So if an items UOM was changed after an order was entered, the UOM would be looking at C_Ship_hist which comes from the order.
VMI Returned	The quantity returned.
VMI Non Consumed	The quantity of non consumed VMI items. This is the difference between shipped qty and consumed qty.
Quantity to Consume	The quantity to consume. Enter the amount that was consumed.
Consumption Date	The user can enter a Consumption Date to show the actual date the inventory was consumed. This date will default to the system date.
Ship To	A different Ship To address can be selected from the drop down list or the pick list accessed from the search button.
Reference #	The user can enter a VMI Reference number. This reference number is written to C_ship_hist and populates the VMI Reference Code field on the AR Invoice. This VMI Reference Code can be used when entering cash receipts. The reference # can be up to 35 characters. Select the Edit Reference # button to view and/or print the entire text.
	NOTE : If you invoice the VMI consumption right away, this reference number from c_ship_hist will write to accounts receivable prepost. However, if you consume an item, write in a reference code, then consume more of the same item with a different reference code, the last reference code used will be what shows on the invoice for both. The C_ship_hist only has one field for VMI Reference. It is not possible to store a different one each time the item is consumed.

The numeric value next to the VMI Location field shows how many location/lots are found for the VMI. The locations associated to the packing slip will display in red to the right of this box. When shipping from multiple locations without lot numbers they will be grouped in one line. The location section will display the location details such as name, description, and on hand as well as the 'Available to Consume' quantity which is the quantity for each location and lot #, not the total shipped.

For Non-Serialized Items:

To consume all or a partial amount, enter the quantity in the Qty to Consume field.

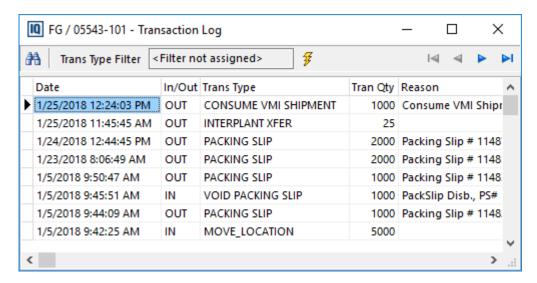
Highlight the correct location to consume from. Note the VMI locations/lots that are associated to the packing slip are color coded in red to stand out. They also show the available to consume value per location. If the user selects a lot/location that is not red a warning will appear: 'Not shipment associated VMI location'. The user can only continue if they have security clearance to select OK.

Note: If a user chooses to continue through the warning they will not be able to void the consumption from the location/lot# they consumed from. Users will only be able to void from the location /lot# they should have consumed from originally.

Apply VMI

Click the Apply button to process the information. If the consumption quantity is greater than the shipped quantity a warning will appear stating, "VMI consumption quantity is greater than the shipped quantity. Do you wish to continue?" This warning has a Yes and No button. Select Yes to continue or No to return to the VMI screen. Security can be placed on this warning. There is also a 'Do not show next time' check box.

The record is updated to show total consumption to date. In addition, the inventory transaction log for the shipped item is updated to show the removal of the items from the VMI location. In the example below, several VMI based transactions are shown:



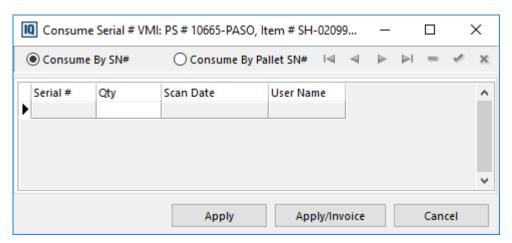
The last transactions are VMI based. Note the MOVE_LOCATION transactions. These were created by the packing slip routine, which moved the items from the original location to the VMI location.

For Serialized Items (SIC):

Serial numbers can be consumed directly from EIQ, or users can use the Express Mode option in IQRF/WMS. (Note: The Confirm Mode cannot be used. The system automatically adds all scanned serials to the Consume VMI list so it is not possible to perform a Consume VMI by Confirm Mode for SIC items as the process has already been done for the user).

Consuming SIC Items in EIQ

When the pick ticket is converted to a packing slip the system changes the master_label.VMI_consume to 'Y' and adds it to the VMI Consume module automatically. To consume the label go into EIQ->VMI to apply the VMI Serial Number to a specific packing slip. This is done by highlighting the packing slip on the Consume VMI screen, right click and select 'Serial # VMI'. A pop up box will appear showing the serial numbers associated to the location highlighted in the lower section, quantity consumed, the scan date and time, and user. Highlight the line(s) and select Apply or Apply/Invoice. When Apply is selected the invoice is created later from the AR Invoice module. When Apply/Invoice is selected the system will automatically create an A/R invoice based on this consumption rather than doing the two step process. This option works for customers that are set up as 'Invoice on Consume.' This uses the Auto-invoice rules on creating the invoice.



Note: Users can consume less than the label's quantity by entering a value in the Qty field in the 'Consume Serial # VMI' screen. The labels link to the VMI record is maintained so more can be consumed at a later time.

Note: When partially consuming a SIC pallet label in VMI, both the parent and child labels maintain their link to the VMI location.

Consuming from IQRF/WMS

Note: The Confirm Mode requires an additional step in EIQ->Consume VMI to apply serials to a specific packing slip. and cannot be used for SIC items.

- The Express mode requires scanning just the serial number. When the user selects this option the serial number is consumed immediately. The user will not have to go into EnterpriseIQ->VMI and consume the serial number. If a serial is scanned that is not in the list of consumable serials, the following error will occur: "Serial # X is not in the list of consumable serials or has already been consumed."
- If the **Confirm mode** is chosen, the user scans the serial number and is then asked to confirm the displayed information. To finish the consumption the user must go into EIQ->VMI to apply the VMI Serial Number to a specific packing slip. This is done by highlighting the packing slip on the Consume VMI screen, right click and select **Serial # VMI**. A pop up box will appear showing the serial numbers associated to the location highlighted in the lower section, quantity consumed, the scan date and time, and user. Highlight the line(s) and select Apply.

Note: If a user attempts to apply a consumption by using the Apply button at the bottom of the form and not the right click option for a serialized item a warning will appear stating: "This is a serialized item - to maintain association with serial numbers, cancel here and apply using right-click option for 'Serial # VMI' in top grid of this form". Security can be placed on the OK button to prevent users from consuming the VMI in this manner. There is also a 'Do not shown next time' option that can be checked to not show this message.

Non-Inventory Items

If non-inventory items are shipped with an inventory item to a VMI location, they can also be consumed so that they will appear on the AR Invoice. Locations and transactions do not apply. Note: If a non-inventory item is shipped alone (without an inventory item) it will not appear in Consume VMI to be consumed.

Kitting and VMI

VMI functionality works with phantom kit items and components of a kit. When performing a Consume VMI on a kit item, the system displays the finished phantom item (as grayed out per color chip) and the components shipped. A quantity to consume can be entered for the kit and/or the components, and the system will pull the items shipped from their respective VMI locations. When applying the quantity to consume for the kit, there will not be a VMI location displayed unless the phantom item was actually pulled from inventory during shipping. When voiding the consumption for a kit item and/or components, the system will put the items shipped back to the VMI locations. Return VMI will move the shipped kit and/or components back to non-VMI locations.

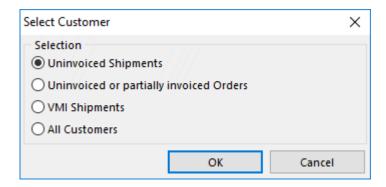
Right Click Options:

Jump to Sales Orders

- Jump to Packing Slips
- Serial # VMI Opens the Consume Serial # screen for Confirm Mode consumption as described above.
- Change Unit Price Before consuming a VMI the user can change the unit price. The price change will affect all non consumed VMI quantities. To change the price right click on the form and select "Change Unit Price'. Enter in the new unit price in the pop up form. The new price will be carried over to the AR invoice. The AR invoice will always reflect the most recent price change.
- **Export Data** This option will create a spreadsheet of the data in the top grid and will also include the VMI Shipped Qty, VMI Consumed Qty, Invoiced Qty, and Order Invoiced Qty from the lower section.

Creating an Invoice for VMI Items

Once the consumption is applied, an invoice can be generated. To create an invoice, click the VMI Shipments option, then OK to continue. Creating the invoice from this point forward is essentially identical to creating an invoice for any non-VMI item.



On the Customer Maintenance->Ship To->VMI tab there is an option to 'Reevaluate Unit Price based upon Invoice Date'. If this option is checked, upon creating an AR Invoice for the VMI shipment the system will reevaluate the unit price by comparing the price when the item was shipped to the current price on the inventory item (based on the hierarchy: AKA Selling, then Buy/Sell tab, and then Std Item Price). If it is different than the system will use the current price on the inventory item as the unit price for the AR Invoice. If this is not checked the system will use the price from when the item was shipped (C_SHIP_HIST.UNIT_PRICE).

Apply and Invoice

Users can select the Apply/Invoice button to have the system automatically create the Invoice rather than the two step process described above. This option works for customers that are set up as 'Invoice on Consume.' After entering the quantity to consume and the reference number (optional), the system will automatically create an A/R invoice based on this consumption. This uses the Auto-invoice rules on creating the invoice.

Note: When the 'Apply' or 'Apply/Invoice' button is selected the system will update the c_ship_hist.std_cost with the current arinvt.std_cost. This will update the shipment standard cost to the current one and keep inventory standard cost balanced. Any VMI consumption will be at the current standard cost. Invoicing will then pickup c_ship_hist.std_cost at current when posting Shipments in PIT.

Invoice on Pack Slip

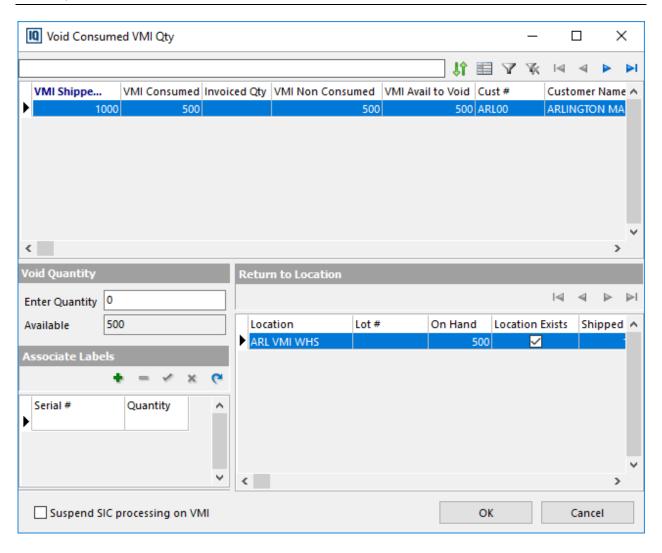
Another option for invoicing a VMI shipment is to invoice at the time of packing slip. This option is the same as if you were shipping to a **non** VMI location. The packing slip record will immediately appear in the Uninvoiced Shipments in the invoice module. You do not have to go through the consumption process mentioned above in order for the item to be invoiced.

Void or Return VMI

Void VMI

If a VMI consumption needs to be voided the user can select the Void button to bring up the list of consumed VMI's. The list will display all of the VMI details such as quantity shipped, quantity consumed, packing slip #, order #, etc.

Note: This screen will only show consumptions that have not yet been invoiced or consumptions that have unposted AR invoices.



For Non-Serialized Items: Select the correct VMI consumption from the list and enter the quantity to void in the Enter Quantity field. In the Return to Location section, highlight the location to return the items into. Only the locations associated to the packing slip will show up in the VMI void screen. Only these location(s) are available to Void, not exceeding any one location's "Available to Void". Once all of the information is entered, select OK to void the consumption.

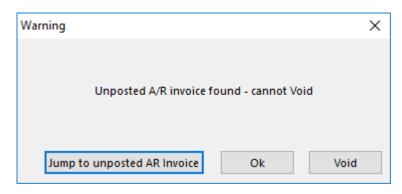
For Serialized Items: Enter the quantity and then select the ellipsis button in the Serial # field. Choose the serial number from the pick list. Select the insert (+) button to add additional serial numbers. Once all of the labels have been entered, select OK. This will revert the label(s) back to pre-consumed status. If the quantity of the selected labels does not match the void quantity the user will receive an error stating, "This is a serialized item. Associated labels gty must match assigned total gty".

If the serialized item was not consumed using serial numbers (not the recommended method), users can select the 'Suspend SIC processing on VMI' option to void without assigning serial number(s). If it is not checked the user will receive the error mentioned above and will not be able to void the consumption.

Non-Inventory items can have the consumption voided just like regular inventory but the user can only enter a quantity, locations do not apply.

If the packing slip also needs to voided it can be voided from the packing slip module. If a user tries to void a packing slip for a VMI shipment without first voiding the VMI consumption a message will appear stating the VMI consumed quantity must be voided first.

NOTE: If an unposted invoice exists for the consumed VMI a warning will appear:



From this warning the user can still select the Void button to void the consumed VMI quantity but it is recommended that the invoice be deleted before the consumed VMI is voided. Select the 'Jump to unposted AR Invoice' button to access the invoice associated to the VMI record to delete it.

If the invoice is not deleted users may end up with more invoiced than consumed. For example, consume and Apply/Invoice for 100 pieces. Consume and Apply/Invoice for another 200 pieces. If the user wants to void the 200 they should jump to the unposted invoice for 200 and delete that invoice, then they can void the 200 consumed. The next consumption and Apply/Invoice will be generated for the consumed amount.

In the above example, if the user does not void the unposted invoice and still voids the 200, then consumes and selects Apply/Invoice for 300, there will be 3 unposted invoices: One for 100, 200 and 300 but only 400 will show as consumed.

Note: When the original location that the VMI inventory was relieved from has been deleted from Master Locations <u>and</u> the item has 'Lot # is mandatory' checked, when voiding the VMI consumption, the system will create a new location (fgmulti) using a substitute location found by the system, and it will use lot# from translog of original OUT transaction.

Return VMI

SIC and Non-SIC items can be returned from the Consume VMI screen. To return items enter the quantity in the Qty to Consume field and select the **Return VMI** button. An Assign Qty box will appear with the location the items were shipped from as the default return to location. If the location no longer exists the user will be prompted to choose one. It is not required that the default location be selected, users can return inventory to another location. Enter the quantity being returned in the Assign Qty field and select OK. For SIC items the Assign Qty field will be populated with the quantity from the selected label. The VMI Shipped quantity will be reduced by the amount returned and the VMI Returned field will populate with the quantity returned. The quantity returned will be removed from the VMI Location and put into the selected location and a VMI RETURN transaction will be recorded in the transaction log. When returning VMI for an item that has a different UOM than the inventory default UOM, the quantity returned to inventory will be calculated based on the UOM from the sales order. The sales order will not be affected.

Note: A fully consumed VMI does not appear in the table. In order to return a totally consumed VMI you must first **void** the consumption, then return them.

Vendor Managed Inventory for Suppliers - Consignment

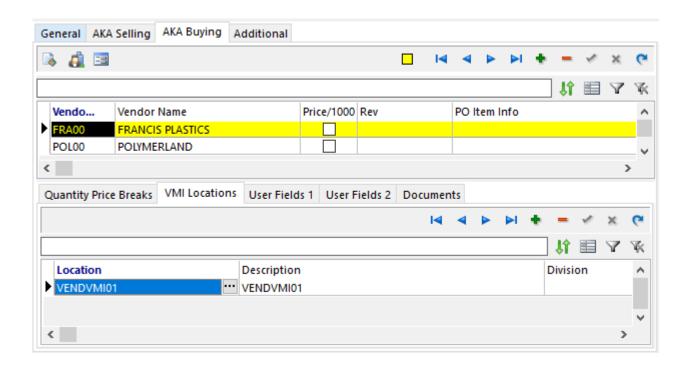
This functionality allows you to manage inventory on consignment. Receipts are posted to a VMI location which is automatically marked as Non-Allocate in inventory. When the inventory is moved to a non VMI location the system will create a posted PO receipt that will then be available in AP Invoices. All transactions are recorded in the Translog.

Summary of the Process:

- Associate VMI Location(s) to the item in Inventory->AKA Buying.
- Create a PO normally.
- When the PO receipt is posted, the system will check if it is VMI and if it is only the VMI location(s) will be available in the location pick list. The VMI Received Qty field will be populated on the receipt and not the Received Qty field. The PO will show as received and the on hand and Non-Allocate quantities for the item is increased by the receipt quantity. (Note: For Vendor VMI receipts, the system will ignore the default Receive Designator location assigned in Master Locations if one exists).
- A Transaction Type called PO_VMI will be made and be visible in the Translog.
- Performing a move out of the VMI location into a normal location will trigger the creation of another
 PO receipt and post it. The Receipt is then available in AP Invoices.
- The VMI PO# is carried over when performing moves between VMI locations.
- The Translog row for the move out of the VMI location will have a Trans Type = PO. This will allow PIT to process the move as a PO receipt.

Associate a VMI Location to the AKA Item

The first step is to associate a VMI Location to the purchased item on the Inventory->AKA Buying tab. Select the record in the AKA Buying tab and select the VMI Locations tab. Then select the ellipsis button in the Location field.



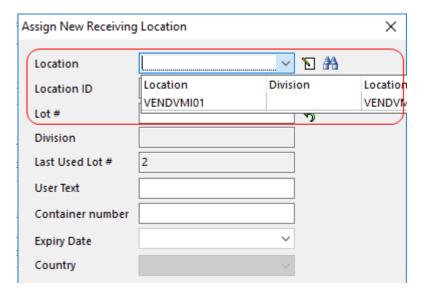
A pick list of VMI locations will appear. These are locations that have been marked as VMI in the Master Locations list. (New VMI locations can be created by accessing Locations from the Miscellaneous menu in Inventory). Once the record has a VMI Location linked it will be highlighted in yellow. More than one VMI location can be assigned. Only locations marked VMI that are not used by another AKA Buying row can be added.

Note: Each inventory item will need its own unique VMI location(s). The same VMI location cannot be associated with any other item.

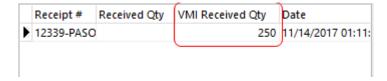
PO Receiving

From the PO Receiving module, to receive a single item click on the Add(+) button in the Received section. Select the ellipsis button in the Rec. Qty field to bring up the release form. Choose a release or multiple releases from the form by highlighting the rows using the toggle buttons on the form or the Ctrl or Shift keys on your keyboard. Next, select the 'Assign Qty' button and assign them to the receipt.

When the receipt is posted the system will automatically default to receive the vendor VMI items into the current VMI designated location. To add or change the location select the New button on the pick list. Select a location from the drop down list. Only VMI locations that are associated to the AKA item will be in the list. If there are no existing VMI locations for the item in Inventory Transactions and Locations, the location pick list will appear but it will be empty. Select New and this will allow you to add a VMI location. (The list is constrained to VMI locations associated to the AKA item).

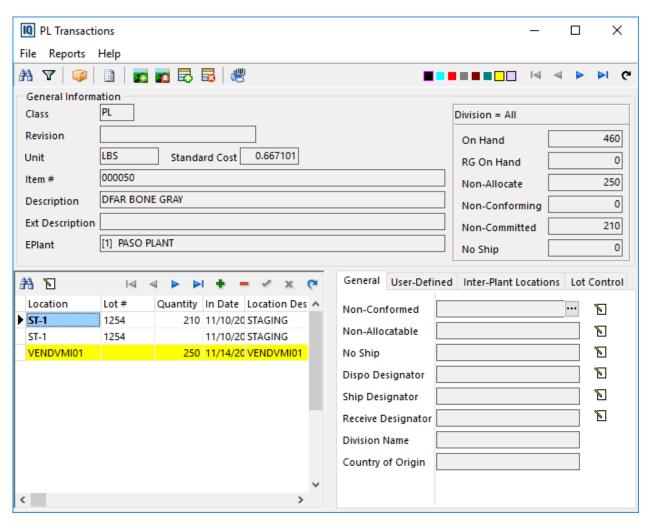


The quantity received will populate in the 'VMI Received Qty' field (not the Received Qty field).



The transaction will be recorded in the Transaction Log as a PO_VMI transaction type with the Reason stating, 'Receiving PO # xxxx'.

The Transactions module will list the receipt in the VMI location which is marked yellow, and the values in On Hand and Non-Allocate will increase by the quantity received. With multiple VMI PO's for same Vendor VMI item, when receiving the system creates a VMI location that matches the PO #. Move transactions are allowed from one VMI location to another (that are set up on the same AKA Buying record).

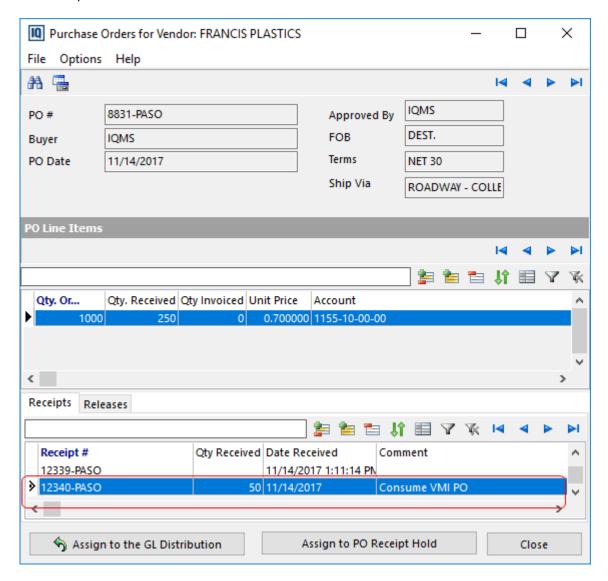


Move Transaction

When the items are moved to a non VMI location, the system will create an OUT transaction with a Trans Type of 'Consume PO_VMI', and an IN transaction with a Trans Type of 'PO'. This will trigger the creation of another PO receipt and post it. The Comment field in PO Receiving will state 'Consume VMI PO'. If the 'Delete Empty Location' parameter in Inventory is checked, when a VMI is consumed and the VMI location drops to zero it will be deleted.



The Receipt is then available in AP Invoices.



Physical Inventory

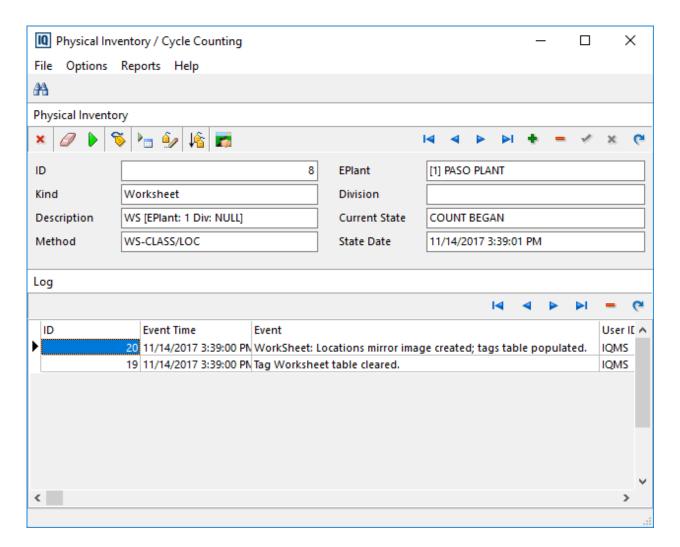
The ability to conduct physical inventory counts is supported using this module. Physical inventory updates are performed against a "frozen" inventory. The first step in the process is to create an image of your current inventory. Once all products are physically counted, additional transactions against any item can be made such as shipping and receiving. When the update is finally completed, the system will adjust all inventory figures based on the physical count, and a notation is placed in the Translog file noting any changes that were made.

Unlimited physical inventory worksheets by EPlant+Division can be created. Each worksheet will have a description that is pre-populated by the system with the chosen method (WS or T) and the EPlant and Division name, but can be edited. As the criteria for adding to the worksheet is processed, the system will ensure that the same item/location (arinvt_id+fgmulti_id) is not found in any in-progress cycle counts. If it is, an error will display ('Found conflicting Cycle Count ID 'x' in progress - unable to begin new Cycle Count'), and the new physical inventory is not created.

This module, like the main Inventory module, supports multiple locations. The user must make multiple entries of the same item to account for any number of physical locations or lot numbers.

Note: It is not recommended to run multiple physical inventories for different locations that include the same the SIC/Non SIC item as this might cause mismatching between labels, quantities, and locations.

Access this module from any inventory item under **Options|Physical Inventory**. A pick list of existing physical inventories will appear. Select an existing one from the list or select the New button to create a new physical inventory. See Begin Count Process for details on creating a new record. If an existing physical inventory is selected the following screen will appear:



The top section will list the specific details for the selected record including the ID, Kind, Description, Method, EPlant, Warehouse/Division, Current State and State Date.

ID	The ID associated to the Physical Inventory.
Kind	This will be either Worksheet or Tag based on what was selected when the Physical Inventory was created.
Description	Each worksheet will have a description that is pre-populated by the system with the chosen method (WS or T) and the EPlant and Division name. The information in this field can be edited.
Method	This is the method selected for the Physical Inventory. It includes the Kind (WS or T), and for the Worksheet types it will include the method selected in the main criteria, such as Cycle Count or Class/Location.
EPlant	The EPlant associated to the Physical Inventory.
Division	This will populate with the Division if one was specified on the Worksheet Selection Criteria form in the Warehouse/Division field.

Current State	This is the current state of the Physical Inventory:
	■ Count Began - This is the status of a new Physical Inventory.
	■ Compared - Once the 'Prepare Adjustment File' button is selected the state will be Compared.
	 Recording - When the 'Record Inventory Adjustment' button is selected, after the user proceeds through all three prompts, this is the state of the Physical Inventory while the system is recording the adjustments.
	Adjusted - The state once the adjustments are recorded.
	■ Cancelled - The state of a Physical Inventory that was cancelled .
State Date	The date and time associated with the current state.

The lower section displays the log details showing the event date/time and event description relevant to the specific physical inventory.

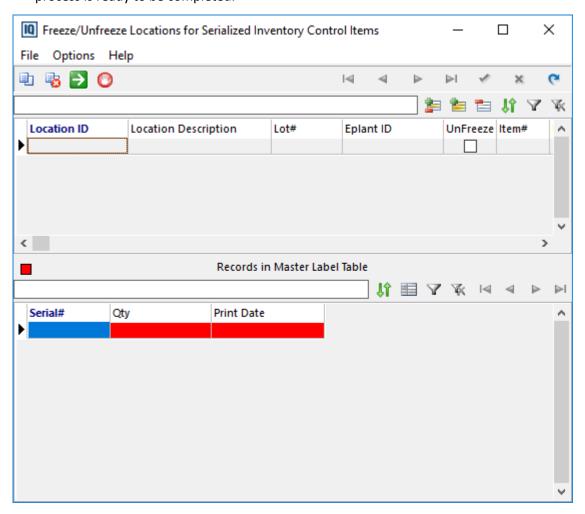
Options Menu:

Record Inventory Adjustments for Changed Quantities Only or for All Tags - The user has the option of recording all physical inventory adjustments in the translog regardless of changes to quantities, or record physical inventory adjustments to the translog for only those items that had quantity changes. The default method is to record inventory adjustments for changed quantities only (button is up). This will prevent a line being created in the translog for items without any quantity adjustments. See Record Inventory Adjustments for more information.

Note: If the system is recording physical inventory adjustments and gets interrupted somehow, rerecording the adjustments causes the system to adjust the last tag written to Translog a second time.

- Append to history tables Select this option to have the posted physical inventory written to the Taginv_backup table. The information in this table is permanent where the information in the Taginv bak is temporary.
- Remove zero locations after adjustment Select this feature if you want any locations that have zero on hand to be removed after posting the physical inventory. Note: Empty Disposition Designator, Ship Designator, or Disable Auto Delete locations are not removed when posting physical inventory adjustments.
- Freeze locations during worksheet When this is checked it prevents transactions from occurring in a location that is associated to a Physical Inventory. With this option is checked, users will receive a violation message, 'Location XXXX is part of active physical inventory count operation aborted' immediately after a location that is associated to an active Physical Inventory is scanned/selected. The applicable transactions in EIQ are: Add to Location, Remove from Location, and Move to Location SOURCE and TARGET (in both 'Transactions & Locations' and in' Inventory by Location' modules). This also applies to Move and Transaction functions in IQRF, such as Direct Move Item and Add by SN.
 - When creating a new physical inventory, prior to saving, the system will check to see if any locations selected for the physical inventory are associated to a pick ticket. If there are the system will raise a warning, 'Location XXXX is associated to a pick ticket. Are you sure you want to continue?' If users select 'Yes' they will not be able to ship out of that location. Security can be placed on the 'Yes' button. If users select 'No' the new Physical Inventory will not be created. Please note users will only receive this message once even if there are multiple locations that will be frozen that are associated to multiple pick tickets.

Freeze/Unfreeze Locations for Serialized Inventory Control Items - The Freeze/Unfreeze screen displays a list of all locations chosen during the Physical Inventory Worksheet that contain items with serial numbers. The Freeze/Unfreeze screen lists the location ID, description, lot number, EPlant, Item number, Item description, extended item description, revision, class, tag header ID and eligibility to unfreeze. Serials that have not yet been scanned during Physical Inventory counting will be highlighted in red. As serials are scanned during the Physical Inventory process, the red highlighting will be removed from the serials. Once all serials have been scanned, the location will become eligible to unfreeze. To unfreeze a location, select the location and select either the 'Unfreeze' speed button or toggle the UnFreeze check box. Once a location has been unfrozen, the location is eligible to conduct move transactions, shipping transactions, disposition transactions, etc. while the Physical Inventory process continues for the remaining locations. If a location needs to be frozen again, select the 'Freeze' speed button or un-toggle the 'Unfreeze' check box. The serials will need to be recounted if a location is frozen. Once all locations have been unfrozen, the Physical Inventory process is ready to be completed.



The physical inventory must be completed in a step-by-step manner. Do not skip any steps or the inventory update will not be accurate.

There are two types of physical inventories in **EnterpriselQ**:

- Tags In a full physical tag inventory, the user must enter all tags manually. The tag numbers will be automatically generated, starting with 1, or the user may enter in their own tag numbers. Tags for ALL items currently in the inventory must be entered before updating the main inventory files. Any items NOT accounted for will be reset to zero after the inventory adjustments are recorded.
- Worksheet EnterpriseIQ will create all the tags based off the multi locations for each inventory item and then the tags are edited based on the actual inventory quantities. Users can select 'Do Not Auto-Create' and the tags will not be automatically generated but will have to be entered manually based on the selected method as in the Tags option above. Four worksheet methods are available in EnterpriseIQ. These include a full physical inventory, an inventory based on an individual class of items with the ability to select the locations to inventory, a full physical inventory based on production needs for a specific scope of days, and the based on specific cycle code(s).

What is Tag Inventory?

Tag Inventory normally involves using a series of "tags" which are used to record the inventory item, the location and the amount. Two copies of each tag are usually made, with one copy being physically attached to the inventory item to show it has been counted, and a second copy maintained as a control copy. When all the counts are made, the tags attached to the inventory items are collected and reconciled with the control copies. The final count is then entered in the inventory log.

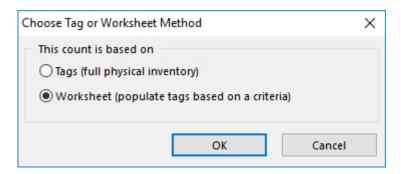
Whether you use physical tags or simply base the count on inventory worksheets, the entry procedure in **EnterpriselQ** is the same and consists of the following steps:

- Begin Count Process
- Maintain Count Entries
- Prepare Adjustment File
- Record Inventory Adjustments

The main Physical Inventory menu options are displayed in this order and the physical inventory should be done in this order.

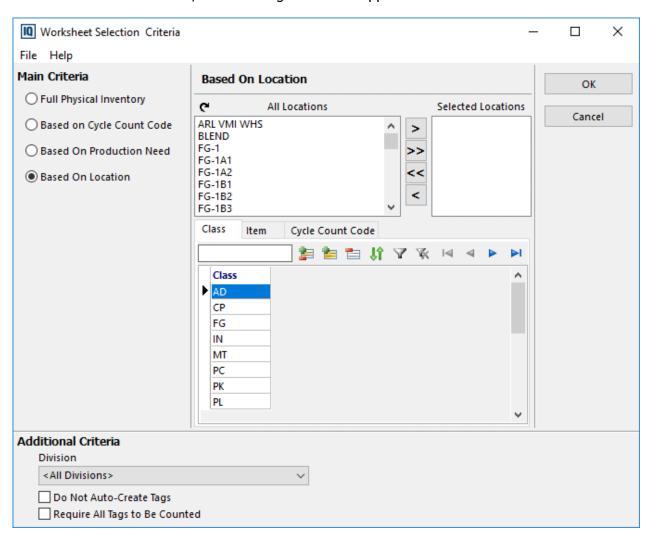
Begin Count Process

To create a new physical inventory record, select the New button from the pick list, or select the Begin Count Process button or the insert record (+) button from the Physical Inventory/Cycle Counting form. The menu to select the count based on method (Tags or Worksheet) will appear. The first time this is opened it does not default to either method. Once the user selects a method it is remembered in the registry. If the user does not select a method and tries to click OK a message, 'A method must be selected to continue' will appear.



Select Tags or Worksheet and click [OK]. (Note: Security is available for the radio buttons and the OK button in the 'Choose Tag or Worksheet Method' form).

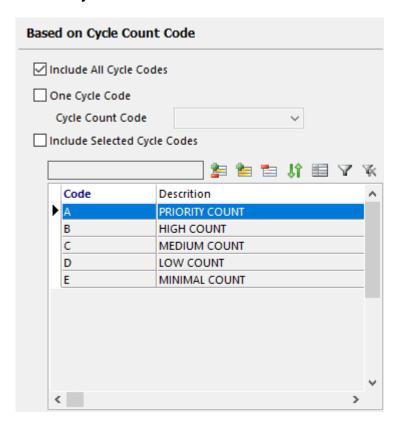
- Tags In a full physical tag inventory, the user must enter all tags manually.
- Worksheet Four worksheet methods are available in EnterpriseIQ. These include a full physical inventory, an physical inventory based on locations with the ability to select the classes and cycle count codes to inventory, a full physical inventory based on production needs for a specific scope of days, and the based on specific cycle code(s).
- If Tags is selected you will be prompted to proceed to the next step.
- ➤ If Worksheet is selected, the following screen will appear:



Select the type of inventory worksheet to be generated from one of the four options available:

Full Physical Inventory - This option creates a tag for all items in all locations. It will not create tags for inactive items with zero on hand.

Based on Cycle Count Code



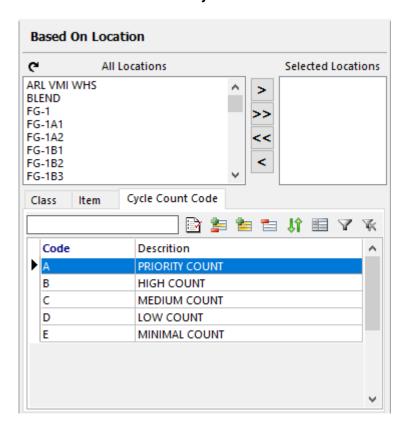
This option allows the creation of tags for only those items assigned a cycle count code. The user may select one or more cycle count codes from the list or all.

- To include all codes check the 'Include All Cycle Codes' box.
- To select a single cycle count code check the 'One Cycle Code' box and select the code from the drop down list in.
- To select multiple codes, check the 'Include selected Cycle Codes' box and then select the codes using the toggle buttons or the Shift and Ctrl keyboard buttons.

The system will only include items that require counting based on the Counted Per Year field and the items Last Cycle Count date. For example, if the Counted Per Year = 12 for a cycle count code, only those items with that code that have a Cycle Count Date more than 30 days from the system date will be added to the worksheet for counting.

Based on Production Need (Scope in Days) - This option creates tags for only those items required for work orders (both scheduled and unscheduled) within the scope of days entered. The scope defaults to the 'Scheduling Scope in Days' Scheduling Parameter but can be changed by entering a different value in the 'Scope in Days' field.

Based on Location/Class/Item/Cycle Count Code



This option creates tags for one or more classes of inventory (such as PL, FG, IN) in selected locations, or for specific inventory items in selected locations, or for specific cycle count codes in selected locations. This allows evaluation of a particular inventory class or specific items without affecting the other inventory class quantities.

- Class Tab Select the inventory class or classes and then use the arrow over buttons to select the locations to be evaluated. To select multiple classes use the toggle buttons on the form or Shift and Ctrl buttons on your keyboard. The Tags will be created for each location found for each item in the specified inventory class(es). If the inventory classes selection criteria is left blank, the system will create tags for all classes of items in the locations chosen. This allows the flexibility of only counting inventory in certain locations.
- Item Tab Select this tab to specify specific items to be counted. To select multiple items use the toggle buttons on the form or Shift and Ctrl buttons on your keyboard. The Tags will be created for each location found for the selected items.
- Cycle Count Code Tab Select this tab to specify cycle count codes to be counted. To select multiple codes use the toggle buttons on the form or Shift and Ctrl buttons on your keyboard. By default, the Tags will be created for each location found for the selected cycle count codes. Users can select the 'Requiring Count Only' toggle button on this tab to have the system only create tags for those items that require counting based on the Counted Per Year field and the Cycle Count Date (FGMULTI.CYCLE_COUNT_DATE) for the selected location(s)/cycle count codes. When this button is not checked, the system creates tags for all items within the location(s) and cycle count codes regardless of last cycle count date.

Note: In-Transit and VMI Locations are excluded from Physical Inventory Adjustments. The In Transit location is used by the Intercompany Transfer module (ICT), Outsource Central, and when the 'Verify Inventory' pick ticket parameter is checked to place the item "in transit". An In Transit location is locked preventing users from manually adding or removing items.

Note: If a location still exists on an Inactive item, the inactive item will be included in the pick list for Physical Inventory and a tag will automatically be created by the system. To prevent this from occurring, remove any existing inventory and locations when marking an item 'Inactive'.

Additional Criteria

Warehouse/Division - Users can also do a physical inventory based on Division/Warehouse. The Physical Inventory can still be based on Cycle Count Codes, Production Need, or Class/Location but it can be broken down further to count only those items whose location is assigned to a specific division/warehouse.

There are two additional options to select from. If the 'Do Not Auto-Create Tags' is checked the 'Require All Tags to Be Counted 'option cannot be checked and vice versa. Both options were designed for users who perform physical inventories using scanners.

▶ Do Not Auto-Create Tags - If the user selects the option 'Do Not Auto-Create Tags,' all tags will need to be entered manually based on the criteria selected. This function was designed to allow worksheet counts when using IQRF/WMS. Users will select the 'Maintain Tags' option from IQRF/WMS. Each scan of a serial number (not an item number) on a label will create a tag. Note: The system requires the use of serial numbers with this option, so be sure that all items have been labeled properly through EnterpriseIQ. The serial numbers can only be scanned once during a physical inventory.

Note: For Serialized items (SIC) – When attempting to conduct a Physical Inventory by Worksheet for SIC items and 'Do not Auto Create Tags' is not checked, the following prompt occurs, "Some of the items are SIC, the 'Do Not Auto Create Tags' option will be checked. Do you wish to continue?". If the user selects "yes", the 'Do not auto create tags' option is enforced and tags are not created. If the user selects 'No', the user is returned to the Physical Inventory by Worksheet screen. Security is available for the prompt as well as for the Yes button.

It can also be used without scanners to utilize the worksheet method but manually create the tags. For example, if the user wants to do a worksheet physical inventory for a single location with the 'Do Not Auto-Create Tags' checked they will manually create a tag (in 'Maintain Count Entries') for every item in that location.

With the 'Do Not Auto-Create' option *not* checked a tag will be generated automatically for all items associated based on the selected criteria.

Note: For non-serialized items - When using this method, if a tag is not created for a non-serialized item, (either manually or through scanning), that exists in inventory and the physical inventory is posted, the system will do an OUT transaction bringing the quantity in that location to zero. Any associated serial numbers will also be brought to a zero quantity. The count sheets in physical inventory do accurately reflect what needs to be counted even when you do not auto populate tags, and therefore when viewing the physical inventory adjustments it will be clear that a tag was not created as the physical quantity will be zero.

Notes: For serialized items (SIC) - If a serial number is not scanned during a physical inventory, that serial number is put into a non-conform location with a Non Conform Reason called `Missing'. For example: Part A, serial # 123435 did not get scanned but is in the fgmulti table at 500 pieces. The physical inventory post will move that serial number to a non-conform location and mark it missing. The original disposition date remains intact because it is still in inventory. The item can then be moved once the correct location is known. Also the system will retain pallet association for SIC child serials that have not been counted in the physical inventory.

There is an option in Divisions/Warehouses called 'Override Serialized Inventory Control' that allows some transactions to occur without selecting specific serial numbers. One of the transactions is Physical Inventory. The system overrides the SIC restrictions for SIC items in a location associated to a Division/Warehouse with the Override SIC option checked when posting the physical inventory.

Require All Tags to Be Counted - This option is used in conjunction with scanners. If this option is selected, tags will be created by the system based on the selected criteria (i.e. location) and the user will select the 'By Worksheet' option in IQRF/WMS. The information is entered by Item number and not serial number. As tags are counted the system will check the 'WMS Counted' box on the tag. All tags must be counted before the physical inventory can be posted.

Note: Serialized items are not included when using the 'Require All Tags to Be Counted' option.

Note: When using the 'Require All Tags to Be Counted' option, if a tag was entered with a zero quantity, before recording adjustments the system will delete any tags with a zero quantity in order to complete the inventory.

> Select [**OK**]. The system will generate the tags for the method chosen unless the Do Not Auto-Create option is selected.

Additional Notes:

Physical Inventory Count Sheets are available from the Physical Inventory Reports menu. The count sheets are generated based on the type of worksheet method selected

The critical step in the physical inventory process is between Begin Count Process and Maintain Count Entries. Physically count your inventory immediately after step 2. IF YOU PRODUCE PARTS OR RECEIVE RAW MATERIALS AFTER THE PHYSICAL INVENTORY HAS BEEN STARTED, AND BEFORE INVENTORY COUNTS ARE COMPLETE AND ACCURATE, BE SURE TO ISOLATE TO AVOID A DOUBLE COUNT. You may continue to do regular transactions to inventory unless the 'Freeze locations during worksheet' options is selected. Just be sure what was supposed to be counted has been counted. For example, if items being shipped are part of the physical inventory be sure to count them before shipping. Or if raw material is received after starting the physical inventory be sure not to count it. The Update Physical Inventory reconciles all transactions that take place after the tags have been entered.

There is an option to freeze locations to prevent transactions from occurring in a location that is associated to a Physical Inventory. Select the 'Freeze locations during worksheet' from the Options menu in Physical Inventory.

It is not recommended to do move transactions as the tag does not get updated with the move and when the physical inventory is posted the items will be put into the tag location. For example - you have 50 pieces in location A and you move 25 to B after freezing the inventory. Then you change the location on the tag for the 50 pieces to location C. It will move 50 pieces from A to C leaving A with a negative 25 pieces, B with 25 and C with 50. The on hand is correct but the locations are not.

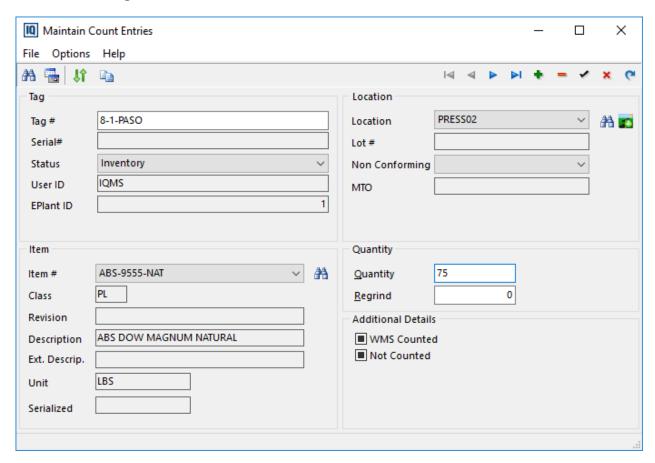
If a serial number is shipped before posting physical inventory adjustments for a serialized inventory control (SIC) item, once a serial is shipped it is ignored for physical inventory entirely and no quantity adjustments are made to inventory for that serial when posting. For non-SIC item, although the serial is shipped, any quantity adjustments to the serial are still going to be posted to inventory but without any association to a serial number (the original serial number is not adjusted, since it was already shipped out).

Once the physical inventory process has begun, do not change label quantities for physical inventory related transactions. Any adjustments to labels during physical inventory need to be performed through IQRF/WMSIQ maintain tags option. When scanning the label, use the edit quantity function to update the label with the correct quantity. If the label quantity is changed elsewhere, for physical inventory transactions, the label quantity will be updated based off of the adjustment amount and will have incorrect quantities (based on actual label quantity). Any actual transactions with the label, can still be performed without error.

Maintain Count Entries

The next step is to input the tags (full tag physical inventory method or if the Do Not Auto-Create option was selected) or review and modify the tags created by the system (worksheet method with the Do Not Auto-Create option not selected). The program is designed to enter a tag for each item in each location and each lot number. You may have several tags for a single item stored in different locations and/or lot numbers. The entry of tags may be done concurrent with the actual physical inventory.

Click on the Maintain Count Entries button or select File|Maintain Count Entries from the menu to access the tag screen, as shown:



For a full tag inventory or if Do Not Auto-Create was selected on the Worksheet inventory, all the information on the tag will be blank and must be input. For a worksheet inventory with the Do Not Auto-Create not selected, the tags will be populated based on the information in the inventory tables.

The Tags are divided into areas as discussed below.

Tag	
Tug	The tag number generated by the system.
Serial #	Serial number associated to the item.
	The Type of inventory entry. Inventory is the default. Other options are Void Tag and Non Inventory. A reason is required for the Non Inventory option.
	This is the User ID associated to the person that created the tags. If the tags are created using the worksheet method in EnterpriseIQ, the User ID is the name of the user who created the tags there. If the tags are created using IQRF or WMSIQ then the user ID will be based on who is logged into the scanner.
EPlant ID	The EPlant ID associated to the tag.
Reason	This field is shown if the Non Inventory option is selected.
	The item that is being counted on the tag. Change the item by clicking on the arrow down list of inventory items and 'hyperbrowsing' to find the new item. The class, revision, description, ext. description, and unit will fill in automatically.
Serialized	This will be Y if the item is marked as 'Serialized Inventory Control'.
	Select the current location for this item by clicking on the arrow down key near this field or by selecting a new location. The list includes: Location, Lot#, Lot Date, and Division fields. There needs to be a different tag (entry) for each location of an inventory item. This is a required field.
Lot#	The lot number (if any) for the item. This cannot be edited.
	If the item is Non Conforming, a reason can be entered by selecting from the arrow down list.
	If the item is a 'Serialized Inventory Control' item and there are multiple tags in the same location a message will appear stating, 'The Nonconforming specification in the following Tag(s) ([Tag ID #(s)]) differs from your current specification. Since there can be only one Nonconforming specification per location, do you wish to override those tags with your current selection for Nonconforming?' Selecting Yes will update the other tag(s) with the non-conforming reason. The message includes a 'Save to file' icon to record the tag details.
МТО	This displays the Make To Order sales order number and line item sequence if applicable.
Quantity	The quantity of the item in this location.
Regrind	PL items only. The quantity of regrind in the location.

WMS Counted	This is used when the 'Require All Tags to Be Counted' option is selected. When an item is scanned using IQRF/WMS that is associated to a tag this box will be checked automatically. Recording Inventory Adjustments cannot be done until all tags have been counted. This box cannot be manually checked or unchecked.
Not Counted	This is used to mark cycle count items where the count was not completed. If this is checked, the items will not be included in the posting of the record inventory adjustments and the cycle count date will not be updated in inventory.

➤ Enter all the tag information or edit the tags for any information that is not correct based on the actual physical count. To add additional tags, click on the Add [+] button. A pick list of active inventory items will appear. Inactive items can be displayed by selecting the 'Show Active/Inactive' toggle button on the pick list. To delete tags, click on the Delete [-] button.

Note: The tags may be sorted by ID, Location, Lot#, Class, Item#, Description or Tag#. To change the sorting method, click on the Sort button and select the sort method by clicking on the arrow over button.

Note: Select the Hide button at the top of the form to hide any zero quantity tags.

To edit the location click on the drop down arrow or the Search button and select another location from the list. If the desired location does not exist you must select the Add a New Location button to create a new location.

Do not change the location in the Locations & Transactions screen in inventory, but instead change the location from the Maintain Count form in physical inventory.

To create a new location click on the New Loc button and select a location from the Master Locations list.

When all tags are input and correct, proceed to the next step of Preparing the Adjustment File.

NOTE: As stated earlier, DO NOT make any inventory transactions through the system after freezing the inventory and before completing the physical count, or at least segregating what needs counted. Just be sure what was supposed to be counted has been counted. For example, if items being shipped are part of the 'frozen' inventory be sure to count them before shipping. Or if raw material is received after freezing the inventory be sure not to count it. The Update Physical Inventory reconciles all transactions that take place after the tags have been entered. You may make unlimited transactions after these two steps are completed and prior to the actual update. The physical count does not need to be input as tags immediately, though this is recommended. The system will reconcile the current counted quantity with any additional transactions.

Prepare Adjustment File

Once all tags have been input into the system, the next step is to build the adjustment (comparison) file, generate adjustment reports and update the **EnterpriselQ** files with new information. To generate the adjustment file, click on the **Prepare Adjustment File** button or select **File|Prepare Adjustment File** from the menu. Confirm that you want to do this and let **EnterpriselQ** complete the process.

This creates the basic report file. To print out a list of the adjustments. select **Reports|Print** from the menu and select the **Physical Inventory Adjustments** report. Use this report for final auditing of the inventory inputs.

Note: If additional input is necessary, return to Maintain Count Entries and make further adjustments. Be sure to run the Prepare Adjustment File option again if changes are made. If prepare adjustments is not run the user will receive a message stating: "Current State: COUNT BEGAN - The Prepare Adjustment File process must be run before proceeding".

Note: When printing the adjustments report be sure to include the Physical Inventory ID in the selection criteria so that only the adjustments for the current physical inventory are shown and not past records.

Note: If running simultaneous Physical Inventories for different locations where the same item was counted (not recommended) then make sure to Prepare Adjustment File for all worksheets, prior to posting.

Record Inventory Adjustments

The final step is to post the adjustments to the master inventory files. To record the inventory adjustments, click on the **Record Inv. Adjustments** button or select **File|Record Inv. Adjustments** from the menu. A confirm message will appear stating, "This option writes the Inventory Adjustments to the actual inventory table for Cycle Count ID 'x'. Please confirm to continue". Select Yes and then another confirm message will appear asking the user if they are sure, select Yes to continue. Select the date for the transactions then confirm that you want to do this and let EnterpriseIQ complete the process. If the 'Append to History' table option is not selected the system will display a message, "Do you want to write Physical Inventory data to history tables?', select Yes to write the information to the Taginv_backup table.

Note: If an update was made to the tag inventory after preparing the adjustment file, the state of the tag inventory is reverted from 'Inventory Compared' back to 'Count Began'. If a user attempts to record adjustments, a message will appear stating: "Current State: COUNT BEGAN The Prepare Adjustment File process must be run before proceeding".

The user has the option of recording all physical inventory adjustments in the translog regardless of changes to quantities, or record physical inventory adjustments to the translog for only those items that had quantity changes. The default method is to record inventory adjustments for changed quantities only (button is up). This will prevent a line being created in the translog for items without any quantity adjustments.

Note: This setting will affect the Inventory Accuracy report. If it is set to record all the total transactions will equal the total tags counted. If it is set to only record adjustments, the total transactions will equal the number of tags that were adjusted. For example, if I have 9 tags to count, and I make an adjustment on 1, when the button is down (record all), the inventory accuracy will be 88.89% (8/9). If the button is up (only record adj's) then the report will show Total transactions = 1 and transactions with no adjustments = 0, so the accuracy percent = 0 (0/1).

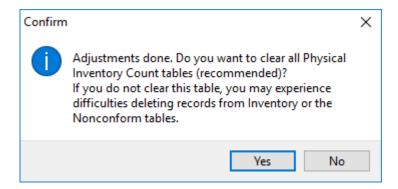
NOTES:

If an error occurs during this process it is possible to re-post without duplicating the posting of items that posted correctly. EIQ will only pick up the records that were not yet posted.

For serialized inventory items only: After posting the physical inventory the system will query the labels and compare the sum of the labels to the fgmulti on hand. If there are any discrepancies the system will update the on-hand to be the sum of the labels and write the Item number, location, fgmulti_id, and quantity to the Event Log for class Tag Inventory with a message, 'adjusted on-hand to match sum of labels'. This message will also be visible from the main Physical Inventory form as an event as well.

For items that are shipped out before posting the inventory adjustments, if it is a serialized item it is ignored for physical inventory entirely and no quantity adjustments are made to inventory for that serial number when posting. For non-serialized items, when a serial number is shipped before posting, quantity adjustments to the item will be posted to inventory but without any association to a serial number (the original serial number is not adjusted, since it was already shipped out).

When the process is complete, the following screen will appear:



It is recommended that you clear the Tag table at this point as this eliminates any possible links between the master inventory records and the temporary tag/worksheet table. If Yes is selected, tags are cleared from taginv, xfgmulti, and xfgmulti_serial tables, and allows fgmulti locations associated to this physical inventory to auto-delete (with 'Delete Empty Locations' selected in Inventory parameters) for subsequent transactions that take the location quantity to zero.

Check the Translog of your individual master inventory items to view the actual adjustment entries made to inventory.

Note: When doing a Physical Inventory By Location, when the tags are posted, the system will update the 'Cycle Count Date' field on the master location and in the Transactions screen for items counted in that location. The date used depends on the 'Cycle Count Code Based On' option that is selected for the code associated to the item (in the Cycle Count Codes list->Miscellaneous menu). In Physical inventory when Recording Inventory Adjustments the system will update the 'Last Cycle Count' date (Arinvt.cycle_count_code_date) with either the current Record Adjustment Date (default) or the Transaction Date

Restore TAGs Table from backup

Once a physical inventory has been posted and cleared a file is created (TAGINV_BAK) from which the tags can be restored. This can be used to reprint reports if necessary. When a physical inventory is posted the records in the TAGINV table are removed and the information is added to the TAGINV_BAK table. This feature is found in the File menu on the Physical Inventory screen. If you are using EPlant this feature will only require that tags be cleared for the EPlant that is doing the restore and will only restore tags associated with that EPlant. This table is overwritten when a new physical inventory is started. To maintain a permanent record of the tags check the Append to history tables option described below.

Append to History Tables

From the Options menu select 'Append to history tables' to have the posted physical inventory written to the Taginv_backup table. The information in this table is permanent where the information in the Taginv_bak is temporary.

Remove Zero Locations After Adjustment

Select this feature from the options menu if you want any locations that have zero on hand to be removed after posting the physical inventory. Note: Empty Disposition Designator, Ship Designator, or Disable Auto Delete locations are not removed when posting physical inventory adjustments.

Note: With the 'Remove Zero Locations After Adjustments' or 'Delete Empty Locations' checked, users will not be able to use the 'Restore Tags from Backup' feature because any deleted locations are no longer available to repopulate the tags.

Cancel Cycle Count and Clear the Tags Table

A physical inventory cycle count record can be cancelled or deleted.

Cancel

To Cancel a cycle count select the red x button on the Physical Inventory/Cycle Counting form. If the Current State is anything other than Adjusted, a confirm box will appear asking, 'This option clears the Tag Worksheet ID 'x' and Cancels the Cycle Count. Are you sure you want to continue?'. Selecting No returns the user to the form with no changes. When Yes is selected another confirm box will appear stating, 'Cycle Count is about to be cancelled. Are you sure you want to continue?'. Selecting No returns the user to the form with no changes. When Yes is selected an information box will appear stating the cycle count is cancelled. The Current State field will populate with 'CANCELLED', and the Log will show an event stating it was cancelled. The tags will no longer be in the tag inventory table.

If the Current State = 'Adjusted', a pop up a confirmation displays stating. "Adjustment file has been posted. This option will clear the Adjustment File. Continue?". If Yes is selected the system will clear the XFGMULTI table, but does not change the Current State of the physical inventory. The Log will show 'Adjustment file cleared'.

Clear Tags File

When starting a new physical inventory/cycle count the tags tags are cleared for the record, ensuring that the entries are only associated with the current physical inventory being conducted. While working on the actual count of your inventory, you will be entering data into this tags file, so the first step is to clear this file. The tags file is cleared even if there are no existing tags.

Users can select the eraser button to clear the tags manually, which will clear the Tags table for the selected physical inventory/cycle count. Several warnings are displayed prior to the actual clearing because if you have already been entering data on the tags the information will be cleared. If you need to make additional adjustments or entries, DO NOT clear the tag file. Doing so will force you to start over.

Note: If a new Physical Inventory/Cycle Count record is created which includes item/location information from the record that had the tags cleared. If the header record still exists an error will appear stating, 'Found conflicting Cycle Count ID 'x' in progress - unable to begin new Cycle Count.' The header record must be deleted before the user can create a new record that includes the same item/location information.

Delete

A physical inventory/cycle count record can be deleted by selecting the delete record (-) button. A warning will appear, 'Cycle count is in progress - are you sure you want to delete this record?'. Selecting Yes will delete the record and all log information. Selecting No returns the user to the form with no changes.

Lot Number Tracking

EnterpriseIQ supports unlimited locations per inventory item. Each location may optionally maintain a unique lot number. For manufactured parts, a finished good lot number is normally assigned to the part and its location. The lot number is normally controlled by the BOM, though it can be modified in several areas of the system. Lot numbers should be unique to prevent duplications.

For example, the lot can be assigned during production from the RealTime screen, at any time from the BOM or even during the production reporting process. Raw materials are normally assigned lot numbers and locations during the receiving phase of material handling.

During the production reporting process, the system asks which locations were used to draw raw materials from. This links the raw material lot number with the produced item. Any single finished good, or work in process part, can be linked to one or many raw material items. Subsequently, a work in process part can be "consumed" by another finished good. In this way, your part can have many "dependent" lot number links.

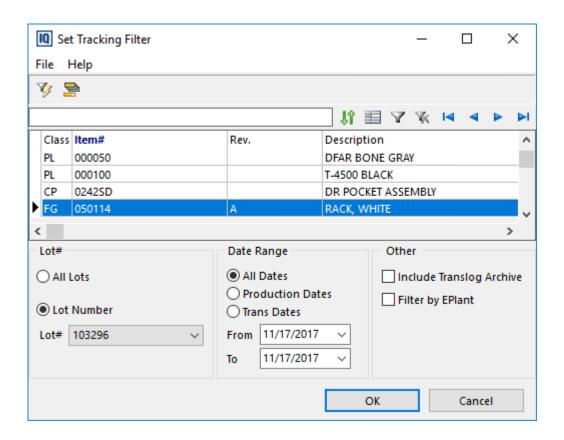
EnterpriseIQ includes a module that displays finished goods lot numbers and their associated raw material component lot numbers. The transaction log stores the location and lot number activity, and is used for displaying this data.

Find the **Lot Number Tracking** tool on the Manufacturing tab of the main launcher. Click to open the form. The initial filter is displayed (shown below). This tool is used to search a particular part number and its associated lot numbers.

The basic procedure is to first set the filter, then drill down to view the details.

This tool supports two views of data - from the finished part number looking back at all raw material lot numbers consumed, or from the raw material, showing other finished lot numbers that consumed the item. This is called the 'Reverse Lot # Tree' view.

You can search for a lot by item number, or, if you know the lot number of interest, you can search directly by Lot number. When building the tree the system uses the Item ID and the Lot # combined to ensure logical results.

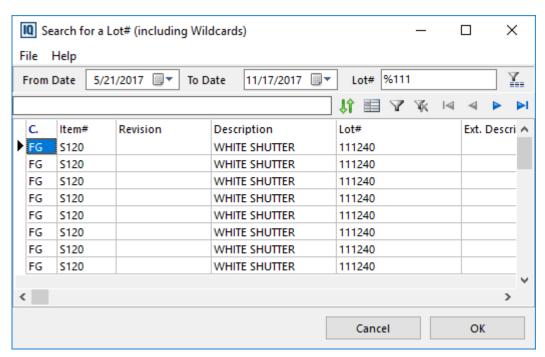


The form consists of a grid showing the items in your inventory, a list of associated lots (with options) and a Date Range to filter out unwanted data.

Search for a Lot

This allows users to search for a specific lot number. Select the Search for Lot # speed button at the top of the form.

- ➤ Enter a Lot# in the Lot # field. Wildcards can be used (% as a wildcard and _ as a single character wildcard).
- > Select the Apply Filter button next to the Lot # field and the form will display relevant records based on the Lot # entered. The grid includes Class, Item#, Rev, Description, Ext Description, FG Lot # and Trans. Date.



➤ Highlight the desired item and select OK the item will be highlighted in the Set Tracking Filter form with the searched for Lot # entered in the Lot # field . Select OK to access the Lot # Tracking form for that item.

Select the Item in Lot Tracking

Select the item of interest by scrolling through the list or by using the search field shown immediately above the part number grid. To search for a specific item, type information based on the sort field in the white area at the top. Type as much information that is known in the search field. The system will search for items that match the typed data based on the sort field. (The item grid can be sorted by any available field (Class, Item #, Rev, Description, Ext. Description, and EPlant ID). To select the sort click on the field header or right click to select the sort field.

If the item has lot(s) assigned, then these will be displayed in the Lot# drop down box. Note that each part may have one or many lot numbers associated.

Use the drop down list to see all lot numbers associated with the part selected. If you want to find activity against a particular lot, select the lot from the drop down list, set the Date Range filter then click OK to show the result.

View All Lots

With the All Lots box checked, the filter will return a view of all lot numbers in the transaction log linked to the part number. Using the All Lots check box will return all lots including any old lots or old locations formerly associated with the item that still reside in the transaction log.

Date Range Filter

Use the Date Range tools to limit the returned data by date, production date or transaction log dates. Use the date fields to set the limits. Selecting All Dates overrides the date ranges.

Other

Select the **Include Translog Archive** option to include records from the translog history table (Hist_Translog) as well as the non archived translog records.

Filter by EPlant - Select this to only display items for the logged-in EPlant. If it is unchecked there the information will not be filtered for the EPlant. This setting is remembered in the registry.

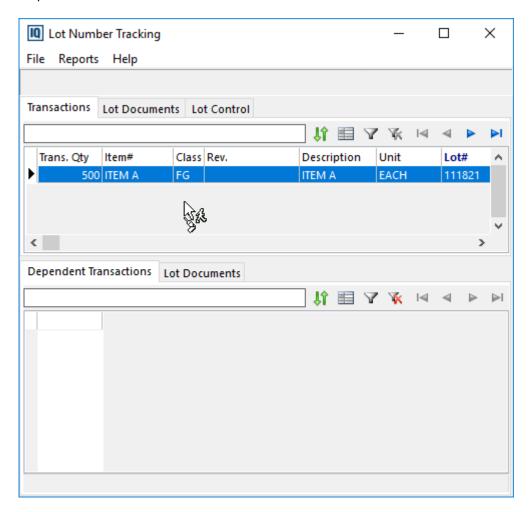
With the filter set up, click the OK button to display the results of the search.

Below is an example of the Lot Number tracking screen after selecting All Lots for All Dates. Notice only the top section populates with the lot number information. Only the following transactions will be included in the Trans Qty total:

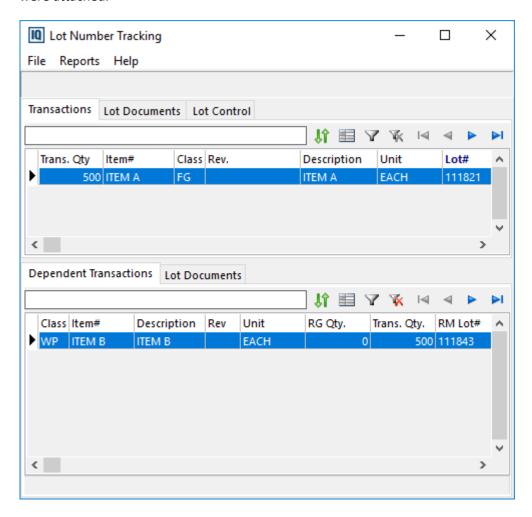
- PO
- Physical Inventory

- Disposition
- Manual (associated/backflush)
- Finished Process WIP

To access the Dependent Transactions associated with a specific Lot number double click the item or right click and select 'Show Dependent Transactions'. Note: Drill down capability for dependent transactions is available for ASSY transactions after reporting Final Assembly – please see Assembly Track help files for more information.



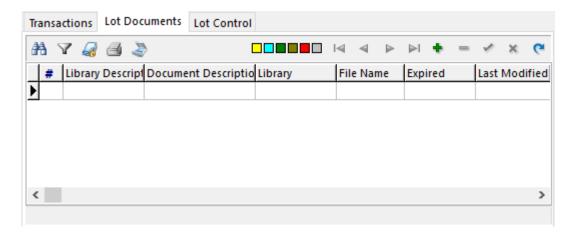
Double clicking on a highlighted record will display the Dependent Transactions. In this case, the information shown originated with the production report process, and various raw material lot numbers were attached.



For example, the Manufacturing lot number is 111821, and the raw material lot number for Item B is 111843.

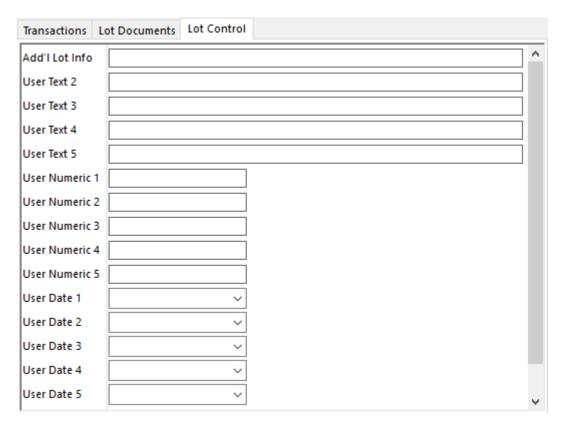
Lot Documents

Both sections include a tab for Lot Documents. These are external documents associated to the specific lot on the Lot Control tab in Inventory Transactions. This tab functions as it does throughout the system. Documents can be added, viewed, etc.



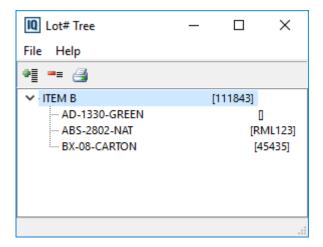
Lot Control

This tab in the upper section displays the ten user fields from the Lot Control tab in Inventory Transactions. Information cannot be entered in these fields from here.



Lot # Tree

Select the Lot # Tree option from the right click menu on the main Filter screen or from the Lot Number tracking screen to see a list of attached lot numbers via a tree view.



To access the Lot# Tree from the 'Set Tracking Filter' screen first find the item of interest. Check the Lot Number check box, and select the lot of interest. Then right click and select Lot# Tree.

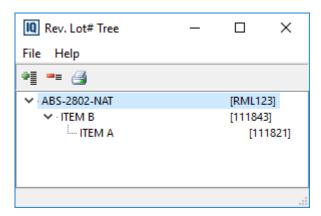
To access the Lot # Tree from the Lot Number Tracking form highlight an item in either the upper or lower section, right click and select Lot # Tree.

Reverse Lot # Tree

EnterpriseIQ also supports a reverse view of the lot numbers. The Reverse Lot # tree can be accessed by right clicking on the main 'Set Tracking Filter' screen or from the Lot Number tracking screen.

To access the Reverse Lot# tree on the main Filter screen. Find the item of interest, check the Lot Number check box, and select the lot of interest. Then right click to bring up more options. Select Reverse Lot# Tree. To access the Reverse Lot # Tree from the Lot Number Tracking form highlight an item in either the upper or lower section, right click and select Reverse Lot # Tree.

This view is often used for raw material tracking, as it can show a particular lot number and where it was used in other products. It can also be used to determine lot numbers of work in process items.



From the Lot # Tree forms users can select the Printer speed button to print a copy of the tree.

Transaction Detail in Lot Tracking

A portion of the Translog information can be obtained for an item by right clicking from the Lot Number tracking form and selecting Transaction Detail. Once opened right click and select Show Details to view any details associated with the item. In the example below the top section displays the transaction details such as Transaction Quantity, Batch number, and date information for a dispositioned manufactured Item. Note: The transaction details are not limited to the specific transaction types that make up the Trans Qty field (as listed above) but will include all transactions including moves.

The lower section displays the associated child records that occurred due to the dispositioning of the manufactured item.

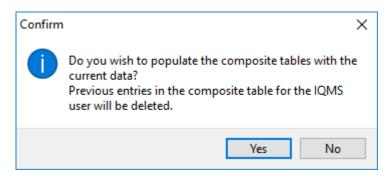
Additional Right Click Options in Lot Tracking

Jump to Inventory - From the Lot Number Tracking screen users can right click and Jump to Inventory for a highlighted item in either the upper or lower section.

Country of Origin - The Country of Origin applies to purchased items. It automatically populates with the country associated to the Vendor the item was received from. This information is also visible in the Transactions and Locations screen and is available as a right click option in the Transaction Log.

Lot Tracking Reports

The Lot Number Tracking information can be printed in report format. The report will print the information currently displayed on the Lot Number Tracking screen only. It will not print any drill down information as the tables are re-populated each time a user drills down. Select Reports->Print from the menu. Select Reports->Print from the menu. A confirmation box will appear to confirm the change to the composite information.



Select Yes and the Registered Reports form will appear. Choose the destination and select Print.

Below is an example of the report:

Lot Number Tracking

IQ MOLDING SYSTEMS, INC

6/5/2003 5:07:05PM

Page Number: 1

Class	hem Number	Rev	Description	Lot Number		Trans Qty UO	M
wp	MEDICAL	В	MEDICAL ONE	551		500.00 EA	сн
Depende	nt Transactions:						
Class	hem Number	Rev	Description	Lot Number	Trans Qty	RG Qty	том
ы	IN-1220-8 MM		BRASS SCREW 8MM	M 101	500.00	0.00	EACH
PL	BLEND 100		BLEND 100	RM 550	50.00	0.00	LBS
PL	B100-PL		m ain resin	873	105.82	00.0	LBS
AD	BLEND 100 - AD		additive for blend	323	4.41	0.00	LBS

Serial Number Tracking

Serial Number Tracking is used to view label information for specific Serial Numbers.

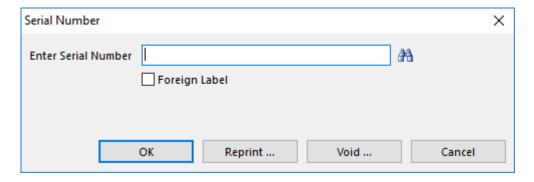
EnterpriseIQ uses a master label table to manage the data from the creation of labels. Every label created through EnterpriseIQ adds a record to this table, and each record/label is assigned a unique serial number.

The information stored within this table is based on when the label was created. It is essentially a record of the label itself, though other tables are actually used to create the label. Note that data elements such class, itemno, description, serial number and FG_lotno are part of this table. This provides easy access to the pertinent manufacturing data included in the box or package containing the label.

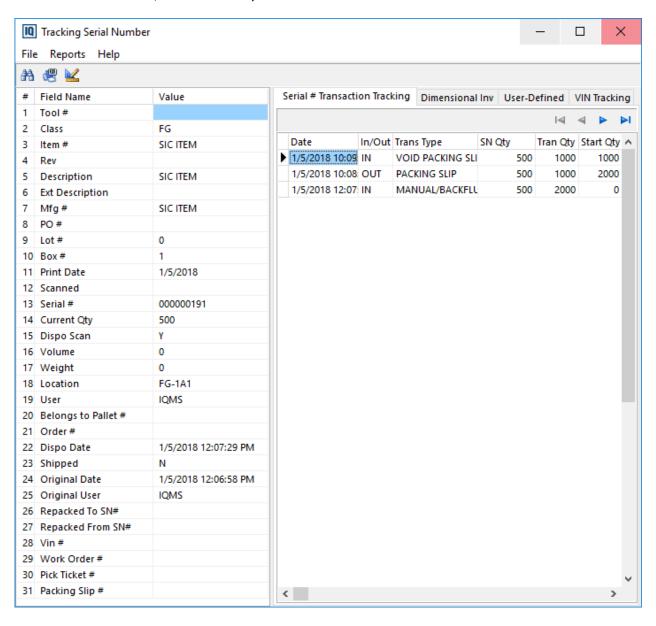
The serial number is stored as a character string (typically nine digits), preceded by leading zeros. It is based on the unique ID number automatically assigned during the creation of the label.

Entries in the Weight field are taken from the Gross Weight of the top level (Seq# = 1) packaging item on the Item Details tab of the BOM.

To view the label data based on the serial number select the Serial # Tracking speed button on the Manufacturing tab of the main launcher bar. A pop up form will appear to enter the serial number, or select the search button to access the pick list of serial numbers associated to the EPlant the user is logged into. The pick list includes fields such as: serial #, item information, print date, quantity, and VIN #.



Once entered select OK, or the Enter key.

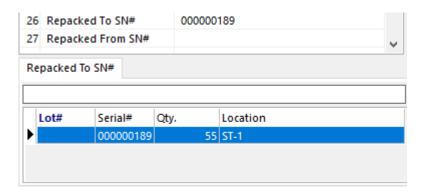


The Serial Number Tracking form will appear displaying the details about the label.

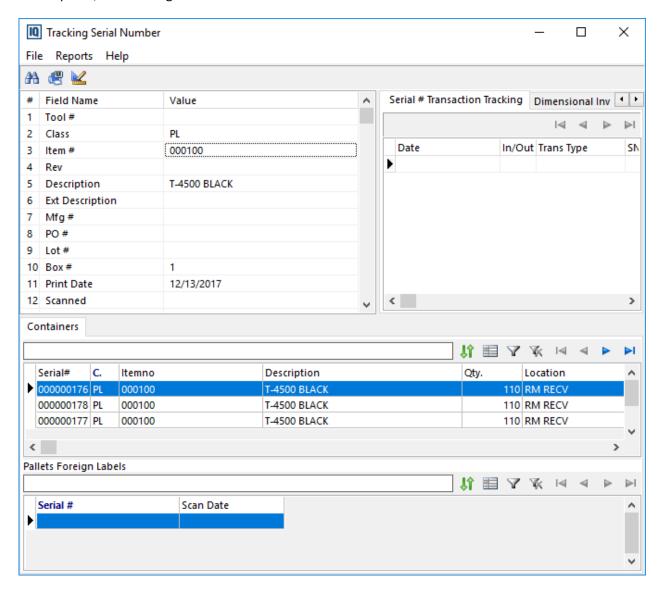
Serial # Transaction Tracking - The transaction log details for the serial number will be visible on the Serial # Transaction Tracking tab for packages that have been dispositioned with labels.

Repack To and Repack From Information

If the label has been repacked to or from another serial number that information will display in the 'Repacked To SN#' and 'Repacked From SN#' fields in the upper section. Only the first serial number will appear in the top section. An additional grid displays at bottom of the form for 'repacked to' serials. This will list multiple serial numbers when applicable. Right click in the lower grid and select 'Jump to SN' to jump to the repacked to serial number. The Serial Number tracking form will open to the highlighted serial number.



Container Labels - If the label is a pallet label the form will display information for the pallet, containers on the pallet, and if foreign serial numbers were used to fill the containers those will show also.



VIN Tracking

This tab will be available for users licensed for VIN Generator. The information comes from the VIN_HISTORY table which is populated based on the table below.

Note: The VIN History table will not populate the VIN # unless the Config Code is populated in inventory on the Manufacturing tab.

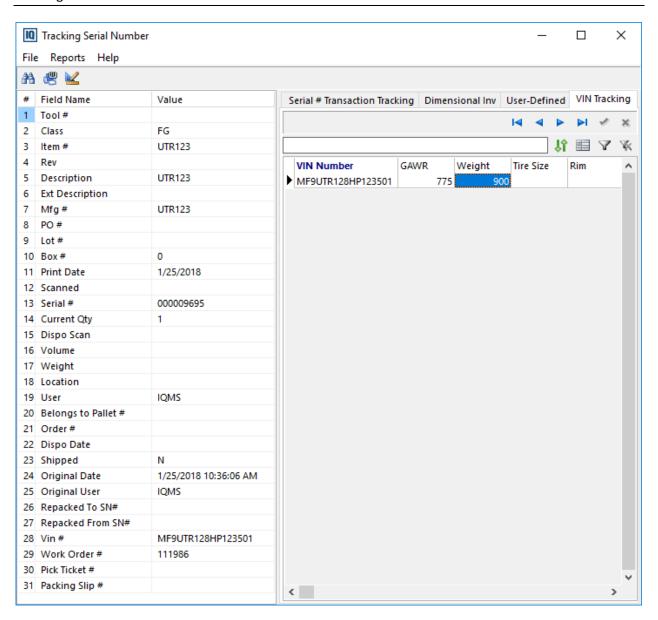
Field Name in system	Column Name in data base	When the field is populated
(if applicable)		
VIN Number	VIN_NO	VIN Generation

Serial #	SERIAL	VIN Generation
Config Code	SMART_CODE	VIN Generation
	ARINVT_ID	VIN Generation
Item #	ITEMNO	VIN Generation
Rev	REV	VIN Generation
Class	CLASS	VIN Generation
Description	DESCRIP	VIN Generation
Ext Description	DESCRIP2	VIN Generation
Mfg#	MFGNO	VIN Generation
	STANDARD_ID	VIN Generation
Weight	CONFIG_WEIGHT	VIN Generation, can be edited
		This is taken from the BOL Data page(s) of component(s) attached to the BOM. Entries are calculated as Case Info: Weight (Lbs) divided by Case Info: Items per Case.
		For example, if BOL Data: Case Info shows Qty = 1, Weight = 32, and Items per Case = 10, then VIN Tracking: Weight = 3.2, derived as the weight of a case (32) divided by the number of items in the case (10).
GAWR	GAWR	VIN Generation, can be edited
GVWR	GVWR	VIN Generation, can be edited
Tire Size	TIRE_SIZE	VIN Generation, can be edited
Rim	RIM	VIN Generation, can be edited
PSI	PSI	VIN Generation, can be edited
Single/Dual	SINGLE_DUAL	VIN Generation, can be edited
Vehicle Attributes	VEHICLE_ATTRIB	VIN Generation
Spare Tire	SPARE_TIRE	VIN Generation, can be edited
Number of Axles	NUM_AXLES	VIN Generation
Model Year	MODEL_YR	VIN Generation
	ARCUSTO_ID	VIN Generation
Company	ARCUSTO_COMPANY	VIN Generation
Order#	ORDERNO	VIN Generation
		Updated with Packing Slip generation
	ORD_DETAIL_ID	VIN Generation

PO#	PONO	VIN Generation
Work order Number	WORK ORDER_ID	VIN Generation
	LM_LABELS_ID	VIN Generation
	CRM_QUOTE_DETAIL _ID	VIN Generation
Sales Value	UNIT_PRICE	VIN Generation
Sales List Price	LIST_UNIT_PRICE	VIN Generation
Dispo Date	DISPO_DATE	Reporting Final Assy or RT Scan to Inventory
Lot #	FG_LOTNO	Reporting Final Assy
Location	LOC_DESC	Reporting Final Assy
	SHIPMENT_DTL_ID	Packing Slip creation
Config Choices	ARINVT_CARGO.DATA 1	VIN Generation, can be edited

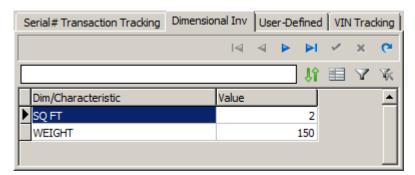
Note: When a VIN label is generated/printed it contains customer and sales order information, and it also generates a master_label record with the same detail. When a RF/WMS user has the Verify order option=Y and ships the label toward a different order and customer the ARCusto_ID, ARCusto_Company, OrderNo, Ord_Detail_ID, PONo, and CRM_Quote_Detail_ID fields in master label and VIN_History tables are updated. The system will also update this information if an item was allocated to a sales order, released from that order and then re-allocated.

Note: The ARCUSTO_ID and ARCUSTO_COMPANY fields are updated in VIN_HISTORY when the customer is changed on the sales order.



Dimensional Inventory

This tab will display the Dimensional Inventory information for the serial # for serialized inventory control (SIC) items. The information on this tab is not editable. (The tab is visible for non-SIC items as well but will not have information). See Printing Labels for more information on Dimensional Inventory.



User-Defined

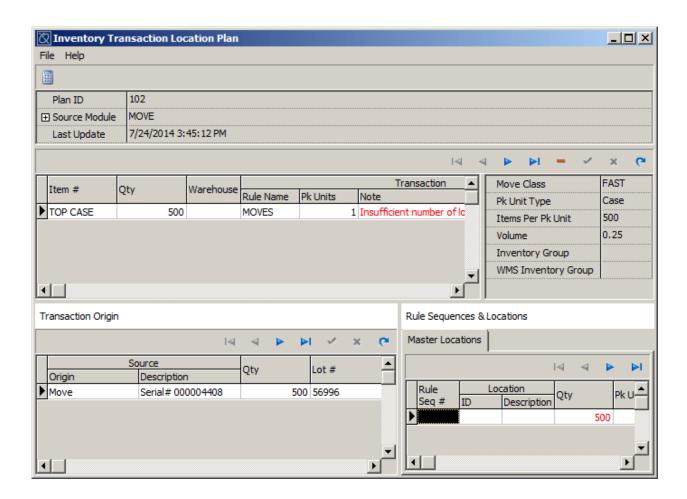
This tab displays the user fields from the Print Label form. The information on this tab is not editable.

Right Click Options from the Upper Section

- Drill Down by Lot # This option opens the Lot Number Tracking form for the item associated with the label.
- Jump to Inventory Jumps to the inventory module for the item associated to the label.
- Jump to BOM Jumps to the BOM for the item. If the item is not associated to a BOM, the BOM pick list will appear.
- **Jump to Work Order** If applicable users can select this option to jump to the work order.
- Jump to Packing Slip If a packing slip is associated to the label this option will be visible to jump to the packing slip.
- Copy Cell to Clipboard This option will copy the information in a cell to the clipboard to be pasted elsewhere.
- Show Serial Numbers This option is available from the Serial # Transaction Tracking tab. This option displays serial numbers associated to individual transactions for the item made from anywhere in the system, including IQRF and WMSIQ. (This information is recorded in the TRANSLOG_MASTER_LABEL table in Data Dictionary). Select the lock button to ensure the serial number(s) remain in the pop up when another show serial numbers form is opened. If it is not locked when a subsequent Show Serial Numbers form is opened the previously opened one will refresh to display the second forms serial numbers.

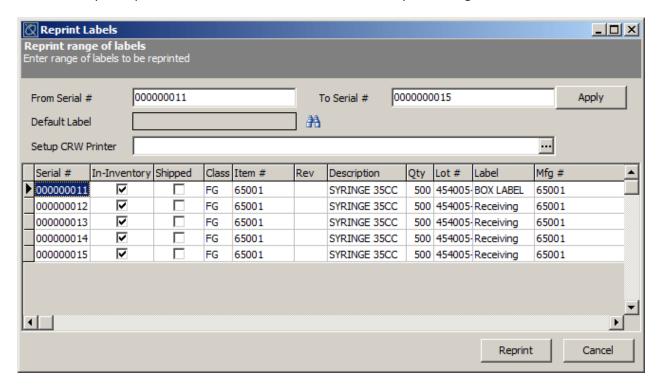
Speed Button Options

- **Search Serial** # This brings up the form to enter the serial number to search for.
- Reprint Label This option will reprint using the original label from master_label.lm_labels_id column, regardless of 'Reprint Original Label' setting in System Parameters > Label Setup tab. For older labels if master_label.lm_labels_id was not filled in, this will reprint according to the label hierarchy. When reprinting LM labels through Serial Number tracking, the printer set on the LM label will be used. (See Reprint a Range of Labels section below for details on printing a range of labels).
- Inventory Move Transaction Location Plan Simulation (This option is only available if licensed for 'Advanced WMS') When selected the Transaction Rules will be processed based on the SN that is in focus. The Transaction Plan will be displayed for troubleshooting purposes. No Move transaction will take place. (For more information refer to the Advanced WMS https://my.iqms.com/cfs-file.ashx/_key/Technote/advanced_2D00_wms.pdf TechNote).



Reprint a Range of Labels

Select the Reprint option on the 'Enter Serial Number' form to reprint a range of labels.



Enter the From and To serial numbers and select Apply. The labels will be listed in the lower section displaying the label details such as Item #, Description, Qty, Shipped, etc.

Note: Serial Number Tracking is filtered by EPlant to prevent users from printing labels from other EPlants. Labels in the selected range not from the users EPlant will not appear. When in view all, users can print labels from from any EPlant.

Default Label - Select the search button to select a label format to use to reprint all the selected labels. Once a default label format is picked a pop up message will display stating, "Do you wish to update all the labels in the range?". Click Yes to update all of the selected labels with the selected label format. Clicking No will return the user to the reprint form with no changes. A different label can be selected for a specific serial number by clicking on the ellipsis button in the Label field in the lower section. The pick list of labels will appear to choose from.

Setup CRW Printer - This allows users to select the CRW printer for reprinting the labels. This alleviates the user from having to select a printer for each Crystal label. Select the ellipsis button to bring up the Print form to select a printer. If a printer is selected, when clicking on Reprint, the system will use the specified printer for printing all of the CRW labels.

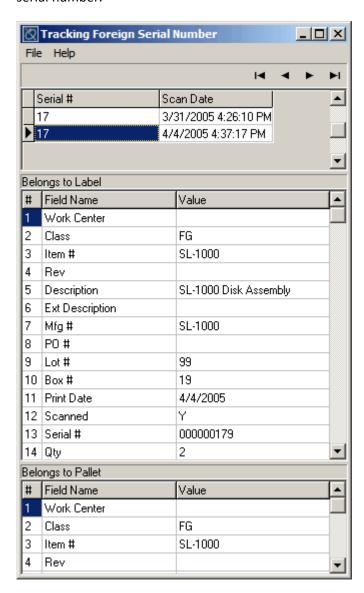
To reprint all of the listed labels select the Reprint button.

Note: Without a default label applied, the Label column fills in with the label format used when last printed. The label format entered overrides a label assigned to an item (example: Inventory > Additional tab), and regardless of the 'Reprint Original Label' option in System Parameters > Label Setup tab. If it is not desired to reprint based on the last label used be sure to change the default label for all records (Default Label option in upper section), or the label for a specific record (Label field in lower section). For older labels the Label column may display as null if the master_label.lm_labels_id was not filled in, and in this case will print according to the label hierarchy unless another label is selected.

Foreign Serial Numbers

Foreign Serial numbers are serial numbers from labels typically from purchased items. Foreign serial numbers may contain up to 50 alphanumeric characters. Foreign serial numbers can be linked to boxes with labels bearing EnterpriseIQ generated serial numbers. This link is done through the Scan Line module. (Please refer to the *Scan Line https://my.iqms.com/cfs-file.ashx/__key/Technote/ScanLine.pdf* TechNote for more details). Once in place, the system can be used to trace foreign serial numbers back to the box and pallet used during packing and shipment.

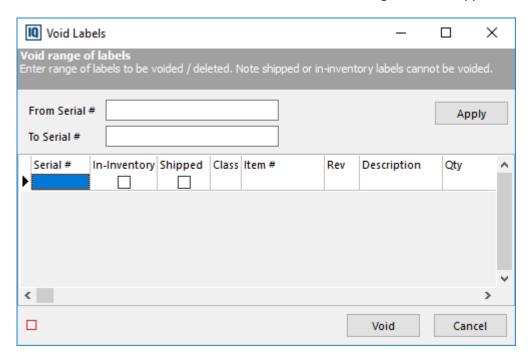
To trace a Foreign Serial number, select the 'Foreign' box on the Serial Number form and enter the foreign serial number. The system will display the boxes/pallets that are associated with that foreign serial number.



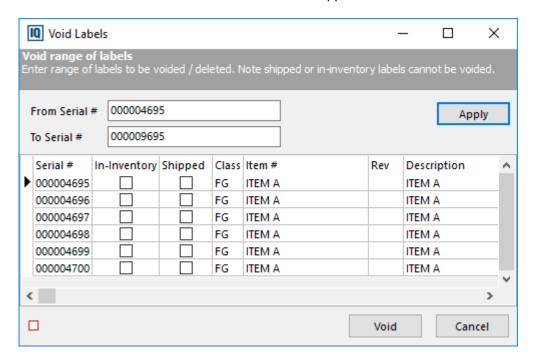
Void Labels

This option will allow the user to void a range of labels. The label can only be voided if it has not been dispositioned or used in a shipment. This function will remove the label permanently from the master label table.

Select the Void button from the search form and the following screen will appear:



Enter the range of labels in the from and to fields and select Apply. The selected labels will appear in the lower section. If the label cannot be deleted it will appear in red.



Select the Void button to complete the process. To exit without voiding the labels select Cancel.

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