About this Book

The **Qube Inventory Management User Guide** provides information about the Qube Inventory, Lot/Batch/Serial Numbers, Pallet Position Control, and Multiple Shipping Warehouses modules. This book includes such topics as Contract Pricing, Vendor Qualification, Cycle Counting, Physical Inventory, Customer-Furnished Materials, Setting Up Lot & Batch Tracking, Lot/Batch Tracking in Transactions, Serial Number Tracking, Using Pallet Position Control, and Using Multiple Shipping Warehouses. Use this book as a general reference book.

The **Qube Inventory Management User Guide** is part of a 14-volume set. The other books in the set are:

- General Information User Guide
- System Administration User Guide
- Production Scheduling and Bills of Material User Guide
- Sales Order Management User Guide
- Purchasing Management User Guide
- Accounting with Qube User Guide
- Accounting with Dynamics User Guide
- Job Costing User Guide
- Order Configuration User Guide
- Global Commerce User Guide
- Implementation Workbook
- Qube Sample Reports Book
- Index

Overview

This user guide contains the following topics:

- Introduction to Inventory
- Item Master File
- Contract Pricing
- Qualified Vendors
- Stock Quantities
- Inventory Transactions
- Transaction Reasons
- Cycle Counting
- Physical Inventory
- Inventory Utilities
- Inventory Locations
- Customer-Furnished Materials
- CFM Transactions
- Reporting Inventory Values
- Customer Materials Tracking
- CFM in Production Scheduling
- CFM in Assembly Components
- About Lot & Batch Tracking
- Setting Up Lot & Batch Tracking
- Lot/Batch Data Windows
- Lot/Batch Tracking in Transactions
- Lot & Batch Reporting
- Serial Number Tracking
- Pallet Position Control Introduction
- Using Pallet Position Control
- Introduction to Multiple Shipping Warehouses
- Customer Ship-From Locations
- Defaulting Quantities Ready to Ship

Introduction

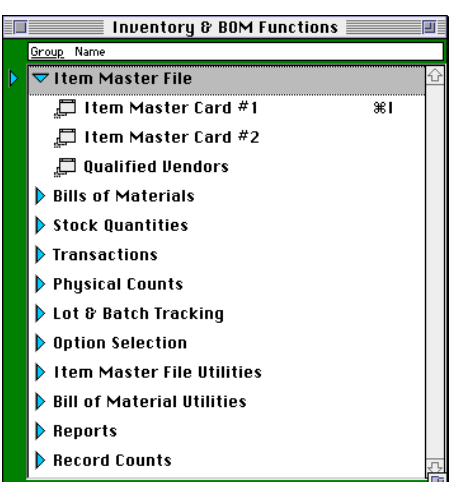
Qube ERP™ uses an **Item Master File** to contain the records for each item which you may wish to reference as:

- A component in any bill of material (BOM),
- An item sold on a sales order or invoice,
- An item being purchased on a purchase order or requisition,
- An item included as part of a sales forecast or sales quotation, or
- An item included in a manufacturing order or material requirement for a manufacturing order.

A record must exist in the Item Master File before it can be included in any of the types of transactions listed above. Including a record in the Item Master File does not mean that the item is necessarily an inventoried item. It may be an expense item valued at zero for inventory purposes. Or it may simply be a descriptive record which allows the sales order, bill of materials, or purchase order to be more descriptive.

The **Inventory Functions Palette** displays selections for each function in the Inventory module.

Inventory Functions Palette



Item Master File

The **Item Master File** is the main structural element of the inventory module. Records are displayed and may be edited, added to, or deleted from the Item Master File by viewing any of the four Item Master File windows.

When setting up a data file for the first time, it is not always clear how certain item codes should be set up, and users often need to go back through the data file to change these item codes to conform to a new set of item code conventions. Use the Item Master File Browser, provided in version 7.35, to make this job easier and faster; for more information, see "Item Master File Browser" *on page INV-8*.

Item Master vs. Inventory

A record must exist in the **Item Master File** before it can be referenced in any other transaction, such as those listed on the previous page. Including a record in the Item Master File does not mean that the item is necessarily an inventoried item. It may be a descriptive record which allows sales orders or purchase orders to be more descriptive. Records such as **NON STOCK ITEM** or a record having a code of **DISCOUNT** or **MISC CHARGES** are examples of such records. They do not represent a physical entity but are useful when creating other transaction records.

Importing Data into Qube ERP™

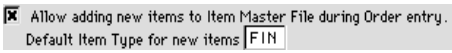
Qube ERP™ is set up to easily import records into the Item Master File. For more information, *see* "Import Data" *on page SYS-145*. Importing data, however, can introduce errors. To correct these errors, run the Check Inventory Defaults utility from the Inventory Utilities menu (*see* "Check Inventory Defaults" *on page SYS-176*).

Adding Records to the Item Master File

Records may be added to the **Item Master File** in four ways.

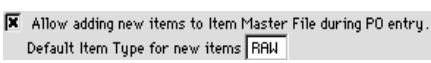
1. You may view any of the IMF windows and click the button labeled <*NEW*>. This is the only method which allows you to completely fill in all field values which may be needed to make the record complete.
2. If you have set your **System Set Up, Card #1** to allow for it, you may add items to the **Item Master File** while entering a

sales order. You may also choose what **Item Type** the system should default. It is recommended that you use either **FIN** (finished good) or **RES** (resale item).

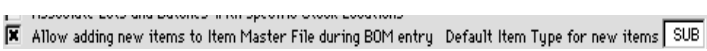


If you disallow this feature, the system responds to an invalid entry by displaying the pop-up list of valid codes, so that you can select from the list. If you have allowed entry of new items during order entry, the system will note that the entry does not reference a valid record in the **Item Master File** and will ask if you wish to have the item added to the file at that time.

3. If you have set your **System Set Up, Card #1** to allow it, you may add items to the Item Master File while entering a **purchase order**. Again, you may choose the default item type. In this case, it is wise to choose **RAW** (raw materials).



4. If you have set up your **System Set Up, Card #3** to allow it, you may add items to the Item Master File while entering a bill of material. Most companies will wish to choose **SUB** (subassemblies) or **RAW** (raw materials) for their item types.



Only the first method listed above allows you to make a complete entry of all field values, including group and sub-group codes, prime vendor, price defaults, all cost components, etc. The above routines will enter only those values which can be determined by the function being conducted. For example, when adding an item “on the fly” from a purchase order, the system would be able to determine part number, description, vendor, default type, purchasing unit of mea-

sure, and purchase price. From a sales order, part number, description, price, and sales unit of measure could be determined, etc.

You can set up the system to assign an Item Code automatically to each item entered. See this on "System Set Up, Card #3 Window" *on page SYS-108*.

Code to Request Next Sequential Number	*

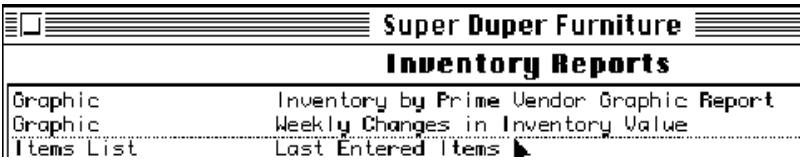
If you enter a value into this field, and then enter this value in any Item Code field (such as those shown above) during order entry, the system automatically pulls the next number in sequence, based on the following field on "System Set Up, Card #2 Window" *on page SYS-105*.

Last Used Numbers

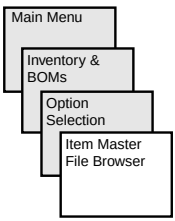
Customer Number	10006	Sales Opportunity #	700000
Sales Order Number	1860	Inventory Transaction #	85106
Invoice Number	5003	Employee Number	100
Requisition Number	40004	Vendor Number	6007
Cash Transaction #	51009	Journal Entry Number	92049
Purchase Order Number	60007	Serial Number	500013
Customer Return Order	100000	Item Code	15200
Forecast	10006	Quotation	20000

Then, at the appropriate time, the materials manager can review the items using the report outlined below, and if necessary, change the item codes to reflect your item numbering system. When item codes are changed, all references to the item in all records in the system will be changed.

If you allow adding of items by any of the above methods, it is recommended that you print the report of **Last Entered Items**. This report is found in the Inventory Reports list. It allows you to print the last xx number of items added to the item master file. This list can then be used to check each record to make sure all field values have been filled in correctly, and audit item codes for conformity to your item numbering system.


Super Duper Furniture
Inventory Reports
Graphic
Inventory by Prime Vendor Graphic Report
Graphic
Weekly Changes in Inventory Value
Items List
Last Entered Items

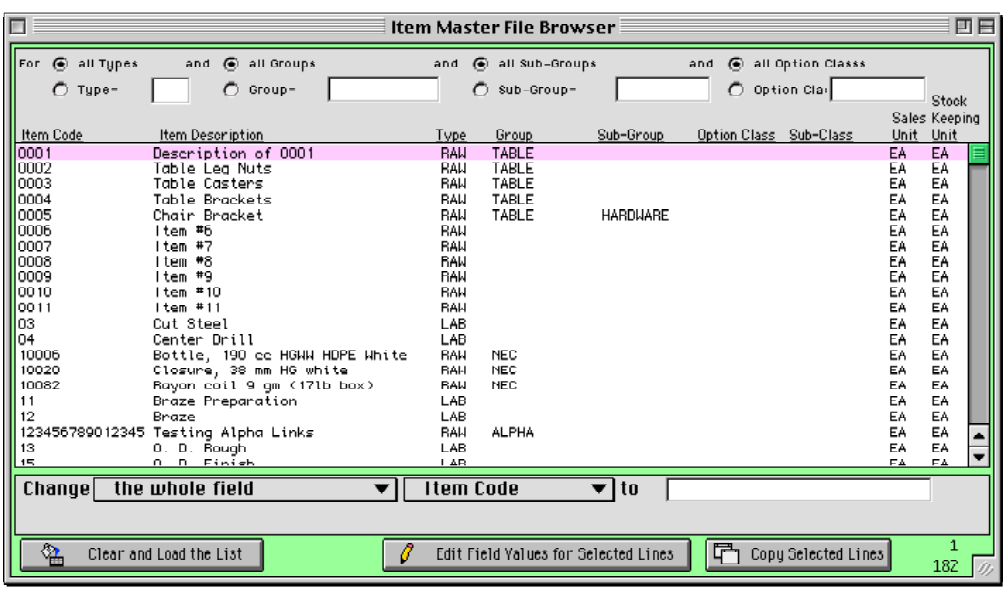
Item Master File Browser



When setting up a data file for the first time, it is not always clear how certain codes should be set up, and users often find the need to go back through the data file to change these codes to conform to a new set of coding conventions. If each record must be edited one at a time, this job may become so difficult and time consuming that it never gets done. The Item Master File Browser (IMFB), contained in version 7.35, is provided to help make this job easier and faster. For more information about browsers, *see* *"Browsers" on page GEN-75*.

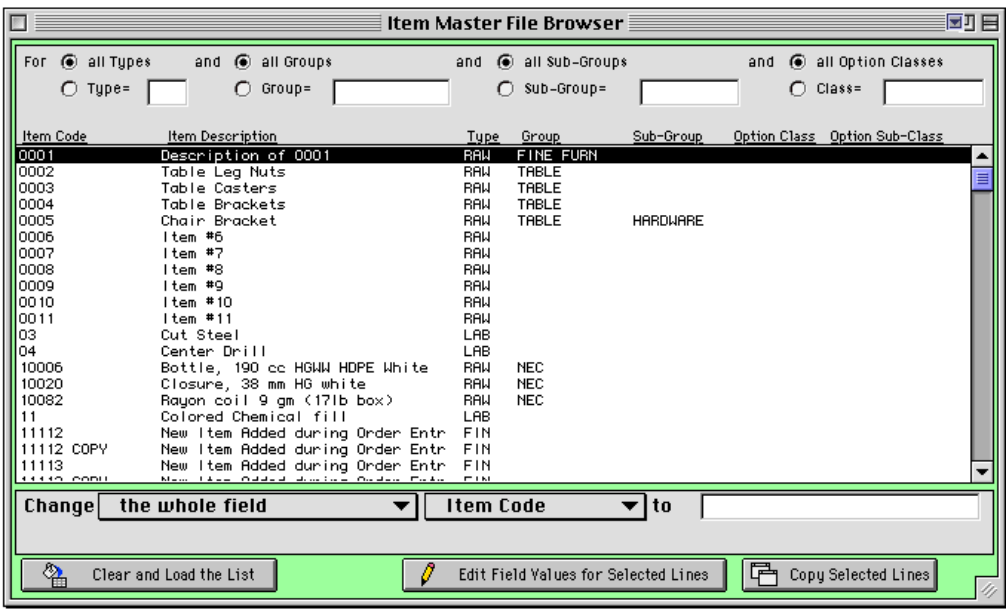
Before using the Item Master File Browser, make sure you have a current backup! It is also prudent to test changes on a Playdata file before using the Item Master File Browser on a live data file.

To access the Item Master File Browser, select Inventory & BOMs from the main menu, then, under the Option Selection heading, select Item Master File Browser.



There are several key fields which must be set up correctly if users are to get the most value from using Qube ERP™. These include group, sub-group, and option class codes, as well as the item code itself. It is especially important that the group, sub-group and option class codes get set up when using the Qube ERP™ configurator. Other field values, such as the prime vendor, the scheduling lot size, lead time, units of measure and unit conversion factors also must be set up correctly and maintained if the Qube ERP™ MRP functions are to work properly.

Begin by clicking the *CLEAR AND LOAD THE LIST* button. Using the radio buttons and fields provided at the top of the window, you may select to load all types, group, sub-groups and option classes, or you may make selections within these categories. Use your reference list to help enter valid selections. Press the *ENTER* key to load the list. After the list is loaded, two more buttons will be displayed:



Copy Selected Lines

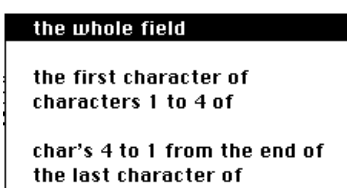
This function is useful when setting up a data file and you find there are groups of item records that must be copied for slight modification. For example, you may require 20 different types of resistors, which can be based on 5 fundamental resistor types. This function enables you to create the four item master records and then create copies of all four of these records with a single command. Qube ERP™ will use its generic naming utility to ensure that each copy has a unique item code, like this:

Item Code	Item Description	Type
11112	New Item Added during Order Entr	FIN
11112 COPY	New Item Added during Order Entr	FIN
11113	New Item Added during Order Entr	FIN
11113 COPY	New Item Added during Order Entr	FIN
11114	New Item Added during Order Entr	FIN
11114 COPY	New Item Added during Order Entr	FIN

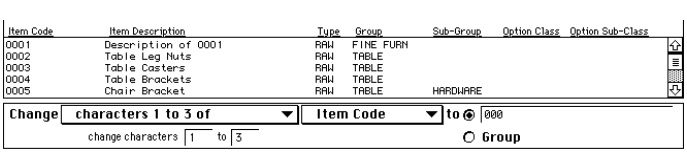
Then you can use this window to rename the copies as you wish.

Edit Field Values for Selected Lines

Use the bottom section of the window to set up the changes you want to make on selected lines. You may change the entire field value(s) or partial field values using these choices.



For example, you may wish to set up a part numbering pattern in which all items in a given group or type begin or end with a specific 1, 2, 3, etc. character code. You may do this by selecting the item records to change and setting the "to" value to the result you want. Here's an example of how this might be set up:



You will be prompted to ensure that you want to proceed. The result will be the following:

Item Code	Item Description	Type	Group	Sub-Group	Option Class	Option Sub-Class
XXX1	Description of 0001	RAW	FINE FURN			
XXX2	Table Leg Nuts	RAW	TABLE			
XXX3	Table Casters	RAW	TABLE			
XXX4	Table Brackets	RAW	TABLE			
XXX5	Chair Bracket	RAW	TABLE	HARDWARE		

Changes can be made to the following fields:

Item Code
Description
Group
SubGroup
Option Class
SubClass

Material Cost
Stockkeeping Unit
Purchasing Unit
Number of stockkeeping units per purchas
Sales Unit
Stockkeeping units per sales unit

Prime Vendor
Item code from the prime vendor
Last paid cost from prime vendor
Lead Time
2nd Vendor
Item code for secondary vendor
Last paid cost from 2ndary vendor

Scheduling Lot Size

Note that the list of fields which can be changed is read from the Q3DICT.DF1 file. If you see a smaller list than that shown above, you must be using an older copy of the Q3DICT.DF1 file.

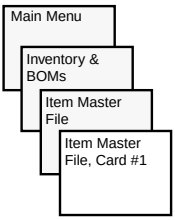
As with any powerful tool, this tool can be used to make things better or to make things much worse. Because you can change so many fields so easily, you can therefore set up things wrong in more fields in more records more quickly than ever. For example, this screen shot shows a setup which will not work properly.

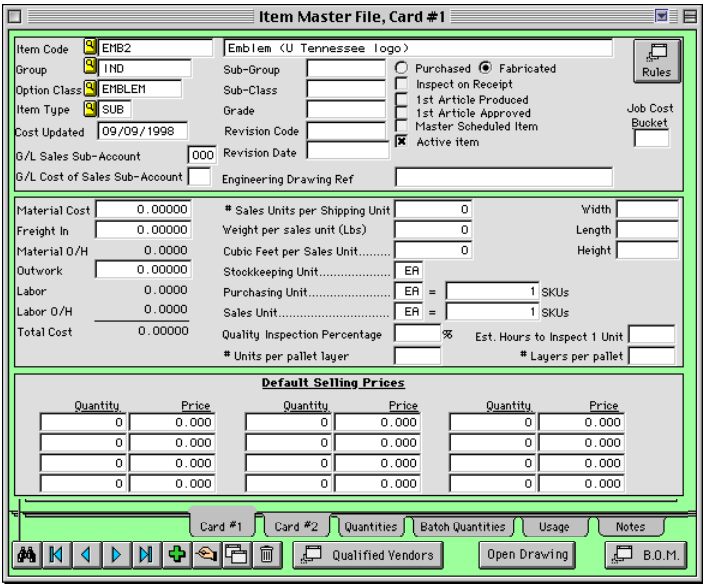
Item Code	Item Description	Type	Group	Sub-Group	Option Class	Option Sub-Class
0001	Description of 0001	RAW	FINE FURN			
0002	Table Leg Nuts	RAW	TABLE			
0003	Table Casters	RAW	TABLE			
0004	Table Brackets	RAW	TABLE			
0005	Chair Bracket	RAW	TABLE	HARDWARE		

Change [characters 1 to 4 of] [Item Code] to (•) [XXX]
change characters [1] to [4] ( ) Group

Since the item code of all selected records is only four characters long and the user has asked to change the first four characters to “XXXX,” the request is therefore to change the complete item code for all five records to “XXXX.” Qube ERP™ is smart enough to catch this and not create five IMF records with the identical item code. Instead, it would change only the first record, leaving the others untouched.

Item Master File, Card #1





The system provides several windows for entering data into the Item Master File. The following is a detailed description of each window, and the fields and buttons presented on each one.

Window Fields

Item Code

{Required, Unique, All Caps, Indexed} Each item in the Item Master File must have a unique item code. This field may be up to 15 alphanumeric characters long. Because the field is indexed, you can perform a *FIND* on any value entered into this field. If you use the Reference List to find an item, Qube ERP™ displays item code quantities converted to the Purchasing Unit of Measure.

You may change the item code from this window; however, the item code is used by the system to tie inventory, purchasing, scheduling, invoicing and sales order transactions together. Therefore, changing the code might take some time, since many transaction records may need to be changed to reflect the new code. Because of this, it is best to plan the structure of your item codes carefully before creating them. Carefully establish and adhere to a numbering convention for

your inventory. Also, leave room between item codes for items you will wish to add later.

When editing an item code, be aware of others using Qube. If another user is logged on when you change the code, either of you may get a record lock. QCI recommends that only one user be logged into Qube when editing item codes.

Item codes may convey a great deal of information just by looking at them. The **Bill of Material** window, for instance, only shows item codes in the list, so you may want to determine certain things about BOM components by looking only at the codes. You may wish to be able to determine whether items are raw materials, subassemblies, or finished goods. You may wish to communicate colors, styles, or sizes, types of goods or groups of products in the item code.

One item code is recognized and handled in a unique manner by Qube ERP™. It is the code `NON STOCK ITEM`. This record is sometimes used as an item in purchase orders or sales orders. However, when Qube ERP™ sees this item code, it creates inventory transactions for purchase orders and sales orders. It does not add to inventory on a PO receipt. This is because it does not represent any specific item whose quantities need to be tracked. It also has no set value. On the Item Master File, Card #2, make sure that the Relieve Inventory box is left unchecked, as shown: ☐ Relieve Inventory

When you duplicate an item using the *SAVE AS* function, Qube ERP™ codes the new item as # COPY. If you make more than one copy of an item, each number increments by 1; e.g., 40085, 40085 COPY, 40085 COPY1, etc. This ensures that the item will have a unique item code. You may then assign the item code you want.

Note that if you are using the *SAVE AS* function to duplicate an item number that ends in a hyphenated number, Qube ERP™

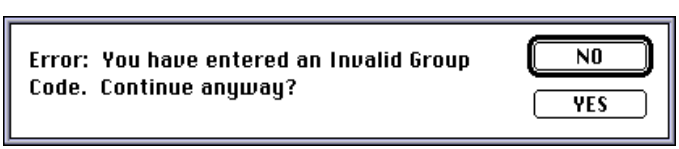
will replace the number following the hyphen with the word COPY. For example, 65B04401-4 is copied as 65B04401- COPY.

Item Description

{Required, Indexed} The item description is a 45-character alphanumeric field which describes the item. As you enter your item descriptions, it is important that you keep in mind the **Pop-Up Lists**. These lists sort the items in alphabetical order on the item description field. You will often need to refer to these lists to reference **Item Codes**, so you will want to choose names which are easy to reference. For example, if you are dealing with several items of a similar category but of different sizes like connectors, list them as Connector, 1/2", Connector, 1", Connector, 2", etc., rather than 1/2" Connector, 1" Connector, 2" Connector. In this manner, you can ensure that they will all sort together in the lookup lists.

Group & Sub-Group

{All Caps, Indexed, Validated} Only the group code is validated; however, you may enter anything you wish in either field. If you enter an unrecognized code in the group field, you will receive the following message:



At that point you can continue or not. The group field allows 12 alphanumeric characters, and the sub-group allows 10. (The sub-group is not a subset of group; they are completely independent of each other.) These fields are optional and may be left blank, if you wish. They are completely user-determined and may be changed at any time. When setting up these codes, consider that reports are provided by Qube ERP™ to print inventory lists, bill of material reports, booked orders reports and invoiced sales reports by both group and/or sub-group codes. This means that you will be able to search, sort and subtotal all of these types of information by group and/or sub-group and be able to select one group or all for many of your reports.

Both codes are also indexed, which means that you may use the code when performing a find. Structure your group and sub-group codes so that you will be able to take maximum advantage of the contents of these fields.

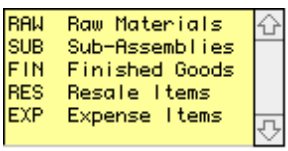
When selecting what to do with each field, keep in mind that the **Reference Lists** will allow you to look up items by **Item Group**. This can be very useful when constructing BOMs, entering sales orders or POs, etc. Therefore you may wish to give careful consideration to what values you give to this field. You may then use the sub-group for reportage on items in different sets than the group coder allows.

Option Class & Sub-Class

{All Caps, Indexed} These are used in the Option Selection feature, and will be dealt with in the **Option Selection** section of this manual.

Item Type

{Required, Unique, All Caps, Validated, Indexed} Type codes may be referenced and entered from an Item Types pop up list.



This list shows the valid codes used by the system. These codes are set within the system and cannot be edited or added to by the user. They are:

RAW: Raw materials. Can be used in BOMs. Unit costs are set manually. Always purchased. May not have a BOM itself.

RES: Resale item. Can be used in BOMs. Unit costs are set manually. Always purchased. May not have a BOM itself.

EXP: Expense item. Unit costs are set manually. Always purchased. This will appear on inventory reports as having a zero value, even though the inventory record itself may show a unit cost and show a quantity in inventory. May not have a BOM itself.

SUB: Subassembly. Can be used in BOMs. Unit costs are set by BOM components. May be either purchased or fabricated. May have a BOM. A **purchased subassembly** is an item assembled in-house and then sent out to a subcontractor for additional work.

FIN: Finished item (top level assembly). Unit costs are set by BOM components. Always fabricated, never purchased. Cannot be used in other BOMs.

Cost Updated

Any time the cost of an item is changed, either manually or as a result of its BOM being changed, this field will be updated. It will also be changed if the unit cost of another item referenced further down in its BOM structure is changed. A reconstruct BOMs procedure will change the last updated date for all SUB and FIN items.

GL Sales Subaccount

{Required, All Caps} This is a three-digit numeric field, which is referenced in the subaccount section of the General Ledger Account Code. If you use the Qube ERP™ accounting system, this is the second section of the general ledger account code (AAAA-**SSS**/DD). If you use the GPS accounting system, this is the final three-character portion of the account code (C-DDD-AAAA-**SSS**). If you leave this field blank, the system automatically enters 000, thereby posting any sales of this item to the primary sales account. Using this field, however, will enable the user to post sales made for each inventory item to a separate revenue subaccount. Thus the user can track sales of various types or groups of items or revenue sources in the GL. *Note: This field references sales accounts (not inventory) in the GL only*.

GL Cost of Sales Subaccount

The **Cost of Sales Subaccount** is a key account used when posting inventory transactions which have resulted from the shipment of product as a result of an invoicing procedure. It may also be reference when posting an inventory transaction entered manually but which references a specific sales order-line number. In versions 7.34 and earlier versions, only one account number was affected. In version 7.35, Qube ERP™ may post to different GL accounts, selecting the account by referencing the cost of sales reference in the item

master file. Therefore, a series of material cost of sales accounts may be set up, like this:

```
5000-***        Cost of Sales
5000-000/00     Cost of Sales, Materials #1
5000-010/00     Cost of Sales, Materials #2
5000-020/00     Cost of Sales, Materials #3
5000-030/00     Cost of Sales, Materials #4
```

Note that Qube ERP™ uses the second two characters of the subaccount to distinguish between the different accounts rather than all three characters of the subaccount string. It does this because many sites use the first character of the subaccount string to denote other types of cost of sales accounts, like this:

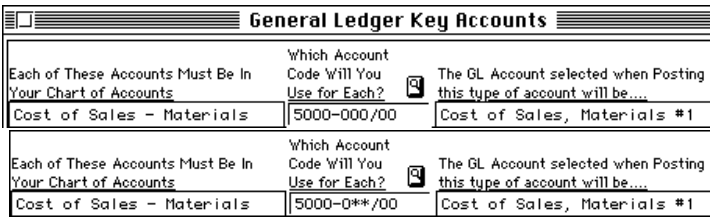
```
5000-***        Cost of Sales
5000-000/00     Cost of Sales, Materials #1
5000-010/00     Cost of Sales, Materials #2
5000-020/00     Cost of Sales, Materials #3
5000-030/00     Cost of Sales, Materials #4
5000-100/00     Cost of Sales, Labor
5000-200/00     Cost of Sales, Subcontractors
5000-300/00     Cost of Sales, Freight
5000-400/00     Cost of Sales, Misc.
```

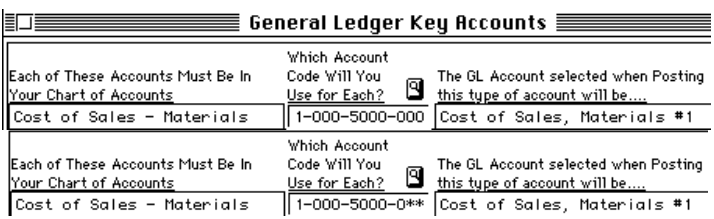
Thus you may designate up to 99 Cost of Sales, Materials accounts.

By using only the second two characters of the subaccount, Qube ERP™ allows users to preserve the account structure they currently have.

To take advantage of this new capability, change the formatting of the GL account referenced for use when posting to material cost of sales. Below are before and after examples of the key account formatting, showing the difference when using both the 11-character and 14-character account structure. Qube ERP™ will make this

change when you edit this account; it will force the new structure when you tab out of the field.





Grade

Enter the grade code into this field.

Revision Code & Revision Date

These allow you to indicate the current revision of an item, and the date indicates when the revision was made. These values print out on all bills of material reports. The revision date has no impact on whether or not a BOM component is considered a current item in the bill. For this, you must use BOM dating.

Engineering Drawing Ref

This field only appears in Qube ERP™ Version 7.35. You may enter an engineering drawing number that will print as a reference on a BOM.

Purchased/ Fabricated

These choices are presented as two “radio buttons,” one of which must be chosen. These choices are generally determined by the item type. For example, EXP, RAW and RES items would always be purchased, and FIN items would always be fabricated. In these cases, the system will verify that the flag is set correctly, and you do not need to worry about it.

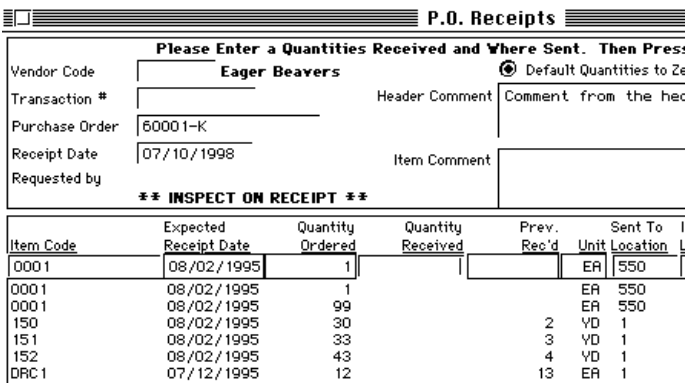
This is not true for SUB items, however. Subassemblies can be either purchased or fabricated. In both cases they would have a bill of material. A fabricated subassembly is just that; a part that you assemble from other components and then include in another assembly. A purchased subassembly is an item for which you own one or more of the components (own means it shows up on your balance sheet; you do not necessarily have to keep it in stock), but send it out to a vendor for some kind of outwork. An example might be a circuit board which an outside vendor populates with some of your components and some of their items, which would then be sold to you. In these cases, you would include in the subassembly's BOM only those parts which you own (whether you stock them or not). The vendor's portion of the cost (both material and labor) would be entered into the **Outwork** field (see costs, below). For more information on how to set these up, see the outwork section of the chapter on Purchasing.

Note: There is only one condition which constitutes a purchased subassembly; when you own some of the parts that go into a purchased item. Regardless of the amount of input your company has on the design specs of an item, it would not be a purchased subassembly unless you own some component of it prior to assembly. You do not have to stock these components. It would be enough to purchase them from one vendor and have them drop shipped to the outwork vendor. In all cases, if the vendor supplies the entire job, it should be classified as a RAW (raw material). For more information, *see* "Definition of Outwork" *on page PUR-89*.

Inspect On Receipt

When an X is found in this field, a message will be displayed on the **PO Receipts window**. An item so flagged requires inspection at the time it is received. The purpose of this is to provide the person doing receiving function with information which may help him direct appropriate materials to the inspection work areas.

In Qube ERP™ version 7.35, a separate default location may be used when processing PO receipts for items requiring inspection; for more information on assigning this location, *see* "Default Location for Receipts Requiring Inspections" *on page SYS-116*. When initializing a PO receipt for items which require inspection on receipt, Qube ERP™ will default the send-to location differently for items which require inspection. In the following example, item 0001 requires inspection, while the other items do not.



Defaulting this value assists the PO receiving clerk in sending items requiring inspection to the appropriate locations.

First Article Produced & Approved

Check boxes are provided to allow you to record if a first article has been produced and approved. These fields are not required but they can be useful when making prototype designs.

Master Scheduled Item

If you are using the full MRP capabilities of the system, you will probably wish to generate the master production schedule (MPS) before running MRP, especially if you are a make to stock environment. Items to include in the master production schedule must be flagged as **Master Scheduled Items.** These items are normally classified as your **independent demand** items, or those for which demand is independent of other items in the system. Such items are normally those items which you build to stock, sell as finished

goods, or sell as replacement or repair parts. *See* "Independent vs. Dependent Demand" *on page PLAN-62.*

Active Item

This check box is used to distinguish between items which are active and inactive. Inactive items can then be excluded from all inventory reports, cycle counting, etc. The system automatically defaults YES into this field.

Note that an active part may be part of an inactive component, or vice versa. When you run a report, such as the Indented Where-Used report, and select Active Items, but also select "ALL" item codes, you may see inactive components print on the report. This is because they are part of an active item.

Job Cost Bucket

This field is used only when the optional, for-sale module Advanced Job Costing has been purchased. For more information about job cost buckets, *see* "Job Cost Buckets" *on page JC-46*.

Enter the job cost bucket code in this field. This field is validated.

Current Unit Cost

Qube ERP™ records both current and standard cost for each item in the Item Master File. The costs displayed on the Item Master File window are the **current costs**. These are the costs which serve to default unit cost when the item is entered in a purchase order or requisition. When entering an item in POs and requisitions, the unit cost can be manually overridden; when entering an item in BOMs, it cannot be overridden. There are several cost elements used to record the total current cost. These are displayed here.

Material Cost

This field contains the current material costs involved in the manufacture or purchase of one unit of each item. The user is allowed to manually change this field only for items coded RAW, RES or EXP. The unit material costs for assembled items (codes FIN & SUB) are dependent upon the cost of all the components which are required to manufacture them. Therefore this value is calculated by Qube through the process of constructing a bill of material for these items.

Freight In

This field is used for purchased items and allows the user to include all direct freight costs when Qube references an item. The value in this field can be manually edited only if the item is coded RAW, RES or EXP. Freight costs for subassemblies and finished goods are represented by the freight required to bring in the components.

Material O/H

This field is automatically calculated by the system. Please see the section on "Overhead Costs" *on page INV-136* for a complete discussion on this topic.

Outwork

Entries can be made into this field only for purchased subassemblies. Normally the costs rolled up through the bill of materials will determine the total value of the item. The BOM also establishes the time dependency of items. For example, you may need to purchase and assemble a set of parts before giving the kit to the subcontractor to perform another assembly on it. In such a case, you will want the cost roll up to occur so that the total value of the part after the subcontractor completes his work is represented properly but you will not want the price shown on a purchase order for that part to show the total value of the completed product. Instead it should represent only the value added by the subcontractor. The field **Outwork** allows you to enter what that cost component is. For more information, *see* "Definition of Outwork" *on page PUR-89***.**

Labor

This field contains the accumulated labor cost required to manufacture one unit of each item at all steps of assembly, as indicated by the indented bill of material. The user may not manually change this field, as it is calculated from the values of the labor components in the item's bill of materials.

Labor O/H

The value found in this field is also computed by the system. It is the value of the labor components of the item's BOM multiplied by the overhead rate as applied to labor. For more information, see the overhead section of this documentation.

Total Cost

Qube ERP™ totals all cost components to produce the total unit cost. The value in this field is calculated by the system and cannot be manually edited. **Note:** If the item's total cost is incorrect, much of the financial information generated by system will be unreliable. This field must be carefully monitored to make sure it is correct. For example, if bills of material are changed, it is essential that the costs be rolled up so that the impact of that change is shown in all items. If a purchase order is issued changing the unit cost of a raw material, it is essential that the change be reflected in the item and rolled up to change the costs of other items which reference this item as a component in their bills of material.

Standard Unit Costs

A completely separate set of cost component fields is also maintained to measure the standard cost of the item. Standard costs are used when posting the value of inventory transactions to the general ledger. Standard costs are not displayed in any window found in the inventory module. These costs are normally set and changed by the company's controller or other financial officer and are not normally the concern of the materials manager or other people who use the inventory functions. Standard costs are therefore displayed and edited as part of the General Ledger module *(see "Inventory Standard Costs" on page GL-10)*.

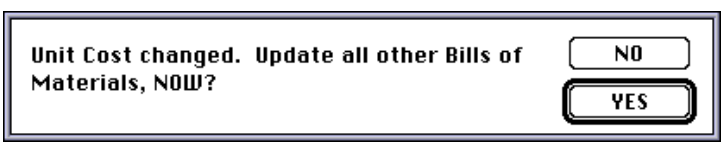
Important: When a new item is added to the item master file, its standard cost will be set to zero. It will be left to the person who manages the standard costs to determine the item's standard cost. Normally, the beginning standard cost is set to be identical to the current cost. As time passes, however, the current cost may change, but the standard cost will normally change much less frequently than the current cost. The difference between the two is measured in the accounting data as the purchase price variance.

All bill of material records and inventory transaction records maintain all components of both sets of costs; current and standard costs.

The inventory transaction current costs are used to report job costs in the job cost reports while the standard costs in these transactions are used to post transactions to the general ledger. All inventory item lists, transaction lists and bill of material lists may be printed to show either current or standard cost.

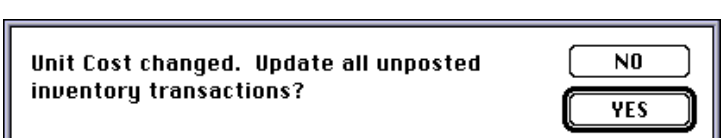
Changing Current Costs

Sometimes the materials manager will wish to change the current cost value to more accurately reflect the item's value in inventory. When the cost of a single record is changed, the system will look to see if that item is used as a component in the bill of material of any other item. If it is, the system will display a dialog box, asking if you wish to roll up the cost change through all BOM levels.



If you respond by clicking <*YES*>, the system will update all indented levels to reflect the change in unit cost. This may take a while if the item is referenced in many, deeply indented BOMs. If you click <*NO*>, the system will remind you that you should reconstruct your BOMs later on to be sure that all costs are reflected properly in the data file. This option is provided to make it easier to update the unit cost of several items without having to wait for the system to update all other records after each cost is changed.

A second dialog box will be displayed to offer the option of updating unposted inventory transactions to have them reflect the new current unit cost.



If you click <*YES*>, the system will read every unposted inventory transaction to look for those whose item code matches the one whose cost was just changed. If any are found, the current cost in the trans-

action record will be edited to make it current. This is done because all inventory transactions maintain a record of the current and standard cost of the item at the time the transaction was generated.

Packing List Fields

Number of sales units per shipping unit, weight per sales unit and cubic feet per sales unit are all fields which may contain data used in preparing packing lists.

Units of Measure

Qube ERP™ provides three different units of measure (a stockkeeping unit, a sales unit and a purchasing unit). These are all user-definable and may be different for each item in the Item Master File. Qube ERP™ is capable of calculating conversions when generating purchase orders, sales orders, manufacturing orders, etc. In order for these calculations to be accurate, however, the information in these fields must be set up correctly.

Stockkeeping Unit

{All Caps, Required} The SKU is used for tracking all planned and actual movement of inventory quantities. This is the unit of measure used to measure inventory kept in stock and consumed in production. All inventory transactions are maintained in SKUs. It is usually the smallest unit of the three. The default SKU is `EA` (Each).

Purchasing Unit

{All Caps, Required} is the unit of measure which may be used in purchase order and requisitions. For example, you may wish to keep track of stock quantities one at a time (each) but purchase them by the gross (144). It is essential that a conversion factor be entered to indicate how many SKUs equal one purchase unit. In this example, you would enter `GR` in the **Purchasing Unit** field, and `144` in the field signifying how many SKUs units are found in each purchasing unit.

```
Purchasing Unit..............  GR  =        144.00 SKUs
```

Sales Unit

{All Caps, Required} This may be different than either the SKU and the purchasing unit. Qube ERP™ will plan sales inventory requirements (through MRP) and relieve inventory on sales based on the number of SKUs per unit of sale indicated on this screen. The calcu-

lation is set up in the same way as purchasing units, above, for example.

```
Sales Unit..................... PAK  =          6.00 SKUs
```

Quality Inspection Percentage

Enter the percentage required to pass a quality inspection.

Est. Hours to Inspect 1 Unit

Enter the estimated number of hours required to inspect one unit.

 # Units per pallet layer

This field only appears in Qube ERP™ version 7.35. Enter the number of units per pallet layer.

 # Layers per pallet

This field only appears in Qube ERP™ version 7.35. Enter the number of layers per pallet.

Width, Length, Height

Sometimes the quantity of components used to build an item will vary with its dimensions. Qube ERP™ allows you to take advantage of this and further simplify the item master file and bills of materials. You can enter the width, length, and height of any item. For more information, *see* *"Dimensional Factors" on page OPT-51*.

Unit of Measure Errors

A report is provided to help audit units of measure and conversion factors. It is found near the very bottom of the **Inventory Item Reports** list (in the **Errors** group) and is labeled as follows:

```
Errors?              Different Unit of Measure, Conversion Factor = 1
```

Default Selling Prices

These fields allow you to enter selling prices used to default unit prices in sales orders, forecasts and quotations. Price defaulting references both the **Item Master File** and the **Customer Master File**. The system first looks at the customer record to see whether to read prices from column 1, 2 or 3 on the **Item Master File, Card #1** window. Next the system compares the quantity ordered to the highest quantity found in the selected column. If the quantity ordered is greater than or equal to that quantity, the price associated with that

quantity is selected as the default order entry price. If not, the quantity ordered is compared with the next highest quantity, and so on. If the quantity ordered is not greater than or equal to any of the quantities shown in the column, the top level price is used.

After the system defaults the price based on the column and quantity, it will look at the customer record again to see if additional discounts are provided for that customer. Up to four additional discounts can be applied. Fields found on the **Customer Master File** used in price defaulting are shown here:

Price Default = Column 1
Discounts 50.00 / 10 / 5 / 2 %

A customer with discounts of 50/10/5/2 would be charged the price defaulted by **Column** and **Quantity** *multiplied by*

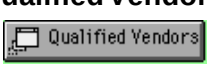
(0.5 x 0.90 x 0.95 x 0.98).

Window Buttons

Rules

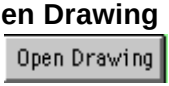
Qube ERP™ provides a top-down view of Advanced Option Selection rules from the point of view of inventory items. You may view these on the **Item Master File Card #1** window. For more information on the Rules-Based Order Configurator, *see* "Advanced Option Selection" *on page OPT-29*; for more information about the *RULES* button, *see* "Understanding Rules in Scope" *on page OPT-43*.

Qualified Vendors



This button is visible only if you have purchased the **Vendor Performance Grading** module. If you have, this button will take you to the **Qualified Vendors** window, where you will maintain all of those vendors qualified for this item.

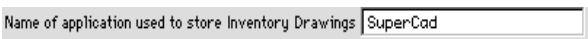
Open Drawing



A button is provided for Mac OS users to allow an interface between other applications and Qube ERP™. It is often useful to prepare drawings related to item records. The drawings may be prepared in applications such as Autocad or Illustrator or whatever you prefer. If

the drawing document is titled and located correctly and if the workstation has sufficient RAM available to open the other application, clicking on the *OPEN DRAWING* button will open the correct document. Follow these rules to enable this function:

1. Identify the application used to store your drawings by entering its name on **System Set Up, Card #3**.

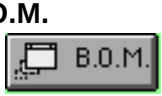


2. Create a folder named `Drawings`.

3. Put the application (not just the document, but the application used to create the document, as well) into the **Drawings** folder.
4. Place the folder in the same directory as your data file. For example, if your data file is located on a file server volume in a folder named Data file, then the Drawings folder must be found in the same folder.
5. Name the document the same as the item code to which it applies. For example, if the item code is 12345-ABC/Rev 6, then you should label the drawing 12345-ABC/Rev6, as well. The naming must match exactly.

If you followed all of the above steps, view the item and click the *OPEN DRAWING* button. Qube first opens the application specified on the **System Set Up** window. Then it looks in the Drawings folder for a document prepared in the selected application with a document name matching the item code currently being viewed on the item master window. If Qube finds the document, it opens and displays it; otherwise, a message indicates that the document was not found.

B.O.M.



This button accesses an item's **bill of material**. If the current item has no bill of material but is a FIN or SUB, the window will be emp-

ty, and you may add one. If the item type is RAW, RES, or EXP, the system will not allow access to the BOM window using this button.

Recalculate Buttons

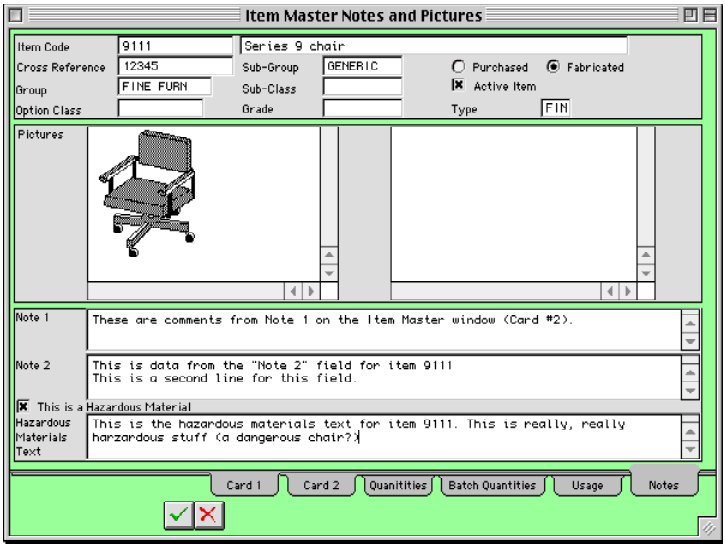
Many fields which display computed information in Qube ERP™ will recalculate if you click on the field label; this serves as an invisible recalculate button. For more information, *see* "Recalculate Buttons" *on page GEN-71*. In this window on the **Quantities** tab, you may click on the following fields:

- Committed to Sales
- Qty in Forecasts
- Open POs
- Outwork Open POs
- Scheduled for Prodtn
- Allocated Genl Stock
- Total Stock
- General Stock

In this window on the **Batch Quantities** tab, you may click on the following fields:

- Committed to Sales
- Qty in Forecasts
- Open POs
- Outwork Open POs
- Scheduled for Prodtn
- Allocated Genl Stock
- Total Stock
- General Stock

Notes Card



In Version 7.36, the **Notes** tab appears at the bottom of **Item Master File Card #1** and **#2**.

The **Notes Card** provides you with additional fields to flag hazardous materials. The note fields, pictures, and lists are stored in a subfile, rather than in the **Item Master File**. Both picture and note data are displayed on the **Notes Card**.

The hazardous materials text will also be printed on the bill of lading and hazardous materials will be sorted to the top and printed first in the list of items included on the bill of lading.

Picture

Use this field to enter a picture of the item. This picture may be scanned or drawn, and can be nearly any size (keep in mind, however, that the larger the picture, the larger and slower your data file becomes). In order to insert a picture into this field, you must first copy it into your clipboard. Then click in this field and paste the picture using the appropriate command for your platform. To change the picture, simply copy a new picture into the field. To remove the picture altogether, click in the field and select *CUT* from the **Edit** menu.

You must first be in edit or add mode to change the data in this field, just as you would for any other field in the window.

Notes 1

Use this field to enter up to 2000 characters (approximately 2 pages) of comments per item. These comments are available for use in ad hoc reporting.

To enter comments into the field, simply click in the field and begin typing. The field is a word wrap field, so there is no need for a carriage return at the end of each line. (Note: Pressing the return button while in a comments field will execute a carriage return within the field, not execute a *SAVE* command.) To exit the field, either click on another field, or press <*TAB*>.

Printing Notes 1 on Work Orders

This is a document printed by selecting from the **Booked Orders Reports** list *PRINT SOME WORK ORDERS*. When printing to work orders, a report parameter is displayed on the report selection window as follows:

```
Print Comments from Item Master File? YES
      Print Comments from BOM Header? NO
```

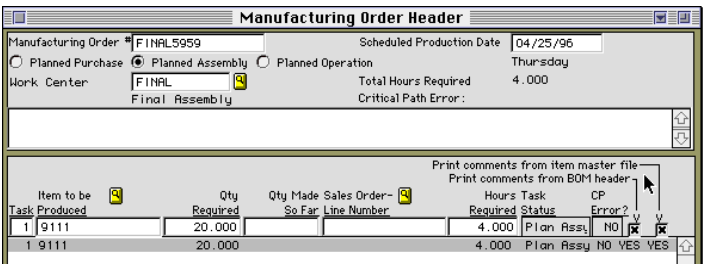
If you enter YES for either of these, all items and/or BOMs found with the comments will print on the work order; i.e., this method does not allow the possibility of printing comments for some items but not for others.

Printing Notes 1 on Manufacturing Orders

Four different types of comments may print on a manufacturing order. If comments are entered into the manufacturing order header or manufacturing order items records, these will also print. There is no choice on these comments. If text is found in either of these fields, it will print on the manufacturing order document.

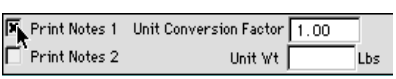
The manufacturing order window contains fields which allow the user to select to print item master comments and/or BOM comments.

You may select to print or not print comments for each item of each manufacturing order.



Printing Notes 1 on Purchase Orders

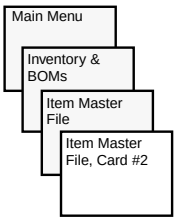
These notes can also be printed on a purchase order by clicking on the check box *PRINT NOTES 1* on the **Purchase Order Items** window as shown here:

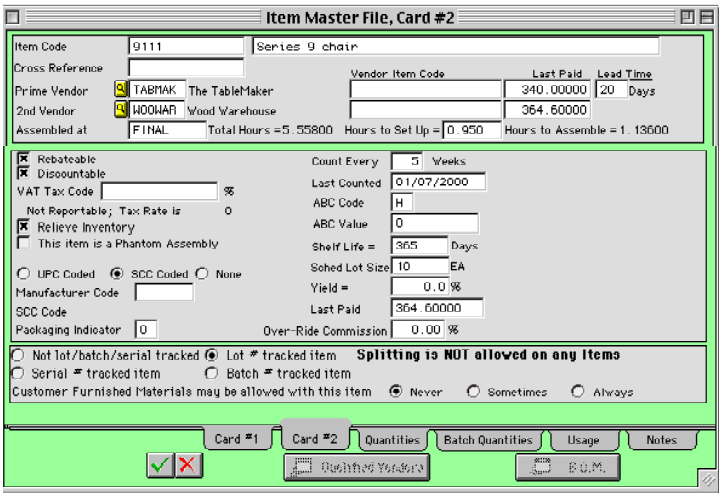


Notes 2

This window also contains a second notes field, called **Notes 2**. This field holds up to 500 characters. This field is more specialized than the **Notes 1** field, in that the only place they are available is in the Purchase Order. The **Notes 2** field is especially useful for communicating information about special manufacturers, manufacturer part numbers, and manufacturing requirements about parts to your vendors. To print these notes on the PO, click on the check box **Print Notes 2** on the Purchase Order Items window as shown here:

Item Master File, Card #2





Window Fields

Item Code and Description

See these fields described for "Item Master File, Card #1" *on page INV-13*.

Cross Reference

This field provides a cross reference to the UPC/SCC codes. Qube provides the ability to calculate and print Universal Product Codes and Shipping Container Codes for all records in the item master file. For more information, *see* "Universal Product Codes/Shipping Container Codes" *on page INV-94*. These codes are made up of a manufacturer code, a product code, and a check digit; SCCs also have a packaging indicator.

Since the UPC/SCC only allows 5 characters, Qube does not use the item code to represent the product code. Instead, this cross-reference code is used. This field is found both here and on the stock quantity windows. If more than 5 characters are entered into this field, Qube will use only the first 5 when constructing the UPC/SCC:

Cross Ref Code 23006

Prime Vendor/2nd Vendor

{All Caps, Validated, Required for purchased items only, Indexed} Each of these fields contains a six-character code which indicates a vendor from whom the item is usually purchased. Two different vendor codes may be entered. *The first of the two is the Prime Vendor and is used as the default vendor when Qube ERP™ automatically generates requisitions to fill manufacturing requirements.*

Note: This field plus the following vendor related fields are handled differently when the Vendor Performance feature is enabled. This feature allows more than two vendors to be flagged and tracked for each item record. See additional documentation found in the Purchasing section.

Vendor Item Code

This field contains the part number used by each vendor, if it is different from your own part number. This code will print out on vendor purchase orders. If you are using the **Vendor Performance Grading** function, you may enter this information from the **Qualified Vendors** window; if you edit the number here the value will also be displayed on the **Qualified Vendors** window.

Last Paid

When the user creates a purchase order, Qube ERP™ will check to see if the item is being purchased from either the prime or secondary vendor referenced in the item master file. If it is, the amount in the field labeled **Last Paid** will be updated to show the unit cost last paid for this item from this vendor. There is no limit as to the number of vendors which can be used to purchase any single item. Unless you are using the **Vendor Performance Grading** module, the Item Master File will store only the prime and secondary vendors and track the last paid costs from these. Print the **PO Receipts by Item Code** report found in the **Purchasing Reports** window to list the complete cost history for any item.

Lead Time

{Required for purchased items only} Items which are purchased (not fabricated) must show a lead time in calendar days. This number is used by the **Production Scheduling** module in determining

when a purchase order must be issued in order for the products to arrive “just in time” for the next stage of production. It is also used by the Purchasing module each time a purchase requisition is issued in the **Stock Up to Max** function. The scheduled shipment date on the purchase order defaults to a date equal to the purchase order date plus the lead time.

The lead time can be entered manually or automatically. After some historical data has been accumulated in the data file, lead time analysis can be performed and the lead times updated automatically.

Assembled at

{All Caps, Validated, Required for fabricated items only} The contents of this field are essential for proper production scheduling. The data in this field is read from the item's BOM. If this is a fabricated item, the scheduling function references the work center indicated in this field when creating the manufacturing order for this item. This, then, becomes the work center where the item is scheduled to be assembled, and the location from which the item's components are pulled when the assembly transaction is recorded.

Total Hours

This field displays the total hours required to assemble the items.

Hours to Set Up

This is the amount of time it takes to set up the work center to produce this item, and is the other component in the amount of time which scheduling will allocate for producing this item.

The total amount of time allocated by production scheduling for this item will be calculated as:

```
Total time = Hours to Set Up + (Hours to As-
semble X qty of items to be made)
```

Hours to Assemble

This number is the standard amount of time it takes to assemble one of this item. The value in this field is read from the item's BOM, as is the assembly work center. This is one component of the amount of time which production scheduling will allocate to the work center when scheduling this item's production. This field cannot be manually edited. It is set from the quantity associated with the work center

in the item's BOM. The amount of time required to assemble an item affects its cost and the scheduling time allocated during a production scheduling run.

Rebateable

The *REBATEABLE* check box determines whether or not the item qualifies for a rebate.

Discountable

The *DISCOUNTABLE* check box determines whether or not the item qualifies for volume discounts as established in the **System Set Up, Card #1** function (*see* "Sales Order Volume Discounts" *on page SYS-100*). When this box is *ON*, the sale of the item helps qualify the order for volume discounts. When this box is *OFF*, the sale of this item does not count toward volume discounts. The default value for this button is activated when inserting a new item. Click once on the box to deactivate it.

VAT Tax Code

If you have purchased and enabled the optional Global Commerce module, you may insert the VAT tax code and percentage here.

Relieve Inventory

When the *RELIEVE INVENTORY* box is checked, transactions will be created to record reduction of stock for the item when a sales order which contains a positive number of this item in the quantity shipped field is invoiced. This button should be inactive if the item is handled as a drop ship item by the vendor, or for **Item Master File** records which represent merely descriptive records (e.g., `NON STOCK ITEM`, `DISCOUNT`, `MISC CHARGES`, etc.).

If you check this box so that *RELIEVE INVENTORY* is off, then the item code used on a sales order will be prevented from appearing under the scheduling function in Production Planning.

The default value for this function is *ON* when inserting a new item.

Note that this flag is only used in Invoicing. It is not used in the BOM/Assembly process.

Phantom Assembly

A phantom assembly is a transient item (one which exists for such a short period of time that it never gets entered as an assembly into the computer). Therefore, referencing a phantom assembly in a BOM tells Qube ERP™ that the phantom assembly's components (not the assembly itself) will be used up when the parent assembly is created or scheduled using production scheduling. You can print phantom assemblies using the flat BOM report, found in the BOM reports list. You can also build and stock phantom assemblies. MRP will check stock on phantoms before scheduling the build of additional stock.

UPC/SCC Coded

Select whether the item has a Universal Product Code (UPC), a Shipping Container Code (SCC), or neither code.

Packaging Indicator

This code is used only with SCCs. This field may contain a value of 0 - 8 only. Code 9 is reserved for additional coding information about weight or quantity that will be in addition to the 14-digit SCC:

Packaging Indicator 1

Count Every__Weeks

Qube ERP™ allows users to perform inventory cycle counting. This field is used for determining the frequency of this item's counting. Cycle counting works like this: Assume you count inventory once a week. Each time you count you would only count those items which are due to be counted that week. Obviously, there may be some very important items which need to be counted more frequently than others. These might be counted every week. Items of lesser importance may only be counted every other week, while still less important items may be counted every three weeks, or even less frequently. Your counting plan, then, may look something like this:

	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6
Weekly	X	X	X	X	X	X
Bi Weekly		X		X		
Monthly				X		
Bi Monthly						

Qube ERP™ can print just those items which are due to be counted on reports sent to the shop, and on windows used to record the results of those counts. For more information about this function, *see* "Cycle Counting" *on page INV-101* and "ABC Analysis" *on page INV-125*.

Last Counted

This is a display-only field and is calculated to the date on which the last physical inventory count was last finalized.

ABC Code

Cycle counting may be automated even further through ABC Analysis. This theory is based on the notion that a relatively small percentage of items will account for a relatively high percentage of the value. "A" items, for example, may represent 10% of the items but may also represent 80% of the dollars spent on inventory. By carefully monitoring these A items, and paying less attention to the Bs, Cs and Ds, it is possible to channel the organization's resources to the most important areas. The above chart, then, would look like this:

	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6
A Items	X	X	X	X	X	X
B Items	X		X		X	
C Items	X				X	
D Items	X					

The value in this field may be entered manually or computed automatically by Qube ERP™. The ABC Analysis function is activated by selecting **ABC Analysis** from the Inventory menu. This will be a useful function only after transaction history has been entered into the database. For more information about this function, *see* "Cycle Counting" *on page INV-101* and "ABC Analysis" *on page INV-125*.

This field will accept lower case letters, numbers, and special characters (such as * and @).

ABC Value

The value assigned to each item during the ABC analysis is also displayed on the **Item Master File, Card #2**.

Shelf Life

This field is used when tracking lots and batches. The expiration date of a lot or batch is calculated as the date received plus shelf life. In this way it is possible to keep track of expiring lots and batches by printing the expiring lot and batches reports, found in the **Inventory Reports**. For more information, *see* *"Shelf Life/Expiration Dating" on page LBS-10*.

Scheduling Lot Size

This field is used to determine lot sizes for scheduling purposes. MRP will adjust production and purchasing lots based on this number. For example, assume this number is set to 10, and MRP determines that 7 are necessary to meet its requirements. Rather than scheduling 7, however, the system will schedule 10. By the same token, if the system determines 12 are necessary, it will schedule 20, and so on. This will apply to both fabricated and purchased parts. Leave this number set to one for single item lots (lot for lot).

This number also is used to default the **Quantity** field on the **Non-Scheduled Assemblies window**.

Yield %

Often firms will experience a measurable percentage of waste when dealing with certain types of raw materials or production. It is necessary in these cases to know what the average **Yield** of a raw material or production process is, so that Qube ERP™ can adjust purchasing and production processes accordingly. Simply enter the average yield (percentage of good product to total product) of each raw material, subassembly or finished good in this field, and Qube ERP™ will automatically adjust the amount of the item to order or produce to ensure that you will be able to meet the demand for the finished product. Take, for example, a case where you lose four out of every five subassemblies in the production process. You would enter 20 into yield, and Qube ERP™ would schedule production and order materials for five times the number you actually need. The system does not allow the entry of a number which is greater than 100% or less than zero (0). No entry in this field signifies a yield of 100%. Yield is factored into production scheduling. Since scheduled assemblies are based on records normally produced through produc-

tion scheduling, it is normally reflected here also. This will not be true if the manufacturing order on which the scheduled assembly is based was added manually (not through a production scheduling run). Yield is not factored into nonscheduled assemblies.

Last Paid

The value found in this field is the last cost paid to any vendor, as opposed to the last paid amount paid to the prime vendor or any other vendor. This value can be used when printing the **Indented Bill of Materials** report. The report offers the option to compare the current or standard cost to the last cost. This can provide a measure of expected purchase price variance. If the indented BOM is printed at standard and is compared to the last cost paid, the difference would be the purchase price variance and will be printed on the report.

Over-Ride Commission

If this field contains a non-zero value, the sales commission accounting function will compute the commission earned for the sale of the selected item using the override commission percentage and completely ignore the normal commission percentages set up in the employee or outside rep records. Making an entry into this field is like saying "We will pay this commission rate to sales reps when this item is sold regardless of the commission rate we may be paying any sales rep for the sale of other items."

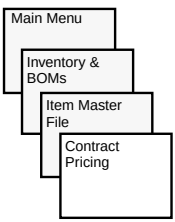
Lot/Batch/Serial

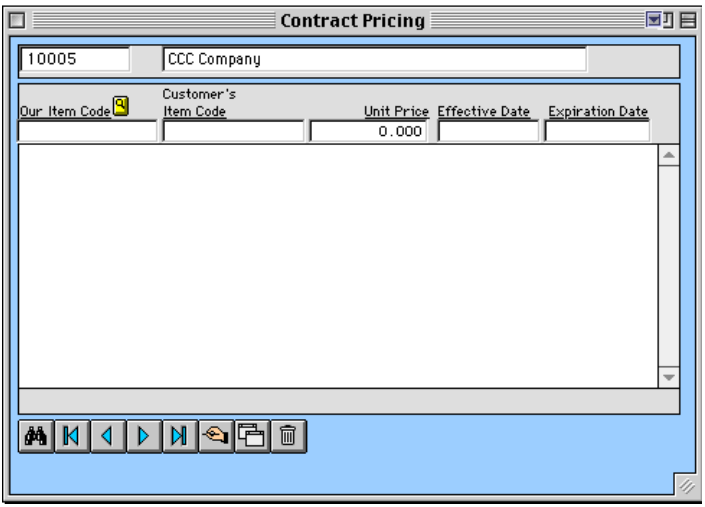
You may select one of four buttons: not lot/batch/serial tracked, serial # tracked item, lot # tracked item, or batch # tracked item. For more information about lot, batch, and serial number tracking, see "Item Master File, Card #2" *on page LBS-9*.

Customer Furnished Materials

You may select one of three buttons determining whether customer-furnished materials will be allowed with this item: never, sometimes, or always. For more information about customer-furnished materials, see "Customer-Furnished Materials" *on page INV-157*.

Contract Pricing

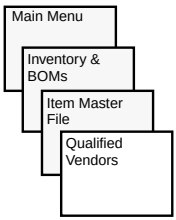


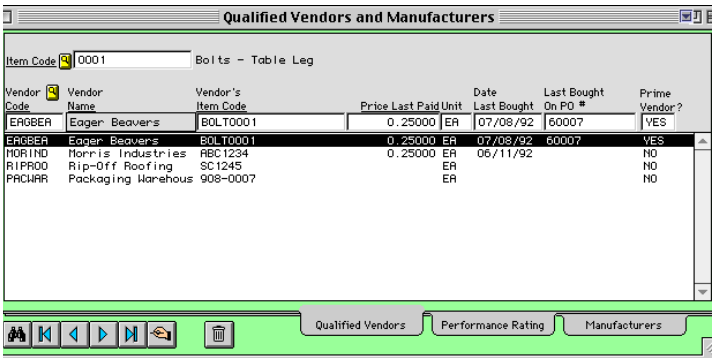


The Qube ERP™ system provides the ability to set up **pricing schedules** and **item codes** that apply to **select customers only**. Entry of the data may be accessed from the Order Entry, Accounts Receivable or Inventory Control modules. These functions will only be visible if you have purchased the optional Contract Pricing module.

For a complete discussion about how to utilize this function, *see* *"Contract Pricing" on page OE-75*.

Qualified Vendors





This function is available only if you have purchased the **Vendor Performance Grading** function. If you have, the system provides the ability to store all qualified vendors and manufacturers for each item in this window.

The window enables you to enter an unlimited list of vendors and manufacturers for each item. You may also enter the item code used by each vendor and manufacturer to reference each item.

The additional fields displayed in the list of qualified vendors include the price last paid (to purchase the selected item from this vendor), the date last bought, the PO number on which the last purchase was listed and whether or not the vendor is the prime vendor.

The additional fields displayed in the list of manufacturers include whether this manufacturer is the prime manufacturer and whether the manufacturer is approved. For more information, *see* "Manufacturer Item Codes" *on page PUR-22*.

You may sort the data by clicking on any of the column labels.

Vendor Code

{All caps, validated, 15 characters} Enter the vendor code of the vendors who have been qualified to supply this item. You may enter as many vendors as you like for each item. This code must be a valid vendor code from the vendor master file.

Vendor's Item Code

This is the item code that the vendor uses. You may enter in one vendor item code per item. This code is not validated, so you can enter it for more than one part in the list. It will appear on any PO for this item from this vendor.

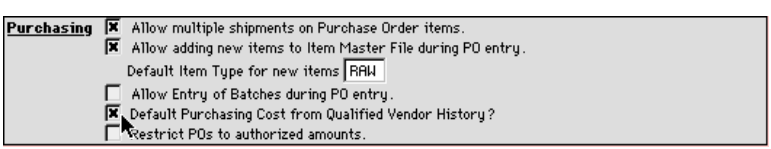
Price Last Paid

This is the unit price paid the last time you purchased this item from this vendor. It is not the current cost as reflected on the item master file. If you elect to have purchase costs calculated from the **last purchase cost** as set up on **System Set Up, Card #1**, this is the cost which will be referenced when you purchase this item from this vendor *(see below)*. You may edit this cost manually to override the last purchase cost (if you have negotiated a new price with this vendor), or as a setup measure when first establishing your data.

PO Unit Cost Defaulting

If a qualified vendor has been entered for a given item, the system may default the unit cost of the item on the purchase order based on the last cost paid to this vendor. This way, the purchasing agent can see immediately if a cost quoted for an item from a selected vendor has changed from the prior cost.

You control whether the last paid cost or the current cost shown on the **Item Master File** window will be used as the default; you may enter your choice on **System Set Up, Card #1**, as seen here:



Date Last Bought

This date is automatically calculated by the system each time you issue a PO to this vendor for this item. You may edit this value manually, however.

Last bought on PO#

Each time you issue a PO for this item from this vendor, this field will be updated. You may edit this value manually, however.

Prime Vendor

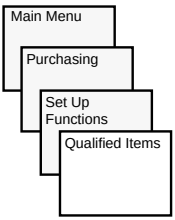
The prime vendor is the default selection used in production scheduling and in generating purchase requisitions to bring stock up to

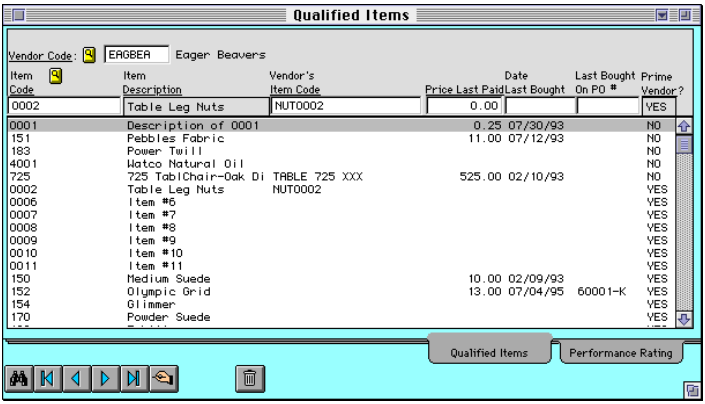
maximum levels. Each item may have only one prime vendor. Enter YES into this field for that vendor.

NOTE: Qube ERP™ will not refuse to allow purchase of any item from any vendor if the selected vendor is not included in the qualified vendors list for that item.

Note that if you have the Qualified Vendors module and you import Vendors using the Data Import window, you should then run the Qualified Vendors utility (*see* "Qualified Vendors" *on page SYS-192*) to initialize the file.

Qualified Items



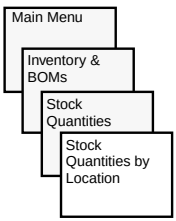


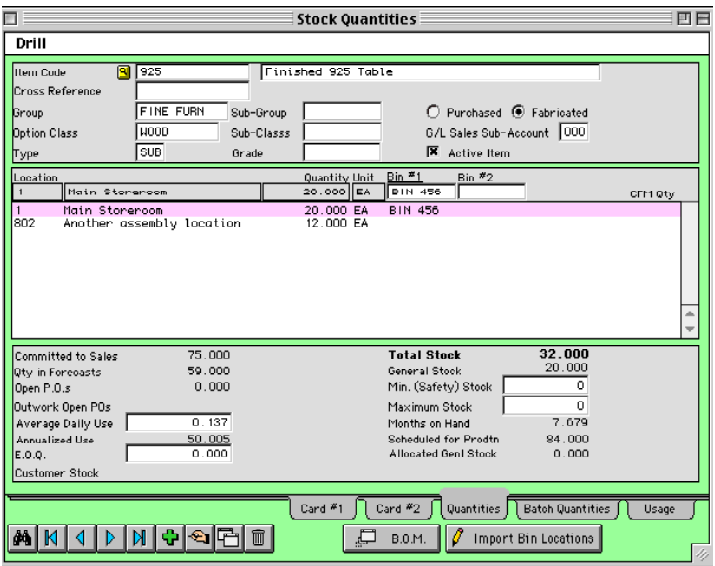
Note that the view covered above displays **Qualified Vendors.** In other words, it is an “item-preferred” view of the data, showing which vendors may supply each item.

It is also possible to turn this data “on its head,” and view which items can be bought from each vendor. This is the Qualified Items window shown above. All the fields are the same as in the Qualified Vendors window, with the exception that it is not possible to edit the **Prime Vendor? field.** To access this view, it is necessary to open the window from the Purchasing module, as shown above.

Stock Quantities

Stock Quantities by Location





This is the **Stock Quantities by Location** window. It lists the quantity in stock at each nonzero quantity location. It also allows you to specify a **Bin Location** for each stock location which is included in the list. You may not edit stock quantities from this window. Stock quantities are adjusted when you create various types of inventory transactions, such as PO receipts, customer invoices, inventory movements, production transactions, cycle counts, etc.

Users who have purchased the Multiple Shipping Warehouses module have a different stock window; *see* "Stock Quantities at all Locations" *on page INV-57*.

Stock Locations

Qube ERP™ supports references up to 99,999 different inventory locations. Assembly and inventory transactions and PO receipts allow you to specify which locations are affected by them. Inventory locations can represent stock found at work centers, stock at vendor locations (sent there for outwork), stock at other warehouses, or

stock at designated locations on the shop floor. Every transaction affecting inventory contains a reference to an inventory location.

The location reference (except for location 1) in the Stock Quantities window is deleted when the count equals zero and no bin locations are set up for the item.

Stock Quantity Calculated Numbers

Committed to Sales

Each time a sales order is entered for an item, this quantity is increased by the quantity on that sales order. Each time a sales order referencing this item is invoiced causing the item to be shipped, the value of this field will be reduced by the same quantity. If you click on this field title, Qube ERP™ recalculates both this quantity and the **Qty in Forecasts**.

Qty in Forecasts

Each time a forecast is entered for an item, this quantity is increased by the quantity on that forecast. Each time a forecast is deleted or converted to a sales order, the amount in this field is reduced by the same quantity. If you click on this field title, Qube ERP™ recalculates both this quantity and **Committed to Sales**.

Open POs

As purchase orders are entered for any item, the quantity purchased is added to this field. As the items are received, the quantity received is subtracted from the value of this field. If you click on this field title, Qube ERP™ recalculates both this quantity and **Outwork Open POs**.

Outwork Open POs

POs for outworked items do not call for any complete units of the items to be added to stock. POs for such items are for labor to be added to a subassembly found in the items BOM. If Qube ERP™ increased open POs for purchased subassemblies, it would incorrectly influence all MRP computations to indicate these items were coming in through open POs. These items are added to stock when assembly transactions occur, not PO receipts, so they are tracked separately. If

you click on this field title, Qube ERP™ recalculates both this quantity and **Open POs**.

Average Daily Use

The value found in this field is computed automatically and then referenced during **Min/Max/Lead Time/EOQ Analysis**. It is possible, however, for you to manually edit the field. Manually editing this value is most often done when the system is first set up and no historical data exists on which to base a computed average daily use. This value is important in automatic generation of requisitions (*see* "Min, Max, Lead Time & EOQ Analysis" *on page PUR-113*).

Annualized Use

This field is equal to the average daily use multiplied by the number of working days in a year. This number is defined and entered on the MRP Preferences window; *see* "Number of Working Days This Year" *on page PLAN-26*.

EOQ

This number represents the most efficient **Economic Order Quantity** for this item, based on several factors, including cost of placing an order, warehousing the item, and carrying the item over time. The value may either be computed automatically or manually edited (*see* "Min, Max, Lead Time & EOQ Analysis" *on page PUR-113*).

Total Stock

This field represents the sum total of all SKUs of this item in all inventory locations (1-99,999). This includes both all **General Stock** (netable) and all **Non-General Stock** (non-netable) locations. If you click on this field title, Qube ERP™ recalculates both this quantity and **General Stock**.

General Stock

Locations used for general stock are defined by entries made on **System Set Up, Card #3**. *See* "Inventory General Stock Includes Stock Location #1 through Location #" *on page SYS-111.* If you click on this field title, Qube ERP™ recalculates both this quantity and **Total Stock**.

Minimum & Maximum Stock

The values of these fields may be computed automatically or manually edited. When the minimum level is calculated automatically, it

is set to equal the average daily use times the lead time plus safety stock (*see* "Min, Max, Lead Time & EOQ Analysis" *on page PUR-113*).

The **Multiple Shipping Warehouses** module allows you to control the Min/Max for each location. However, there is no way to automatically recalculate all item codes for the Min/Max total for all locations. This will have to be done by editing the item code for each location, then clicking on the **Min. (Safety) Stock** field to recalculate.

Months On Hand

This field contains a number computed as the total stock divided by the expected annual usage (to get "years on hand") and then multiplies "years on hand" by 12 to get "months on hand":

```
Total Stock ÷ (Annualized Use x 12)
```

Scheduled for Production

When using the **Production Scheduling** module, Qube ERP™ computes the quantity scheduled for production. The value in this field is reduced each time a quantity of the item scheduled for production is actually produced. Both the **manufacturing order** and the **Item Master File** record are updated to show that more items now exist in inventory and fewer items are scheduled for future production. This is a calculated field. If you click on this field title, Qube ERP™ recalculates this quantity.

Allocated Genl Stock

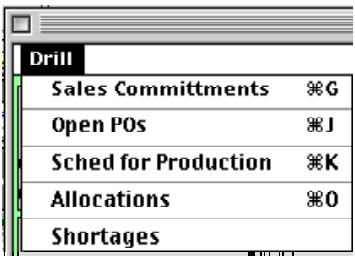
This number reflects the amount of **general stock** which has been scheduled for production. For a complete discussion on general stock, *see* "System Set Up, Card #3 Window" *on page SYS-108*.

Import Bin Locations

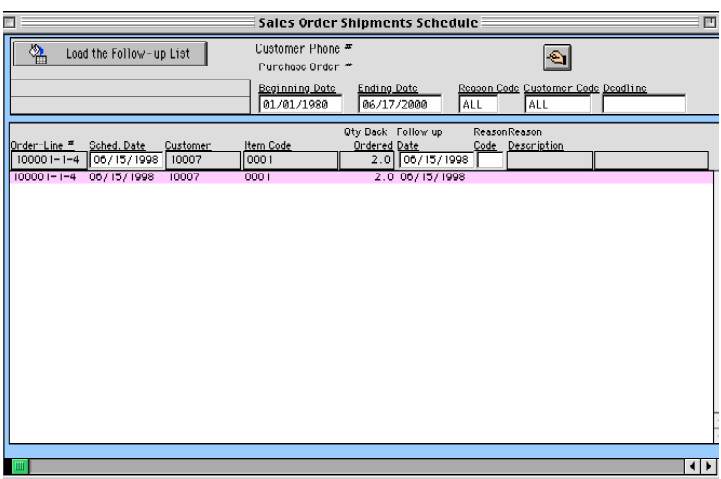
Click this button to import bin locations for items. This is a separate procedure that is only available through this button. For more information on importing data, *see* "Import Data" *on page SYS-145*.

Drill

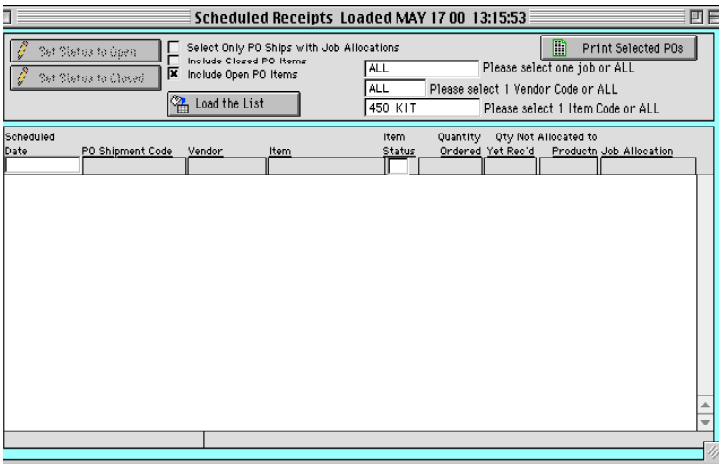
You may click on the **Drill** menu in the upper left corner to access information on **Sales Commitments**, **Open POs**, **Scheduled for Production**, **Allocations**, and **Shortages**.



Clicking on **Sales Commitments** displays the **Sales Order Shipments Schedule** window.

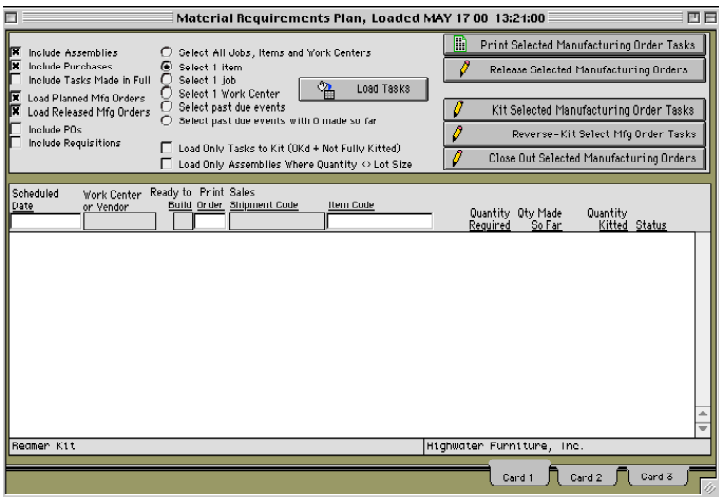


Clicking on **Open POs** displays the **Scheduled Receipts** window.

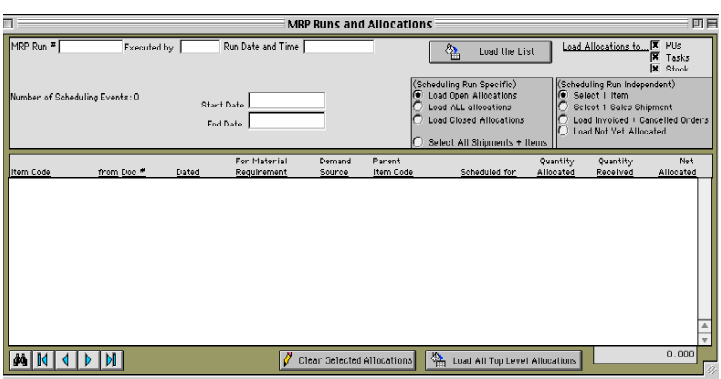


Note that this window does not list Approved Requisitions, but the **Open POs** value shown in the lower left of the **Stock Quantities** window does include Approved Requisitions. For example, this window may show 50 open POs, but the Open POs value on the **Stock Quantities** window may show 100. This would mean there were 50 approved requisitions and 50 open POs. To reconcile these numbers, you can run the **Purchasing** report **POs or Requisitions by Item Code**; include requisitions and open items but do not include the other options.

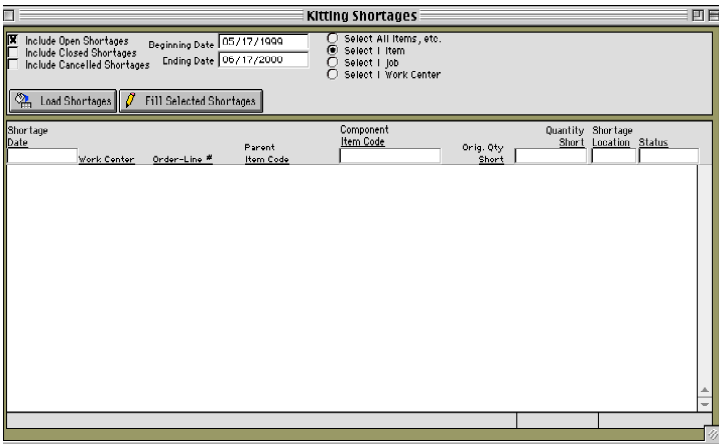
Clicking on **Sched for Production** displays the **Material Requirements Plan** window.



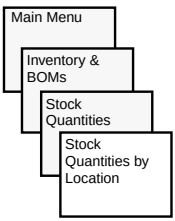
Clicking on **Allocations** displays the **MRP Runs and Allocations** window.

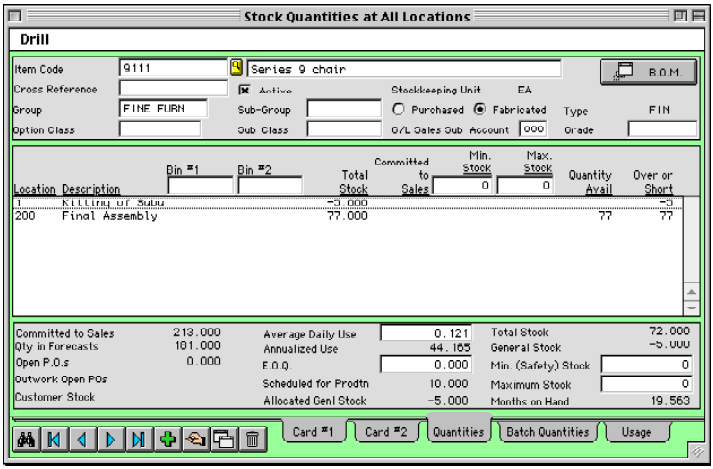


Clicking on **Shortages** displays the **Kitting Shortages** window.



Stock Quantities at all Locations

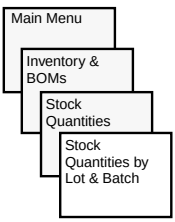


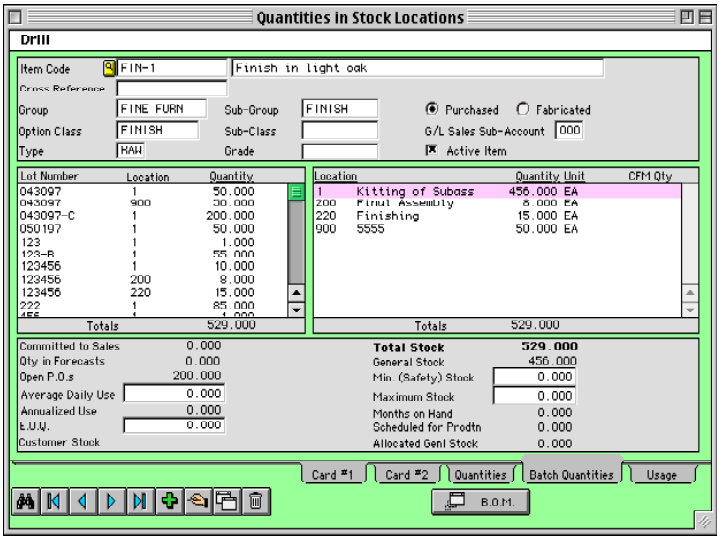


This is the **Stock Quantities at all Locations** window. If you have purchased and initialized the Multiple Shipping Warehouses module, you will see this window. It lists the quantity in stock at each nonzero quantity location. It also allows you to specify a **Bin Location** for each stock location which is included in the list. You may not edit stock quantities from this window. Stock quantities are adjusted when you create various types of inventory transactions, such as PO receipts, customer invoices, inventory movements, production transactions, cycle counts, etc.

This window is similar to the **Stock Quantities by Location** window; *see* "Stock Quantities by Location" *on page INV-49* for information about individual fields.

Stock Quantities by Lot & Batch Window



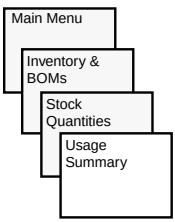


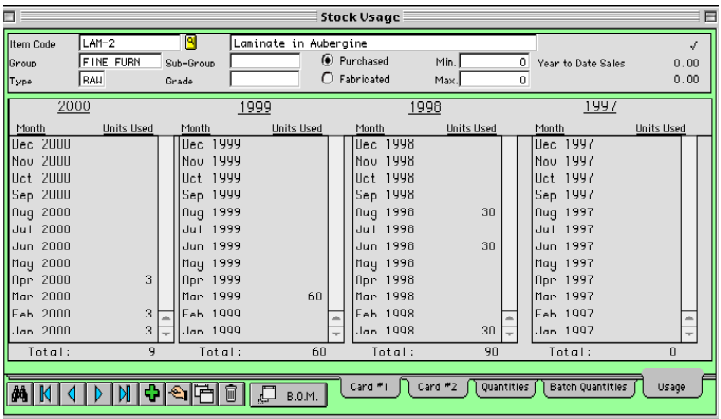
This window provides access to inventory item quantities by lot and batch number. It also shows stock status of open POs, quantities committed to sales, average consumption, economic order quantities, and minimum and maximum inventory levels, just as in the **Stock Quantities by Location** window.

Quantities Lists

Both lists are display-only lists which provide a breakdown of all item quantities by lot, batch or undesignated amounts. Raw materials will typically involve vendor lots, while subassemblies and finished goods will refer to production batches. The type of reference each item requires is indicated in the **Item Master File, Card #2** window, described in the **Items** section. The heading for this list changes to the appropriate designation...for items with lot numbers it would read **Lot Number**. Note that the system allows multiple batch or lot numbers. Note also that the amounts in lots and batches may differ from the total amounts in stock, as some may have been issued without a lot/batch reference.

Stock Usage Window





This window displays up to 4 years of data, showing the number of units for each month of each year plus totals. (Note that you may see less than 4 years of data; the setup utility goes back 2 years, so starting from the year 2000, it will go back to Jan. 1, 1998.) The utility to initialize the data is found with the v7.36 Task Assistant, called **Set Up Usage**.

About the Window

Each of the four panels on the window defines each of the 12 periods in a year and displays the number of SKUs used during each period.

This window provides a quick and easy way to determine if you are over- or under-stocked on any item.

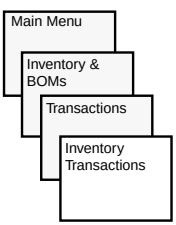
This is not a rolling calculation; i.e., it does not recalculate each month. In order to reset the values for stock usage, it is necessary to close the year. This will reset the months and values. Also, it recalculates for this item only. To reset all items, use the BOM utility *"Reset Usage Each Period" on page SYS-160*.

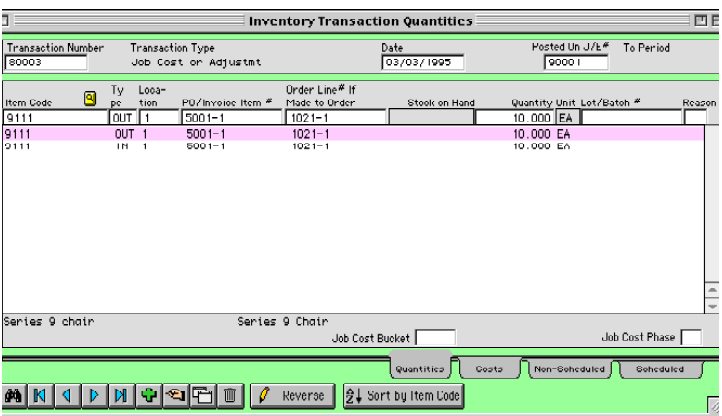
The count is only "OUT" transactions from Invoiced Sales, scheduled or nonscheduled Assembly Transactions, and Adjustment Transactions. This count does not include Cycle Count or Physical Inventory "OUT" transactions.

Inventory Transactions

When you first open the inventory transactions window, the **Inventory Transaction Quantities** window shown below will be displayed. This window displays the transactions in terms of a quantity of stockkeeping units (SKUs) moving in or out of inventory. To view transaction costs, click on the card tab, *<COSTS>*, at the bottom of the window.

Transaction Quantities Window





Transaction Number

{Indexed, Calculated} This number is automatically calculated by the system. It is the primary identifier of this transaction. Because it is indexed, you may find on the value of this field. It also provides an audit trail when transactions are posted to the general ledger.

Date

{Required, Indexed} This field defaults to “today's date” but may be changed if you wish. Because the field is indexed, you may find on the value of this field. Finding on Jan. 1 00, for example, finds the first inventory transaction showing the selected date or later.

Posted to J/E

{Indexed, Calculated} If the transaction has been posted, the journal entry number appears in this field. A report is available which enables the user to print all inventory transactions included in any range of journal entries, thus making it easier to tie inventory transactions to changes in the value of inventory in the general ledger.

Item Codes

{All Caps, Required, Validated, Indexed} Enter the item codes of the inventory items you are moving. The system will accept only codes which it recognizes and will acknowledge its recognition by displaying the description of the item below the list. Click on the button for a pop-up list of item codes.

Transaction Type

{All Caps, Required, Validated} Use the following codes to indicate different types of transactions.

```
IN = Incoming inventory
OUT = Outgoing inventory
```

Location

{Required, Validated} When creating a new transaction manually, any number between 1 and 99999 may be entered here. You may enter a location in which no inventory exists. In this case, the system would drive the quantities to a negative value, and allow you to catch up later. Transactions generated by PO receipts or invoiced shipments will show the location code of the locations they were moved into and out of.

PO or Invoice Item #

{All Caps, Validated} If the transaction was created by a PO, this field displays the purchase order-line number from which a PO receipt has been generated. If it was created by a sales invoice, the sales invoice-line number will appear in this field. If the transaction was generated as the result of the user issuing a credit memo against an existing sales invoice, the field will contain "CM" followed by the number of the credit memo.

Order-Line #

{All Caps, Validated} If you are creating a transaction manually, you should indicate in this space the order number plus the line number of the order to which this transaction is connected. The format used should be the order number followed by a hyphen and the line number (e.g. "1929-1," as shown in the above example).

If an item is being pulled from inventory to be used for a particular job, the order-line number of the job must be entered into this space. This transaction will cause the materials cost of the job to be in-

creased by the value of those materials shown in your transaction, but only after the transaction has been posted. Also, if material is being returned to inventory because everything that was issued to a job was not needed, the order-line number of the job must be entered here if that credit is to be properly applied and the materials cost on the job is to be calculated correctly. Always reference the order-line number, whether or not the job has already been invoiced. The system will not find the correct record if you enter the invoice number.

If you enter a code which the computer does not recognize, the system will display a message informing you that you have entered an **INVALID SALES ORDER LINE NUMBER** and ask you to try again. You will not be allowed to proceed until you have entered a valid order-line number. Be sure to check that the customer name which does appear is the one you expected.

Stock on Hand

{Calculated, Display Only} This field will display the number of SKUs (stockkeeping units) on hand when the inventory transaction was entered (just prior to the transaction). It is the amount of SKUs of this item *at this location, just prior to executing this transaction.*

Quantity

{Required} Enter the quantity you are moving into this field. The quantity entered here must correspond to the unit shown on the screen. If the unit shows "LB", the quantity must be entered in terms of pounds received.

Unit

{All Caps, Required, Validated} Qube ERP™ will display the stock keeping unit in this field. You cannot change this value. All inventory transactions are recorded in SKUs even though the PO or sales order may reference a different unit of measure.

Lot/Batch #

{Available only with Lot & Batch Tracking} If you are using the lot and batch tracking capabilities of the system, you would enter the lot or batch number here (*see* "Inventory Transactions Window" *on page LBS-24*).

Reason

{Validated} Use this field to enter a reason code for the transaction. Reason codes are set up elsewhere in the system and can be used to trace transactions to material variance and scrap. *See* "Transaction Reasons" *on page INV-97.*

Reverse

{Button} While unposted transactions can be changed or deleted, a better way to make adjustments and preserve audit trails is to make adjusting transactions. In cases where you wish to delete unposted transactions, it is better to use the <*REVERSE*> button instead. For posted transactions, this is the only method available.

Sort by Item Code

{Button} Finding a specific item in a transaction to check the quantity and costs can be very tedious unless the items in the list are sorted in some predictable manner. This button is very useful when auditing assembly transactions which may include many transaction lines.

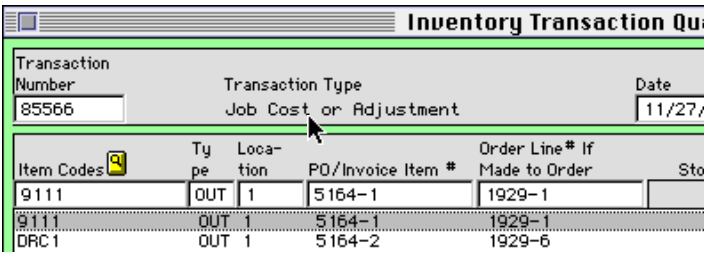
Manually Entered Inventory Transactions

Manual Inventory Adjustments

The most common manual use of the inventory transactions window is to enter adjustments to inventory, correcting quantities and locations. An adjustment could be used when setting up the initial value of inventory levels when you initially establish your beginning balances. It can also be used if a discrepancy is found between the amount actually found in inventory on a physical inventory count and that which the system tells you is supposed to be there. In these cases, the columns labeled **PO/Invoice Item #** and **Order Line #** would remain blank (you can also use the cycle counting and physical inventory procedures to make these adjusting transactions).

Manual Job Cost Transactions

Job Cost transactions are generated automatically when sales orders are invoiced. These are then tied directly to a sales order and invoice number, as reflected in the fields at the top of the window (this is why they are termed job cost transactions). They will also be labeled as "`Job Cost`." This is an example of an automatically generated transaction.



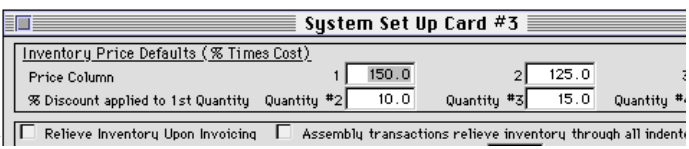
Qube ERP™ also provides the option of separating the invoicing process from the inventory relieving process. In this case, you will have to create transactions manually to record movements into and out of inventory when product has shipped to or been returned from customers.

For example, companies which deliver partial or complete shipments of goods to the customer (or job site) at times not directly related to invoicing events enter job cost transactions in this manner. For example, the first invoicing event may represent an invoice for Phase I of the job and may be issued before anything has been shipped, representing only the down payment. The second invoicing event may take place after several shipments of goods have been delivered to the customer or job site and may be reflected in the invoice simply as Phase II.

• To enter manual job cost transactions

1. **Set up System Set Up, Card #3 so that inventory is <u>not</u> relieved on invoicing.**

   Open **System Set Up, Card #3** in the **System Administration** module. Make sure the following flag is set to *OFF*.



Set this flag OFF

2. **Invoice the sales orders in the normal manner.**

3. Using the Inventory Transactions window, create manual job cost transactions.

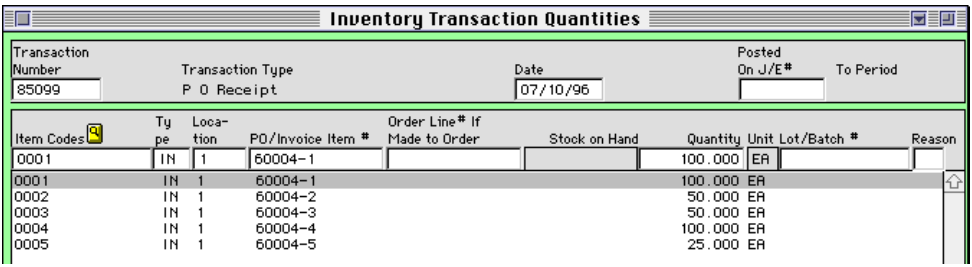
Create an **OUT** type transaction for the items being sold. Make sure you enter the sales order-line number in the **Order Line #** field. When you manually enter your job cost transactions, the key to designating the transaction as job cost-related rather than simply an adjustment is to relate each line of the transaction to a specific **sales order-line #** (job number). This number is defined as the sales order number, a hyphen, and the line number, as shown below. The entry in this field is the only thing that distinguishes between a manual job cost and an adjustment transaction:

Item Codes	Type	Location	PO/Invoice Item #	Order Line # If Made to Order
9111	OUT	1	5164-1	1929-1
9111	OUT	1	5164-1	1929-1

Automatically Generated Transactions

PO Receipts

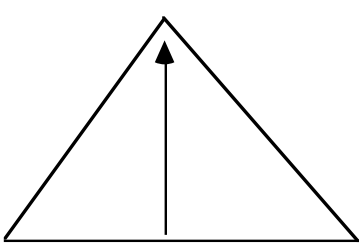
When a purchase order receipt is recorded, Qube ERP™ will reflect the incoming inventory movement by generating inventory transaction records recording the purchase order-line number, the item code of the item which was received, the inventory level at the time of the receipt, the date of the receipt, etc. This record serves as an audit trail to document changes in the level of inventory. The following window shows an example of the type of transactions generated by a purchase order receipt. Notice that the window includes a description of the type of transaction currently being displayed.



This window displays information about which items were included in the transactions and what quantities were involved. The PO Item # provides an audit trail to the specific PO item records from which the receipt was generated. You may see information on the current and standard cost associated with each line of the transaction by clicking the card tab labeled <*COSTS*>.

Assembly Transactions

An assembly transaction is defined as the creation of one thing by combining material and labor components. It can be viewed as a pyramid with one or more components at the base yielding one assembly at the top.



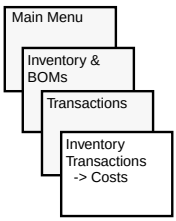
The assembly transaction is generated from the assembled item's bill of material. Therefore, it expects that all items in the bill will have been used in exactly the quantities shown in the bill. If there were shortages, the user may use the **Inventory Transactions** window to

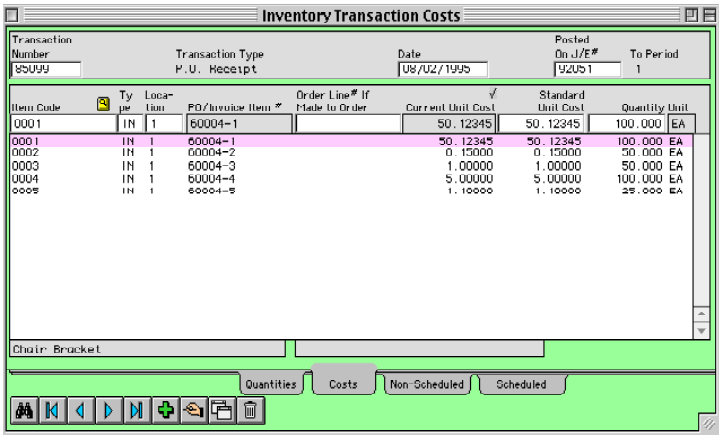
view the transaction and edit it to show the exact quantities and items used. *See* "Transaction Costs" *on page INV-69.*

Invoiced Shipments

As discussed earlier, Qube ERP™ generates transactions to record the shipment of products upon invoicing. In these cases, the order-line number reflects the order-line number of the sales order which generated the invoice. Since each line of these transactions is related to shipment of product on a specific sales order-line (job), these transactions are labeled Job Cost transactions.

Transaction Costs





Each inventory transaction carries with it a record of the "current" and standard unit cost at the time each transaction was created. Both costs for each inventory transaction are displayed on the Inventory Transaction Costs window, shown above. When viewing the Inventory Transactions window, you may press <*CTRL/COMMAND-B*> or click the <*COSTS*> card tab to view this window.

All of the fields on this window are identical to the **Inventory Transaction Quantities** window except for the **Current Unit Cost** and the **Standard Unit Cost** fields. In addition, this entire window is **display only.** If you click on the <*EDIT*> button while viewing this card, the system will automatically change to the **Inventory Transaction Quantities** window.

Current Unit Cost

{Calculated} This value reflects the current cost (or actual cost if a PO receipt) at the time the transaction was created. *See* "Current Unit Cost" *on page INV-22.*

Standard Unit Cost

{Calculated} This value reflects the standard cost at the time the transaction was created. *See* "Standard Unit Costs" *on page INV-24.*

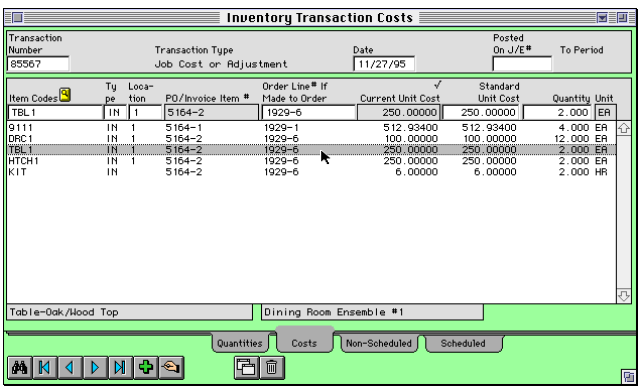
Auditing Costs

This window can be used for auditing the standard and current costs prior to creating inventory postings to the GL, or if needed, after posting to the GL.

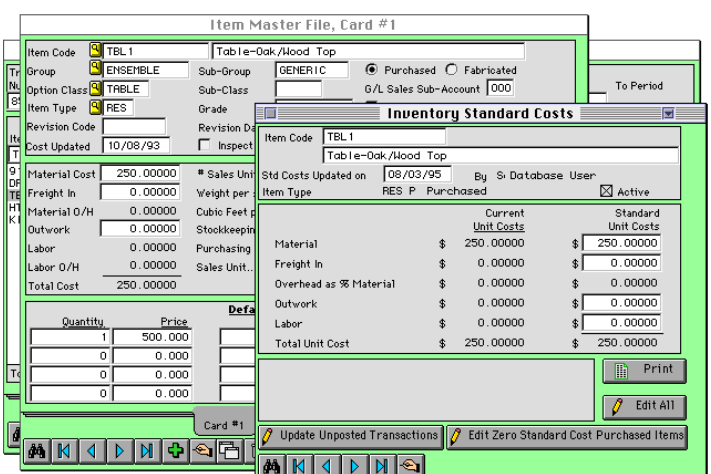
• To audit a suspect current or standard unit cost

1. Double-click on the item you wish to audit.

Each inventory transaction may have several different items in the list. Do this step for all items you wish to audit.



2. When you double-click on the selected item, the following two windows appear on your desktop.



These two windows are the **Inventory Standard Costs** window and the **Item Master File, Card #1**. This is where the two types of costs

are monitored and edited. You might find that the costs in the transaction window agree or disagree with the costs on these windows.

Changing Incorrect Transactions Costs

It is important to understand that *differing costs are not always in error*. This is because the transaction window reflects the costs *as of the time which the transaction was created*. These costs may very well have been (and in many cases will be) different from what they are today, however they may not be as well. This is for you to determine.

If you determine that standard costs should be different from those which appear in the **Transaction Costs** window, you may change them only if the transaction has not already been posted to the GL. If it has, you will need to correct the situation with an adjusting entry.

Current costs, however may be changed at any time. These will impact your job cost reports, however, so make sure you really want to change them before you do.

• To change the cost of an unposted inventory transaction

1. **Determine which cost you wish to change; current or standard.**

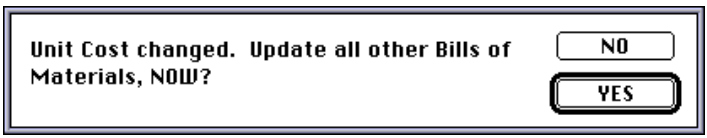
   If the transaction has not already been posted to the GL, you may change both costs using windows which have been opened on the screen. The current cost may only be changed from the **Item Master File, Card #1** window, and the standard cost may be changed only from the **Inventory Standard Costs** window.

2. **Select the appropriate window by clicking on it, then click <*EDIT*>.**

3. **<*TAB*> to the appropriate field, and make the necessary cost change. Then, click <*SAVE*>.**

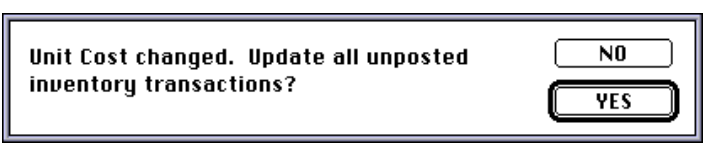
   This system will return a number of messages. The first notifies you that the costs have changed, and asks if you wish to roll up the bills of material affected by this cost change. If you select

<*YES*>, and this item is included in many BOMs, this could take a while. If it is only included in a few, it could be very quick, and you might wish to make the change. This message looks like this:



If you elect not to roll up the cost changes, this message will be displayed, reminding you that it must be done at a later time:

After this message, the system will offer you the ability to update the unposted inventory transactions. This message looks like this:



If you click <*YES*>, the system will sweep through <u>all of the unposted inventory transactions impacted by this routine</u> and change their current or standard costs, depending on which you are editing.

Note: If you have elected to update the BOMs in this procedure, those parent items which were affected will have their unposted transaction costs updated as well. Therefore, this whole procedure should be given some careful thought prior to making any changes.

An important note about standard costs: Remember that any time standard costs are changed in items which already exists in inventory, the cost of your inventory and therefore the value of your company's assets will changed. It is very important that any routines which impact these costs be managed only by someone who understands and is able to manage the impact of such routines. Please refer to *"Impact of Changing Standard Costs" on page GL-13* **prior to conducting any such procedures.**

Cost Components of Inventory Transactions

It is important to understand how the cost components of the inventory transaction impact the inventory GL balances.

1. **Only the standard costs are posted to the GL. The current costs will have no impact at all on the general ledger.**

   All inventory transactions are posted to the GL at standard. Current costs are maintained for job cost reporting purposes only. Therefore, if an item is showing a current cost of $10, but a standard cost of zero, the transaction will be posted at zero. It is therefore very important the standard costs be reviewed whenever inventory transactions are posted to the GL.

   The current cost will not impact the purchase price variance account. This transaction is only generated when items are actually purchased, and then the variance is the difference between the standard cost and the actual cost.

2. **The current costs are still important in the overall picture.**

   Even though only the standard costs will be posted in this inventory transaction, the current costs should still be carefully maintained for job cost purposes. These current costs are used to print out job cost detail reports at current cost, which is usually more timely than the standard cost. That way, as new jobs come in, you can easily see what each job actually cost to produce. (You can also print these reports at standard, thereby monitoring your job variances.)

3. **The GL is impacted only when items are actually posted**.

When you change the standard cost of an item, you are changing the value of inventory as the transaction occurs. Therefore, if you are changing the standard costs of any items which have prior activity in the GL, you should make an adjusting entry prior to posting transactions with a new standard cost. Take, for example, the following case.

Item A was purchased and debited to inventory some time ago at $10.00. Now you update the standard cost to $12.00. If you just went ahead and posted the transaction, you would get the following results when posting to the inventory account:

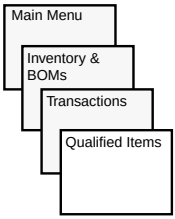
	dr	cr
Incoming transaction	10.00	
Outgoing transaction		12.00

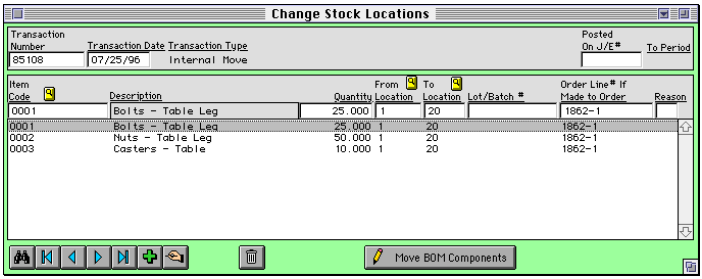
Obviously, this won't do. In order to make this transaction work properly, you should print a report of inventory at standard (if you are only changing one item, print just that item) prior to making the change, and then print the same report immediately following the change, prior to posting the updated inventory transactions. Then, journalize the difference, and then post the new transaction. Now the result will be:

	dr	cr
Incoming transaction	10.00	
Adjusting entry	2.00	
Outgoing transaction		12.00

Please refer to "Impact of Changing Standard Costs" *on page GL-13* **for more information.**

Change Stock Locations





This window can be used to easily move items from one inventory location to another. Inventory locations may be work centers, inspection sites, outside vendors, stock locations, or any other place where inventory might exists. Any movement between inventory locations requires an inventory transaction, and this window provides an easy way to move inventory between stock locations and create the inventory transaction at the same time.

Note: You would not use this function to record the sending of kits to vendors. This function has its own operational window. ***See*** *"Send Kits to Vendor Window" on page PUR-96.*

Transaction Number

{Indexed, Calculated} This number is automatically calculated by the system. It is the primary identifier of this transaction. Because it is indexed, you may find on the value of this field. It also provides an audit trail when transactions are posted to the general ledger.

Date

{Required, Indexed} This field defaults to "today's date" but may be changed if you wish. Because the field is indexed, you may find on the value of this field. Finding on Jan. 1 00, for example, will find the first inventory transaction showing the selected date or later.

Transaction Type

{Calculated} Displays the type of this transaction. Normally labeled "Internal Move."

Posted on J/E

{Indexed, Calculated} If the transaction has been posted, the journal entry number appears in this field. A report is available which en-

ables the user to print all inventory transactions included in any range of journal entries, thus making it easier to tie inventory transactions to changes in the value of inventory in the general ledger.

Item Codes

{All Caps, Required, Validated, Indexed} Enter the item codes of the inventory items you are moving. The system will accept only codes which it recognizes and will acknowledge its recognition by displaying the description of the item below the list.

Quantity

{Required} Enter the quantity of SKUs you are moving into this field.

From Location

Enter the stock location from which you are moving the inventory item into this field. This must be a stock location, as opposed to a bin location. You may enter a location in which no inventory exists. In this case, the system would drive the quantities to a negative value, and allow you to catch up later. Click on the button for a pop-up list of stock locations.

To Location

Enter the stock location to which you are moving the inventory into this field. This must be a stock location, as opposed to a bin location. Click on the button for a pop-up list of stock locations.

Lot/Batch #

If you are using the lot and batch tracking capabilities of the system, you would enter the lot or batch number here. This is covered in detail in the lot and batch tracking section of this manual.

Order-Line #

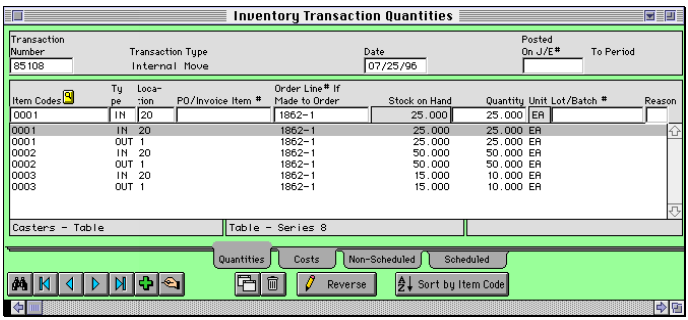
{All Caps, Validated} If you are creating a movement for a specific job, you should indicate in this space the order number plus the line number of the order to which this transaction is connected. The format used should be the order number followed by a hyphen and the line number (e.g. “1862-1,” as shown in the above example). If you enter a code which the computer does not recognize, the system will display a message informing you that you have entered an `INVALID SALES ORDER LINE NUMBER` and ask you to try again. You will not be allowed to proceed until you have entered a valid order-line number.

Reason

{Validated} Use this field to enter a reason code for the transaction. Reason codes are set up elsewhere in the system and can be used to trace transactions to material variance and scrap. *See* *"Transaction Reasons" on page INV-97.*

Resulting Inventory Transactions

Unlike the **Inventory Transactions** window, this window is specially designed to create a balanced inventory transaction. In other words, it is causing items to move from one location into another. It is not a "build" or "assembly" transaction, so no labor is applied in this transfer. It is a simple inventory movement. The resulting transaction would look like this:



Move BOM Components

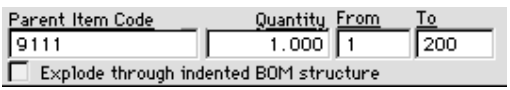
The function provides the ability to issue all of the components for a job to a work center. Again, the transaction is a move of the component items of a BOM from one location to another. The resulting transaction takes on the same form as that shown above. The difference is that it allows you to move all of the components in a BOM at once, rather than having to move each item individually.

• To move all of the components in a BOM from one location to another

1. Click on the button,

.

The following fields appear at the top of the window.



2. **Enter the item code of the BOM whose components you wish to move in the Parent Item Code field.**

   For example, if you wish to move the components of item # 9111, you would enter this number as shown in the illustration. Remember, you will not be moving 9111; only its components. Also, you are not backflushing or creating an assembly. You are simply moving the components which comprise the BOM for 9111 from one location to another.

3. **Enter the quantity of the item's SKUs you wish to move in the Quantity field.**

4. **Enter into the From (location) field the location code for the location from which the components will be moved.**

   This can be any stock location from 1-99999. If, however, you have set the system so that subassemblies are pulled from a specific location, this will be the defaulted location. You may override this number with any location you like. This default value is set up on **System Set Up, Card #3**, as shown here:

   Default "Pull From" location for Assemblies 200

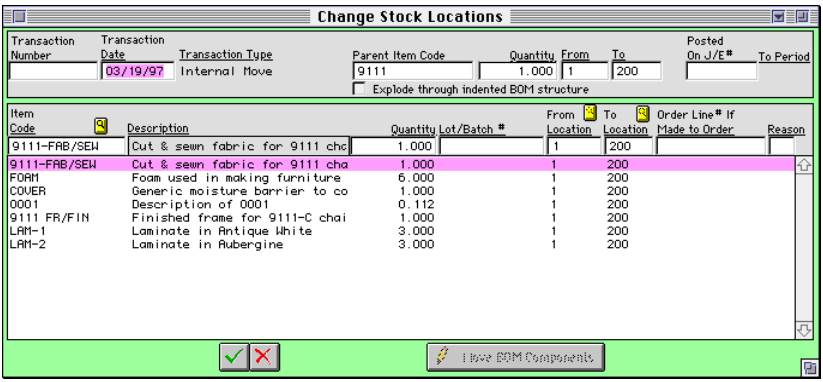
5. **Enter into the To (location) field the location code for the location to which the components will be moved.**

   This can be any stock location from 1-99999. It, too, will default to the Default "Send To" location as set up on **System Set Up, Card #3**, but can also be overridden.

6. **Determine whether to explode the BOM or not.**

   If you click the box labeled, *EXPLODE THROUGH INDENTED BOM STRUCTURE*, all of the items through the entire indented BOM will be loaded into the list. If you do not, only those items which appear in the flat BOM will load.

7. **Press <*TAB*>, and the component items will be listed in the window.**



Note that if you save the transaction without tabbing out of the Parent Item field, the transaction will just be created without first allowing you to edit the transaction.

8. **Review each item.**

Carefully check each item for quantity, item code, and locations. Also, if you are using lot and batch tracking or applying a movement to a sales order line number or reason code, you would wish to enter them at this point.

9. **Repeat these steps as many times as necessary.**

You can issue components from as many BOMs as you like in a single step. Each time you enter the parent information and TAB out of the last field, the items for that BOM will be added to the existing items in the list.

10. **Click <*SAVE*>.**

The function will create the inventory movement in the same manner as shown before. The resulting transaction will be balanced, showing an equal number of each item being pulled from one location and added to another.

Assembly Transactions

As subassemblies are made, either to stock or for specific jobs, their assembly and addition to inventory, along with the subtraction of their components from inventory, must be recorded in the data file. This could be accomplished by using the inventory transaction windows shown in the previous section, but this would be a very tedious and cumbersome task.

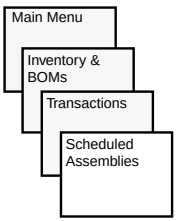
Qube ERP™ provides a much easier way to log these transactions in your data file. These types of transactions are classified as **assembly transactions**.

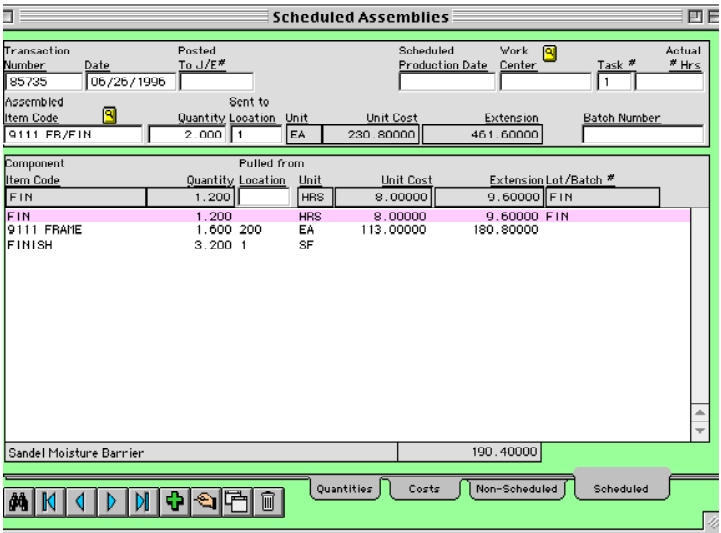
Assembly transactions can be of two types: **scheduled assembly transactions,** and **non-scheduled assembly transactions. Scheduled assembly transactions** are generated from **manufacturing orders**, which can be entered manually or generated automatically from the **production planning** functions. These are the primary choice of companies who are heavily involved with production planning and/or make to order environments.

Non-scheduled transactions, however, have no manufacturing or work order behind them. All they need to be effective is an accurate bill of material. Any assembly with a bill of material can be used in a non-scheduled assembly transaction. Non-scheduled assemblies are, by definition, made to stock, as no order, manufacturing order, or MPS order generated them. They allow you to just “go out and make something,” and issue it to stock.

Both scheduled and non-scheduled assemblies have the effect of logging the new assembly into stock, flushing the assembly components out of stock, and recording both standard and actual labor rates to the assembly. All of this, of course, requires the establishment and constant maintenance of accurate bills of material.

Scheduled Assembly Transactions





Production which has been scheduled and is therefore referenced on a manufacturing order should be recorded using **Scheduled Assembly Transactions**.

Scheduled assembly transactions are designed to reflect progress on the implementation of a manufacturing order. As a specific task of a manufacturing order is completed, an entry indicating this will cause all of the materials required to complete the task to be removed from inventory. All of these items are taken from inventory in the quantities recorded in an item's BOM at the time of the assembly transaction. In addition, the manufacturing order task itself will be updated to reflect the completion of the task. In this way the status of a job is kept updated.

All data required to fill in the header section of the scheduled assembly are taken from the manufacturing order. If the assembled item's BOM has changed between the time the manufacturing order was created and the time the transaction was entered, the transaction will be different from the BOM. It will reflect the item's BOM at the time the manufacturing order was created.

When an item is flagged as a Phantom Assembly, this function is NOT designed to preselect the lot and batch numbers for components that are lot- and batch-tracked.

Note: If the item being built is the item from the Sales order-line, Qube defaults the send-to location to the "Shipping Location" referenced on the sales order header.
If the item being built is a subassembly within that item's BOM, Qube will look at the "Send to Work Center" referenced on the task and default the send-to location to that work center's shop floor location.

Impact on General Ledger

The effect of assembly transactions (in regard to inventory) on the general ledger is to move product in and out of work in process. If the assembly moves components from one WIP location to another, there will be no impact on the GL, with the exception of any labor component of the transaction.

Transaction Number

{Indexed, Calculated} This number is automatically calculated by the system. It is the primary identifier of this transaction. Because it is indexed, you may find on the value of this field. It also provides an audit trail when transactions are posted to the general ledger.

Date

{Required, Indexed} This is the date that the assembly was actually performed. This field defaults to "today's date" but may be changed if you wish. Because the field is indexed, you may find on the value of this field. Finding on Jan. 1 00, for example, will find the first inventory transaction showing the selected date or later.

Posted To J/E

{Indexed, Calculated} If the transaction has been posted, the journal entry number will appear in this field. A report is available which enables the user to print all inventory transactions (of which an assembly is one) included in any range of journal entries, thus making it easier to tie transactions to changes in the value of inventory in the general ledger.

Scheduled Production Date

{Required, Validated} Enter the date found on the manufacturing order as the scheduled production date. This is the scheduled production date, not the actual production date.

Work Center

{Required, All Caps, Validated} Enter the code of the work center at which the assembly was scheduled to be performed.

Task #

{Required, Validated} Enter the task number, also found on the manufacturing order.

Note: It is essential that the above three fields exactly match the fields from the manufacturing order, since their values are used to locate the proper manufacturing order task. If, for example, an item scheduled for assembly on 4/10/00 was actually assembled on 4/11/00, enter 4/10/00 as the scheduled date and 4/11/00 as the actual date.

Actual # Hours

Enter the length of time, in hours, that it took to actually perform the task *completed*. This refers to the entire task, not each assembly. For example, if the manufacturing order task called for six items to be completed in eight hours, but only five were finished in 7 1/2 hours, you would enter 7.5 into this field. The difference reflected between the actual number of hours entered here and the standard number of hours called for in the bill of material will be posted to labor variance account.

A rounding variance may occur in this field. The number of hours entered on the Scheduled Assembly Transactions window is saved as hours and minutes. For example, if you enter 0.39 hours, this is converted to 23.4 minutes. This is then saved as 23 minutes; the 0.4 is not saved, since fractional minutes or seconds are not retained for calculations. When the data is displayed back on the Scheduled Assembly Transactions window, the 23 minutes is displayed as a fraction of an hour: 23/60, or 0.38333. The variance in this example is 0.0666 minutes, or less than 4 sec-

onds. If the number you enter in the Actual # Hours field converts to an even number of minutes, then no variance occurs.

Assembled Item Code

{Indexed, Calculated} The item code in this field will be the item code of the assembly called out in the specified task of the designated manufacturing order. This field value cannot be changed.

Quantity

{Required, Defaulted} The value in this field is defaulted as the *quantity remaining to be built* from the specified manufacturing order task. For example, if you had returned to the hypothetical job just mentioned to finish it the next day, the system would default only one in this field, as the other five had been completed on the previous day. You may override this number and insert any you wish, whether more or less than the original manufacturing order called for, to reflect the *actual amount* completed.

Sent to Location

{Defaulted} This location will be defaulted to one of three values.

1. If you have set up your system to automatically send subassemblies to a specified location, this field will be defaulted to that location. *See* "Default "Pull From" & "Send To" Locations for Raw Materials and Assemblies" *on page SYS-115.*
2. If you have not designated a default send to location for subassemblies, the value in this field defaults to the send to work center in the manufacturing order. This defaults only if you have generated the manufacturing order using the production planning function, and will be calculated from the routing of the finished item. If you entered the manufacturing order manually, however, there will be no "send to" location to default.
3. If neither of these conditions is true, the field will be blank.

Whichever is the case, you may override the defaulted value in this field. Make sure the location code of the receiving location is correctly entered in this field.

Unit

{Display only} This is the **stockkeeping unit of measure** of the item being produced.

Unit Cost

{Display only} This is the unit cost of the item being produced.

Extension

{Display only, calculated} This is the extended cost of the items being produced.

Batch Number

{Defaulted} If you have purchased and turned on the optional Lot and Batch Tracking module, the batch number will appear in this field. For more information about Lot and Batch Tracking, see "About Lot & Batch Tracking" *on page LBS-1*.

• To create a new Scheduled Assembly

1. **Click <*NEW*>.**
2. **Enter the data as described above into the fields in the top portion of the window.**

   It is important to discriminate between the scheduled production date and the actual production date. If the dates differ, be sure to enter the original scheduled date in the "scheduled" field, and the actual production date in the "date" field.

3. **Click <*SAVE*>.**

   The function will create a transaction which will enter into the Sent to Location the indicated quantity of the manufactured item. It will also move out of inventory the quantities of the components indicated in the manufacturing order. These components will be displayed in the lower half of the window.

Component Item Codes

{Display only} The item code of each component item displays here. Note that there are two types of items listed in the components windows; inventory and labor. The labor quantity shown is the standard labor rate for each manufactured item, as indicated in the manufacturing order, times the quantity of the items being produced. This is the standard labor for this job.

Quantity

{Display only, calculated} The quantity of each component used is displayed here. The quantity is calculated as the number of items per assembly as indicated in the manufacturing order times the quantity actually produced.

Pulled From Location

{Calculated} This location will be calculated to one of two values.

1. If you have set up your system to automatically pull subassemblies and raw materials from a specified location, the value in this field will be those locations. *See* "Default "Pull From" & "Send To" Locations for Raw Materials and Assemblies" *on page SYS-115.*
2. If you have not designated default pull-from locations, the value in this field will be the work center where this item is being produced, as designated in the manufacturing order. This value is originally calculated from the BOM; however, it can be changed in the MO prior to recording the transaction.

Unit

{Display only} This is the **stockkeeping unit of measure** of the item being produced.

Unit Cost

{Display only} This is the unit cost of the item being produced.

Extension

{Display only, calculated} This is the extended cost of the items being produced.

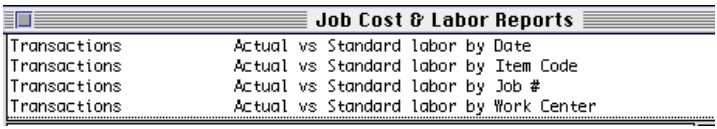
Lot/Batch #

{Defaulted} If you have purchased and turned on the optional, for-sale Lot and Batch Tracking module, the lot and batch number will appear in this field. For more information about Lot and Batch Tracking, see "About Lot & Batch Tracking" *on page LBS-1*.

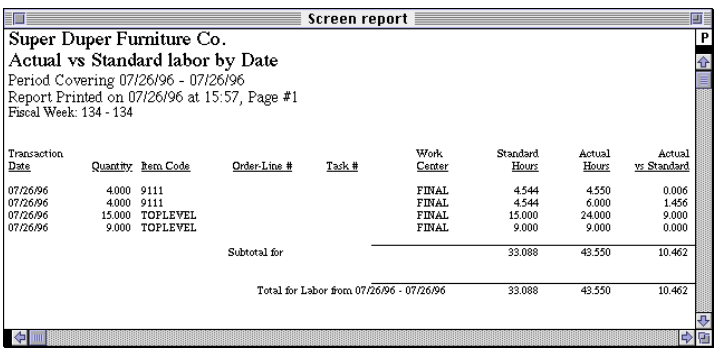
Actual vs. Standard Labor

Note that the labor shown in the lower portion of the window can differ from the amount entered as actual in the top portion of the window. The difference between the two is the labor variance. The labor variance for each and every job may be viewed by printing one of the

Actual vs. Standard Labor reports found in the **Job Cost & Labor Reports** window, as shown here:



An example of one of these reports is shown here:



Editing

When editing on the **Scheduled Assemblies** transactions window, Qube ERP™ allows you to change only the transaction date and the pulled-from location. If you wish to change more of the transaction, view it on the **Inventory Transactions** window by clicking on the card tab, *<QUANTITIES>*.

Bill of Material vs. Manufacturing Order

It is important to be aware that all of the defaulted quantities of items and hours used up in this process were taken from the **manufacturing order**, and not the BOM. The BOM was used to calculate the requirements in the manufacturing order; however, you can edit these values in the manufacturing order without changing the BOM, or vice versa. In these cases, the hours and items used and the resulting transactions would reflect the items in the MO, not the BOM.

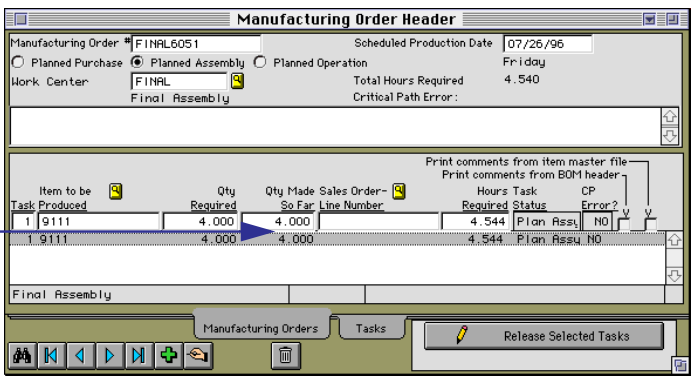
Note that Qube does not display the manufacturing order number on outgoing scheduled assembly transactions. The incoming

transaction shows the task number; the outgoing transactions show the associated material requirement record numbers.

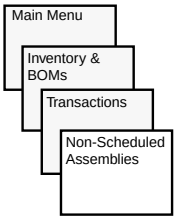
Updating the Manufacturing Order

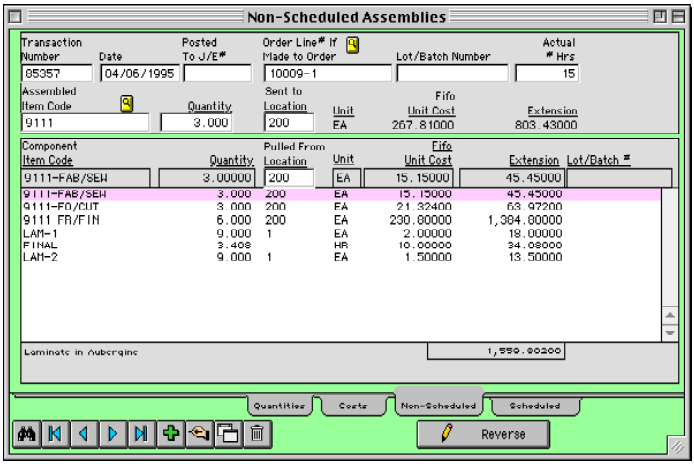
When a scheduled assembly transaction is recorded in the system, the manufacturing order is updated to reflect the quantities completed as shown in the illustration below. Qube ERP™ uses this number to keep track of the status of each job.

Qty Made So Far will reflect the quantities recorded in scheduled assemblies.



Non-Scheduled Assemblies





Production which has not been scheduled and is therefore not referenced on a manufacturing order may be reflected using Non-Scheduled Assemblies. This is a very powerful function for make to stock manufacturing environments. It provides the ability to “just go out and make something” without having to generate manufacturing orders, etc.

Assembly transactions are designed to reflect a manufactured product moving through a series of work centers. As a given product is moved through work center #1, an entry indicating this will cause all of the items on the bill of materials for that product to be removed from inventory, in the same way that a scheduled assembly does. All of these items are taken from inventory in the quantities recorded in an item's BOM, since no manufacturing order is being referenced.

Impact on the GL

The effect of an assembly transaction on your general ledger is to move product in and out of WIP, and to record the addition of any labor to the value of your inventory.

Window Fields

Assembled Item Code

{All Caps, Required, Validated} Enter the item code of the item being assembled here.

If you have selected to have the assembly transactions relieve inventory more than one level deep, only finished items (item type = FIN) can be referred to in the record header. This restriction protects the user from duplicating a move (moving a subassembly to work in process and then moving the same subassembly again as a part of the finished product or another subassembly). On the other hand, you may have selected to have assembly transactions relieve inventory only one level deep. If this is the case, both subassemblies and finished products can be referred to in the assembly transaction header. This type of configuration would be selected for a company which wants to track the production of subassemblies manufactured for inventory (i.e., separate from the construction of the finished product).

Transaction Date

{Required} Enter the date the transaction took place.

Order-Line # If Made to Order

{All Caps, Required, Validated} This field will default to Made to Stock. If you are recording the manufacture of items for a specific job, enter the sales order line # here. Entry of this number will permit a job tracking report to be produced showing the quantity and item worked on for a specific job and the work centers the job has passed through, thus giving the user an effective look at the progress on completing the job. It also enables the system to look up options selected on the sales order item record designed to replace generic item codes in the assembly's BOM.

Batch Number

{All Caps, Validated} If you wish to assign a specific batch number to the assembled item, you may enter this number here.

Actual # Hrs

If you enter the actual number of hours which were spent producing the assembly, you will be able to produce reports later on comparing the actual versus the standard hours required for production at selected work centers, for selected items and over selected date ranges.

A rounding variance may occur in this field. The number of hours entered on the Non-Scheduled Assemblies window are saved as hours and minutes. For example, if you enter 0.39

hours, this is converted to 23.4 minutes. This is then saved as 23 minutes; the 0.4 is not saved, since fractional minutes or seconds are not retained for calculations. When the data is displayed back on the Non-Scheduled Assemblies window, the 23 minutes is displayed as a fraction of an hour: 23/60, or 0.38333. The variance in this example is 0.0666 minutes, or less than 4 seconds. If the number you enter in the Actual # Hours field converts to an even number of minutes, then no variance occurs.

Quantity

{Required} By default, Qube ERP™ displays the number entered in the **Scheduled Lot Size** field of **Item Master File Card #2**. If no scheduled lot size is entered, the default quantity is 1.

Sent to Location

{Required} Enter the shop floor location where the next stage of assembly will occur.

Pulled From Location

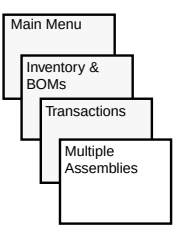
{Calculated} This location will be calculated to one of two values.

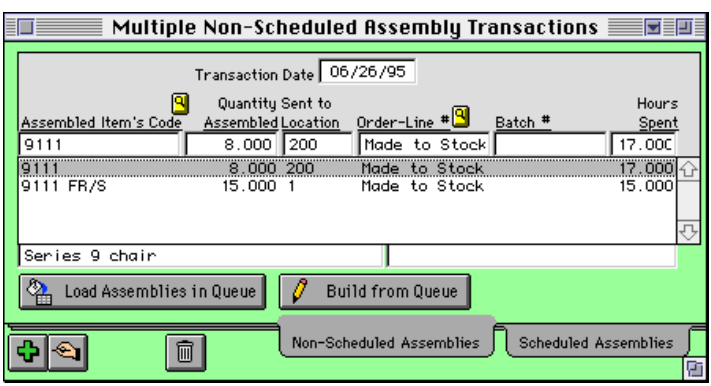
1. If you have set up your system to automatically pull subassemblies and raw materials from a specified location, the value in this field will be those locations. *See* "Default "Pull From" & "Send To" Locations for Raw Materials and Assemblies" *on page SYS-115.*
2. If you have not designated default pull from locations, the value in this field will be the work center where this item is being produced, as designated in the manufacturing order. This value is originally calculated from the BOM; however, it can be changed in the MO prior to recording the transaction.

Multiple Assembly Transactions

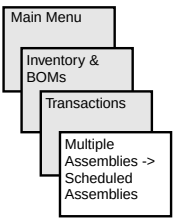
It is not necessary to enter assembly transactions one transaction at a time; rather assemblies, both scheduled and non-scheduled, may be entered into a list and then processed together in a batch mode. Because the assembly function can require your computer to do a lot of work (especially if you have long BOMs), it is recommended that you use this multiple assemblies function. The computer can do this work at times when the network is not busy, such as during lunch or overnight. Using this feature, an entire day's list of production may be entered on one screen and left to run unattended until it has finished. This function is accessed by selecting **Multiple Assemblies** from the Inventory menu. You may enter either scheduled or non-scheduled multiple assemblies. The windows for this procedure look like this:

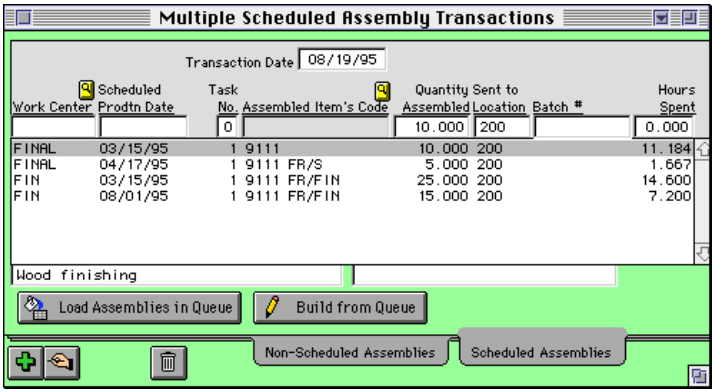
Multiple Non-Scheduled Assemblies





Multiple Scheduled Assemblies

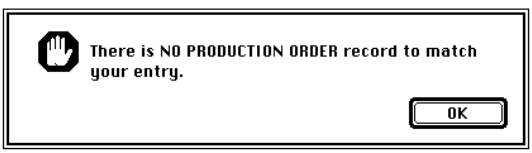




Two Steps

The procedure requires you to enter a list of assemblies. When you click **Save**, Qube ERP™ creates a queue of assemblies to be created. When you have entered all the assemblies and are ready for the inventory to be updated, click the **Load Assemblies in Queue** button. This displays a list of all transactions ready to be updated. If the list looks correct, click *<BUILD FROM QUEUE>*.

In the case of scheduled assemblies, the system will check your entries and allow the procedure to begin ,providing all lines reference valid manufacturing order records. This is necessary because you may have deleted manufacturing orders after entering assemblies in the queue. If you do not have a valid manufacturing order referenced in a transaction, the following message will be returned:

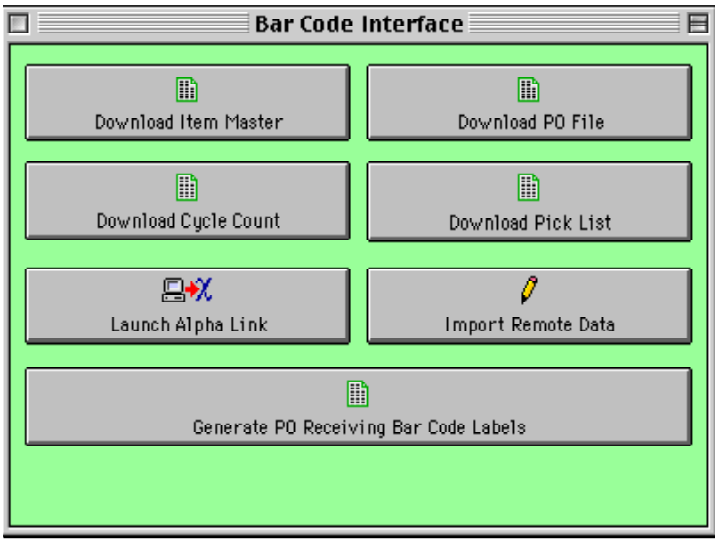


Both of these windows provide exactly the same data entry fields provided in the single assembly transaction windows. To use them, click *<NEW>*, and then enter the data in the lists as you would on the assembly transaction windows. Then click *<SAVE>*. When ready to create the transactions, click the button

, and the transactions will be generated.

Bar Code Interface

Use the Bar Code Interface window to download reports, launch alpha link or the bar code printer, import remote data, or generate bar code labels.



When you click on any of the *DOWNLOAD* buttons, Qube ERP™ will open the reports window and select the report used for the selected purpose. You then have the option of entering parameters (e.g., date range, range of POs, etc.).

Universal Product Codes/Shipping Container Codes

In addition to the Bar Code Interface, Qube also provides the ability to calculate and print Universal Product Codes (UPCs) and Shipping Container Codes (SCCs) for all records in the item master file. UPCs and SCCs are types of bar codes.

The UPC and SCC are made up of:

1. a manufacturer code
2. a product code
3. a check digit
4. a packaging indicator (for SCCs only)

Manufacturer Code

A default value for this field should be entered on **System Setup Card #1**(*see* "Manufacturer Code" *on page SYS-98*). If you enter a code in this field, Qube will require that the code be exactly 6 characters long.

Manufacturer Code 059668

Since it is possible that the item being sold is manufactured as an OEM product for another manufacturer, this field value can be set separately for each item. This is done on **Item Master File Card #2**, in a section reserved for UPS/SCC information. For more information, *see* "Cross Reference" *on page INV-34*.

When an item is flagged as SCC, Qube will insert a leading zero onto the manufacturer code, making it 7 characters long, like this:

○ UPC Coded ◉ SCC Coded ○ None
Manufacturer Code 0059668

When an item is flagged as UPC, Qube will default the manufacturer code to 6 characters (removing the leading zero inserted if the item had been previously set up as SCC):

◉ UPC Coded ○ SCC Coded ○ None
Manufacturer Code 059668
UPC Code 059668102120

Product Code

Since the UPC/SCC only allows 5 characters, Qube does not use the item code to represent the product code. Instead, this cross-reference code is used. This field is found both here and on the stock quantity windows. If more than 5 characters are entered into this field, Qube will use only the first 5 when constructing the UPC/SCC:

Cross Ref Code 23006

For more information, *see* "Cross Reference" *on page INV-34*.

Packaging Indicator

This code is used only with SCC codes and is also found on **Item Master File Card #2**. This field may contain a value of 0 - 8 only. For more information, *see* "Packaging Indicator" *on page INV-38*.

Code “9” is reserved for additional coding information about weight or quantity that will be in addition to the 14-digit SCC code:

Packaging Indicator 1

Check Digit

This value is added to the right of each code and is calculated by Qube, using the following algorithm:

1. Reading from the right, add up the numbers in the even positions and multiply that number by 3.
2. Again, reading from the right, add up the numbers in the odd positions and add the result to the first number.
3. The check digit is the number you must add to round up to the nearest multiple of 10.

Here are some examples:

Qube Item Code	Cross Ref Code	Mfg. Code	Packaging Indicator		Qube UPC/SCC Code
330550	10212	0059668	5	SCC	5 00 59668 10212 5
330741	23006	0625523	0	SCC	0 06 25523 23006 4
330743	23010	0625523	1	SCC	1 06 25523 23010 8
330528	10016	059668	0	UPC	0 59668 10016 4
330635	10333	059668	0	UPC	0 59668 10333 2
330636	10429	059668	0	UPC	0 59668 10429 2
330642	10350	059668	0	UPC	0 59668 10350 9

Printing

UPCs/SCCs are printed on the following documents: Sales Order, Sales Invoice, Pick List and Packing List.

Transaction Reasons

This function provides a way to create reason codes which can be applied to transactions. These reasons can be reported on, and also applied to material variance and scrap accounts in the general ledger.

• To create reason codes

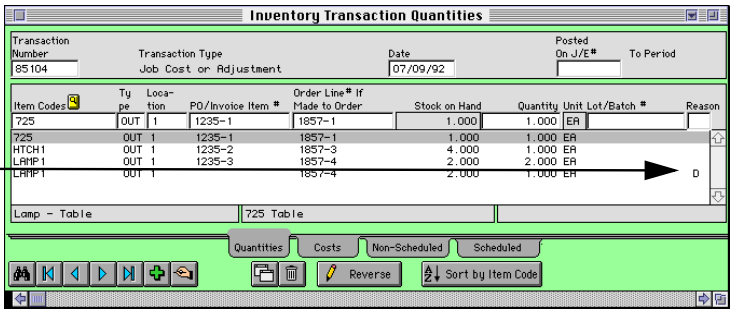
1. **Click <*NEW*>.**
2. **Enter the Reason Code and Description for each reason code you wish to create.**
3. **Click the box next to Scrap or Material Variance if you wish to post transactions with this reason code to either of these general ledger accounts (*see* "Material Variance" *on page GL-33* and "Inventory Scrap" *on page GL-32* for more information). You may leave these blank if you wish.**
4. **Click <*SAVE*>.**

• To apply a reason code to an inventory transaction

1. **Transaction reasons are applied on the Inventory Transaction Quantities window.**
2. **In the case of automatically generated transactions, find the transaction you wish to modify and edit the transaction. In the case of new transactions, click <*NEW*> and enter the transaction as you normally would.**

3. **Enter the appropriate reason code for the desired transaction items in the field provided:**

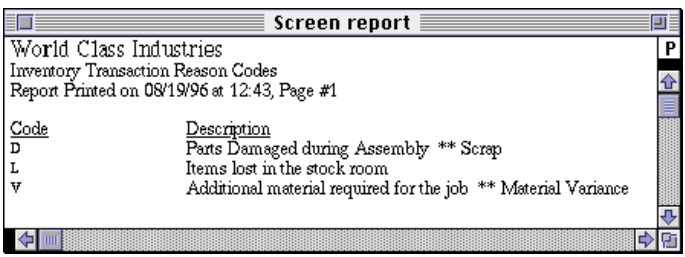
Use this field to record reason codes in desired transaction



4. **Click <*SAVE*>.**

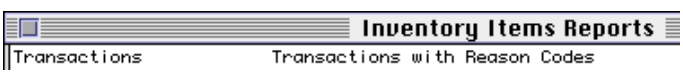
Printing the Reason Codes

To print a report listing all reason codes and descriptions, view the **Reason Codes** window and press <*CTRL/COMMAND-P*>. The report is formatted like this:



Printing Transactions by Reason Code

A report is provided to print inventory transactions by reason. It can be found under the inventory transactions reports:



The printed report looks like this:

Screen report

World Class Industries
Transactions with Reason Codes - Current Cost Active Items
Report Printed on 08/19/96 at 13:14, Page #1

Transaction Number	Date	Item Code	Unit	Order-Line Number	Location	Quantities Incoming	Quantities Outgoing	Unit Cost	Values Incoming	Values Outgoing	Reason
LAMP1 Lamp - Table											
85104	07/09/92	LAMP1	EA	1857-4	1		1.000	131.00000		131.00	D Parts damaged during assembly
						0.000	1.000		0.00	131.00	
						0.000	1.000		0.00	131.00	
								Net Change in Inventory		-131.00	

Posting Scrap and Material Variance to the General Ledger

The **GL Key Accounts** includes selections to identify inventory scrap and material variance (***see*** "Inventory Scrap" *on page GL-32* and "Material Variance" *on page GL-33* for more information).

Scrap and Material Variance Accounts

General Ledger Key Accounts

Each of These Accounts Must Be In Your Chart of Accounts	Which Account Code Will You Use for Each?	The GL Account selected when Posting this type of account will be....
A/P Discounts Taken	0-000-6580-000	Transactions with Reason Codes - Curr
Inventory Adjustments	0-000-4920-000	Inventory Adjustments
Inventory Scrap	0-000-5810-000	Scrap
Labor Variance	0-***-4910-***	Labor Variance
Material Variance	0-000-5820-000	Material Variance
Miscellaneous Expenses	0-000-8010-000	Miscellaneous Expense
Payroll Payable	0-***-2330-***	Payroll Payable
Promotional Credits Due	0-000-4950-000	Promotional Credit to Customer
Purchase Price Variance	0-000-1330-000	Inventory - Finished Goods
Retained Earnings	0-000-3000-000	Retained Earnings
Retained Earnings Adjustments	0-000-0000-000	Error:
Retained Earnings Begin Bal	0-000-3600-100	Retained Earnings, Beginning Balanc

Reload List

When inventory transactions are flagged with reason codes which have been designated as scrap or material variance, the appropriate account will be posted. In addition, each assembly transaction will be examined to see if the value of the assembled item differs from the value of the components used to create the assembly. The difference could be caused by either additional (or reduced) quantities of components used to assemble items (entered as edits to an assembly transaction. Or it could result from improperly rolled up standard costs so that the total value of the assembly differs from the total value of the components, even though no variance is found in quantities. If a difference is found, the difference will be posted to the

material variance account. This method should enable you to track total scrap and total material variance for each accounting period.

Cycle Counting

This function is useful when you wish to do periodic physical counts of inventory, but do not wish to count every item every time.

Make a backup both before and after you perform cycle counting. A printed report or these backups will be your only snapshot of your inventory at those points. Qube ERP™ cannot tell you what your inventory was on a specific date at a specific time, so if you need to revisit those counts you must rely on your backups or printed reports.

How Cycle Counting Works

Assume you count your inventory once a week, or better yet, a few items every day. Obviously, however, you will not be able to count all of your items every week. Each time you count you would only count those items which are due to be counted in that week, or cycle. Obviously, there may be some very important items which need to be counted more frequently than others. These might be counted every week. Items of lesser importance may only be counted every other week, while still less important items may be counted every three weeks, or even less frequently. Your cycle counting plan, then, may look something like this:

	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6
Weekly	X	X	X	X	X	X
Bi Weekly		X		X		
Monthly				X		
Bi Monthly						

The cycle counting function is designed specifically for this purpose. Cycle count frequencies are assigned according to the ABC Code of each item and user established parameters for count accuracies and the probability of variance.

ABC Code

Cycle counting may be automated even further through the use of **ABC Analysis**. This is based on Pareto's law, which refers to "the vital few - the trivial many." When applied to inventory ABC Analysis, this law indicates that approximately 20% of a company's inventory items will be responsible for about 80% of the dollars spent on inventory. As it happens, this formula turns out to be true in nearly all cases.

If your objective is to best manage your finite resources, then it stands to reason that by identifying and carefully managing the 20% of your inventory which is responsible for 80% of the dollars you spend on inventory, you can dramatically increase your control over the money you spend on inventory, and dramatically decrease the amount of time you need to spend doing it. This is an exceptionally worthwhile goal, and should be the beginning point of improving your inventory management.

The above chart, then, would look like this:

	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6
A Items	X	X	X	X	X	X
B Items	X		X		X	
C Items	X				X	
D Items	X					

Assigning ABC Codes

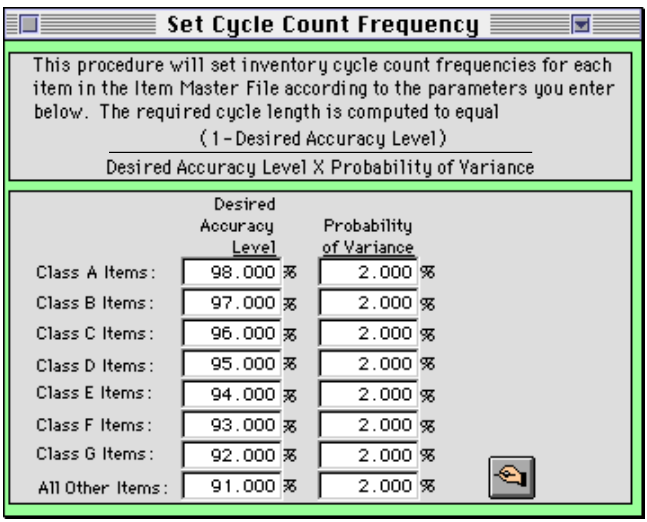
You may assign **ABC Codes** manually or have the system calculate them automatically. The ABC Analysis function is activated by selecting **ABC Analysis** from the **Inventory** menu. This will be a useful function only after transaction history has been entered into the database. *See* "ABC Analysis" *on page INV-125.*

The value assigned to each item during the ABC analysis is displayed on the **Item Master File, Card #2**. *See* "ABC Code" *on page INV-39.*

Set Count Frequency

After using the **ABC Analysis** function to set the **ABC Codes**, you may select Set Count Frequency from the **Inventory & BOMs** function palette. When doing so, the following screen will be displayed. This window is used to update the "**Count Every __ Weeks**" field on the **Item Master File Card #2**.

The function is based on a standard algorithm used for inventory accuracy and variance measurements. It allows you to determine the level of accuracy for each class of item, and also the probability of variance between the actual counts and the expected quantities in inventory. Obviously, the more often you count items, the more accuracy and less variance you will have.



• To set the count frequency of your items

1. **Run ABC Analysis on your data file, or manually enter the ABC Codes into each item in the item master file.**
2. **Open the Set Cycle Count Frequency window.**
3. **Click <*EDIT*>.**

4. **Enter the Desired Accuracy Level and Probability of Variance values for each class of items.**

   Remember, the object is to count the A items relatively frequently, the B items less so, and the C and below items relatively infrequently. Therefore you should not apply high levels of accuracy to lower class items. It is recommended that you begin by using the defaults, and adjust them later if you find it necessary.

5. **Click <*SAVE*>.**

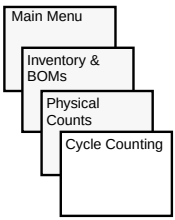
The function will sweep through all of your inventory items and set up cycle counting frequencies for all of them.

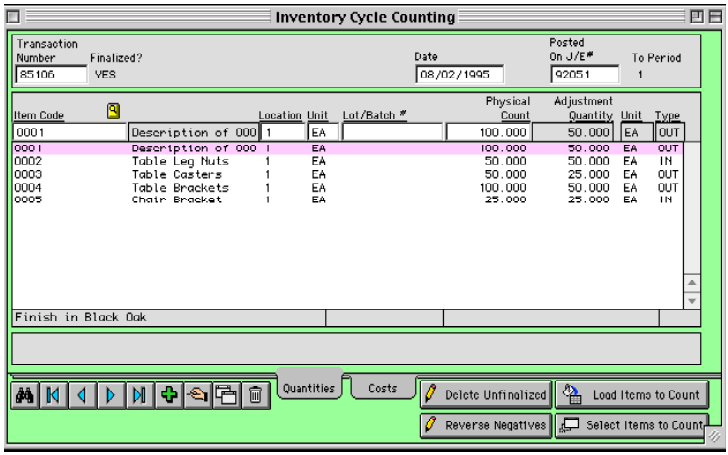
After running this routine, you should view **Item Master File, Card #2** and see what frequencies were assigned to each item. This field may be manually edited if you wish.

This field rounds up to the next whole number, and this number represents the number of weeks, not of days.

Entering Cycle Count Transactions

Cycle Counting Window





STOP: Prior to making any cycle count adjustments, it is important that all work in the system which will generate inventory transactions stops. In other words, if you physically count the items, and then create inventory transactions in the system, and then enter the counts based on previous information, you may enter inaccurate counts. This can be a problem in enterprise-wide physical counts, so the Physical Inventory module, which uses a temporary or "holding" data file which is quarantined from your normal data file, is normally used for that. However, the notion behind cycle counting is that you are generally only counting a few items at a time. Therefore the cycle counting function has no quarantined data file.

You may begin to enter cycle count transactions either by clicking the **<***NEW*> button or clicking the <*LOAD ITEMS*> button.

Window Fields

Transaction Number

{Calculated} This is the inventory transaction number which will be calculated by the system after you click on the `Finalize` button.

Finalize

{Button} This button is only visible after the count records have been entered. The cycle counting function allows you to load and work with the count records prior to actually creating the inventory adjustments. Clicking this button creates the actual adjustment. If you have finalized the cycle count but not yet posted it, and you realize you have made a mistake, some fields may be edited from the **Costs** tab; for example, if you inadvertently enter the wrong date, you may correct this from the **Costs** tab.

Import Data

{Button} This button is used in conjunction with the bar code interface. It is only visible if you have the **Bar Code Interface** modules.

Date

{Calculated, Editable, Date} This is the date of the actual counting transaction. It defaults to the date the transaction was first created; however, it may be edited.

Posted on J/E#

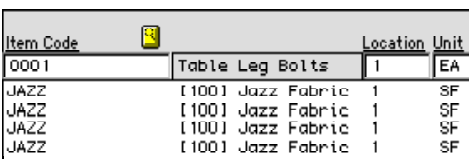
{Calculated} After the inventory transaction is posted to the general ledger, the resulting journal entry number will appear in this field.

Item Codes

{Validated, Required, Alphanumeric} Enter the item codes of those items being counted in this field. These codes must be valid item codes.

Item Description

A description of the item follows the item code. If a loaded item is an option, a number may appear in brackets preceding the Item Description;



Item Code		Location	Unit
0001	Table Leg Bolts	1	EA
JAZZ	[100] Jazz Fabric	1	SF
JAZZ	[100] Jazz Fabric	1	SF
JAZZ	[100] Jazz Fabric	1	SF
JAZZ	[100] Jazz Fabric	1	SF

This number is the unit of measure conversion factor; e.g., with Jazz Fabric, there are 100 square feet (SF) per roll.

Location

{Numeric} Enter the stock location code for the items you are counting. Items may exist at any of the 99,999 different stock locations allowed by the system. The cycle counting and physical counting

functions of the system assume that each count record is specific to an item at a certain location. Therefore it is very important to have both the item code and the stock location for each count transaction entered.

Unit

{Validated, Required, Alphanumeric} This defaults to the SKU (stockkeeping unit) of measure for the item. You may override this and insert the purchasing unit of measure instead. If you do enter the purchasing unit of measure in this field, the final adjustment is converted to your stockkeeping unit of measure. For example, if your purchasing unit of measure is set to two SKUs *(see* "Units of Measure" *on page INV-26)*, and you entered the purchasing unit of measure in this field, your adjustment would be multiplied by 2 when you enter the transaction and click **SAVE**.

Lot & Batch #

See the **Lot & Batch Tracking** section of this **User's Guide** for information about this function.

Physical Count

{Defaulted, Numeric} The quantity in this field will default to the quantity that the system finds of the designated item in the designated location and, if applicable, lot or batch quantity. If you find that the counted quantity in this location and lot or batch is different, enter the actual counted quantity in this field. The system will calculate the adjustment quantity and type of transaction.

Adjustment Quantity

{Calculated} This is a calculated value. It is calculated as the absolute value of the difference between the quantity the system thinks you have and the quantity you entered in the `Physical Count` field.

Unit

{Display only} This is the stockkeeping unit of measure of the item being counted.

Type

{Calculated, Display only} This is the type of transaction being entered. If you are adding stock, it will be calculated as IN. If you are subtracting stock, it will be calculated as OUT.

Delete Unfinalized

{Button} Clicking this button will delete all unfinalized cycle counts from the data file. This is different from the normal delete button, which will delete this whole transaction, whether finalized or not. If you delete a finalized cycle count, the inventory transaction connected to it will be deleted, and the stock quantity will be adjusted by the amount of the transaction.

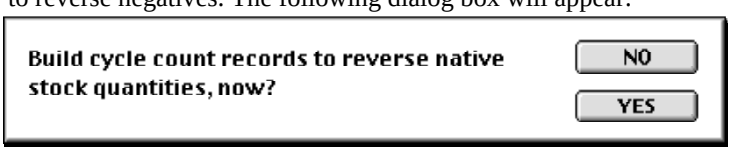
Load Items to Count

{Button} Activates the automated cycle count procedure (see "Using the Automated Cycle Counting Functions" *on page INV-110*).

Qube ERP™ also allows you to bypass automatically listing of inventory items for the cycle count and to enter them one at a time. This option is presented when you begin to create a new transaction by clicking <*NEW*>. If, however, you wish to have the system load the screen with those items scheduled to be counted at that time, the **ABC Codes** must first be set.

Reverse Negatives

{Button} After loading items to count, you may click on this button to reverse negatives. The following dialog box will appear:

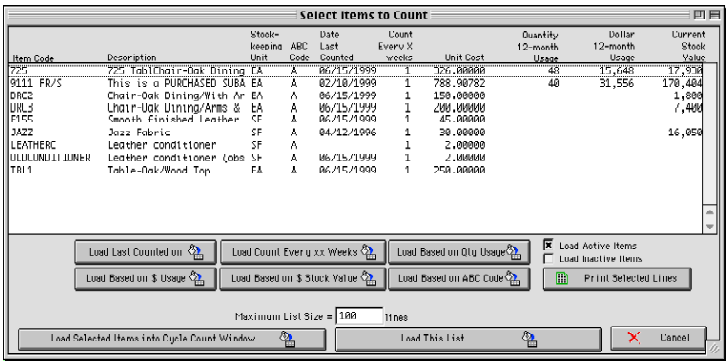


If you click on the *YES* button, all negative counts will be reversed.

Select Items to Count

{Button} in Version 7.36, you may select items to count. For example, when loading items due to count, Qube ERP™ allows you to select all items with a given group code. When you click on this button,

Qube ERP™ displays a window that enables you to load a list of items based on several different criteria:



When you have entered the selection criteria, click the *LOAD THIS LIST* button. Qube ERP™ will load a list of items which match the criteria entered. You may then sort the list by any of the column titles. Then you should select, from the list, the lines containing those items you wish to count and click the *PRINT SELECTED LINES* button. This will print a physical inventory worksheet to use when counting the selected items. Finally, click the *LOAD SELECT ITEMS INTO CYCLE COUNT WINDOW* button. At that point, the **Select Items to Count** window will be closed and you may enter the counts for each location of each selected item.

Entering Manual Counts

• To enter manual cycle counts, one at a time

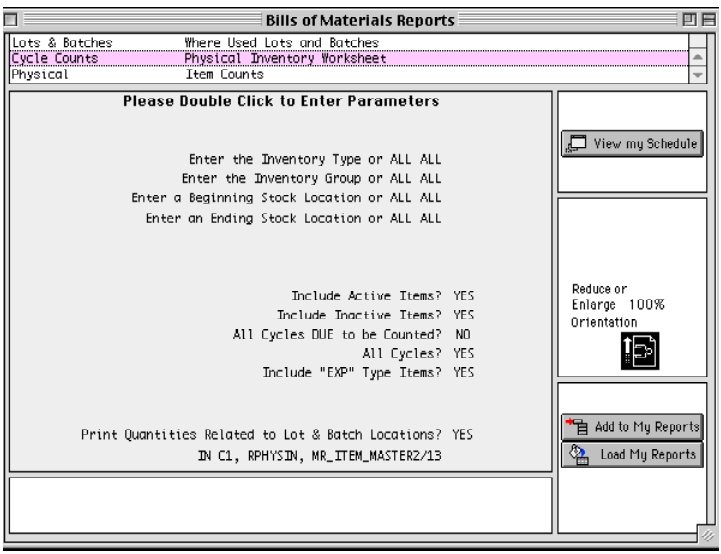
1. **Click <*NEW*>.**
2. **Make sure the Date is correct. If needed, enter a different date from the defaulted value.**
3. **Enter the Item Codes of the items being counted, and press <*TAB*>.**
4. **Enter the stock Locations of the items being counted, and press <*TAB*>.**

5. **Accept the default Unit (SKU) or enter the purchasing unit of measure as desired, and press <*TAB*>.**
6. **If necessary, enter the Lot/Batch #.**
7. **Enter the actual number of items found in the designated location and lot or batch in the Physical Count field, and press <*TAB*>.**
8. **Repeat for as many items as necessary and click <*SAVE*>.**

Using the Automated Cycle Counting Functions

• To use the automated cycle counting functions

1. **Print the report, Physical Inventory Worksheet:**



This report can be printed for one or all inventory types and groups, and can be limited to a range of inventory locations or all locations. In addition, you may include active and inactive items, and also include all cycles or just those due to be

counted. This will correlate with the inventory cycle counting window.

Under most circumstances you would choose only those cycles due to be counted.

2. **Use the Physical Inventory Worksheet report to record your cycle counts, either in purchasing or stockkeeping units of measure.**

3. **Open the Inventory Cycle Counting window.**

4. **Click the button, Load Items to Count.**

The following choices will be displayed at the bottom of the window:

All Items | Due to Count | 1 Location Only | Active Items | Inactive Items

This provides the ability to load all items, those due to count, only those items in one location, active and inactive items. If you were using the **Physical Inventory Worksheet** as indicated above, you would load the items in a way that corresponded to that report.

Under most circumstances you would choose only those cycles due to be counted.

Then Qube ERP™ will compare the last date counted with the current system date and the count frequency for each item. If an item is due to be counted again or if you have selected to load without regard to the last date counted, the items and location will be included in the list.

5. **Make changes to the items as appropriate and click <*SAVE*>.**

IMPORTANT: Remember that in addition to making whatever changes you need, you are also "cycling" the count. In other

words, you will be resetting the `Last Counted` field in the item master file. This holds true for all of the items, whether an adjustment is recorded or not. However, if no adjustment is made, no transaction will be created, and the next time you load "Items Due to Count," those items without an adjustment will not load (until the proper cycle). Therefore, you should make sure to enter all of the adjustments required prior to clicking <*SAVE*>.

The advantage of using the **Cycle Counting** function instead of the **Inventory Transactions** window is that the user need not compute the amount of the adjustment required to correct the computer's inventory records. Cycle counting will do that automatically. For example, if you have found that there are 10 units of RAW1 in location 3, and 5 units in location 4, but the computer records show just the reverse, you need only to change the location codes on each record and Qube ERP™ will automatically correct the inventory computer records.

The only information required by the function is the physical count and the location code. Qube ERP™ will decide if the transaction should be **IN** or **OUT** and what the amount of the adjustment should be.

The function will then create inventory adjustment transactions for each item where the physical count was different from the computer record. Items where the physical count was exactly what was expected will generate no transaction. After entering some quantities and locations which were different from what was expected and clicking <*SAVE*>, the system will create inventory transactions to record the adjustments needed to bring stock quantity records to the levels indicated by the cycle count entries.

Inventory quantities will not change, however, until the transactions are finalized.

6. **Click <*FINALIZE*>.**

   The *FINALIZE* button is visible only when viewing an unfinalized transaction. No inventory stock levels will be changed until the user gives this command. This function updates the computer records of physical count in each inventory location.

CAUTION: It is important to finalize the physical count soon after the data is entered into the computer. If additional transactions occur between the time the count is entered (e.g., invoices are created and cause inventory transactions to be created or PO receipts are entered, also creating inventory transactions), the physical count records will be incorrect and must be deleted, recounted and reentered.

Print

Selecting <*PRINT THIS TRANSACTION*> from the **File** menu will cause Qube ERP™ to prepare the following report.

Screen report

World Class Industries
Inventory Transaction #85856
Report Printed on 06/16/97 at 09:34, Page #1

Number	Date	P.O. Number	Item Code	Unit	Order-Line Number	Location	Quantities Incoming	Quantities Outgoing	Standard Unit Cost	Value of Incoming	Value of Outgoing	Total Qty Invoiced	Posted to JE #	Posted to Period	Batch or Lot Number	
85856	06/16/97		Cycle Count 0001	EA	99999	1, Bin 111	35.652		301.00000	10,731.25						Bin #ABC
							35.652	0.000		10,731.25	0.00					
									Net Change in Inventory		10,731.25	Net Value Incoming over Outgoing:			?%	

You must be viewing the count transaction which you would like included in the report at the time you issue the command. The report will find all inventory adjustment transactions generated by this cycle counting procedure.

Physical Inventory

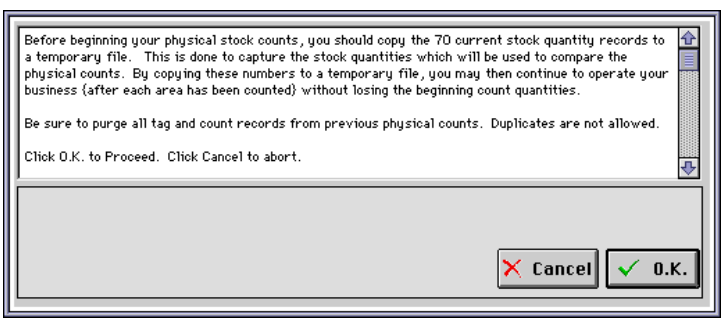
The Physical Inventory function is sold as an optional module. You must purchase Physical Inventory to have access to these functions.

There are several steps involved in operating this function.

Delete Prior Counts from the Data File

Prior to conducting each physical inventory count, it is necessary to delete any prior physical inventory records from the data file. You do this using the **Purge Physical Counts** window. For information on how to use this window, *see* "Purging Physical Counts" *on page SYS-211*.

Copy Stock Counts to a Temporary File



Copy Stock Counts to a Temporary File is a procedure that marks the beginning of a physical inventory. *This step must be taken prior to conducting any other step.* By copying the stock counts to a temporary file, you will be able to continue to operate your business after the physical counts have been made, but before the count data has been entered into the computer. This period between making the counts and entering the audited count data is one where you will able to resume recording PO receipts, issuing invoices with related inventory transactions, entering assembly transactions, etc. But you need to do this without losing the beginning stock counts upon which the adjustment amounts from the physical count will be based. This function provides this capability.

CAUTION: Prior to running this function you must make sure all of your work is "caught up." In other words, you should make sure that all inventory transactions up to the point of the physical count have been entered into the system. Then you may copy the stock counts to the temporary file. After that, and before creating any more inventory transactions, you should count your inventory. Once you have actually physically counted the inventory, you may resume your daily business of invoicing, P.O. receipts, etc., but not until.

Issue Count Tags

This function enables you to record ranges of count tag numbers issued to different individuals. The system will validate the count tag numbers to make sure the same numbers have not been issued to different individuals. The procedure validates by checking other records already written to disk and also searching the current list for records which appear to be overlapping.

• To issue count tags

1. **Click <*NEW*>.**

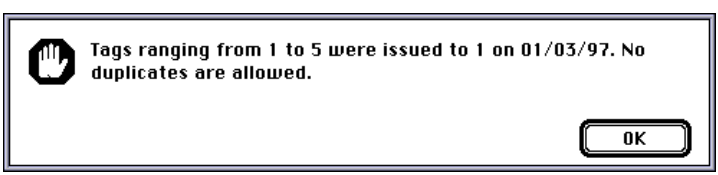
2. **Enter the Employee Codes of the people to whom you wish to assign the tags and press <*TAB*>.**

   The same **Employee Code** may be referenced multiple times in the same list.

3. **Enter the Beginning Tag # and the Ending Tag # which will be issued to the employees.**

   The window allows ranges of tags to be issued and later modified. The records entered on this window may be sorted by any of the column headings by clicking on them.

   Tags are controlled documents, therefore you may only issue tag number ranges once for each count. If you try to enter tags with numbers which have been entered before, you will receive the following message:



   In order to reenter the same tag numbers again, you must purge the data file of physical count records and start over again (*see* "Purging Physical Counts" *on page SYS-211*).

4. **Click <*SAVE*>.**

   The window will now look similar to that shown above, with the data you just entered showing in the list.

To print the list displayed on the window, press <*COMMAND/CTRL-P*>. The report will print in whichever order the data on the window is currently sorted.

Create Count Records

Once the tags have been assigned, you can create the actual count records. This is done by clicking the button labeled <*CREATE COUNT RECORDS*>. Assigning a range of tags to one employee on

one date creates a single record containing the date, employee code, beginning tag number, ending tag number and tag status. The process of creating count records for a tag assignment of #1-10 will be to create ten (10) records, each with a unique tag number (#1, 2, 3, 4, etc.). The system will check to ensure the same tag number has not already been issued.

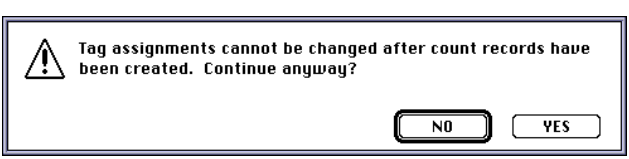
• To create count records

1. **Click the button,**

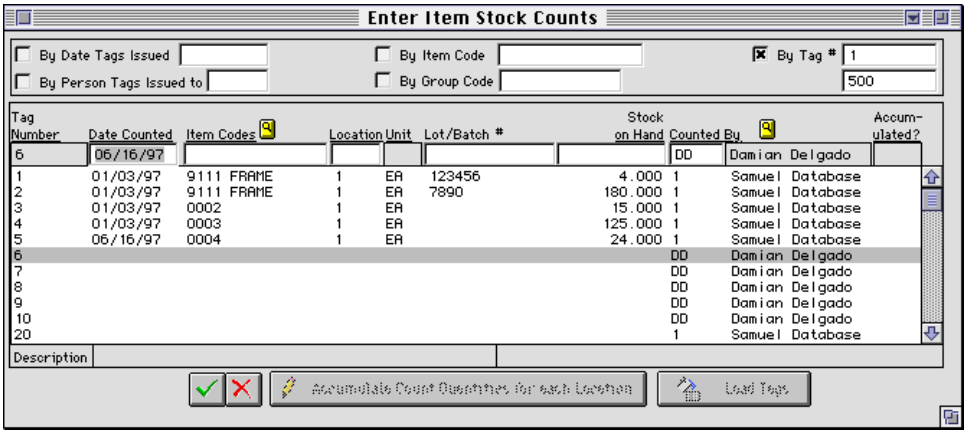
.

   Creating the count numbers will set a flag in the tag assignment record to indicate that the count records have been issued for that tag assignment. Setting this flag will make it impossible to edit certain fields in the tag assignment record in the future. For example, the assignment date and tag range numbers cannot be edited. The employee code, however, can be edited. You will be cautioned before the system will proceed with the creation of count records.

2. **Click <*YES*>:**



Enter Item Counts



Use this window to enter the actual physical counts into the system. The process begins by loading the count records which were created in the previous step. Once these counts are entered, you may consolidate them and finalize them for further processing.

Window Fields

By Date Tags Issued

{Check Box} This field is used to determine which count records to load. If you wish to load tags which were issued on a specific date, click this box and enter the issue date of the tags you wish to load.

By Person Tags Issued to

{Check Box} This field is used to determine which count records to load. If you wish to enter count tags for only one employee, click this box and enter the employee code of the person to which the tags you wish to load were issued.

By Item Code

{Check Box} This field is used to determine which count records to load. If you wish to load count tags for only one item code, click this box on and enter the item code of the tags you wish to load.

By Group Code

{Check Box} This field is used to determine which count records to load. If you wish to load tags for only one item group, click this box and enter the group code of the tags you wish to load.

By Tag #

{Check Box} This field is used to determine which count records to load. If you wish to enter a range of tags based on tag numbers, click this box and enter the range of numbers in the two fields next to it.

Tag Number

{Display Only, Sort Field} The tag numbers as calculated on the `Issue Count Tags` window will be displayed in this field. You may sort the records on this field by clicking on the field label.

Date Counted

{Required, Date} This field will default to today's date, but may be edited. Enter the date counted for the item being counted in this field. This field may be edited before or after the records are finalized.

Item Codes

{Required, Validated, Alpha-Numeric, Sort Field} Enter the valid item code of the items being counted in this field. This field may not be edited once the records have been finalized. You may sort the records on this field by clicking on the field label.

Location

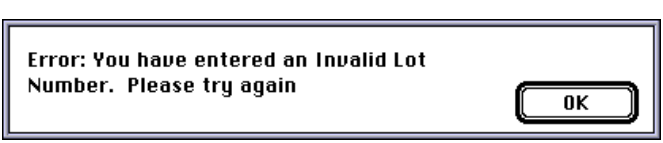
{Required, Numeric, Sort Field} Enter the location code for each item being counted. This field may not be edited once the records have been finalized. You may sort the records on this field by clicking on the field label.

Unit

{Display Only} This is the stockkeeping unit of the items being counted. It may not be edited at any time.

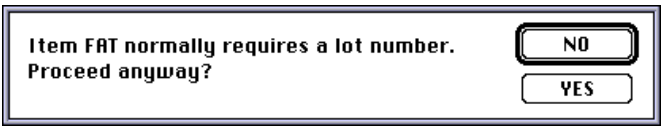
Lot/Batch #

{Validated, Alpha-Numeric, Sort Field} This field will only be accessible for those items which have been flagged as Lot/Batch tracked on **Item Master File, Card #2.** If you enter a lot or batch number which is not valid for the item, the following message will be displayed:



The function will pay no attention to location when validating the lot number.

If you forget to enter a **Lot/Batch #** for an item which is flagged as Lot/Batch tracked, the following message will be displayed:



Clicking <*NO*> will reinsert the cursor into the field for data entry. Clicking <*YES*> will override the Lot/Batch requirement and allow you to proceed.

Stock on Hand

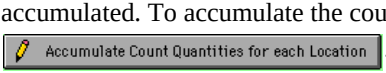
{Required, Numeric} Enter the actual counted stock quantity of each item for each location in this field. This field may be edited after the records have been finalized.

NOTE: The adjusted inventory level will not usually be this quantity. Rather, it will be the result of a transaction which will add or subtract the difference between this quantity and the quantity expected by the system. For this reason, you may continue to operate in the system while auditing and adjusting your count quantities.

Counted By

{Validated, Required, Alpha-Numeric, Sort Field} Enter the valid employee code of the person who counted the item. This should coincide with the employee who was assigned the count tag in the first place. This field may be edited after the records have been finalized. You may sort the records on this field by clicking on the field label.

Accumulated?

{Display Only} This field will display YES once the items have been accumulated. To accumulate the count records, click on the button 

. Accumulating these count records does not create the actual inventory adjustment.

Accumulate Count Quantities for each Location

{Button} Clicking this button will do two things; a) it will look through all of the count records in the list and add up the total quan-

tities counted for each item at each location, and b) it will finalize each of the count records.

Load Tags

{Button} Clicking this button will load the count tags. Use the selection criteria in the top portion of the window to determine which count records will be loaded.

Entering Stock Counts

• To enter stock counts

1. **Begin the process of entering stock counts by clicking the button labeled <*LOAD TAG RECORDS*>.**

   You may select to load tags using several different criteria.

   1) By the date they were issued (all tags issued on the selected date),

   2) By the person to whom there were issued (all tags issued to a selected person on all dates) or

   3) By item code (all counts for one item by all persons on all dates),

   4) By item group (all counts for all dates for all items sharing the same inventory item group code).

   5) By tag number range (all tag numbers between the range of the two numbers).

   To complete the selection, click the appropriate box selecting which index to use in loading the tag records and then enter the parameter (date or personnel code) to be used in selecting the records to load.

2. **Enter the item code, the location code and counts found on each tag.**

   When the tags are first loaded, only the tag number and person to whom they were assigned will be displayed in the list. The personnel code can be changed from the person to whom the tag was issued to any other valid personnel code.

3. **To void a tag, type `VOID` into the item code field.**

NOTE: This window does not offer the options to create new count records; new count records must be created by first assigning tags and then creating the count records from assigned tags. It also does not offer the option to delete count tags. Unused count tags should be voided, not deleted. It is also not allowable to edit a tag number. This is done when tags are assigned.

To Print the Counts

To print the following report of the counts displayed on the window, press <*CTRL/COMMAND P*>. The report will be sorted in whatever manner the records are currently sorted on the window.

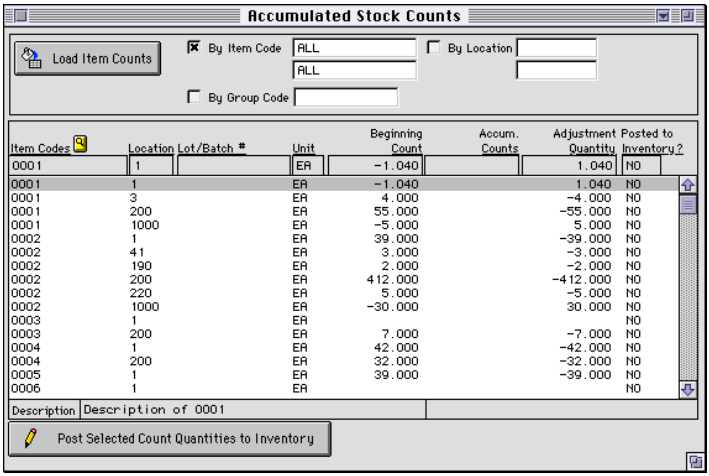
Screen report

World Class Industries
Tags Issued
Report Printed on 06/16/97 at 10:18, Page #1

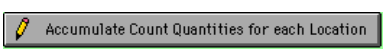
Tag Number	Item Code		Location Code	Quantity		Count Date	Lot/Batch Code	Counted By
1	9111 FRAME	Assembled frame for 9111-C chair	1	4.000	EA	01/03/97	123456	Samuel Database User
2	9111 FRAME	Assembled frame for 9111-C chair	1	180.000	EA	01/03/97	7890	Samuel Database User
3	0002	Table Leg Nuts	1	15.000	EA	01/03/97		Samuel Database User
4	0003	Table Casters	1	125.000	EA	01/03/97		Samuel Database User

Total for Items Counted from - 4

Accumulated Stock Counts Window



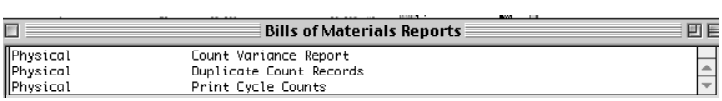
Use this window to view the consolidated stock counts and to record the count quantities to inventory.

Once you have used the 

function on the previous window, you may view the results of this function on this window. All count transactions **for each item at each location** will be accumulated into one count record, and displayed as one record in this window. If you wish to view them as individual count records, you must use the **Enter Item Counts** window. None of the fields in this window can be edited. It is provided only for reviewing purposes. The benefit of using this window is that you can see clearly what the expected adjustment to inventory will be.

Review the Physical Inventory Reports

Before actually posting the stock counts to inventory, use the **Physical Inventory Reports** to audit count tags, making sure all tags are accounted for, and no counts were duplicated. These reports are found under the **Bills of Materials Reports** window as shown.

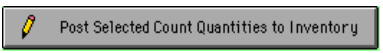


Print the **Count Variance Report** to **audit count variances**, to determine if any counts need to be rechecked before being finalized.

Make Transactions from Counts

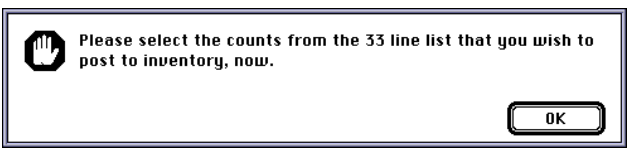
The final step in the physical counting process is to create the actual inventory adjustments, which will change your stock counts to reflect the actual counts from the physical inventory process.

• To adjust the inventory to reflect the physical inventory counting process

1. **Click the button** 

.

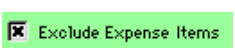
   The following dialog box will be displayed:



2. **Click <*OK*>. Then, use your mouse to select those items which you wish to finalize.**

   You may select any or all of the items in the list. *See* "Selecting Multiple Items in a List" *on page GEN-61.*

3. **If you wish to include** *EXPENSE TYPE* **items, click the following box to off:**



4. **Click <*SAVE*>.**

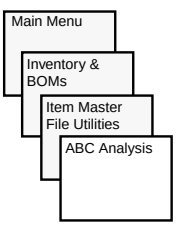
   This procedure creates cycle count transactions reflecting the necessary adjustment quantities. These cycle counts are finalized (i.e., inventory is updated at the time they are created).

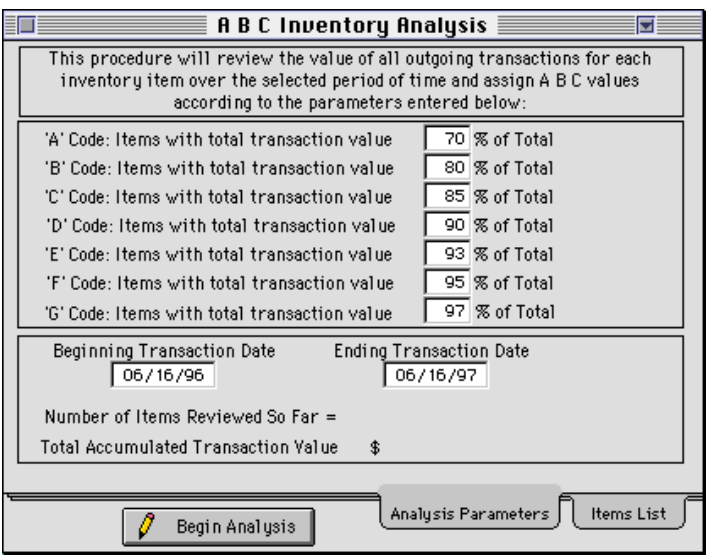
The inventory transactions created by this function can then be viewed on the **Cycle Counting** window. They can be printed by using <*COMMAND/CTRL-P*>.

Inventory Utilities

This section covers all of the items in the **Item Master File Utilities** section of the **Inventory and BOMs** functions palette, except those which were covered elsewhere in this manual. The sections covered elsewhere are **Set Count Frequency** which was included in the **Physical Counts** section of the manual, and **Transaction Reasons,** which is found under the **Inventory Transactions** section.

ABC Analysis





The **ABC Code** is used to indicate those classes of items which should be controlled more carefully and counted more frequently. The theory is based on the notion that a relatively small percentage of items will account for a relatively high percentage of the value. “A” items, for example may represent 10% of the items but may also represent 80% of the dollars spent on inventory. Qube ERP™ allows you to perform an ABC analysis by using this window.

This window provides the option to automatically calculate **ABC Codes** and **ABC Values** based on actual inventory transactions which occurred within the specified date range. The calculation uses current costs. This will be a useful function only after transac-

tion history has been entered into the data base. It also provides the ability to review the ABC calculations and make manual adjustments, by clicking on the card tab, *<ITEMS LIST>*.

• To automatically calculate ABC codes and values

1. **Begin the process by clicking the button,** *<BEGIN ANALYSIS>***.**

   You will be asked to set the percentages which will delineate the As, Bs and Cs. Also, it is important to note that the ABC value is based on the accumulated dollar value of the items used up during the time, rather than cost of the individual items. If, for example, you enter 70% as the delineator for A items, the function will find all those items whose accumulated dollar value of the items used over the selected time period totals to 70% of the total dollar value used of all items. If you wished to have the A items be 80% of all dollars spent, you would enter 80 into the transaction value for A items.

   It is also important to understand that the subsequent values (B, C, and so on) reflect the accumulated total of themselves and those above them. For example, if you entered 80 for A items and 90 for B items, the 90% is the accumulated value of all A and B items used during the specified date range. For most companies it will suffice to value all within the A, B, and C categories. A good place to start would be to value A items at 80%, B items at 90%, and C items at 100%. Then you can review the way the system operates and determine if you need any further categories.

2. **Once you have the categories set up to your liking, click <*SAVE*>.**

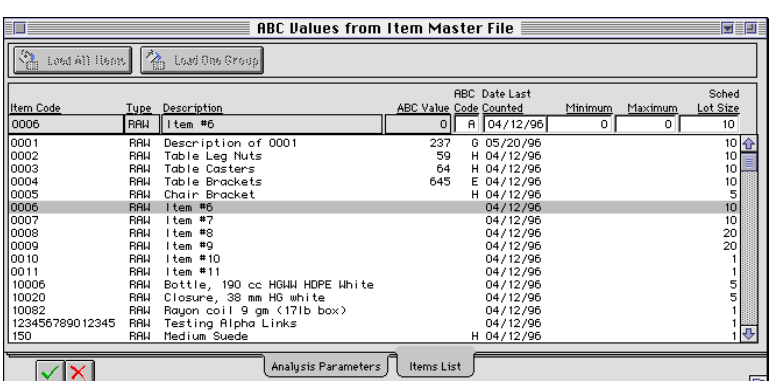
The procedure begins by reviewing all transactions over the selected date range and computing a usage value for each item in the inventory file.

Next, it begins with the item whose use is highest and proceeds to the next highest usage item, adding the value of its use to the one read previously. If the total value of the two items still does not accumulate the value set in the A category, the next one in line will be read and so on, each being assigned a code of “A”.

After the A category threshold has been reached, the next item will be read to see if its value when added to those read previously total to the value set in the B category. After reaching the B category level, the next group will be assigned the code of “C”, and so on.

Manually Editing ABC Values

The above procedure of using the historical transaction values in your data file to set the ABC values works very well when you have historical data to use. If you are just beginning to use the system, you will have no data available for this purpose. Therefore, you may manually assign these values based on what you believe the values should be. To do this, click the **Items List** card tab. This will cause the following screen to be displayed.



Item Code	Type	Description	ABC Value	ABC Code	Date Last Counted	Minimum	Maximum	Sched Lot Size
0006	RAW	Item #6	0	A	04/12/96	0	0	10
0001	RAW	Description of 0001	237	G	05/20/96			10
0002	RAW	Table Leg Nuts	59	H	04/12/96			10
0003	RAW	Table Casters	64	H	04/12/96			10
0004	RAW	Table Brackets	645	E	04/12/96			10
0005	RAW	Chair Bracket		H	04/12/96			5
0006	RAW	Item #6			04/12/96			10
0007	RAW	Item #7			04/12/96			10
0008	RAW	Item #8			04/12/96			20
0009	RAW	Item #9			04/12/96			20
0010	RAW	Item #10			04/12/96			1
0011	RAW	Item #11			04/12/96			1
10006	RAW	Bottle, 190 cc HGWW HDPE White			04/12/96			5
10020	RAW	Closure, 38 mm HG white			04/12/96			5
10082	RAW	Rayon coil 9 gm (17lb box)			04/12/96			1
123456789012345	RAW	Testing Alpha Links			04/12/96			1
150	RAW	Medium Suede		H	04/12/96			1

This window allows the user to load a list of all items or a specific group of items and manually edit the ABC code for each one. Since you may have thousands of items in your Item Master File, the procedure allows you to select one group at a time to load and edit. You may also sort the list by clicking on any of the column headings to allow more careful analysis of the ABC codes and values.

From this window you may edit **ABC Code**, **Date Last Counted**, **Minimum** and **Maximum** stock levels, and the **Scheduling Lot Size** of each item. Because this window presents these items in a list, it is much easier and quicker to edit these values from here, rather than using the **Item Master File** windows for this purpose.

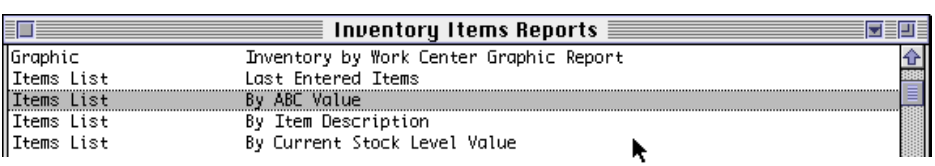
To edit the list as you would any other, click <*EDIT*>, make the changes to each item in the list, and then click <*SAVE*>.

Drill Down

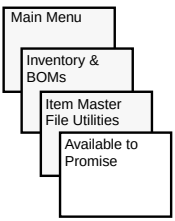
You may also use this window to drill down to any item records. Double-click on any item in the list, and the Item Master Card #1 window for that item will be opened.

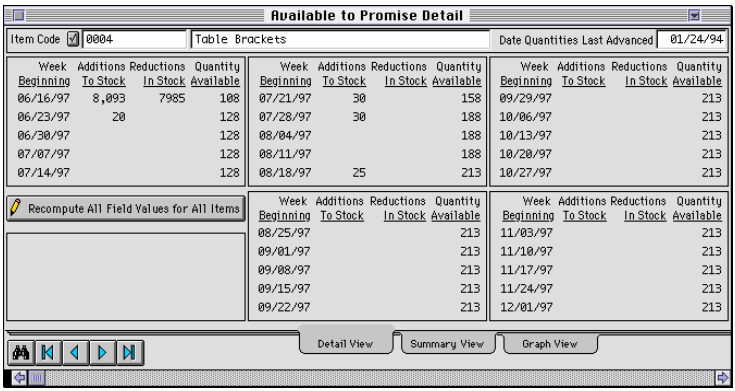
Printing ABC Analysis Report

After running ABC Analysis, it is useful to print these reports. You may select **Items List by ABC Value** or by **Current Stock Level Value** from the inventory reports list.



Available to Promise





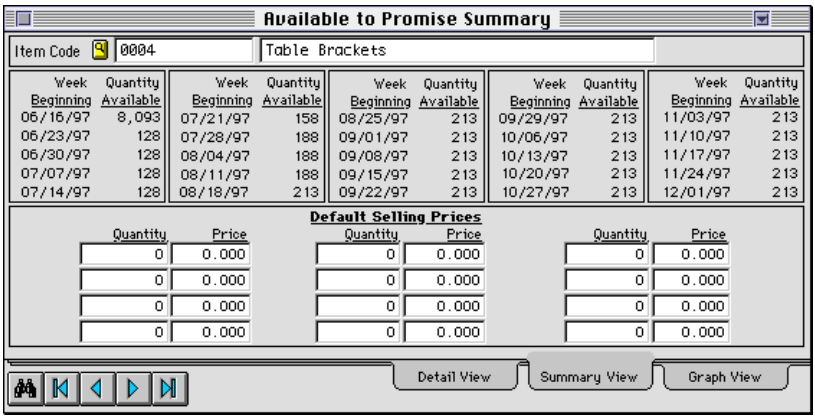
The **Available to Promise** function provides a view into the future of expected stock levels for each inventory item. It uses 25 weekly buckets to record the total expected increases, reductions and net stock levels for each of the 25 weeks. Three windows are available for this function, providing two levels of detail. The **Available to Promise Detail** window shown above provides the more detailed view. In this display additions to stock, reductions in stock and forecasted quantity available for each weekly period are displayed separately. Negative forecasted quantities are displayed in red in brackets.

This is the window used to update the forecasted stock level numbers. The forecasted stock levels should be updated using a batch process once each week, at the beginning of the week, not at the end of the week. The system will review all events which impact future stock levels and accumulate the impact of each event placing its value in the appropriate weekly bucket. The update procedure is begun by clicking the button labeled <*RECOMPUTE ALL FIELDS FOR ALL ITEMS*>. It is also possible to check the numbers for one item at a time using the validate button ☑.

Summary Window

A less detailed level is displayed for use in the Order Entry module. This window is designed to help order entry people respond to questions from customers when customers ask when product can be sent

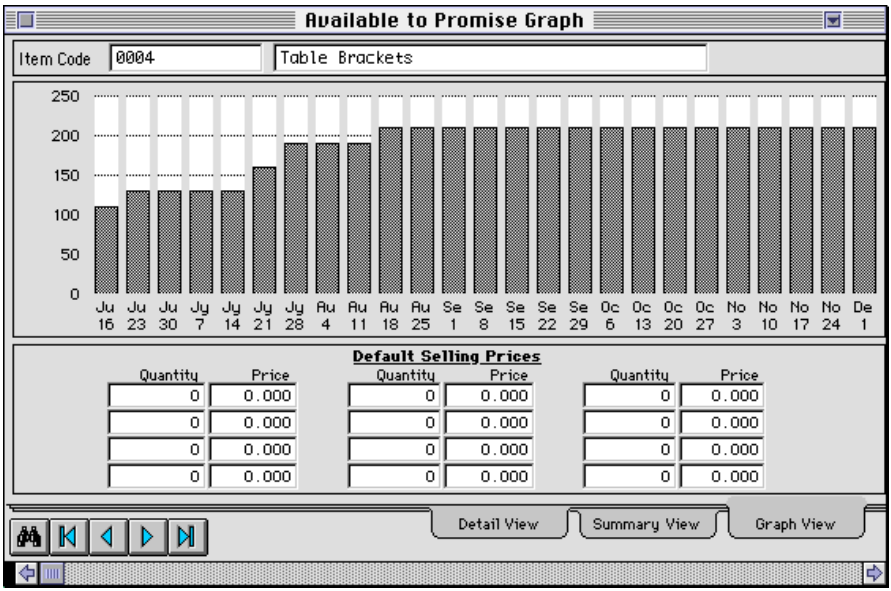
out to them. This window can be displayed by clicking the button labeled **Summary View**.



Note that the window will also display all pricing categories to help the order entry people check the price defaults set up by the system during order entry. Also be aware that forecasted negative stock levels are not displayed on this window. It is enough to know that nothing is available; it is not necessary to inform order entry people of expected negative stock conditions. Handling these conditions is the responsibility of the materials manager, who would normally use the detail window.

Graphic Display

A third window is provided to allow the user to view the summary window in graphic format. This view is designed to make changes in stock levels more visible to the user.



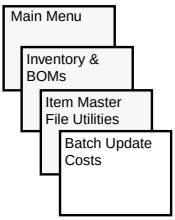
Using Available to Promise During Order Entry

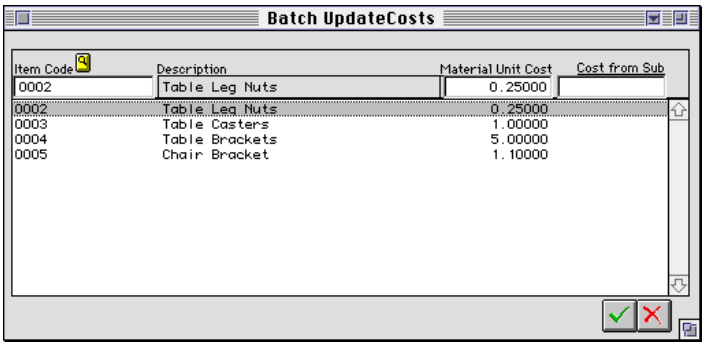
Qube ERP™ will automatically display different items on the order entry **Available to Promise** window. When the order item detail window is in use, the system will check to see if the **Available to Promise** window is open. If it is, the system will assume that you wish to see the available to promise numbers for any selected item. Therefore, if you click on a line in the list of an existing order, the **Available to Promise** window will be redrawn to display the numbers appropriate to the item selected in the list. Also, while an order is being entered, the system will redraw the **Available to Promise Summary** and **Graph** windows (but not the **Available to Promise Detail** window) to display the numbers for an item after you tab out of the item code field. This allows you to see the available to promise numbers for several items without having to interrupt the order entry process.

Updating Field Values with Each Transaction

As changes are detected by the system which impact expected stock levels, the function will recompute the expected stock levels to reflect the event change. For example, if the order entry person booked an order for 3 units of item #0001 for shipment any time during the week of March 21, 1994, the quantity available for this week will be reduced from 10 units to 7 units. If a purchase order which scheduled the arrival of 10 units during that week were changed to 50 units, the order entry people would see that 50 units are now available. All changes which impact expected stock levels will update the expected increases, reductions and net available to promise in the appropriate weekly buckets as the transactions are entered.

Batch Update Costs





Periodically, you may wish to change the unit costs of many items at once. For example, a vendor may send you a new price list which shows changes in many items. It would be very time consuming to find each item and edit its cost one at a time. To simplify this, Qube ERP™ provides a function to allow reference to many items in a list and update all costs. The procedure can be used only for raw materials, resale and expense items and purchased subassemblies. Other items depend on the contents of their BOMs for their costs and therefore the user cannot manually edit the cost value.

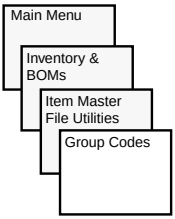
• To change the costs of several items.

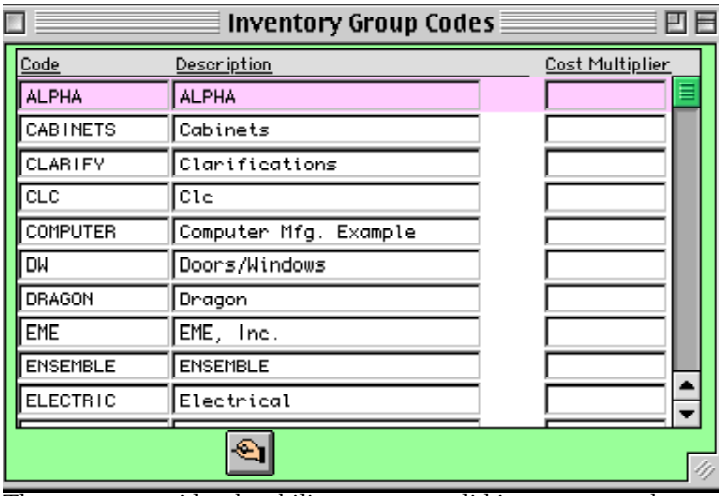
1. **Click <*NEW*>.**
2. **Enter all of the items whose costs you wish to change to the list.**

   Use the pop-up list, or enter the item codes manually if you know them. The description and existing current unit cost will be displayed as you tab out of the item code field. Tab into the **Material Unit Cost** column and change the value to reflect the new unit cost. If the item is an outworked item, you will perform this step in the **Cost from Sub** field.
3. **Click <*SAVE*>.**

After making all the entries you want, the system will prompt you to reconstruct BOMs so that all of these cost changes are reflected in all BOMs.

Group Codes





The system provides the ability to set up valid item group codes to facilitate the accurate entry of item groups.

Loading the Codes

When this window is opened, the system will check to see if there are any codes loaded. If there are not, it will compile a list of group codes from the item master file records. This list will then be stored permanently or until edited by the user.

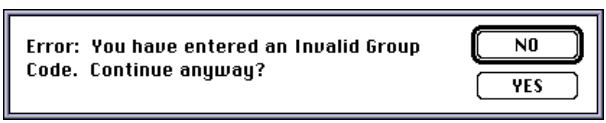
Changing Group Codes

Change the list of group codes by clicking the <*EDIT*> button, and then making any changes directly in the list. You may add any codes, change codes or delete them. If you attempt to delete a code, the function will check to see if it exists in any items. If it does, the function will return the following message:

You may elect to delete it anyway, but it will remain in the item records. If, on the other hand, you change a group code which exists within items in the data file, the function will also change them in the item master file records in which they exist.

When you are entering or editing records in the **Item Master File, Card #1** window, you can access these codes in a reference list by clicking on the pop-up button next to the item group field. This provides a much more accurate way of entering group codes.

You may also enter codes manually in this field. When you do, the system will validate the code to make sure it exists in this list. If it does not, the function will return the following message:

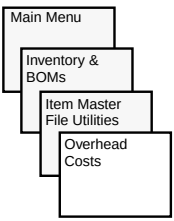


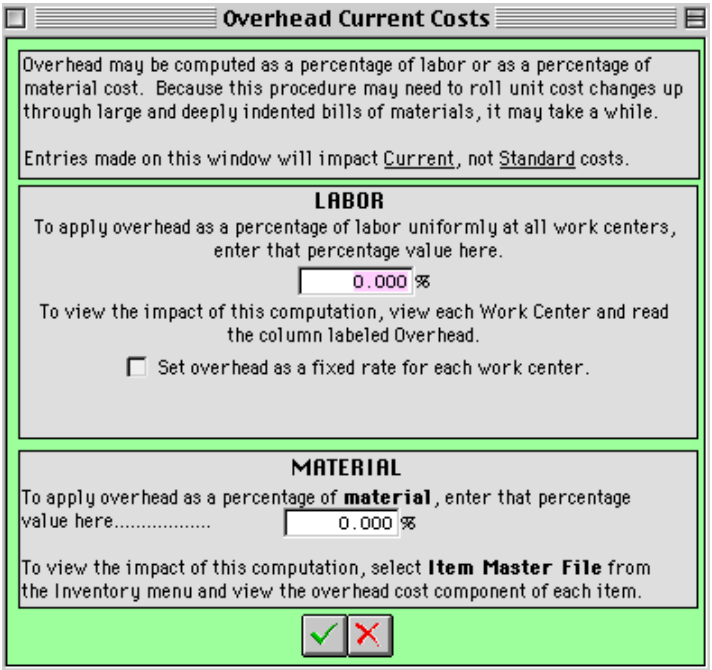
Click <*YES*> to ignore this message and enter the code anyway, or click <*NO*> to heed the message and try again.

Cost Multiplier

The **Cost Multiplier** field is used when the Rules-Based Configurator feature has been purchased. It allows you to apply price defaults to different groups of options.

Overhead Costs





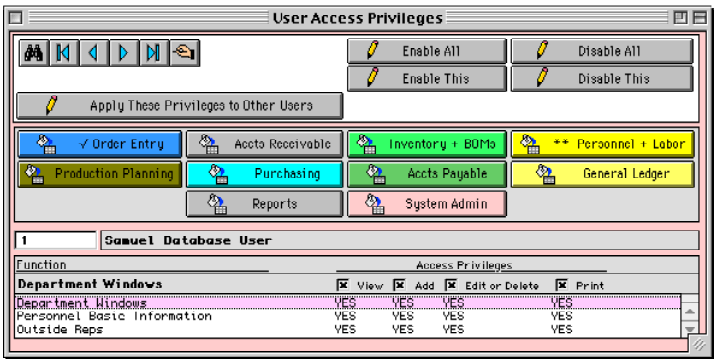
This function computes the overhead component for current costs only, not standard costs. Standard cost overhead is managed through the **Inventory Standard Costs** window (*see* "Inventory Standard Costs" *on page GL-10*).

Overhead Percentage

Use this window to set up a designated percentage of the cost of each inventory item as overhead and allocate it to either labor or material. Overhead may be applied to all materials, all labor, or both; it is not possible to allocate different overhead percentages to different types of inventory or different types of labor.

To run this procedure, click on the <*EDIT*> button. Enter the percentage for labor, materials, or both, and click on the <*SAVE*> button. The system will automatically sweep through all of the work center records and inventory items as necessary, and adjust the overhead components of these items. It will then roll up your bills of material to reflect the new costs.

Qube ERP™ also provides separate user access privileges for entering data in each field. In the User Access Privileges window, select the Personnel & Labor button and set the desired privileges (for more information, *see* "User Access Privileges" *on page SYS-123*):



The overhead numbers shown on both the work center record and the item record are based on the percentage entries that you make in the Overhead Cost Component window and cannot be edited one at a time.

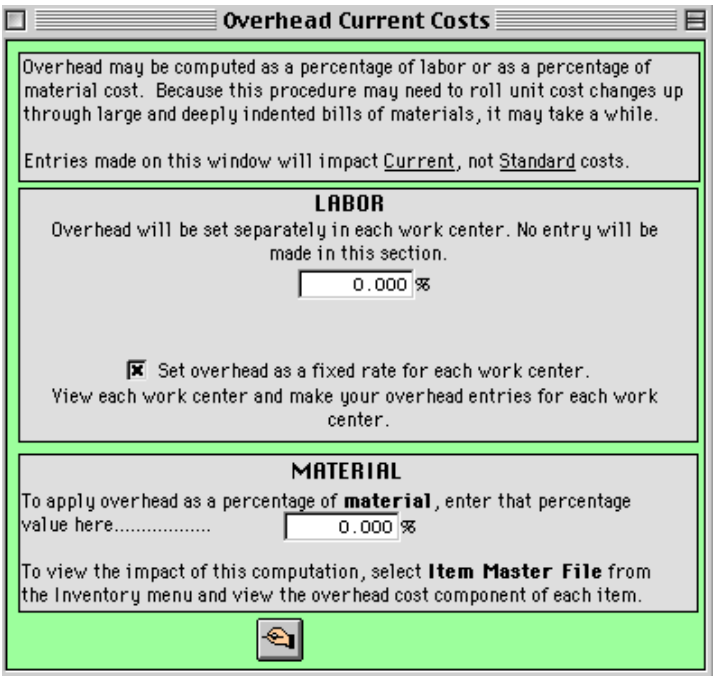
Editing the overhead rate field will cause a complete rebuilding of BOMs and may take quite a while to run.

Overhead by Work Center

You can also use this window to set different overhead rates at each workcenter. If you want to set different overhead rates at each workcenter, click on the checkbox in the labor section that reads:

☐ Set overhead as a fixed rate for each work center.

When you check this box and save your changes, any previously entered percentage applying to all work centers will be set to zero, and the window will now look like this:



Both the current and the standard overhead rate for each work center are entered on the **Work Centers & Processes** window (*see* "Hourly Rates" *on page LAB-35*). The labor overhead value is maintained separately in each BOM component record and each item master record.

Since each work center may be set at a different overhead percentage and, using routings, a single BOM component may involve labor overhead from several work centers, this value must be maintained separately and rolled up separately. For example, this item contains a single reference to one work center which has a non-zero overhead

percentage. That work center is embedded at a deeper level in the BOM structure.

Material Cost	244.61963
Freight In	0.00000
Material O/H	0.0000
Outwork	0.00000
Labor	57.2300
Labor O/H	0.8000
Total Cost	302.64966

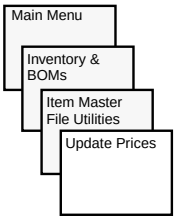
This top-level item shows labor overhead of only 0.8000 because a component in one of the top-level assemblies shows these values.

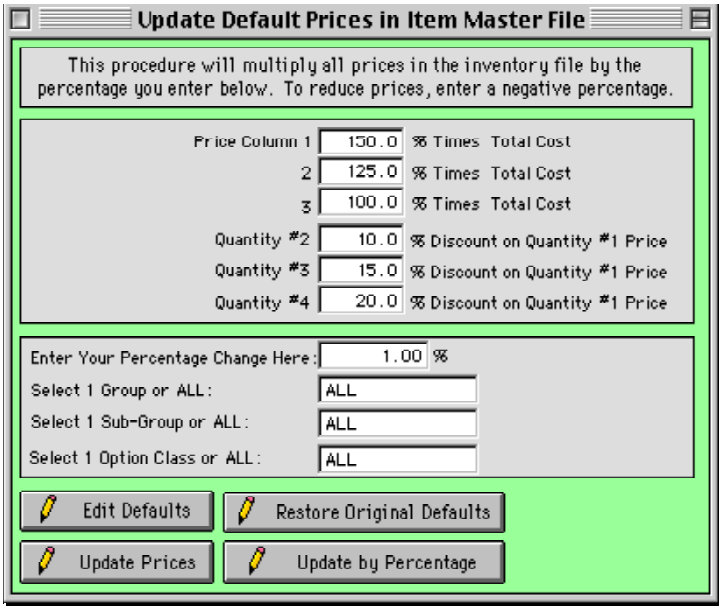
Material Cost	0.75000
Freight In	0.00000
Material O/H	0.0000
Outwork	0.00000
Labor	8.0000
Labor O/H	0.8000
Total Cost	9.55000

This is very different when you set the labor overhead uniformly to 10 percent for all work centers. In this case, you get numbers at the top level that always show labor overhead to be the same percentage of labor at every level.

Material Cost	244.61963
Freight In	0.00000
Material O/H	0.0000
Outwork	0.00000
Labor	57.2300
Labor O/H	5.7230
Total Cost	307.57266

Update Prices





This procedure provides the ability to automatically update selling prices for items within the data file. You may elect to base your pricing on a percentage of the cost of each item, or change the prices globally based on a percentage change of the current price. You may also elect to change the prices for one group or subgroup, and one option class or all option classes. You can also restore the original defaults with one button.

• To change prices based on cost

1. **Click the button <*EDIT DEFAULTS*>.**
2. **Enter the Price Column values and the Quantity values.**

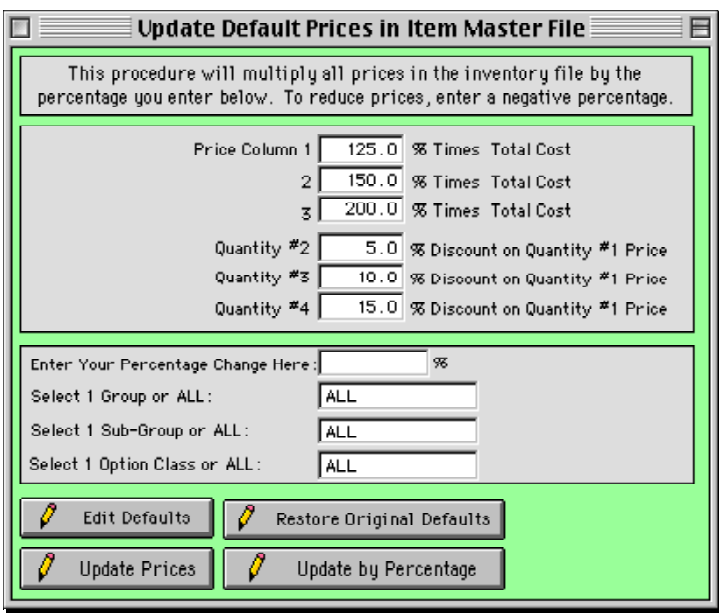
   In order to understand how these computations work, it is necessary to be familiar with the pricing grid in the **Item Master File, Card #1** window. When you look at the item file, you will see that the pricing follows a 3x4 pricing matrix. The columns refer to customer type, and the rows refer to quantities pur-

chased. Both axes in the grid are important in determining pricing. The pricing matrix for the item file is shown below.

Default Selling Prices

Quantity	Price	Quantity	Price	Quantity	Price
1	125.000	1	150.000	1	200.000
10	118.750	10	142.500	10	192.500
30	112.500	30	135.000	30	185.000
40	106.250	40	127.500	40	177.500

The **Update Prices** window provides the ability to establish the first quantity price in each column as a percentage of cost, and subsequent prices in each column as a discount off the level one price. The first section, **Price Column**, indicates the markup of the first price in each column. The above matrix pricing was calculated using this function, with the values set as shown.



The item cost was set to $100. The calculation for each item in the **Price Column** calculation is

```
Item Cost x Price Column Field/100
```

or 100 x 1.25 for the first price in column 1, and 100 x 1.50 for the first price in column 2, etc. These refer to the first price in each column.

The calculation for each of the remaining prices in the grid is determined by the second section, and go as follows:

```
Price #1 x(1-% Discount on 1st Quant/100)
```

or 125 x (1-.05) for the second price in column 1, and 125 x (1-.10) for the third price in column 1, etc.

3. **Click <*SAVE*>.**
4. **Click the button, <*UPDATE PRICES*>.**
5. **Enter the Item Group Code of the item group for which you wish to change prices. If you wish to change prices for all groups, make sure the word `ALL` is entered into this field.**
6. **Click <*SAVE*>.**

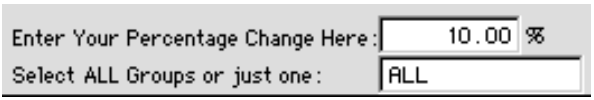
   The function will sweep through all of the items in the group you have selected, and compute the prices based on the determined values.

Note: This function will create selling prices for all items, regardless of Type. All subassemblies, raw materials, and expense items will receive prices, as well as finished goods. You might therefore wish to control the process by selecting item groups which pertain only to items you actually sell.

• To calculate price changes based upon a percentage of existing price

1. **Click the button <*UPDATE BY PERCENTAGE*>.**

2. **Enter the Percentage Change in the following field:**



You may enter negative or positive numbers, based on whether prices are being adjusted up or down.

3. **Enter the Item Group Code of the item group for which you wish to change prices. If you wish to change prices for all groups, make sure the word ALL is entered into this field.**

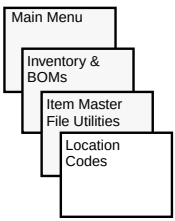
4. **Click <*SAVE*>.**

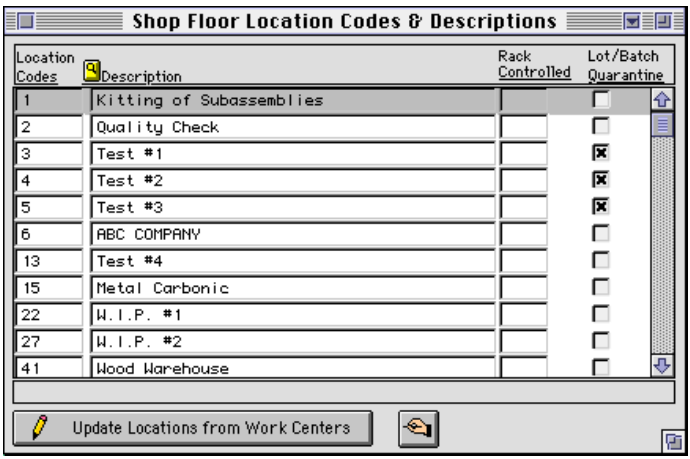
The function will sweep through all of the items in the group you have selected, and adjust the prices up or down based on the percentage entered.

Unlike the previous procedure, this function will only update prices for items which already have a price. Those which have no selling price will remain at zero.

Inventory Locations

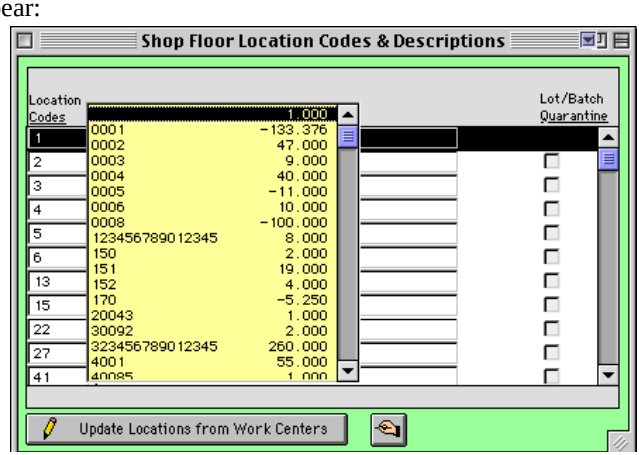
Location Codes Window





The Location Codes window allows you to associate descriptions to inventory locations. There is, however, no requirement that a location have any description. Descriptions can be provided after the fact or not at all.

You may drill down on this window to view quantities of particular item codes at a specific location. Double-click on the line containing the location code you wish to view, and the following window will appear:



The first column in the box contains the item number, and the second column contains the quantity of that item in that location.

• To create location codes and descriptions for locations which do not already appear on the Location Codes window

1. **Click the <*EDIT*> button.**
2. **Click in the list below the last entry, and type the Location Code and Description directly into the table cells.**

Note: It is possible for a location to have different work center and location descriptions. This is because not all locations are work centers, and work centers can share locations.

3. **When finished, click <*SAVE*>.**

The **Rack Controlled** and **Lot/Batch Quarantine** fields are visible only if you have the **Rack Position Control** and **Lot/Batch Tracking** functions enabled. Please see these manual sections for information on how to utilize these features.

Inventory Locations

Qube ERP™ allows you to describe up to 99,999 different inventory locations. Inventory locations can be work centers, warehouse locations, vendor locations, job sites, or anywhere you hold inventory.

Automatic Creation of Locations

The system automatically creates location records any time inventory is moved into a location or a work center is assigned to one. If a work center is created at a location which has no description, the location record will use the work center description as its description, however this can be changed in this window.

Undefined Locations

Inventory may be moved into undefined locations; however, location descriptions will not appear on the inventory quantities screen until this information has been entered into this window.

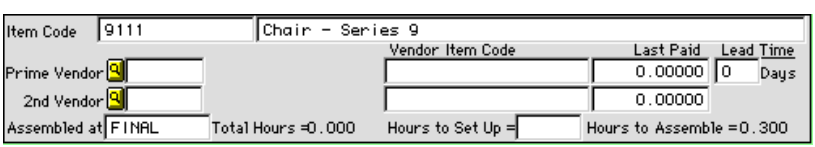
Location 1

Every item in the system requires at least one location. Therefore the system will automatically create a location, Location 1, for every item in the system. Although not required, it will greatly simplify matters if you elect to use location one for your stock room, since all items will, by default, include a location #1, and all items will presumably at some point exist in the stock room in most manufacturing environments. This will avoid the necessity of creating a second location record for items which are just sitting in the stock room.

Inventory Locations vs. Work Centers

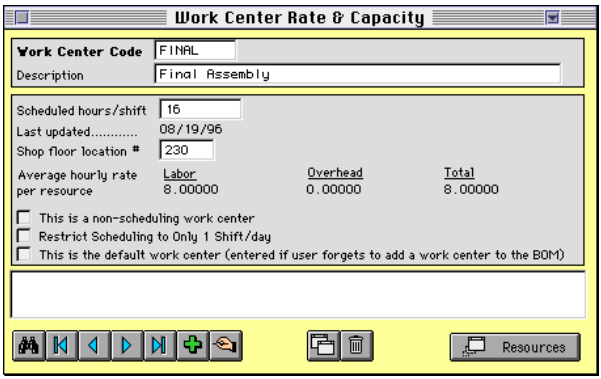
It is common for users to confuse inventory locations with work centers. This section will attempt to clarify how the two types of records differ and how they also depend on each other. You should also read the section of the manual on **work centers** for additional clarification (*see* "Work Centers & Processes Window" *on page LAB-31*).

Fabricated items always have a code entered on **Item Master File, Card #2** in the field labeled **Assembled At**, which is generally derived from the item's bill of material:



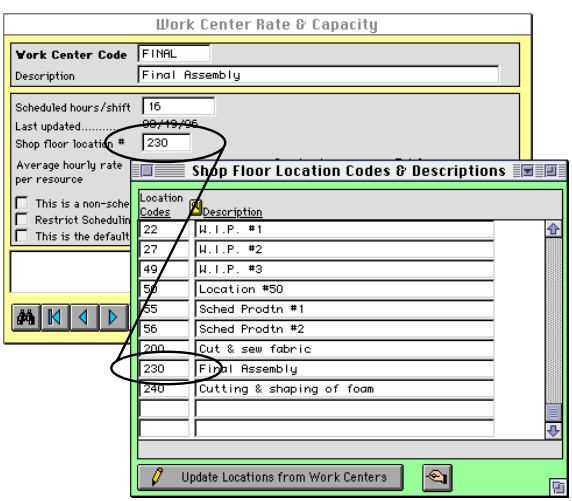
This tells Qube ERP™ which functional area is used to perform the assembly of each item. The **Assembly Work Center** field in the

Item Master File record points to a Work Center record, which is set up in the Personnel & Labor module:



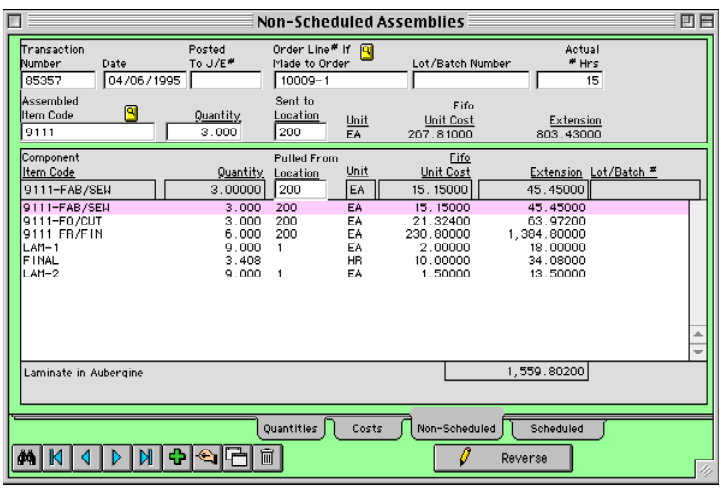
Work Centers

Work Centers describe functional areas where assembly operations occur. In the middle of each work center record is a field labeled **Shop Floor Location #.** The value in this field corresponds to the inventory location codes described on the preceding pages.



Locations in Assembly Transactions

When creating assembly transactions, both scheduled and non-scheduled, the default "pull-from" location for inventory is assumed to be the work center location as defined in the assembly's bill of material. In other words, in the preceding example, the components for item 9111 would be pulled out of location 230, as this is the location for work center FINAL, which is where this item is fabricated. In order for the item to be assembled there, the components must be there to consume. In the following example, item 9111 was assembled.



Pull From Locations

Since the 9111 is assembled at work center FINAL and the shop floor location of FINAL is 230, all components required to produce 9111 were pulled from location **230**.

Send To Location

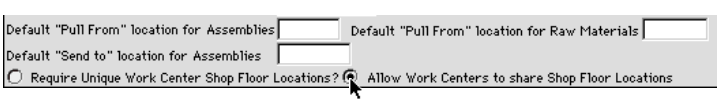
Because this item is the last step in production (it is a finished item), the finished item was sent to location #**1,** the default for shipment of all items on invoicing. If this were an intermediate step in production, it would have been sent to the location where the next assembly was expected to take place. While this may work very well for some installations, it requires that items must first be moved into the work centers before they are moved out. This is normally accomplished by a "kitting BOM," which adds complexity to the bills of material, and requires additional inventory transactions.

Simplified Control of Inventory Movement

The system provides an alternative method of controlling inventory movements by allowing you to set up a “default pull from” location for subassemblies and raw materials, and a “default send to” location for subassemblies. This method assumes that all raw materials will be pulled from one location, i.e. the stock room, regardless of the location of the work center involved. It also assumes that subassemblies will be pulled from a single location, and sent to another (or the same) location, regardless of the work centers involved. This can greatly simplify your inventory management, and is the recommended set up for most companies unless you have very clear and certain reasons not to. It will forego the necessity of kitting items, and can greatly reduce the number of levels in your bills of material, and can reduce the incidents of negative inventory levels in your environment.

Setting the Defaults

The shop floor location associated with each work center may either be unique or it may be shared with several (or all) work centers. The system will require that they each be unique unless you make a different selection on the **System Set Up #3** window. This window offers two choices, one labeled **Require Unique Work Center Shop Floor Location**s, and the other labeled **Allow Work Centers to Share Shop Floor Locations**.



Shared Shop Floor Locations

It is recommended that you choose the latter (sharing locations) if you are just beginning to use the Qube ERP™ system or you feel you do not fully understand how to set up the BOMs and work centers to automatically create the material flow you want. The simplest setup would have all work centers sharing the same shop floor location. Essentially this defines “the shop” as being a single shop floor location and eliminates the problem of having to keep track of raw materials and assemblies moving from location to location during the manufacturing process.

Under this set up, all assemblies can be sent to and pulled from the one default “shop” location and raw materials can be pulled from the one “stock room” location. The net result is that materials are represented in your computer data file as being located in either of 2 locations: the stock room or the shop floor. All raw materials would be pulled from the **default pull from location for raw materials** (probably the stock room). All assemblies would be sent to and pulled from the one **shop floor location**.

Fewer Negative Stock Quantities

If you are noticing negative stock quantities at various locations, you may want to consider using this new set up. Negative stock quantities result normally either from the failure to enter incoming transactions (e.g., PO receipts) or pulling stock from one location when the computer has been told that the materials are at a different location. The fewer locations you set up, the less likely it will be that you will lose track of where stock is located and the less frequently you will experience negative stock quantities.

Note: If any non-zero value is entered in any of the three fields provided, the Qube ERP™ system will pay attention to your entry. If you do not want the system to use the default values, be sure to enter blank values in these fields.

General Stock

Stock found in locations flagged as **general stock locations** on **System Setup Window #3** is designated as general stock. “General stock” is defined as inventory which is available to be used in new production orders and inventory, or “netable” stock. The system distinguishes between total stock and general stock in order to better perform its production scheduling functions. When performing production scheduling, the system may see that there is a total of 100 units in total stock of an item. But some of that stock may already be designated for assembly from a previous scheduling run. It would be inaccurate to schedule stock for assembly in one scheduling run and then consider the same stock as available for use in other assembly operations in a later run. Instead the system must consider that stock

as not available for future scheduling. It accomplishes this by considering only general stock as available for production scheduling. *See* "Inventory General Stock Includes Stock Location #1 through Location #" *on page SYS-111.*

Non-General Stock Locations

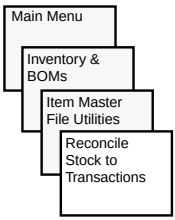
Locations defined as outside general stock on System Set Up window #3 are shop floor locations used in the assembly of jobs referenced in released manufacturing orders. Inventory in these locations is allocated and regarded by the system as production (allocated) stock. It is not available for new jobs. When new jobs requiring these same items are reviewed as part of the next production scheduling run, Qube ERP™ will schedule either the production or purchase of more of these goods, regardless of what has happened to the original job requiring these goods.

It is also common to use a non-general stock location for items which are in material review. Until the status of the item has been determined, it should not be included in general stock and therefore available for production scheduling.

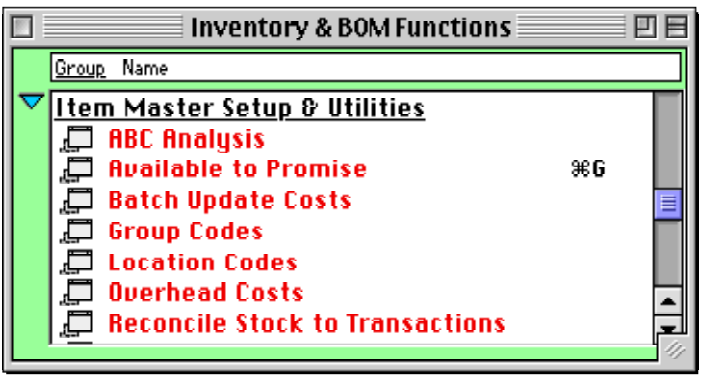
Impact on Location Setup

It is often a good idea to have your work center locations exist in **non-general stock** locations, particularly if you need to allocate goods to a firm production plan. When set up this way, issuing stock to the workcenter location will take it out of general stock inventory, and the system will regard it as not available during future production scheduling runs. If this is how you choose to set it up, however, be sure to release any manufacturing orders for which stock has been allocated. Not doing so can cause the system to create new requirements if a new production scheduling routine is run for the same jobs. *See* "Release Manufacturing Orders" *on page PLAN-170.*

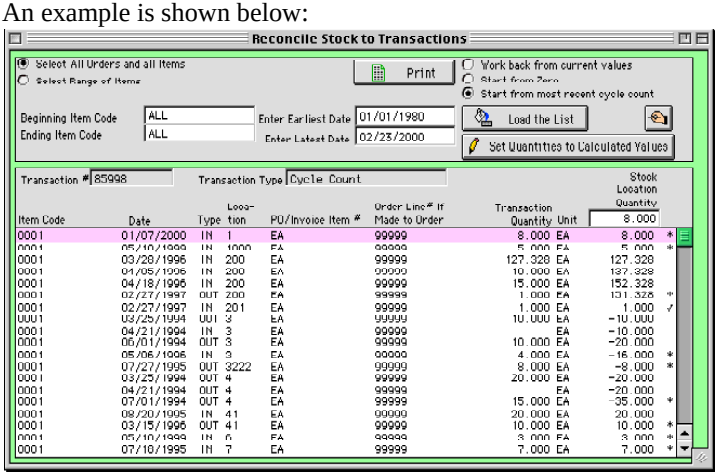
Reconcile Stock to Transactions



Version 7.36 allows you to reconcile and adjust stock location quantities to inventory transactions. The function may be useful in the case of repairing damaged data. Access this feature from the Item Master Setup and Utilities section of the Inventory & BOM functions list:



An example is shown below:



The function allows you to work either forward or backward.

Working Backward

Working backward means that Qube will start with the current stock quantity at each item location. Referring to the example list, above,

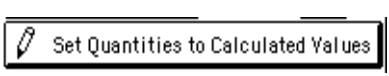
the “stock location quantity” for the last transaction of each item location represents the current stock quantity for the selected item and location. The “Stock Location Quantity” for preceding transactions for the same item and location will show the quantity immediately after the transaction and just before the next transaction. In this example, item 2021-00148, location 1 shows a series of transactions which net to 3,762. Therefore, Qube will expect that the current stock location quantity value will be 3,762. The asterisk shown to the right indicates a suspected error in the stock count. To verify this, you can double-click on the line which shows the asterisk to drill down to view the stock quantities for the selected item.

If you choose to manually edit the Stock Location Quantity, you may click on any list line. Qube will force the cursor to the latest transaction for that item/location, re-enforcing the idea that you are editing the current quantity associated with that item at the selected location. If any quantities are changed for any items, Qube will tidy up by ensuring that the total and general stock for the selected items adds up to the newly adjusted quantities.

Working Forward

Working forward provides two options: a) assume a starting quantity of zero and add the net result of each transaction until it arrives at a calculated current total or b) look for the most recent finalized cycle count transaction for each item/location and begin with the quantity entered on that transaction.

If you select to “Start from Zero” or “Start from most recent cycle count” Qube provides an addition button.



Using this button will cause Qube to read each list line to identify the last entry for each item/location and set the current stock location to the calculated quantity.

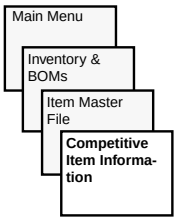
The last step in loading the list, regardless of which option is selected, is to compare the ending calculated quantities for each item and location with those found in the data file. If the two match, Qube will

display a checkmark (√) in the far right column. If they do not match, Qube will display an asterisk (*), indicating that the number is suspect. You may double-click on any selected line to compare the calculated quantities with those found in the stock locations file.

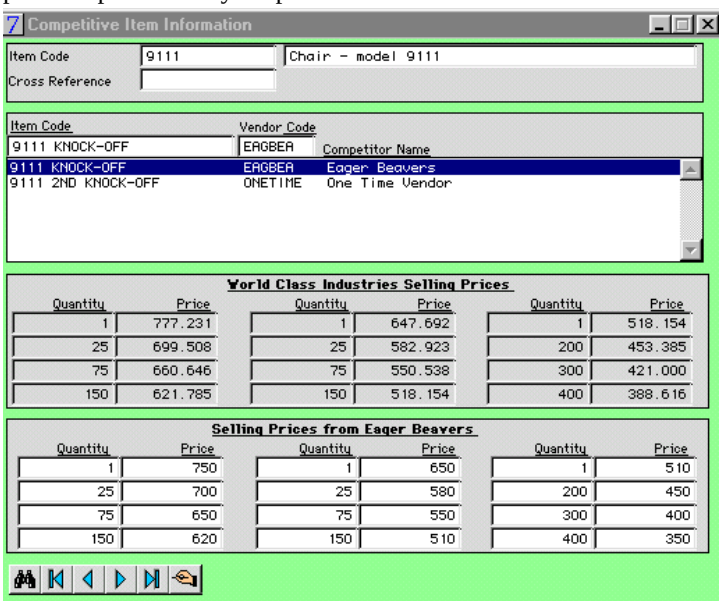
A “Print” button is also displayed. Using this button, you can print a report which will print only those stock-location records which appear to differ from the calculated values. The report displays both the calculated value and data file value.

Note: No inventory transactions and no audit trail are provided for these changes.

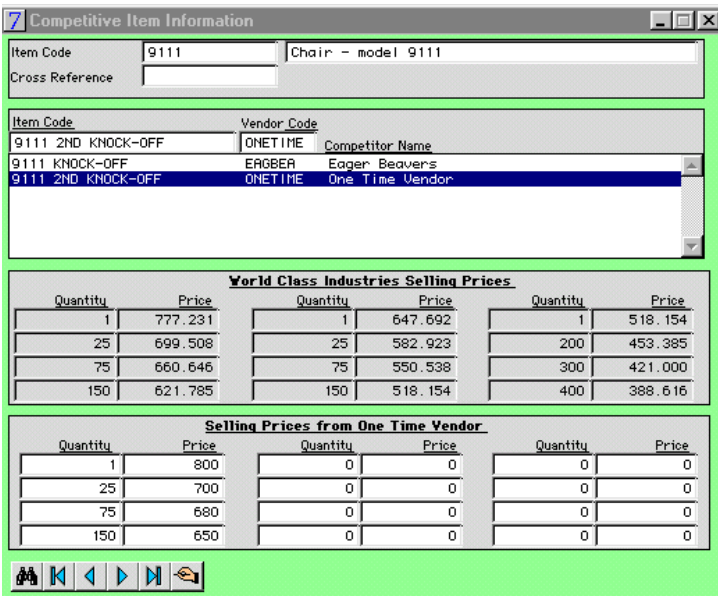
Competitive Item Information



Use the **Competitive Item Information** window to compare competitors' prices with your prices:



On the following screen, notice that the selling prices grid changes for each vendor.


Competitive Item Information
Item Code
9111
Chair - model 9111
Cross Reference
Item Code
Vendor Code
9111 2ND KNOCK-OFF
ONETIME
Competitor Name
9111 KNOCK-OFF
EAGBEA
Eager Beavers
9111 2ND KNOCK-OFF
ONETIME
One Time Vendor
World Class Industries Selling Prices
Quantity
Price
1
777.231
25
699.508
75
660.646
150
621.785
1
647.692
25
582.923
75
550.538
150
518.154
1
518.154
200
453.385
300
421.000
400
388.616
Selling Prices from One Time Vendor
Quantity
Price
1
800
25
700
75
680
150
650
0
0
0
0
0
0
0
0
0
0
0
0

Customer-Furnished Materials

Customer-Furnished Materials is an optional module that may be purchased separately. This module discretely tracks materials that have been furnished by customers. To properly maintain records of the value of inventory owned by your company, you need to be able to distinguish between customer-furnished materials (CFM) and those which your company purchases.

When materials are furnished by a customer, they may need to be valued for insurance purposes, but must not be valued in the general ledger. Therefore, materials which are customer furnished will be tracked differently than those which are not.

Customer-furnished materials have a zero standard cost and are reflected at zero on your balance sheet. They can, however, maintain a “current” cost as a measure of your company's liability as it holds this inventory for your customers. These values are maintained in the inventory transactions file; customer-furnished material transactions will show a zero standard cost and a non-zero current cost.

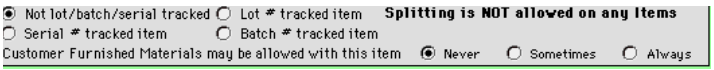
Current Unit Cost	Standard Unit Cost
289.58563	
289.58563	
289.58563	
289.58563	

Transactions for the same item, if not generated as a CFM transaction, will probably show a non-zero value in both fields.

The CFM module also assists you in being able to report quantities of CFM to your customers and to account for quantities received into your warehouse.

Setting up Customer-Furnished Materials

Records in the item master file must designate whether customer-furnished materials (CFM) may be allowed with an item. This is done on Item Master File card #2:



You may make one selection for each item code. If an item is designated as being sometimes CFM, reference must be made to lot/batch records; i.e., some lot/batch records will be designated as CFM and some will not. This means that the CFM feature requires the lot & batch tracking feature, as well.

Item Code 9111 Chair - model 9111

Lot Number	Location	Stock Quantity	Pre-Sold	Received or Made on	Expires on	Selection	Order	Vendor Lot #	Customer Furnished Materials
BATCH #2	1	22.000	22.000	11/01/93	11/01/94				
BATCH #2	1	22.000	22.000	11/01/93	11/01/94				YES
1021	1	15.000		12/05/97	12/05/98	✓	5		YES
60160	4	10.000		07/31/97	07/31/98	✓	4		NO
ABCD	1	6.000		12/05/97	12/05/98	✓	6		YES
BATCH #1	1	5.000		03/27/93	03/27/96				YES
4444	2	3.000	1.000	06/06/97	06/06/98	✓	1		NO
4444	6	3.000		06/12/97	06/12/98	✓	2		NO
4444	1	1.000		07/01/97	07/01/98	✓	3		NO
FGHIJ	1	1.000		12/05/97	12/05/98	✓	7		YES
10001	1			12/05/97	12/05/98				YES

If your site has been using lot/batch tracking prior to enabling the customer-furnished materials feature, the FLOTS file will require reorganization. After reorganization, a utility should be run to make sure new field values are properly populated. This utility is found in the Lot & Batch Utilities menu, as follows:

Non-Zero Lots

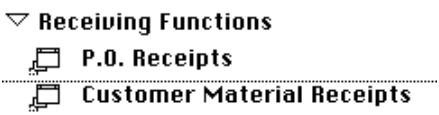
CFM Transactions

You can use the Customer-Furnished Materials module to monitor:

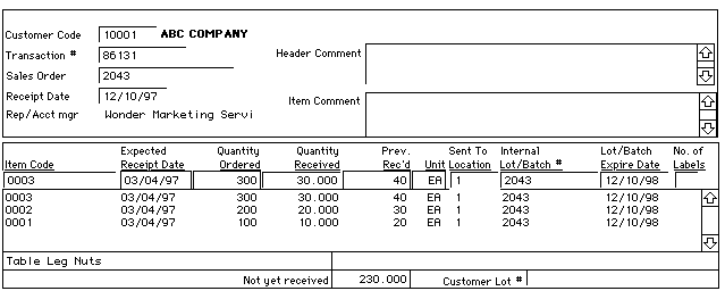
- Incoming transactions
- Outgoing transactions
- Tracking materials for each item
- Preselection from customer-specific lots
- Posting transactions
- Reporting Transactions

Incoming Transactions

A selection is provided in the Purchasing functions list (under Receiving Functions).



Selecting this line opens the **Customer Material Receipts window**, which looks and behaves very much like the PO receipts window.



To enter a new transaction, click the *NEW* button and enter either a sales order number or “NO SO” into the field labeled Sales Order.

CFM Receipts may be entered as they relate to a specific sales order or not. If your customer is sending you the exact materials which you

will be processing and returning to him, relate the CFM receipts to the selected order.

When this is done, Qube ERP™ responds by loading the list of items found within the selected sales order and allowing you to indicate what quantities of the expected receipts arrived.

The materials may be either a) the item which you are selling to that customer or b) items found in the flat bill of material for the item you are selling to the customer. Only items flagged on the Item Master File as being sometimes or always customer-furnished materials are loaded.

If Qube ERP™ finds that the sales order items are designated as customer-furnished materials, it loads each one of these. If not, it looks to see if the items being sold have bills of materials; if so, Qube ERP™ checks each component to see which are designated as customer-furnished materials and loads these.

If your customer is sending you materials which may be used to prepare several orders, you can avoid relating the receiving transaction to a specific order by entering “NO SO” in the field labeled Sales Order. When this is done, Qube ERP™ prompts you for the customer code and allows you into the Item Code field. Items and quantities can then be entered free-form, since there is no record of what should be received.

When you enter data to create new transactions, the lot/batch number defaults to the sales order number if there is a sales order number referenced in the CFM receiving transaction. In fact, the customer may not have assigned a lot number to the materials. If you are entering a NO SO transaction, the lot /batch number defaults to the customer code.

Transactions created on this window carry a transaction type of “CM.”

Outgoing Transactions

Outgoing transactions may include job cost transactions (shipment of goods against sales invoices) and assembly transactions. If the

items being sold were customer furnished, Qube ERP™ recognizes this and sets the standard costs to zero, as in this example.

Inventory Transaction Costs

Transaction Number	Transaction Type	Date	Posted On J/E#	To Period
86138	Job Cost or Adjustmt	12/10/97		

Item Codes	Type	Location	PO/Invoice Item #	Order Line# If Made to Order	Current Unit Cost	Standard Unit Cost	Quantity	Unit
0001	OUT	6	2094-3	2043-4	50.12345		50.000	EA
0001	OUT	6	2094-1	2043-1	50.12345		50.000	EA
0002	OUT	6	2094-2	2043-3	0.15000		60.000	EA
0003	OUT	6	2094-3	2043-4	1.00000		70.000	EA

If components used in assembling the items being sold were CFM, Qube ERP™ recognizes this in the assembly transactions used to build the items being sold.

Tracking Materials for Each Item

Qube ERP™ provides a modified display of the Stock Quantities window to show the quantities of customer-furnished materials found at each location and to identify which lots/batches are customer-furnished materials. A total of “customer stock” is also displayed at the bottom left of the window.

Lot Number	Location	Quantity
10001	1	130.000 CFM
10002	1	70.000 CFM
10004	1	10.000
2043	6	120.000 CFM
Totals		330.000

Location		Quantity	Unit	CFM Qty
1	Kitting of Subass	205.000	EA	200.000
3	Test #1	4.000	EA	
6	ABC COMPANY	125.000	EA	120.000
30		18.112	EA	
200		54.000	EA	
201		1.000	EA	
1000		95.000	EA	
Totals		502.112		

Committed to Sales	477.000	**Total Stock**	**567.112**
Qty in Forecasts	25.000	General Stock	417.112
Open P.O.s	111,785.000	Min. (Safety) Stock	0.000
Average Daily Use	0.648	Maximum Stock	0.000
Annualized Use	236.520	Months on Hand	28.773
E.O.Q.	0.000	Scheduled for Prodtn	40.000
Customer Stock	320.000		

Pre-selecting from customer-specific lots

Qube ERP™ normally preselects lots using logic which allows it to identify the lot for the selected item which has positive quantities in it and which also is expected to expire soonest. This logic must be augmented when dealing with customer-specific lots. When dealing with customer-furnished materials, Qube ERP™ must pull from customer 10001's lots when invoicing customer 10001; it must avoid pulling from customer 10004's lots, even though these may match on the item code and be expected to expire sooner than customer

10001's lots. Therefore, Qube ERP™ will direct its search only to customer 10001's lots and select the ones which are expected to expire soonest.

Posting Transactions

All inventory transactions related to customer-furnished materials carry a zero standard cost. Therefore, they have no impact on the general ledger.

Reporting Transactions

CFM transactions are included in the appropriate inventory transaction reports. CFM receipts are described as such on the reports.

Number	Date	P.O. Number	Item Code	Unit	Order-Line Number
86133	**12/10/97**		**Customer Matrl Receipt**		
			0001	EA	2043-1
			0002	EA	2043-3
			0003	EA	2043-4

Other transactions involving customer materials (job cost and assembly transactions) show a “CFM” designation on appropriate transactions.

CFM
CFM
CFM

The ad hoc report writer can also be used to print CFM transactions, using the query X_CFM=1.

Reporting Inventory Values

Most inventory lists can be printed at either current or standard costs. The CFM attribute makes no difference when valuing at current cost, but at standard cost it can make a big difference. Therefore, a report has been modified to allow valuation to be done correctly. The selected report is the **Items by Group** report.

```
Inventory Items Reports
Items List                    By Group Code
```

When the customer-furnished material feature is enabled, a new report parameter is displayed on this report.

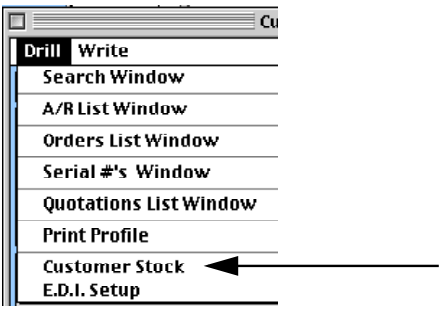
```
Print Customer Furnished Material Quantities & Values? YES
```

When this parameter is positive, the report format used will display details of CFM quantities and values for each item and each item location and for all items, all locations and all groups, as shown below.

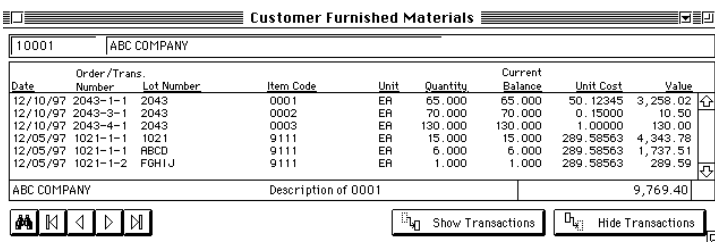
CFM Stock On Hand	CFM Inventory Value	Non-CFM Stock On Hand	Non-CFM Inventory Value	Total Stock On Hand	Total Inventory Value
320.000	16,039.50	247.112	12,386.11	567.112	28,425.61
200.000		5.000		205.000	
0.000		95.000		95.000	
0.000		54.000		54.000	
0.000		1.000		1.000	
0.000		4.000		4.000	
0.000		18.112		18.112	
120.000		5.000		125.000	
	30,277.27		**34,365.06**		**64,642.33**
	30,277.27		34,365.06		64,642.33

Customer Materials Tracking

Qube ERP™ provides a display to enable the user to identify what quantities of which items are in stock and associated with which customers. The **Customer Financial Info** window has a pulldown menu, **Drill**, at the top of the screen:

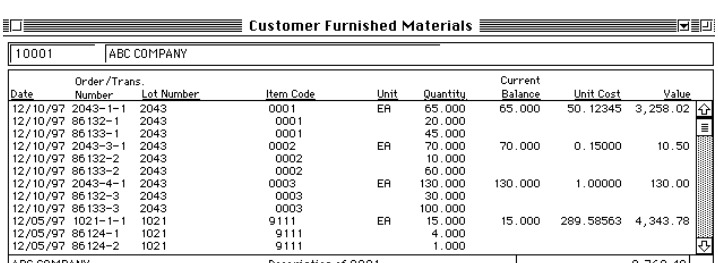


When you click the **Customer Stock** option, a window presents customer stock data.



Date	Order/Trans. Number	Lot Number	Item Code	Unit	Quantity	Current Balance	Unit Cost	Value
12/10/97	2043-1-1	2043	0001	EA	65.000	65.000	50.12345	3,258.02
12/10/97	2043-3-1	2043	0002	EA	70.000	70.000	0.15000	10.50
12/10/97	2043-4-1	2043	0003	EA	130.000	130.000	1.00000	130.00
12/05/97	1021-1-1	1021	9111	EA	15.000	15.000	289.58563	4,343.78
12/05/97	1021-1-1	ABCD	9111	EA	6.000	6.000	289.58563	1,737.51
12/05/97	1021-1-2	FGHIJ	9111	EA	1.000	1.000	289.58563	289.59
ABC COMPANY			Description of 0001					9,769.40

The default is to load the data from the lot records; however, you can also view detailed transaction data by clicking the Show Transactions button. Then the display looks like this:



Date	Order/Trans. Number	Lot Number	Item Code	Unit	Quantity	Current Balance	Unit Cost	Value
12/10/97	2043-1-1	2043	0001	EA	65.000	65.000	50.12345	3,258.02
12/10/97	86132-1	2043	0001		20.000			
12/10/97	86133-1	2043	0001		45.000			
12/10/97	2043-3-1	2043	0002	EA	70.000	70.000	0.15000	10.50
12/10/97	86132-2	2043	0002		10.000			
12/10/97	86133-2	2043	0002		60.000			
12/10/97	2043-4-1	2043	0003	EA	130.000	130.000	1.00000	130.00
12/10/97	86132-3	2043	0003		30.000			
12/10/97	86133-3	2043	0003		100.000			
12/05/97	1021-1-1	1021	9111	EA	15.000	15.000	289.58563	4,343.78
12/05/97	86124-1	1021	9111		4.000			
12/05/97	86124-2	1021	9111		1.000			
ABC COMPANY			Description of 0001					9,769.40

CFM in Production Scheduling

At this time, Qube ERP™ does not take any account of CFM during production scheduling. There is often a considerable amount of time passing between the scheduling event and the actual assembly event. Stock levels of CFM are not likely to be the same at the time the assembly is performed. Instead, customers should be expected to provide assembly components on a regular schedule, based on kit list quantities generated from backlog orders.

CFM in Assembly Components

The following screen shot shows a non-scheduled assembly in which no customer-furnished materials are used. Note that the parent item's value equals the total component value.

Non-Scheduled Assemblies

Transaction Number	Date	Posted To J/E #	Order Line # If Made to Order	Batch Number	Actual # Hrs
86214	02/07/98		Made to Stock	11111	10

Assembled Item Code	Quantity	Sent to Location	Unit	Standard Unit Cost	Extension
9111 FRAME	10.000	51	EA	112.24690	1,122.46900

Component Item Codes	Quantity	Pulled From Location	Unit	Standard Unit Cost	Extension	Lot/Batch #
WOOD	50.000	1	BF			
WOOD	50.000	1	BF			
STR WOOD	20.000	1	BF	3.00000	60.00000	
0001	20.000	1	EA	50.12345	1,002.46900	2043
MILL	10.000		HR	6.00000	60.00000	

Mill Room: Cut & shape wood elements — 1122.46900

Look at the same transaction when item 0001 is designated as customer-furnished materials. In this case, the value of the total components is reduced by $1,002.4690. Since less standard value was used to build the parent item, the parent item's standard unit cost must also be reduced by the same amount.

Non-Scheduled Assemblies

Transaction Number	Date	Posted To J/E #	Order Line # If Made to Order	Batch Number	Actual # Hrs
86213	02/07/98		Made to Stock	11111	10

Assembled Item Code	Quantity	Sent to Location	Unit	Standard Unit Cost	Extension
9111 FRAME	10.000	51	EA	12.00000	120.00000

Component Item Codes	Quantity	Pulled From Location	Unit	Standard Unit Cost	Extension	Lot/Batch #
WOOD	50.000	1	BF			
WOOD	50.000	1	BF			
STR WOOD	20.000	1	BF	3.00000	60.00000	
0001	20.000	1	EA			2043
MILL	10.000		HR	6.00000	60.00000	

Assembled frame for 9111-C chair — 120.00000

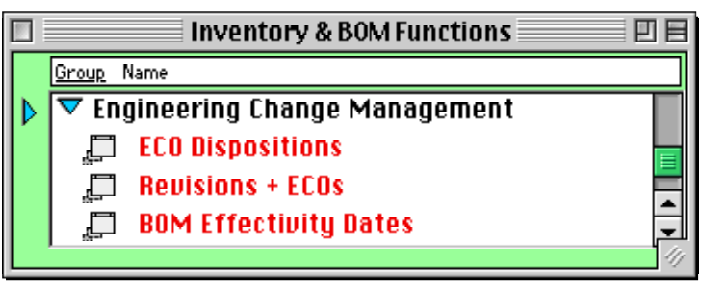
If Qube ERP™ did not pay attention to these differences, the posting of the transaction would increase material variance by the value of the CFM used in the assembly.

Engineering Change Management

The **Engineering Change Management** Module provides the ability to:

- define revision levels for each item in the item master file,
- control the assignment of those revisions to components in the bills of materials and
- provide feedback to users when they reference items which are in an active revision status in purchase orders, bills of materials, sales orders and manufacturing orders, and MPS orders.

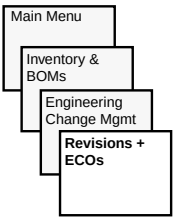
The ECM functions are accessed through the **Inventory and BOM Functions** list.

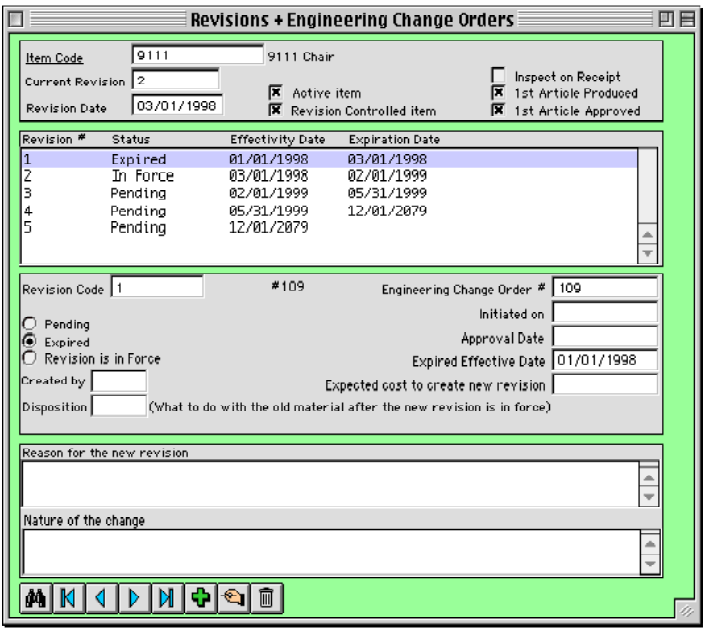


Revisions and Engineering Change Orders

Defining Revision Levels

The window used to view and enter data which defines various revisions looks like this:





Item Code

Enter the item code.

Current Revision

This field is from the item master file. You may change this field manually. If you enter a revision code which matches a revision found in the list, Qube will default the revision date to equal the effectivity date of the selected revision. You may, however, override this date. If an invalid revision code is entered, Qube will warn you, but it will allow the code if you ignore the warning.

Revision Date

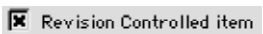
Enter the revision date.

Active Item

Check if this is an active item.

Revision Controlled Item

This field is an attribute of the item record, not the revision record. It is also displayed on the **Item Master File Card #1** window. Changes to the fields below will affect the Item Master File card. Selecting this attribute will cause Qube to display messages when users reference items which are in the process of being revised when entering BOMs, POs, sales orders, manufacturing orders and MPS orders. Any IMF record can be flagged as revision controlled.



Inspect on Receipt

Check if this item must be inspected on receipt.

1st Article Produced

Check if the first article is produced.

1st Article Approved

Check if the first article is approved.

Checkmark

If no revisions have been set up for this item, a checkmark appears in the upper right corner. Click on this checkmark to create a revision record.

Revision Code #

Note that each revision is specific to a single item. Qube allows you to define revision codes using a 10-character alpha code which is free form and need not be unique. You may have an ALPHA revision for item 9111 and an ALPHA revision for item ABCDE. These two records would have nothing to do with each other, since the relationships between items in the item master file is determined only by the bills of materials. Qube maintains a unique revision number for each record which is displayed to the right of the Revision Code. Qube will not allow more than one revision for the same item to share the same revision code; e.g., there cannot be more than one “A” revision for the same item.

Engineering Change Order #

When a new revision record is created, Qube will fill the ECO field with a value equal to the internal address of the record (also shown in the center of the ECO window); it will do so only if you have not already entered a value in the field. This field may be manually edited to any 10-character field value. More than one revision record may contain the same ECO #.

Status

Each revision must be in either of three status conditions (Pending, Expired, or In Force). Flagging a revision as “Pending” is an important step. If the item is flagged as a “Revision Controlled Item,” this will cause Qube to check to see if the referenced event date (e.g., PO shipment) in new records being entered is prior to the effective date of the proposed revisions and, if it is, Qube will caution you with a warning message. Changing a revision status to “In Force” will default the “current revision” and “revision date” on the item master file to the revision and effectivity date whose status has just been changed. These default values may, however, be manually overridden. Revision status changes will not automatically affect open POs, manufacturing orders, or sales orders already in the system.

Effectivity Date/ Proposed Effectivity Date

Each revision must have a different effectivity date than all other revisions referenced for a given item. Qube will not allow more than one revision to reference the same effectivity date. Qube will also require this date to be filled. If the status of the revision being entered is anything except “in force,” this field will be labeled “Proposed Effectivity Date.” and the list column labeled “Effectivity Date” will be empty.

Expiration Date

The expiration date of any one revision is the effectivity date of the next revision. This field value is controlled by Qube and cannot be entered.

Created By

{Mandatory} Enter the name or initials of the person who created this revision and engineering change order.

Disposition

{Mandatory} Enter a code identifying how the old material will be disposed of after the new revision is in force. The **Disposition Codes** table must be created before proceeding with Revisions and ECOs.

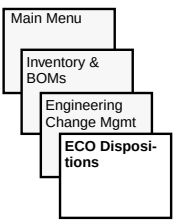
Comments

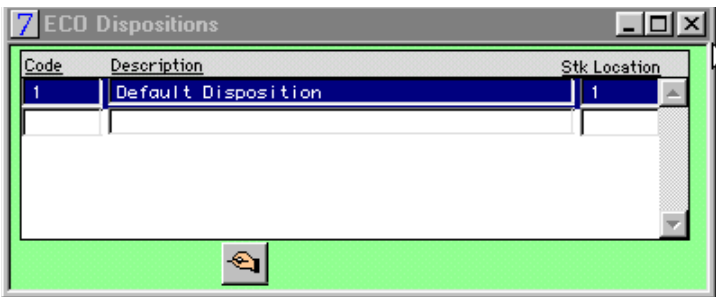
There are two fields to enter comments: one for the reason for the new revision, and one for the nature of the change.

Using the Revisions and ECOs window

Before using the Revisions and ECOs window, you must create a table of ECO Disposition Codes. Qube supplies Code 1 as a default disposition.

ECO Dispositions window



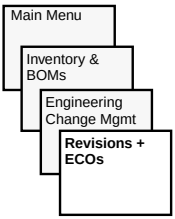


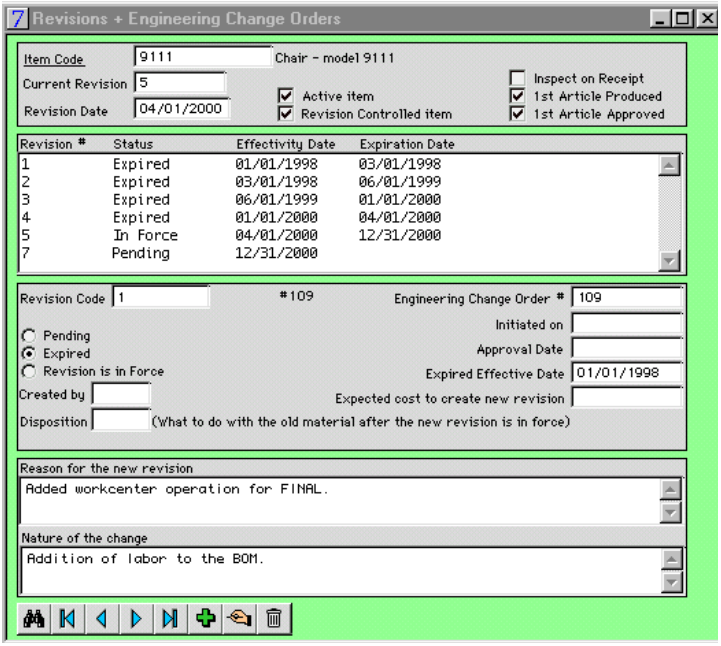
• Create the ECO Disposition Codes Table

1. **From the Inventory & BOMs Function List, select ECO Dispositions.**
2. **Click on the *EDIT* icon.**
3. **Select an empty Code field.**
4. **Type an alphanumeric code, up to six characters.**
5. **Press the *TAB* key to move to the Description field.**
6. **Type a description, up to 41 characters.**
7. **Press the *TAB* key to move to the Location field.**
8. **Type a location, up to six characters.**

   Currently the location is mandatory, but it is not functional. You should choose a location that will not affect your inventory should this become functional in the future.

Revisions + Engineering Change Orders window





• Use the Revisions and ECOs window

1. **From the Inventory & BOMs Function List, select Revisions + ECOs.**

2. **Find the Item Code and click on the *ADD* icon.**

   Qube defaults to the **Revision Code** field.

3. **Type in a valid Revision Code and press the *TAB* key.**

   The cursor moves to the **ECO Number** field.

4. **Type in an optional Engineering Change Order Number and press the *TAB* key.**

   The cursor moves to the **Initiated On** field and defaults to today's date.

5. **Press the *TAB* key to accept this date or type in an optional date and press the *TAB* key.**

   The cursor moves to the **Approval Date** field.

6. **Leave the Approval Date field blank, or type in an optional date when the ECO was approved, and press the *TAB* key.**

   The cursor moves to the mandatory **Proposed Effective Date** field.

7. **Type in a date when the ECO should go into effect, and press the *TAB* key.**

   The cursor moves to the **Expected Cost** field to create a new revision field.

8. **Leave the Expected Cost field blank or type in an optional amount, and press the *TAB* key.**

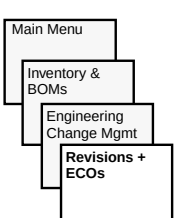
   The cursor moves to the **Reason for the New Revision** comments field.

9. **Enter text in the Reason for the New Revision comments field and press the *TAB* key.**

   The cursor moves to the **Nature of the Change** comments field.

10. **Enter text in the Nature of the Change comments field and press the *TAB* key.**

• Change Revision Level



1. **Open the Item Master File and verify the current revision level.**
2. **Open the Revisions & ECOs window.**
3. **Find the Assembly Part Number.**
4. **Select the Revision Level to put in force.**

5. **Click on the *EDIT* button.**

   Qube defaults to the Current Revision Level field.

6. **Press the *TAB* key.**

7. **In the Revision Date field, enter today's date and press the *TAB* key twice.**

8. **Tab through the ECO Number field.**

9. **Tab through the Date Initiated field.**

10. **Edit the Approval Date field, if necessary, and press the *TAB* key.**

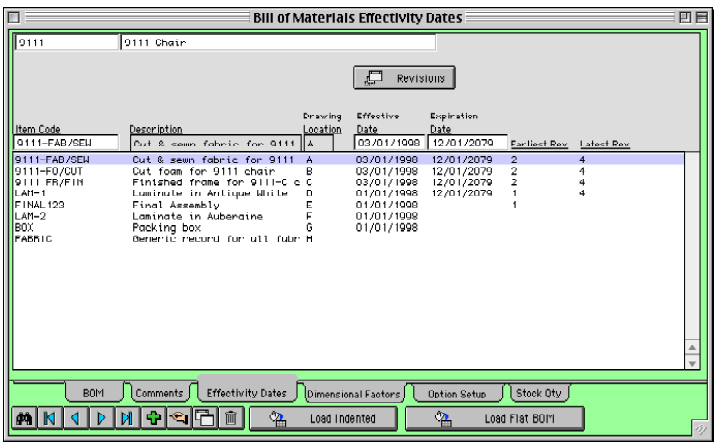
11. **Edit the Planned Effective Date field, if necessary, and press the *TAB* key.**

12. **Edit the Expected Cost to Create New Revision field, if necessary, and press the *TAB* key.**

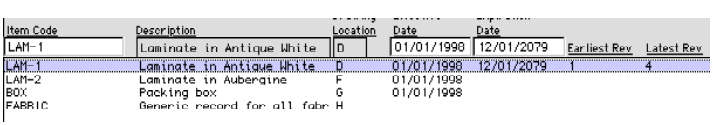
13. **Select the In Force radio button and click on the *SAVE* button.**

Controlling BOM Revision References

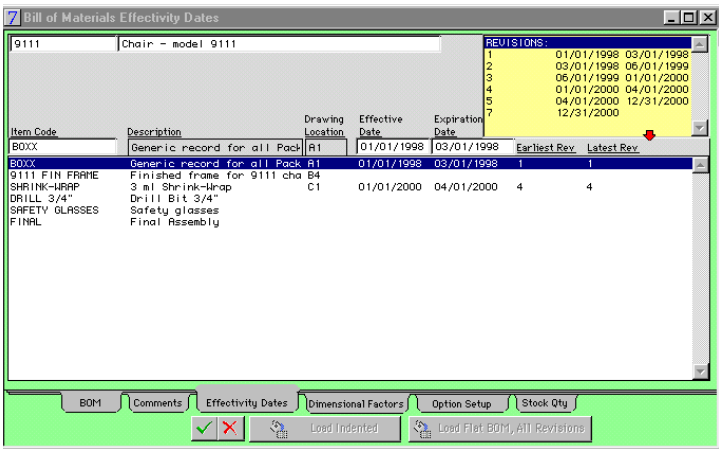
The **Bill of Materials Effectivity Dates** window looks different when sites are using the ECM module. A *REVISIONS* button is provided to allow you to easily view the various revisions associated with the select BOM. Also the earliest and latest revisions are displayed in the list along with the dates.



You may view BOM components referencing all revisions or you may view the BOM for any one revision. A BOM component which does not reference any revisions is assumed to be a part of all revision levels. To load components for all revisions, you may click the *LOAD FLAT BOM* button. To view components related to any one revision, you must view the **Revision Information** window and double-click on the revision you want to see. Qube will respond by displaying the BOM window with only components referencing either the selected revision or no revision, like this:



When you are editing a BOM, Qube will display a list of all revisions in the upper right corner.



If you need to edit the **Effective Date** or **Expiration Date** field and double-click on a revision from the list, Qube will fill in both the Effective and Expiration dates from the selected revision. Components may, however, span more than one revision. Therefore, you may tab to the **Expiration Date** field and select a different revision code from the Revisions list displayed in the upper right portion of the screen. In this case, Qube will fill in only the Expiration Date from the selected revision.

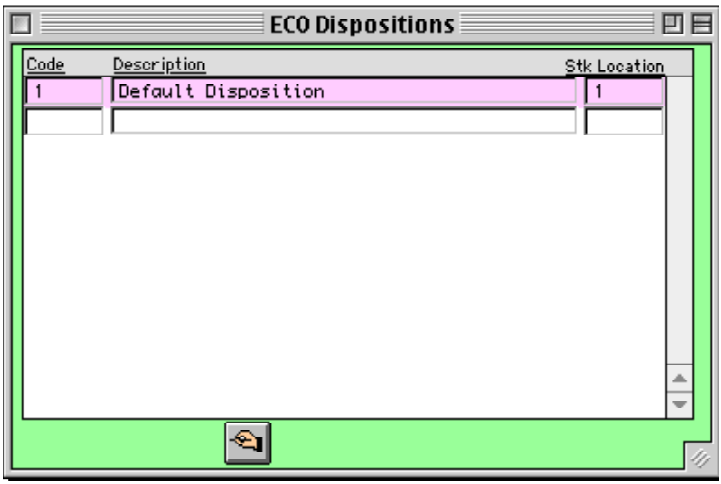
You should create a revision code (e.g., ZZ or 99) with an expiration date far enough into the future so that as you add components, you can set an expiration date that will not need to be maintained, until such time as the component truly expires or becomes obsolete.

User Feedback Regarding Items in the Revision Process

Qube will check for the entry of items being entered into BOMs, POs, sales orders, Manufacturing Orders and MPS orders to warn users that they may be referencing an item which is undergoing redesign. A message like this will be displayed if the item has a reference to a revision whose status is pending and one whose effective date will occur after the date of the event being entered (e.g., a PO item date, a manufacturing order date, etc.). Only “revision controlled items” will be checked in this way.

ECO Dispositions

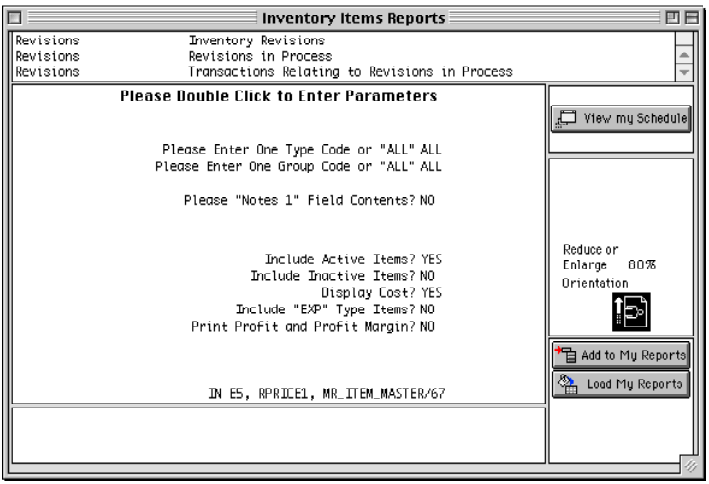
Use the **ECO Dispositions** window to enter ECO dispositions; i.e., what to do with the existing stock of old revisions once the new revision goes into effect.



You must first create a table of ECO Disposition Codes before attempting to use the Revisions and ECOs function. For more information, see "Create the ECO Disposition Codes Table" *on page INV-172*.

Reports

The following reports are provided:



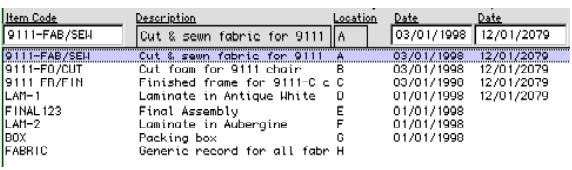
Initialize Revision Data

If your site has been using Qube effectivity dates, you must set up the revision records to match the revision dates created in your bills of materials. Qube provides some assistance with this. The Task Assistant provides an introduction of the ECM module. Included in that introduction is a button labeled *INITIALIZE REVISION DATA*.

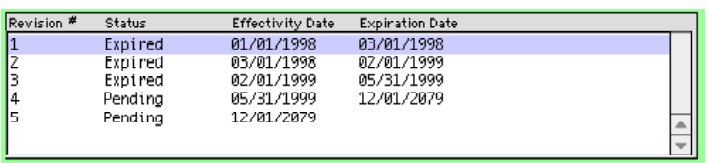
You may click on this button to cause a procedure to be executed which will examine all bills of materials and create revision records.

For example, below is a fairly complex example of a BOM with every conceivable condition (blank effectivity dates, non-blank dates with expiration dates earlier than and later than today, etc.). The example shows how:

- the BOM starts out, containing only effectivity and expiration dates,
- the revision records are created by Qube and
- the BOM records are modified to show the earliest and latest revisions associated with each component which contains an effectivity or expiration date and associated with the appropriate revision record(s).



Item Code	Description	Location	Date	Date
9111-FAB/SEW	Cut & sewn fabric for 9111	A	03/01/1998	12/01/2079
9111-FAB/SEW	Cut & sewn fabric for 9111	A	03/01/1998	12/01/2079
9111-FO/CUT	Cut foam for 9111 chair	B	03/01/1998	12/01/2079
9111 FR/FIN	Finished frame for 9111-C c	C	03/01/1990	12/01/2079
LAM-1	Laminate in Antique White	D	01/01/1998	12/01/2079
FINAL123	Final Assembly	E	01/01/1998	
LAM-2	Laminate in Aubergine	F	01/01/1998	
BOX	Packing box	G	01/01/1998	
FABRIC	Generic record for all fabr	H		



Revision #	Status	Effectivity Date	Expiration Date
1	Expired	01/01/1998	03/01/1998
2	Expired	03/01/1998	02/01/1999
3	Expired	02/01/1999	05/31/1999
4	Pending	05/31/1999	12/01/2079
5	Pending	12/01/2079	

Item Code	Description	Location	Date	Date	Earliest Rev	Latest Rev
9111-FAB/SEW	Cut & sewn fabric for 9111	A	03/01/1998	12/01/2079		
9111-FAB/SEW	Cut & sewn fabric for 9111	A	03/01/1998	12/01/2079	2	4
9111-FO/CUT	Cut foam for 9111 chair	B	03/01/1998	12/01/2079	2	4
9111 FO/FIN	Finished frame for 9111-C c	C	03/01/1998	12/01/2079	2	4
LAM-1	Laminate in Antique White	D	01/01/1998	12/01/2079	1	4
FINAL123	Final Assembly	E	01/01/1998		1	
LAM-2	Laminate in Aubergine	F	01/01/1998			
BOX	Packing box	G	01/01/1998			
FABRIC	Generic record for all fabr	H				

Transportation Management Module

The **Transportation Management** module integrates shipping data with Sales Order Processing, Accounts Receivable, Purchasing, and Accounts Payable. The function can be divided between Outbound and Inbound functions. Qube provides some basic functions to all sites using Qube v7.36 and above. More sophisticated functions are provided for sites which have purchased the **Transportation Management** module.

Outbound Functions

Outbound functions include Outbound Freight, Bills of Lading, Outbound Shipment Tracking Information, Import Shipment Tracking Data, and Outbound Shipment Browser.

The Bill of Lading, Outbound Shipment Tracking Information, and Import Shipment Tracking Data are part of the core system; Outbound Freight and Outbound Shipment Browser are part of the **Transportation Management** module only.

Inbound Functions

Inbound functions include Inbound Freight, Inbound Shipment Tracking Information, and the Inbound Shipment Browser.

All of these functions are part of the **Transportation Management** module only.

Features Set

The following setup function must be completed in order to use the **Transportation Management** module. This is an optional, for-sale module. It must therefore be activated in the **Features Set** window

to be available for use (*see* "Application Features Set Window" *on page SYS-138*).

Make sure Transportation is active

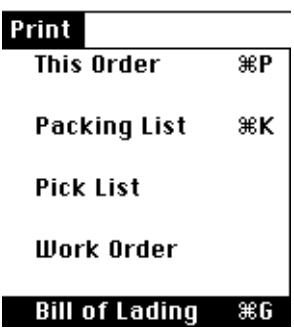
Outbound Freight

Outbound freight addresses issues related to the shipment of product to customers. There are two basic methods in which the outbound freight functions may be used: a) employing a bill of lading (on the assumption that product is being shipped by truck) and b) interfacing with UPS.

Bill of Lading

The first event which occurs in outbound freight is the printing of a Bill of Lading. The Bill of Lading is also discussed in the Sales Management user guide; *see* *"Bill of Lading #" on page OE-35* for more information.

To print a Bill of Lading, you can view a sales order and select **Bill of Lading** from the **Print** menu:

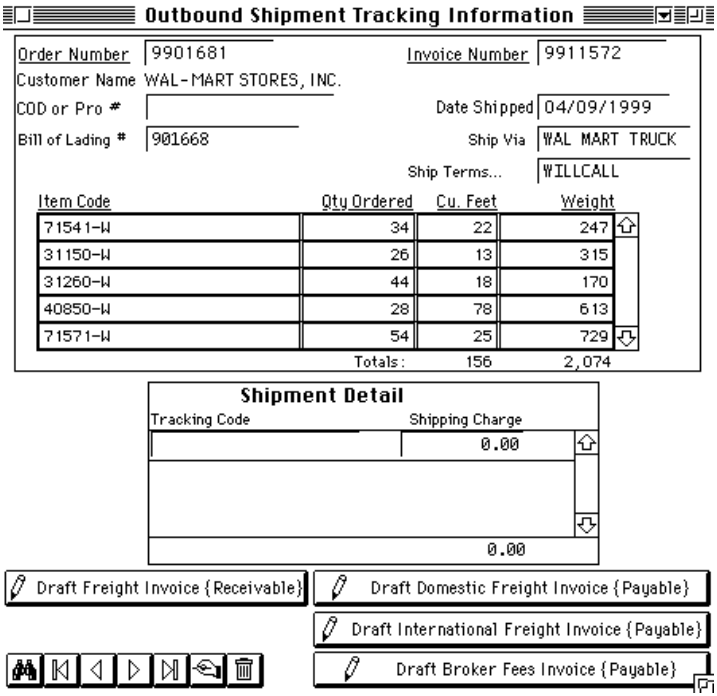


You may also select **Print Some Bills of Lading** from the **Booked Order reports** list. When a bill of lading is printed for an order, Qube will assign a new bill of lading number and insert a new shipment record associated with that bill of lading.

You may view the shipment record by clicking on the field label.

Bill of Lading # 47

The shipment record looks like this:

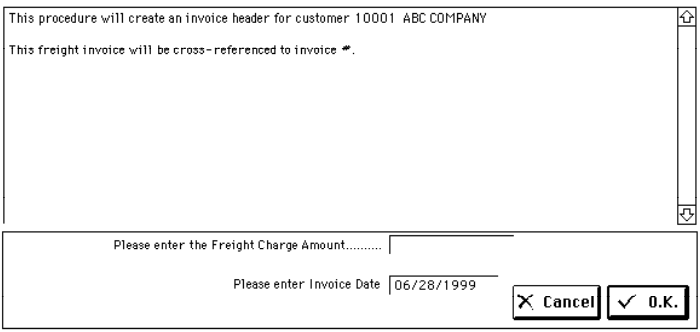


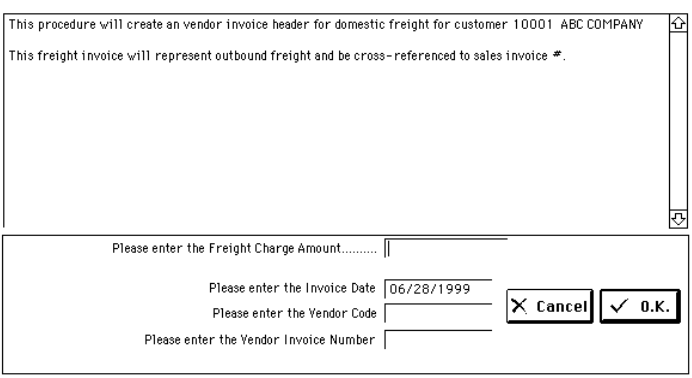
Note that a "**COD or Pro #**" field is also provided. While most of the data related to shipments is associated with each separate package, the COD number is an indexed field displayed in the header portion of the window. This means that you can perform a Find on this field to directly access the record you are looking for.

The **Shipment Tracking Information** window provides the interface to allow association of other events related to this shipment. For example, a freight only (receivable) invoice may be created or invoices for domestic or international freight or broker fees may be set up in the accounts payable files.

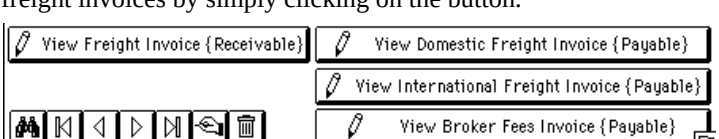
Although the **Shipment Tracking** window is available to users who are running Qube v7.36 or higher, the windows will not show the four buttons at the bottom unless you have purchased the **Transportation Management** module.

When you click any of the buttons at the bottom of the **Shipment Tracking Information** window, Qube will display a window which enables you to enter data needed to set up the selected transaction. Below are some examples:

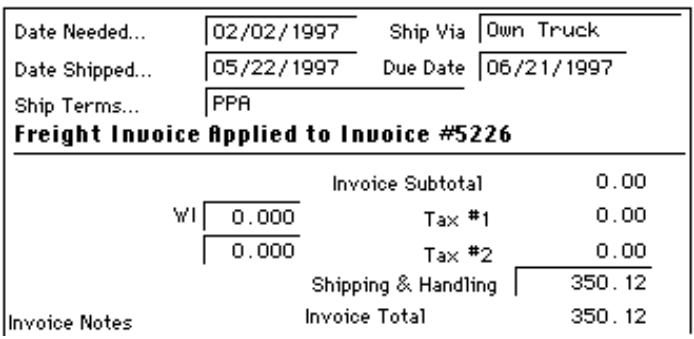




After related freight invoices have been created, the button labels will change to reflect this and to enable easy lookup of the associated freight invoices by simply clicking on the button.



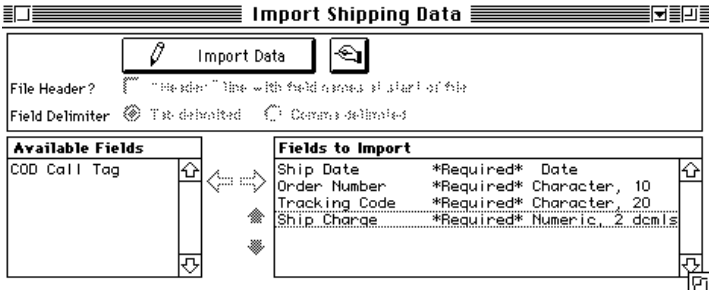
A Freight Invoice (Receivable) is simply an invoice header with a non-zero value in the Shipping & Handling field. The record also contains a reference to the original invoice to which the freight charge applies. Both the window and the printed invoice document also show the reference to the original invoice.



Import Shipping Tracking Data

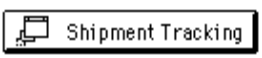
Qube provides the ability to import and/or manually enter shipment tracking information related to each sales invoice. These functions are accessed from the **Accounts Receivable** functions list.

The import capability provides an interface which enables you to customize the formatting of the data being imported.

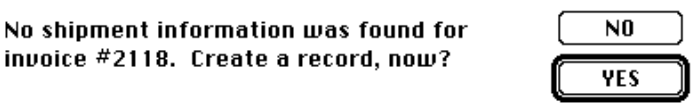


The import procedure will skip imported data with invalid order numbers without terminating the import. The import also updates the shipping charge totals in the order headers file. This update will occur only if the shipping terms equal “PPA” or if “COD” or “C.O.D” are found in the shipping terms.

The information is displayed as a window associated with each invoice. It may be accessed by clicking this button.



If no shipment tracking information was found associated with the selected invoice, Qube will display this message:



The shipment tracking window looks like this:

Note that a COD tracking number field is also provided. While most of the data related to shipments is associated with each separate package, the COD number is an indexed field displayed in the header portion of the window. This means that you can perform a Find on this field to directly access the record you are looking for.

During the invoicing procedure, the invoice number reference in the shipment tracking file is updated. However, since there may be multiple shipments against a single order, Qube will look for a match on the shipping date. For this reason, the "**Last Shipped On**" field in the order header will be updated from the shipment tracking data. This will help ensure that there will be matches on this data.

Note: Some specific setups must be done in the UPS system and a particular protocol needs to be followed to make the interface work. Both an import and an export mask needs to be set up in UPS.

The orders are loaded into the backlog list window. The ones that you want to ship are highlighted and they are exported to a text file. The data is exported by making this selection from the **Print** menu.

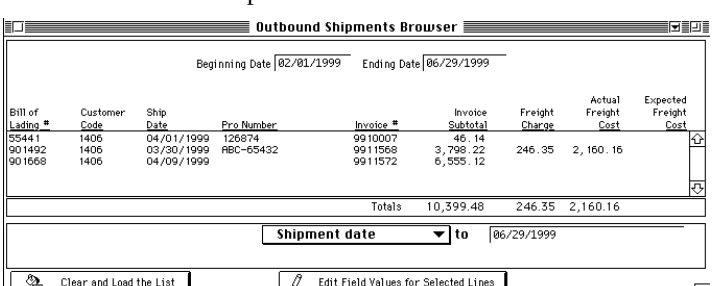
The exported orders must be put on a disk and taken to the UPS computer for import. Once in the UPS computer you will use the order number as the unique identifier to locate the shipping information. As part of the UPS end of day routine they need to do an export that takes the order number, the ship date, the tracking number, and the shipping charges back to Qube. This will then be imported using the Qube interface.

Outbound Shipments Browser

The **Outbound Shipments Browser** window enables you to view and sort information about a large number of outbound shipments at once.

For more information about browsers, *see* *"Browsers" on page GEN-75*.

Note: this window is provided only if the **Transportation Management** module has been purchased.

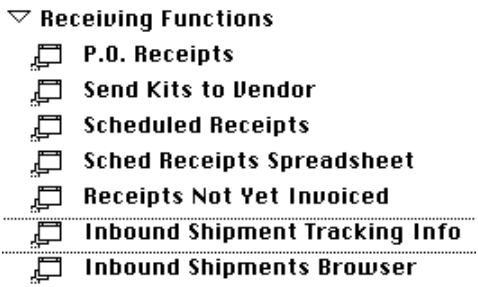


This window allows easy comparison of outbound shipment charges with outbound shipment costs, making it easy to create freight-only invoices for shipments on which freight costs have been incurred but not yet passed onto your customers.

The window also allows you to a) drill down to each shipment by double-clicking on each line and b) edit key fields so that updating the data can be done quickly and efficiently.

Inbound Freight

Inbound freight is structured similarly to outbound freight. The functions are accessed from the **Purchasing Functions** list. All inbound transportation functions are provided only as part of the transportation module. None of the inbound freight management functions are provided as part of Qube v7.36.



In the case of inbound freight, your supplier will be printing the Bill of Lading. You may then enter the Bill of Lading either on the PO header or on the **Shipment Tracking Information** window. If you enter a Bill of Lading number on the PO header, Qube will automatically create a shipment tracking record associated with the PO. You may simply click on the Bill of Lading field label to view the shipment record. Alternatively, a shipment record may be created by viewing the **Shipment Tracking Information** window and clicking

the *NEW* button, entering the vendor's bill of lading number, and associating it with any valid PO.

Inbound Shipment Tracking Information

PO Number	9930241		
Vendor Name	INDUSTRIAL THREADED PRODUCTS, INC.		
Pro #			
Bill of Lading #	ABCD-98765/QQW.12	ETA Port	04/01/1999
Date Shipped	04/01/1999	Last Free Day	04/02/1999
Domestic Shipper		Arrival Notice Recd	04/03/1999
F.O.B Point	SANTA FE SPRINGS	Orig Bill of Lading Received	04/04/1999
Internatl Shipper	American President Lines	Packing List Received	04/05/1999
Vessel Name	Queen Mary	Customs Exam Date	04/06/1999
Internatl Frt Quote	1256.50	Customs Clear Date	04/07/1999
# Containers	56		
Container #s			

Item Code	Qty Ordered	Cu. Feet	Weight
82000-HDWE-102	100,000	1,500	500
82000-HDWE-101	100,000	120	230
	Totals:	1,620	730

View Domestic Freight Invoice (Payable)

View International Freight Invoice (Payable)

View Broker Fees Invoice (Payable)

Freight invoices (Payable) will indicate whether they are inbound or outbound freights and show the associated invoice number.

•• Domestic Freight Applied to P.O. #9930241 ••

☒ Inbound Freight ☐ Outbound Freight

Estimated freight is the amount entered in the **Shipping** field on the PO header.

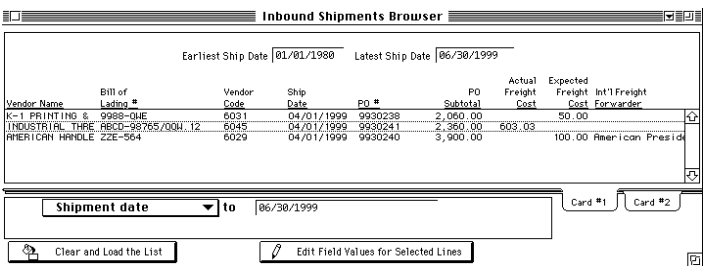
Sub-Total	2,501.50
Tax #1	0.00
Tax #2	0.00
Shipping	70.00
Total $	2,571.50

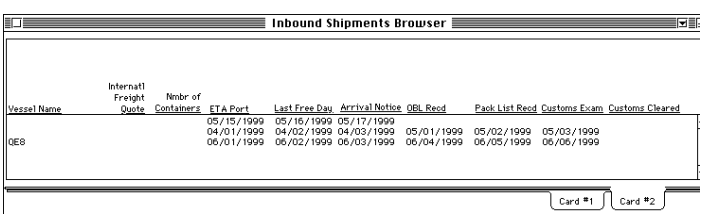
Inbound Shipments Browser

The **Inbound Shipments Browser** helps you see where the shipment is, providing easy visibility of delays, shipments still on the dock that need quick response, or higher than expected costs.

For more information about browsers, *see* "Browsers" *on page GEN-75*.

The **Inbound Shipments Browser** window is provided as a two-window card set, since there is so much information which may be associated with inbound shipments.





The browser window also enables you to edit many different field values for a large number of records at one time.

Shipment date
COD call tag or Pro #

International Shipper
Vessel Name
International Freight Quote
Number of containers

ETA Port
Last Free Day
Arrival notice received
Original Bill of Lading Received
Packing List Received
Customs Exam Date
Customs Clear Date

About Lot & Batch Tracking

The purpose of lot and batch tracking is to provide a way to determine the final destination of every vendor lot or production batch. For example, lot 1 may be purchased, and used up in batches A, B & C, which ultimately get sold to customers X, Y and Z. Lot and batch tracking gives you a way to trace this activity and maintain permanent records of it. However, this trail is only good as long as it remains unbroken. Therefore, the most important aspect of lot and batch tracking is to maintain an unbroken trail of data from beginning to end. If the chain is broken at any point, you will not be able to trace the final destination of the items involved.

Do NOT delete lot and batch records, even if they have been used up and show a zero balance! Deleting records destroys the history required for Lot and Batch reporting.

Definitions

Lots generally refer to items which are purchased from vendors. Sometimes lots are also sold. *See* "Lot & Batch Reporting" *on page LBS-47.* Although you can call these things whatever you wish, lots are usually not produced during the manufacturing process; acquisition is normally done through purchasing from a supplier.

Batches, sometimes referred to as "**production batches**," often refer to items which are manufactured and sold. Batches may consume lots or other batches. Batches may also, in some cases, be purchased; for example, when batches are bought and sold, or when you must turn to an outside supplier for items which you normally manufacture.

Note: Some companies elect to call all controlled items "lots" whether they are purchased, made, or sold. This is completely legal in current designs of Qube ERP™.

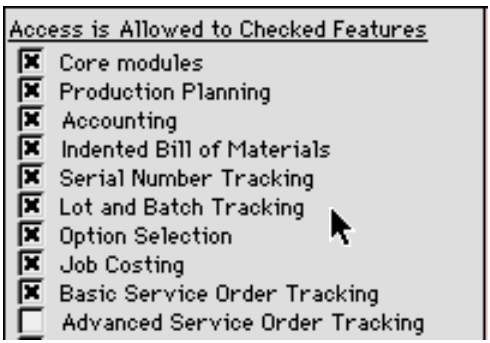
Versions

Version 7.32 and greater of Qube ERP™ includes a completely re-designed **Lot and Batch Tracking** module. This section pertains to this latest release; however, it includes two appendixes which can help users of prior versions to update and convert their systems to the current functionality.

Setting Up Lot & Batch Tracking

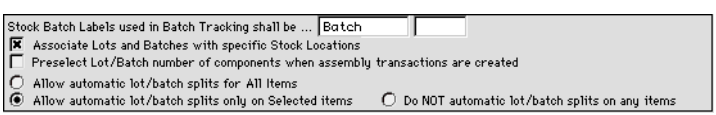
In order to use lot and batch tracking you must first set up your data file to accommodate this function.

Features Set



The **Features Set** window must have the selection `Lot and Batch Tracking` selected. Lot and Batch Tracking is an optional module for sale from Qube Connections. If it is not activated, please contact Qube Connections.

System Set Up, Card #3



Stock Batch Label

These labels are designed for very specific applications and can greatly complicate the management of batches. You are much better off to leave them alone, unless you have been instructed otherwise by QCI Tech Support.

Associate Lots and Batches with specific Stock Locations

{Check box selection} This selection offers the user a choice of tracking lots and batches by location or not.

Important: Having this turned `ON` is the preferred way of operating, and all companies should elect to choose it when setting up lot and batch tracking. The only reason the choice is allowed is that some companies have been using lot and batch tracking prior to this function having been implemented, and they need

to be able to continue to do so. All users setting up the system to run lot and batch tracking from the beginning should select this option, however.

For a complete discussion of how this impacts the lot and batch functionality of the system, and information about how to convert your data file if you are using lots and batches without locations, *see* "Appendix A: Lots & Batches by Location" *on page LBS-49*.

Inventory Transactions

When the **Associate Lots & Batches with specific Stock Locations** preference is turned `ON`, inventory transactions will look up the specific lot or batch number record *which is related to the selected stock location* and increase or reduce stock quantities *at that location* by the specified amount. If the function is turned off, however, inventory transactions will ignore stock locations when incrementing or decrementing lots and batches. In fact lot and batch records will not have inventory location designations, meaning that only one lot or batch of the same lot or batch number may be assigned to each item. Then, when transactions for that item are generated, the lot or batch quantity will also be transacted, regardless of inventory location.

Duplicate Lot & Batch Numbers

Choosing to track by location results in the possibility that more than one record will exist referencing any selected lot or batch. A different reference may exist for each lot or batch at any stock location in which the lot or batch is found.

If an `X` is not found in this system set up field, Qube ERP™ will not allow duplicate lot or batch numbers for an item. For example, if the user attempts to reference a duplicate lot or batch number for an item in the **Valid Lots & Batches** window referencing a different stock location, Qube ERP™ will not allow it. The entry will simply be ignored when the <*SAVE*> button is clicked. On the other hand, if an `X` is found in this system set up field, multiple lots or batches may be entered for the same item as long as each references a different stock location.

Preselect Lot/ Batch number of components when assembly transactions are created

{Check box selection} This selection provides the ability to automatically hook lot and batch selection into the *assembly transaction* functions within the system. When this box is selected, the system will automatically pull lots & batches on a **FIFO** basis (tied to expiration dates) when you generate **Non-Scheduled Assembly Transactions**. In addition, in the case of **Scheduled Assembly Transactions**, having this box activated will provide the ability to preassign lot and batch references on the **Manufacturing Order Tasks** window. Scheduled assemblies do not automatically assign lot and batch numbers.

This function has no impact on sales invoicing. Invoices automatically assign batches according to the lot/batch splitting policies of each item (if none have been preassigned) whether this box is selected or not.

Impact on Other Functions

This function has *no impact* on the **Invoicing** or **Send Kits to Vendors** functions.

Note: This check box must be active for the Lot/Batch Splitting Policy items to appear.

Lot & Batch Splitting Policies

{Radio button selections, dependent on previous selection} Certain industries require control over the splitting of lots and batches. For example, one business may allow splitting of lots/batches for all items; others may not allow it at all and others may allow it for selected items. Qube ERP™ supports all three choices. Setting these choices will cause the system to make automatic splits based on your choice. This function pertains to automatic splits only. You may always choose to override this choice in transactions after they have been generated.

Impact on Other Functions

The selected policies will impact the **Invoicing** function, but will *not* impact the **Send Kits to Vendor** function.

Splitting Policies and Inventory Locations

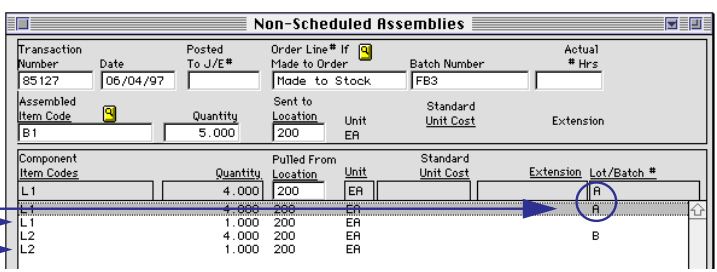
Lot/batch splits in assembly transactions will be handled on a FIFO basis, calculated on the expiration date of each lot and batch without regard to inventory location.

Policy Display

The **Item Master File, Card #2** window will display the chosen policy (*see* "Item Master File, Card #2" *on page LBS-9*).

Do NOT automatic lot/ batch splits on any item

This selection prevents any lot or batch splitting in any transaction. Therefore, if you generate an assembly transaction or an invoice, the system will only assign lots and batches up to the amount available in the oldest qualifying (*see* "Expires on" *on page LBS-18*) lot or batch. If the amount in the oldest lot or batch is enough to cover the entire transaction, then the lot or batch assignment will be complete. Otherwise, only the one lot or batch assignment will be made, *leaving the remaining items in the transaction with unassigned lot and batch numbers*. A **Non-Scheduled Assembly** made for five of an item where only four are available in the oldest qualifying lot might look like this:



Automatic lot assignment

Remaining items

In this case, there were only four available in the oldest lots for each of the component items. Therefore, the function assigned lots A and B to those four automatically, and then transacted the remaining items without lot numbers. It automatically split up the transaction items, assigning the lots to the first line of each item and leaving the second blank.

Allow automatic lot/batch splits for All items

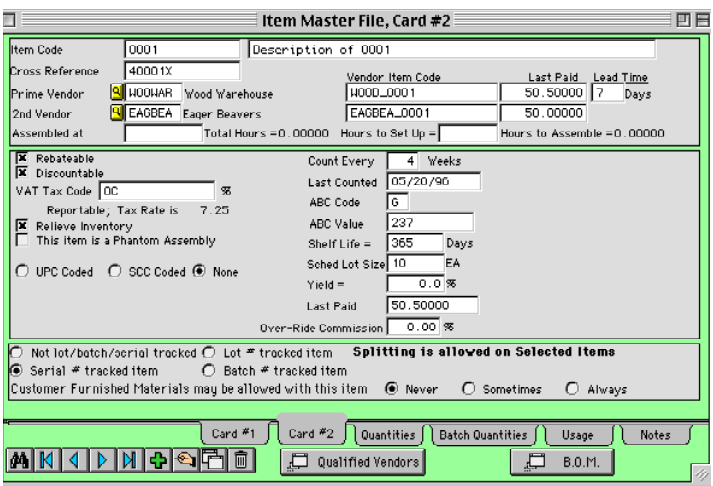
This selection permits lot or batch splitting on all items for assembly and invoicing transactions (when lot or batch numbers have not been manually assigned on a sales order). When this selection is ON, au-

tomatic lot or batch selection will be assigned for all transactions using FIFO calculations based on the expiration dates. The oldest lot or batch will be used up first, then additional lots or batches will be used in the transaction until the total quantity required is provided. As new lots or batches are assigned, the transaction will be split to accommodate them.

Allow automatic lot/batch splits only on selected items

When this selection is made, the system will provide the ability to make the lot/batch splitting settings on each individual item. This is done on **Item Master File, Card #2.**

Item Master File, Card #2



Qube ERP™ Will Automatically Calculate... Lot/ Batch Numbers at PO Receiving

{Check box selection} When you turn this function ON, the system will provide assistance in assigning internal lot numbers based on the **Last Used Lot/Batch #** value set below.

Last Used Lot/ Batch #

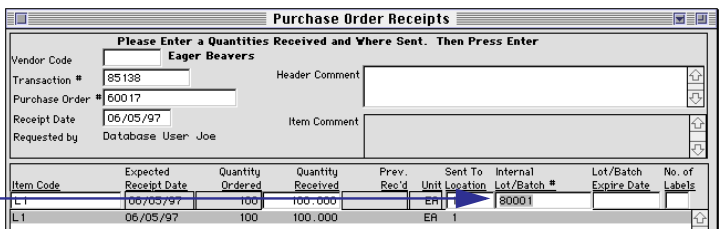
{Numeric, no decimal places} Enter the beginning **lot/batch number** to assign in this field. Thereafter, it will be tracked automatically

by incrementing this field each time an internal lot number is assigned.

Using the Function

These values are set when creating **PO receipts**. If the selection has been made to preassign internal lot/batch numbers, the next incremental number will be inserted when the user enters the **Internal Lot/Batch #** field on the **Purchase Order Receipts** window.

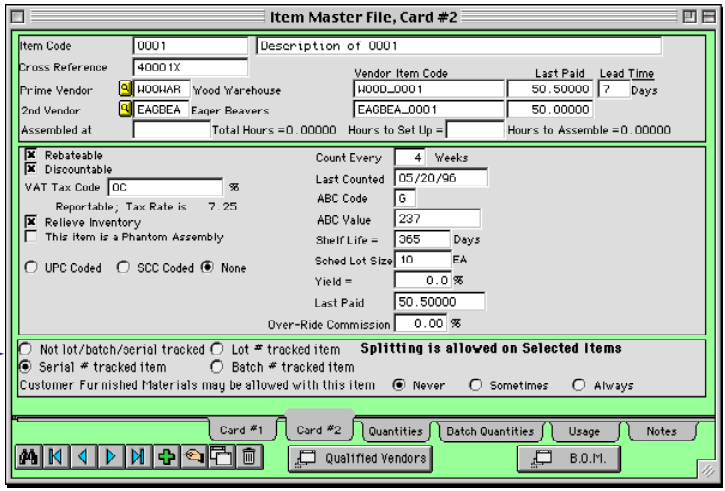
This number will automatically be filled in



Note: When this selection is `ON`**, Qube ERP™ will force the Internal Lot/Batch Number for each line of the receiving transaction to be unique. Under multi-user conditions, this may cause the lot/batch numbers displayed on the window before the user presses** <*ENTER*> **to be different from those actually created and displayed after the user completes the transaction.**

Item Master File, Card #2

Flag the lot and batch status for each item here



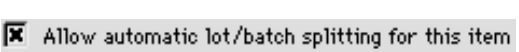
Enable Lot or Batch Tracking Status for Each Item

{Radio Button Selections} **Item Master File, Card #2** provides an area to determine an item's lot or batch status. For all items which require lot numbers, click the radio button for *<LOT # TRACKED ITEM>*. For those which require batch numbers, click the radio button for *<BATCH # TRACKED ITEM>*. These selections must be made for any item on which you wish to track lot or batch status.

Note: While previous designs really required that purchased items be designated lots and produced items were batches, it is now possible to assign any designation you like to any item. The previous convention may still be used; however, you do not have to do so.

Lot/Batch Splitting Policies

Whichever lot/batch splitting policy was defined (*see* "Lot & Batch Splitting Policies" *on page LBS-5*) will be displayed in this area. If you have elected the *<SPLITTING IS ALLOWED ON SELECTED ITEMS>* policy, a check box will appear below the policy as shown in the above screen shot:

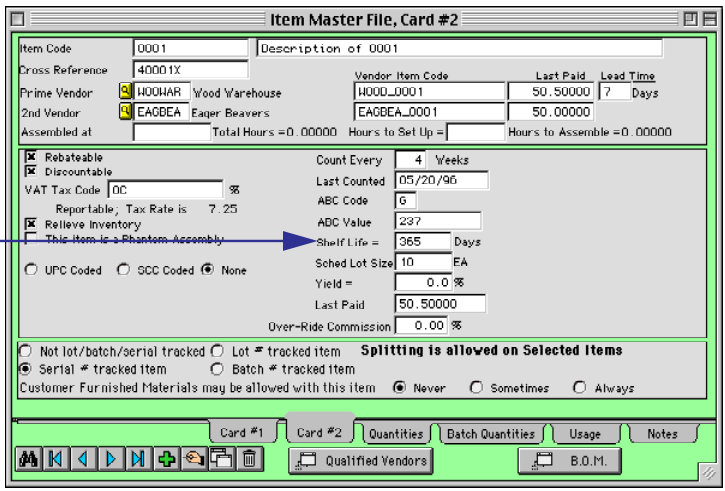


Turn this check box *ON* (X in box) if you wish to allow automated lot/batch splitting for this item. Turn it *OFF* if you do not.

Shelf Life/ Expiration Dating

If lots and batches have shelf lives, you may enter the number of days prior to expiration in the following field on the **Item Master File, Card #2** window.

Enter number of days shelf life for each item here



Shelf Life is used to automatically calculate the expiration date of each lot or batch. Each lot or batch will be set to expire xx days after it is received into the system, either via a PO receipt or an assembly transaction, where xx equals the number of days entered into this field.

Zero (0) Days Entry

If you leave this field at the defaulted **0** value, the system will automatically calculate the shelf life at 365 days.

Note: This value is most useful in assigning shelf lives to production batches, as expiration dates on purchased lots are often impacted by time in transit, etc. Therefore, the Purchase Order Receipts window provides a mechanism for manually overriding expiration dates at receipt.

Expiring Lots & Batches Report

Part of the regular management of lots and batches is to regularly print and monitor the Expiring Lots and Batches report. This report is found in the **Lots & Batches** section of the **Bill of Materials Reports** window:

```
Lots & Batches                    Expiring Lots and Batches
                    Please Double Click to Enter Parameters
                          Enter the Earliest Expiration Date  05/06/97
                          Please Enter Latest Expiration Date 06/06/97

                                   Enter One Item Code or ALL ALL



                                 Print Inventory Transactions? YES
          Print Only Lots & Batches with Non-Zero Quantities? YES
```

This report, when printed, looks like this:

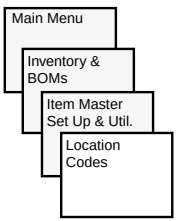
World Class Industries
Lots by Expiration Date, with Transactions
Period Covering 05/06/97 - 12/31/99
Report Printed on 06/06/97 at 16:22, Page #1
Fiscal Week: 253 - 392

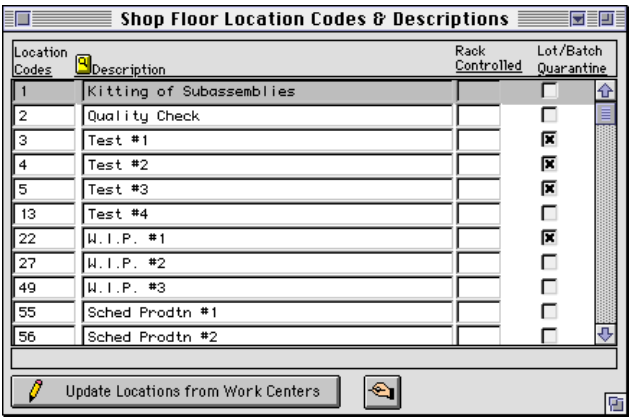
Lot Number	Item Code & Description	Transaction Date	Transaction Quantity	Date Received	Date Expires	Quantity In Stock
1001L1	L1001 Ingredient #1 Job Cost Transaction #85107	04/15/97	2.000 LB	04/15/97	04/15/98	1.375
1001L2	L1001 Ingredient #1 Job Cost Transaction #85107	04/15/97	2.000 LB	04/15/97	04/15/98	2.000
1001L3	L1001 Ingredient #1 Job Cost Transaction #85107	04/15/97	1.000 LB	04/15/97	04/15/98	1.000
1001L4	L1001 Ingredient #1 Job Cost Transaction #85107	04/15/97	3.000 LB	04/15/97	04/15/98	3.000
1001L5	L1001 Ingredient #1 Job Cost Transaction #85107	04/15/97	2.000 LB	04/15/97	04/15/98	2.000
1002L1	L1002 Ingredient #2 Job Cost Transaction #85107	04/15/97	10.000 LB	04/15/97	04/15/98	9.375

Expiration Dates and Reference Lists

Only those items which are eligible to be used will appear in the **Reference List** window. Therefore, lots and batches which have expired or are in quarantine locations will not appear in the Reference List.

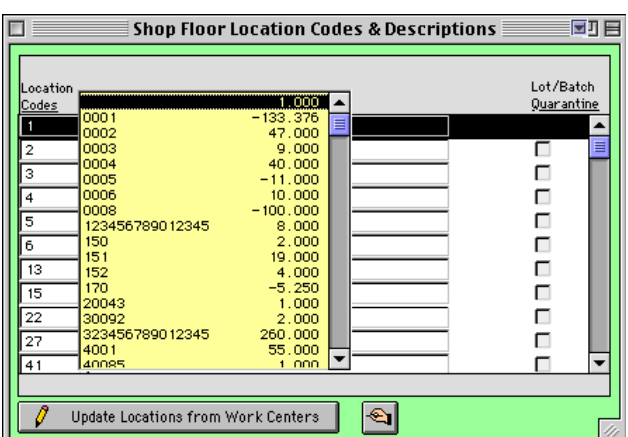
Shop Floor Locations & Descriptions





Purpose of the Window

This window is used to establish **Location Codes** and corresponding information. It is not necessary to define a location record to move items into a location, but you must define the code if you wish to assign certain attributes to the location, such as a description, rack controlled status, and **quarantine** status. You may drill down on this window to view quantities of particular item codes at a specific location. Double-click on the line containing the location code you wish to view, and the following window will appear:



The first column in the box contains the item number, and the second column contains the quantity of that item in that location.

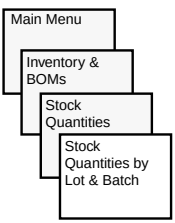
Lot/Batch Quarantine

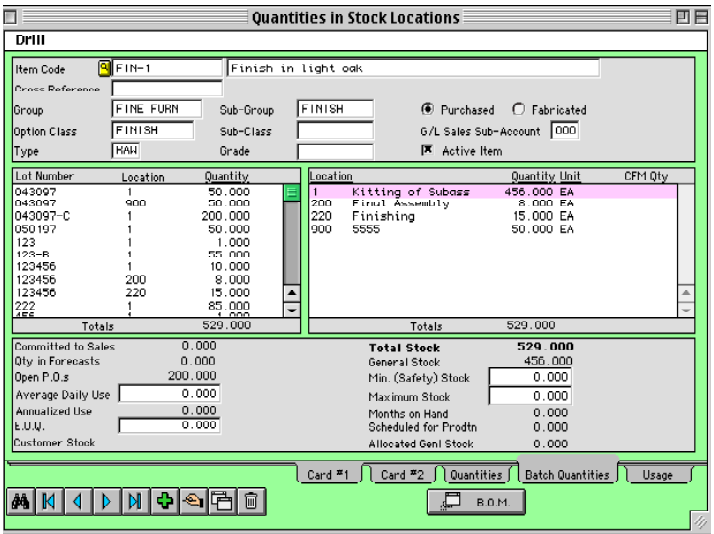
{Check box selections} Qube ERP™ provides the ability to have automatic lot and batch assignments made when creating assembly transactions and during invoicing. Therefore it is useful to have the ability to designate some locations as quarantined. This provides the ability to take lots/batches which have recently been received (and have not yet expired) and place them in a location from which they will not be selected by the invoicing or assembly transaction procedures. However, these quantities are included in Production Scheduling. It is up to you to decide if the location labeled as Quarantine should be in General Stock, by using System Setup Card #3.

To designate a location as **quarantined**, click <*EDIT*>. Click the <*LOT/BATCH QUARANTINE*> box next to the location records you wish to quarantine, and click <*SAVE*>. If any material already exists in this location, it will now be unavailable for automatic lot or batch assignments.

Lot/Batch Data Windows

Stock Quantities by Lot & Batch Window





This window provides access to inventory item quantities by lot and batch number. It also shows stock status of open POs, quantities committed to sales, average consumption, economic order quantities, and minimum and maximum inventory levels, just as in the **Stock Quantities by Location** window.

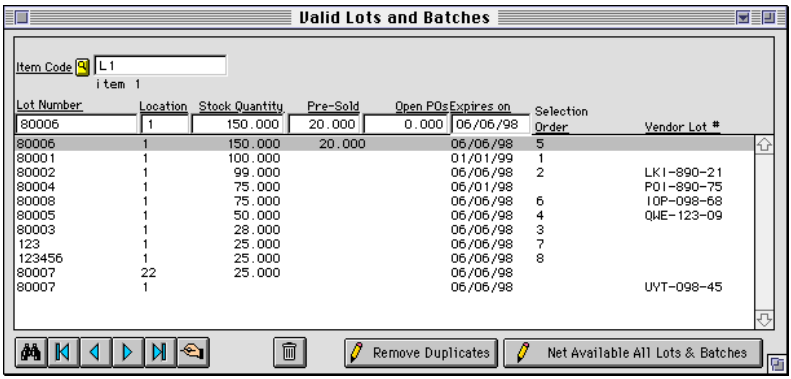
Quantities Lists

Both lists are display-only list which provides a breakdown of all item quantities in lots or batches by location. Raw materials will typically involve vendor lots, while subassemblies and finished goods will refer to production batches, although this is not required in Qube ERP™. The type of reference each item requires is indicated in the **Item Master File Card #2** window, described in the previous section.

The total and general stock quantities do not necessarily have any correlation to the total lot/batch quantities. This is because some of the items may have been transacted in or out without lot/batch designations.

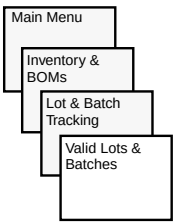
Drill Down

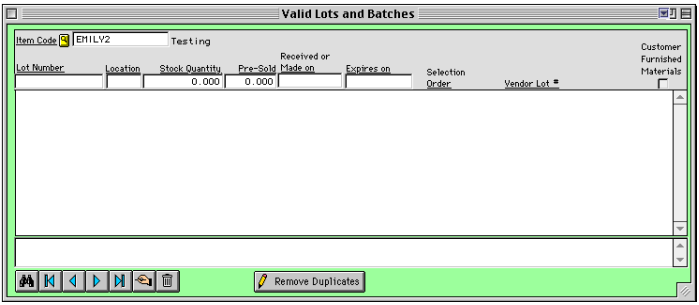
Double-clicking on any item in the lot/batch quantities list will open the **Valid Lots and Batches** window for this item:



For information on this window, see the next section.

Valid Lots and Batches Window





This window is used to view and edit **valid lots and batches**. If you are using the older method of storing lots and batches in separate data files, you will find that two windows are necessary for this function; one for lots and one for batches (*see* "Appendix B: Combining Lot and Batch Files" *on page LBS-57*). If you have already combined the data files, or enabled the lot and batch functionality after 12/31/96, only one window will be necessary for all lots and batch records.

Drilling Down

Double-clicking on any item in this list will open the **Inventory Transactions** window for the first inventory transaction for the particular lot or batch at the location on which you clicked.

Editing Data in this Window

The normal method of adjusting quantities in lots and batches - and the other information which appears on this window - is by generating inventory transactions moving items into and out of lots and batches at specific locations; and purchase and sales orders which reference the lot and batch information. This is the only method of editing lot and batch data which provides data integrity and audit trails, and must be rigorously adhered to if you are to have lot and batch information you can depend on. Under normal circumstances, therefore, only the data which appears in the **Expires On** field may be edited on this window. Sometimes, however, data files become corrupted, and therefore it is necessary to get to the "raw data" in order to repair the damage. Therefore, other data may be edited, if necessary, by choosing the <*LOG ON AS A DEVELOPER*> function when first logging onto the system (*see* "Logging on as a System Ad-

ministrator or Developer" *on page SYS-38*). The reason this is required is that editing data in this window is the equivalent of the "raw data" editing capabilities provided in the developer windows, where no data integrity checking is provided. Therefore, you should only edit information in this window when advised by QCI Technical Support to do so (under corrupted data situations). There is a comment field at the bottom of the window where you may record notes.

Lot/Batch Number

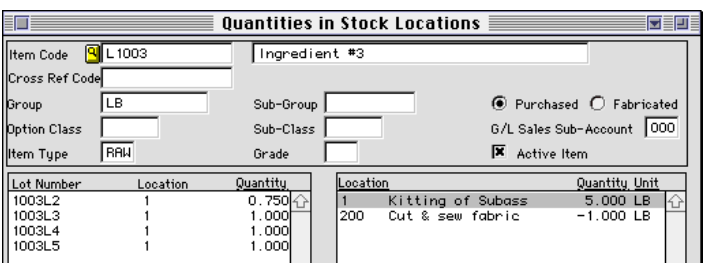
{Display only} This field displays the lot or batch number of each lot or batch. The label in this column and the resulting data will be determined by the set up choices made on **Item Master File, Card #2.**

Location

{Display only} This column displays the inventory location in which each lot or batch resides. In order for this to work properly, you must have selected to track lots and batches by location (*see* "Associate Lots and Batches with specific Stock Locations" *on page LBS-3*).

Stock Quantity

{Display only} This is the quantity of the item in a specific lot or batch at a specific stock location. This number matches the quantity on the left of the **Stock Quantities by Lot & Batch** window:



Note that the total quantity of lot controlled items in Location 1 in the left column of this window does not necessarily match the quantity of items in the right column. This is because some of those which were entered into Location 1 were entered without Lot Numbers. This is legal and allowed in the Qube ERP™ system.

Pre-Sold

{Display only} If any sales orders have been entered referencing a specific lot or batch, the **Pre-Sold** quantity in this field will reflect the total of those sales orders, as long as they have not been invoiced.

Expires on

{Editable, date format} Lot & batch **expiration dates** can be manually edited in this field. These dates are useful when assigning lots and batches manually, and prevent automatic transactions when they reflect a lot or batch which is expired. Also, unexpired lots and batches are automatically (*see* "Preselect Lot/Batch number of components when assembly transactions are created" *on page LBS-5*) assigned on a FIFO basis based on their expiration dates.

For example, the following selection order shows the batches ranked by expiration date:

Item Code WMILK Whole milk in quarts

Batch Number	Location	Stock Quantity	Pre-Sold	Received or Made on	Expires on		Selection Order	Vendor Lot #
AAAA	50	2.000	0.000	12/07/96	12/01/97			
AAAA	50	2.000		12/01/96	12/01/97	✓	2	
AAAA	1	98.000	10.000	12/05/96	12/01/97	✓	1	
BBBB	1	200.000		12/05/96	12/02/97	✓	3	
CCCC	200	10.000		12/05/96	12/03/97	✓	4	
DDDD	200	5.000		12/05/96	12/04/97	✓	5	
EEEE	200	6.000		12/05/96	12/05/97	✓	6	

Five lots were received on 12/5//96 and one lot was received 2 days later, on 12/7/96. This lot, although it was received later, expires earlier than four of the other lots, so its selection order is higher up.

Sometimes a lot may be received which is of substandard quality and should be used up sooner. This can be translated to an earlier expiration date: it normally would expire on 12/7/97, but, because it's of questionable quality, you can assign an expiration date of 8/1/97, just to be sure you use it up earlier. The order would look like this:

Item Code WMILK Whole milk in quarts

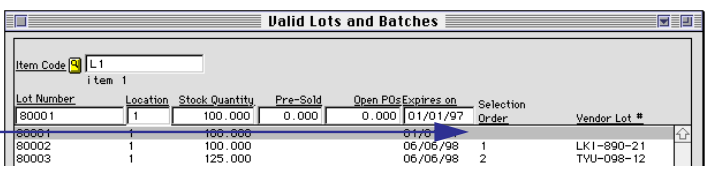
Batch Number	Location	Stock Quantity	Pre-Sold	Received or Made on	Expires on		Selection Order	Vendor Lot #
AAAA	50	2.000	0.000	12/07/96	08/01/97			
AAAA	50	2.000		12/07/96	08/01/97			
AAAA	1	98.000	10.000	12/05/96	12/01/97	✓	1	
BBBB	1	200.000		12/05/96	12/02/97	✓	2	
CCCC	200	10.000		12/05/96	12/03/97	✓	3	
DDDD	200	5.000		12/05/96	12/04/97	✓	4	
EEEE	200	6.000		12/05/96	12/05/97	✓	5	

Selection Order

{Display only} This field displays the order in which lots and batches will be assigned when the system automatically manages the assignments (*see* "Preselect Lot/Batch number of components when assembly transactions are created" *on page LBS-5*).

The **Selection Order** for each item is assigned automatically as lots and batches are entered into the system, but can be overridden by changing the expiration date. This field will be empty for expired lots and batches or those which do not have positive quantities in non-quarantined locations (*see* "Shop Floor Locations & Descriptions" *on page LBS-12*), signifying that they are unavailable for use:

This lot has expired, making it unavailable



Vendor Lot Number

{Display only} Often companies will wish to maintain their own lot and batch numbering systems. In these cases, it is necessary to be able to track a **Vendor Lot Number** separate from their own internal lot numbers. This is that vendor lot reference. It is entered at the time of the **PO Receipt** transaction, and is maintained on the **Vendor Lot Numbers** window. This field is only available if your data file is set to combine lots and batches (*see* "Appendix B: Combining Lot and Batch Files" *on page LBS-57*).

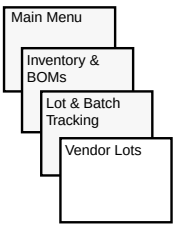
Quarantined Locations

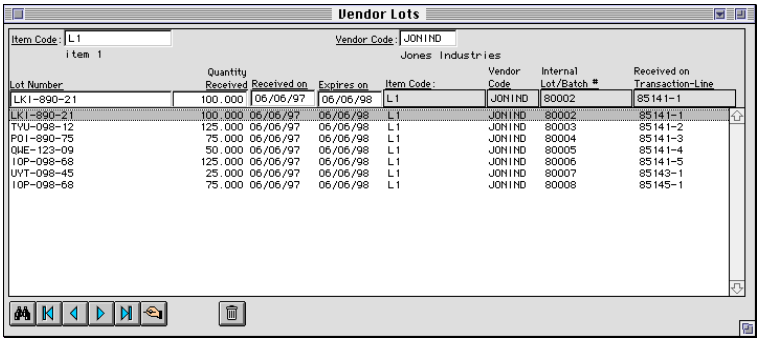
{Display only} When lots or batches are contained in locations which are flagged as `Quarantined` (*see* "Shop Floor Locations & Descriptions" *on page LBS-12*), the system will remove the **Selection Order** designation and display the word `Quarantined` next to the **Selection Order** column. These items will be unavailable for selection when the system automatically makes lot or batch assignments. In order to make these items available, you should move them into a non-quarantined stock location, or change the designation of their location on the **Location Codes** window.

Net Available All Lots & Batches

{Button} This is a validate button. It will read all sales order and PO shipment records for the selected item and set values for **Pre-Sold** correctly for each lot/batch. Use this whenever you believe the data in this field may be incorrect.

Vendor Lots





Drill Down

Double-clicking on any item in the list will take you to the inventory transaction for the PO receipt on which this vendor lot was received.

Editing Data

After **Vendor Lot Numbers** are assigned in the **Purchase Order Receipts** window, you can use this window to view the **Vendor Lots** and make any necessary changes to the data. Using this window, you may change the **Vendor Lot Number**, the **Quantity Received**, the **Received On** date and the **Expiration Date**.

Lot Number

This refers to the **Vendor Lot Number**, not the **Internal Lot Number**. This information may be safely changed in this window.

Caution: It is not a good idea to edit data other than the Lot Number in this window as it will not be changed anywhere else. The system provides no safeguards against this, however, so be sure to set your User Access Privileges to prohibit anyone from the unauthorized editing of data in this window.

Adding New Vendor Lot Numbers

This window may only be used for editing existing **Vendor Lot Numbers**. New vendor lot numbers are added in the **PO Receipts** window during the receiving function. If you enter the wrong vendor lot number during the receiving function you may edit it on this window. If you forget to enter a vendor lot number while entering the

PO receipt, you need to enter a **negative PO receipt** for the item and then enter a new PO receipt, reflecting the **Vendor Lot Number.**

Duplicate Lot Numbers

As shown on the example above, the same (vendor) **Lot Number** may be used by different vendors for the same item or different items by the same vendor.

Printing the List

Press <*COMMAND/CTRL-P*> to get the following printout:

Screen report

World Class Industries
Vendor Lots
Period Covering -
Report Printed on 06/06/97 at 13:21, Page #1
Fiscal Week: 0 - 0

Lot Number	Internal Lot/Batch #	Item Code & Description	Vendor Code	Date Received	Date Expires	Quantity Received	Received on Transaction Line
IOP-098-68	80006	L1 item 1	JONIND	06/06/97	06/06/98	125.000	85141-5
TYU-098-12	80003	L1 item 1	JONIND	06/06/97	06/06/98	125.000	85141-2
LKI-890-21	80002	L1 item 1	JONIND	06/06/97	06/06/98	100.000	85141-1
IOP-098-68	80008	L1 item 1	JONIND	06/06/97	06/06/98	75.000	85145-1
PCE-890-75	80004	L1 item 1	JONIND	06/06/97	06/06/98	75.000	85141-3
QWE-123-09	80005	L1 item 1	JONIND	06/06/97	06/06/98	50.000	85141-4
UYT-098-45	80007	L1 item 1	JONIND	06/06/97	06/06/98	25.000	85143-1

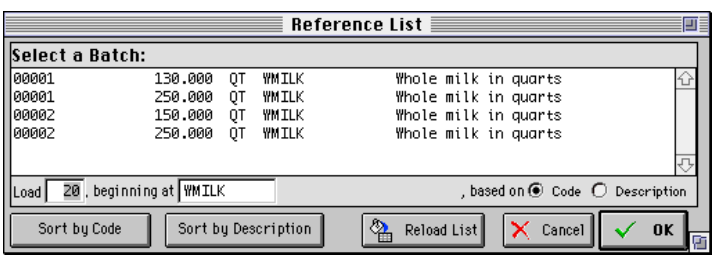
Lot/Batch Tracking in Transactions

Using Reference Lists to Look Up Lot & Batch Numbers and Quantities

When making lot and batch assignments in transactions, it is helpful to have a list of available lots and batches from which to choose. The system provides that ability by means of the **Reference Lists** window. To access the reference list, you must be in edit mode. Then place your cursor in the lot/batch field of any window and press **Command-,/F11** on your key board (or select **Reference Lists** from the **Action** menu).

The list will display columns containing the lot or batch number(s), quantities available in each lot (Stock Quantity - Presold Quantity), unit of measure, item code and description. Double-click on the line containing the batch number you wish to reference, and the batch number will be inserted into the batch number field.

Reference List Showing Available Lots & Batches



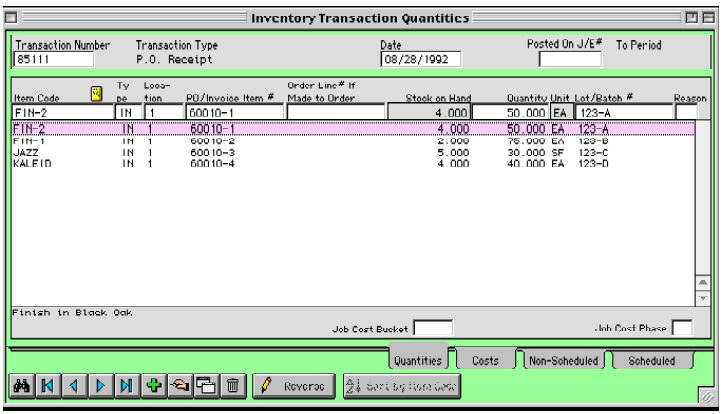
Things You Should Know About Reference Lists

Care should be taken when using **Reference Lists** to assign lots and batches. You should be aware of the following:

- Only *unexpired* lots and batches which are *not in quarantined locations* will be visible in the **Reference List** window. Therefore, you may run across instances where you will have a lot or batch available for use which does not show up in the list.
- Lot/batch data for more than one item may show up in the list. Be sure you have found on the correct item code. Also, care should be taken when sorting and selecting lot/batch data from a list.
- Not all lot/batch fields have access to **Reference Lists**. This documentation attempts to identify those cases.

Inventory Transactions Window

The inventory transactions window provides a place for a lot/batch reference for each item in each transaction. This window looks like this:



Access to the Lot/ Batch # Field

Access to this field will only be allowed if you have the Lot and Batch Tracking function enabled in your **Features Set** window, and if the item referenced in the **Item Code** field has been flagged to be a lot or batch controlled item (*see* "Enable Lot or Batch Tracking Status for Each Item" *on page LBS-9*).

Lot/Batch Error

While the system expects to see a lot or batch reference for each item which has been flagged as requiring one (*see* "Enable Lot or Batch Tracking Status for Each Item" *on page LBS-9*), it will allow you to enter transactions without this reference. When this happens, the **Lot/Batch Error** designation will be displayed in this field.

Lot/Batch Assignments in PO Receipts

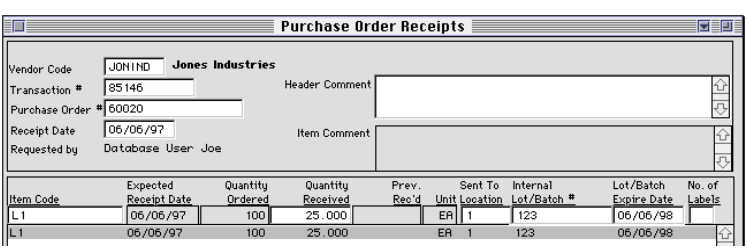
The Qube ERP™ lot and batch tracking function allows you to trace the receipt of vendor lots or batches into production, and to their final destination out the door. This section instructs you on the steps necessary to receive vendor lots and batches into stock. For information on using these vendor lots in the production process, *see* "Lot/Batch Assignments in Assembly Transactions" *on page LBS-31*.

Receiving Vendor Lots into Stock

• To receive vendor lots into stock

1. **Enter a purchase order for the items to be received.**
2. **Open the PO Receipts window, and enter a PO receipt in the normal fashion. *See*** "Processing PO Receipts" *on page PUR-69.*
3. **In the field labeled Lot/Batch Number, enter the lot number for the items you are receiving.**

   The system provides only one data entry line for each incoming shipment, therefore you will have only one area to enter a lot number. If you need to split a lot, *see* "Receiving Items in Split Lots" *on page LBS-26*.



   As you tab from the **Lot/Batch Number** field, if you have elected to allow the system to automatically assign lot/batch numbers at PO receiving, the next incremental number will be inserted into the field. You may override this if you like.

4. **Edit the Lot/Batch Expire Date if necessary.**

The function will calculate the default expiration date of the lot or batch from the **Shelf Life** field on **Item Master File, Card #2** (*see* "Shelf Life/Expiration Dating" *on page LBS-10*). You may override this date here, if you like.

5. Enter a Vendor Lot # if necessary.

Often companies will wish to maintain their own lot and batch numbering systems. In these cases, it is necessary to be able to track a **Vendor Lot Number** separate from their own internal lot numbers. This is that vendor lot reference. It is entered at the time of the **PO Receipt** transaction, and is maintained on the **Vendor Lot Numbers** window (*see* "Vendor Lots" *on page LBS-21*).

Note: This number can only be entered when the PO receipt is entered. Therefore, if you forget to enter a Vendor Lot Number when the PO receipt is entered, you must enter a negative PO receipt for the item and reenter it, entering the Vendor Lot Number.

This field is only available if your data file is set to combine lots and batches (*see* "Appendix B: Combining Lot and Batch Files" *on page LBS-57*).

6. Once all of the items are received, and their lot numbers are recorded, click <*SAVE*>.

Receiving Items in Split Lots

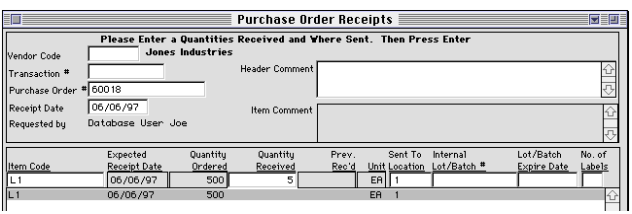
Sometimes a quantity of an item is ordered on a PO which gets received referencing multiple vendor lot numbers. For example, we may have 500 units ordered but received as five separate lot numbers from the vendor. When you initially load the PO on the **PO Receipts** window, Qube ERP™ will display one line for each scheduled shipment. But you will need four lines to record the quantities associated with the four separate lot numbers. To enable this, Qube ERP™ has a button on the PO receipts window labeled <*SPLIT A SHIPMENT*>.

• To split lots and batches at the time of a PO receipt

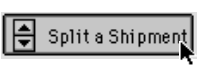
1. **Begin the process of entering a PO receipt as you normally would.**

2. **When you arrive at the** *QUANTITY RECEIVED* **field, enter the number of lot or batch references you need to divide this receipt into.**

   In this example, you would enter `5` into the field:

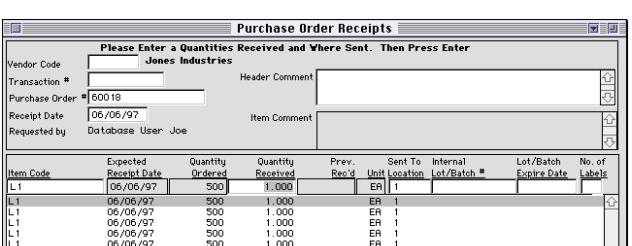


3. **Click the button, <***SPLIT A SHIPMENT***>.**

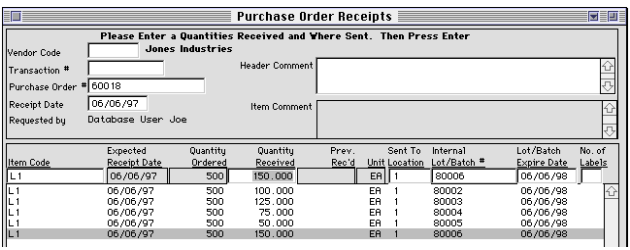


   The <*SPLIT A SHIPMENT*> button is enabled when you enter the **Quantity Received** field and Qube ERP™ notices that the item being referenced expects a lot or batch number. Otherwise, the button will remain disabled.

4. **The function will split the shipment into the number of lines which you entered into the Quantity Received field, each showing `1` in the field.**



5. **Next, enter the appropriate quantities and lot numbers on each line and complete the transaction by pressing <*ENTER*>.**



Drill Down to a PO Receipt from a Purchase Order

Double-clicking on the shipments list of a **Purchase Order Items** window which has had receiving transactions entered against it will open the **PO Receipts** window and display the first receiving transaction against that PO shipment.

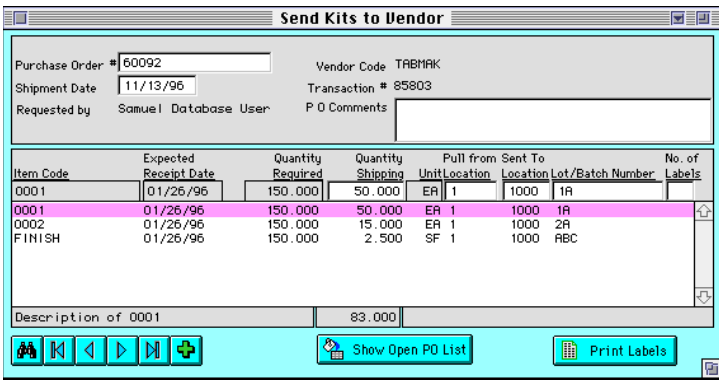
Drill Down to the Inv. Transaction Window from PO Receipts Window

Double-click on an item in the **PO Receipts** window and the function will open the **Inventory Transactions** window and display the same transaction on that window.

Editing and deleting is possible on the **Inventory Transactions** window where it is not on the **PO Receipts** window.

Lot/Batch Assignments

Lot/Batch Assignments in the Send Kits to Vendor Window



Lot/Batch Number

This field is for display purposes only. *Do not enter data in this field as it will not be used.*

After you have entered the outworked assembly for which kits are being sent to the vendor, the *component* items will be displayed in the window.

When a lot/batch controlled bill of material component is encountered while sending kits to a vendor, the function will pre-assign lot numbers on a FIFO basis. It will split up lots and batches as needed automatically. It does *not* pay attention to lot/batch splitting policies set up for assembly transactions.

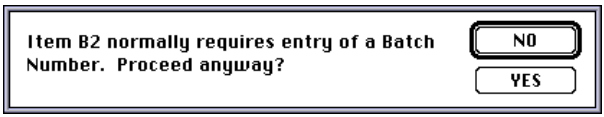
Note: This is done *without* regard to the Lot/Batch splitting policy set up for this item, so be careful.

You may alter the automatic lot assignment as needed, by using the **Change Stock Locations** window.

Reference Lists

Avoid using the **Reference List** when in the **Lot/Batch Number** field. Since no data need be inserted in this field anyway, you prob-

ably should not run into this situation. However, if you do try to use it, the following message will appear:



If you find that you get this message, click <*NO*>.

Clicking <*YES*> will open the **Reference List** window with the list of Purchase Orders in it. In that case, click <*CANCEL*>, and you will be able to proceed with your data entry.

Lot/Batch Assignments in Assembly Transactions

Lots and batches may be tracked through the manufacturing process. To accomplish this, you must maintain an unbroken chain of information which ties production lot and batch numbers to the lot and batch numbers of their components. These may be entered manually, or in some cases, the system can assign lot and batch numbers automatically. In either case, the lot and batch assignments may be edited in the **Inventory Transaction Quantities** window.

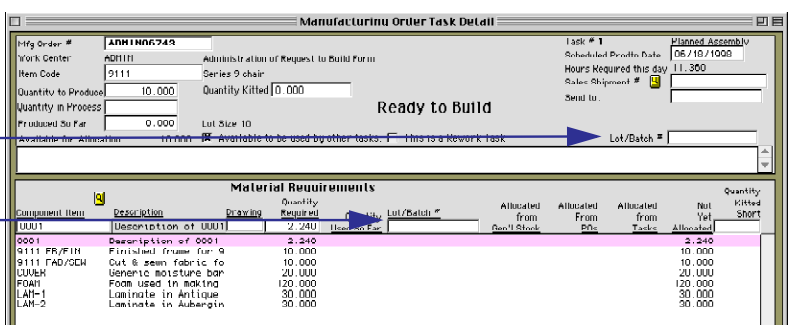
Scheduled Assemblies

Component Lot/ Batch Numbers

Scheduled Assemblies will take their lot/batch assignments from the **Manufacturing Order Task Detail** window. You may enter lot or batch assignments for each component in the **Tasks** window, but not the production batch number. This is entered in the **Assembly Transaction** window, and displayed in this window afterward.

This information comes later from the assembly

Enter component lot/batch information here



Splits and Automatic Assignments

No splits occur with scheduled assemblies, since the function simply follows the manufacturing order. If you leave the **Lot/Batch #** field empty, the resulting inventory transaction will contain no lot or batch information, and you will need to edit it in the resulting inventory transaction. In other words, no automatic lot or batch splitting or assignments are performed in *scheduled* assemblies.

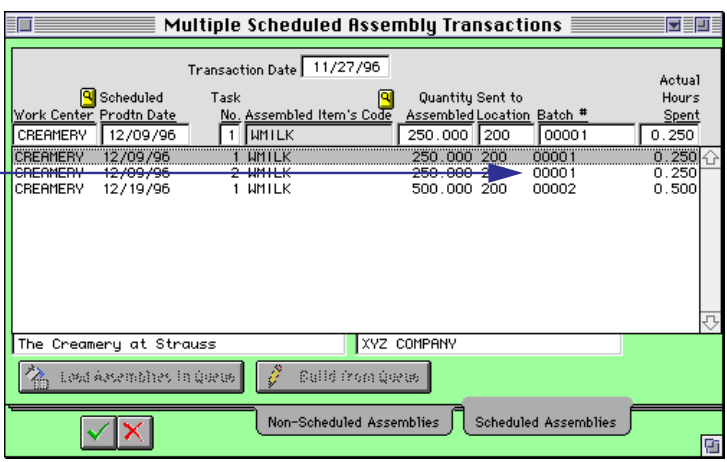
For lot/batch assignments to be chosen from the manufacturing order, you must turn on the function to preselect lot/batch components (*see* "Preselect Lot/Batch number of components when assembly transactions are created" *on page LBS-5*). Also, this function will

only work for those installations who have chosen to combine their lot/batch files (*see* "Appendix B: Combining Lot and Batch Files" *on page LBS-57*).

Assembly Lot/ Batch Numbers

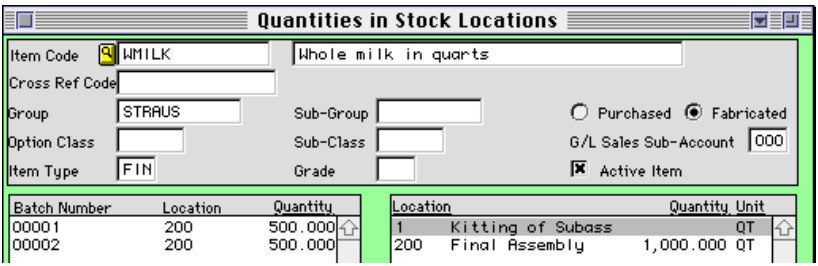
Both the single and the multiple **assembly transaction** windows provide places to enter the numbers of the batches you are producing. This is where you enter the batch number of assembled items. Here is an example of a multiple scheduled assembly transaction reflecting the manufacture of 1000 SKUs of WMILK, to two different batches. When entering **Multiple Scheduled Assembly Transactions**, enter the number for each production batch on this screen, in the **Batch Number** field shown here:

Enter production batch numbers in this field



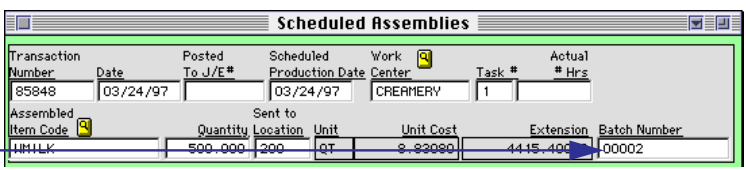
Note that several transactions may be entered indicating that they are part of the same batch (see the **Multiple Scheduled Assemblies** window, above). Each time you enter a new quantity of items assembled to a batch, the system will increment the total batch quantity by the quantity added to it. In the above case, two different batches were

referenced in three assembly transactions. The resulting stock quantities of the items produced are displayed in the following window:



In the **Scheduled Assembly Transaction** window, enter production batch numbers in this field:

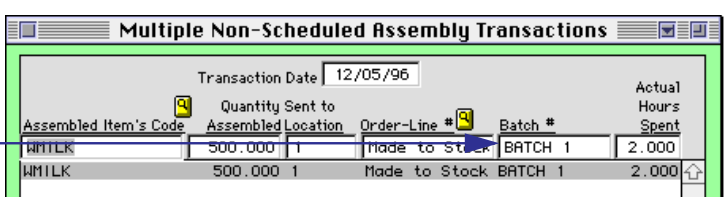
Enter production batch numbers in this field



Non-Scheduled Assemblies

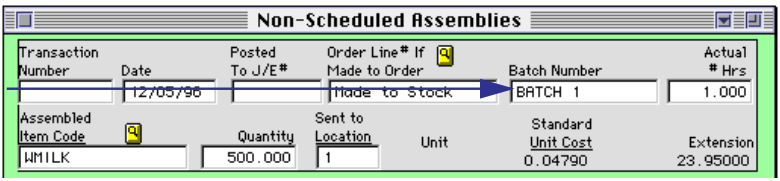
As in the **Scheduled Assemblies** window, you must enter the production lot/batch number in the **Assembly Transactions** windows. For **Multiple Non-Scheduled Assembly Transactions**, enter the production **lot/batch numbers** here:

Enter production batch numbers in this field



In the **Non-Scheduled Assembly Transaction** window, enter production batch numbers in this field:

Enter production batch numbers in this field



Lot & Batch Numbers in Non-Scheduled Assembly Components

Lot and batch numbers may also be referenced in the components section of **non-scheduled assembly** transactions. This can be automated or be a manual procedure which is performed on the **Inventory Transactions** window.

Automated Assignments of Lots & Batches

In order for automatic assignments of lots and batches to take place during non-scheduled assemblies, you must have set the system to preselect lot/batch numbers (*see* "Preselect Lot/Batch number of components when assembly transactions are created" *on page LBS-5*).

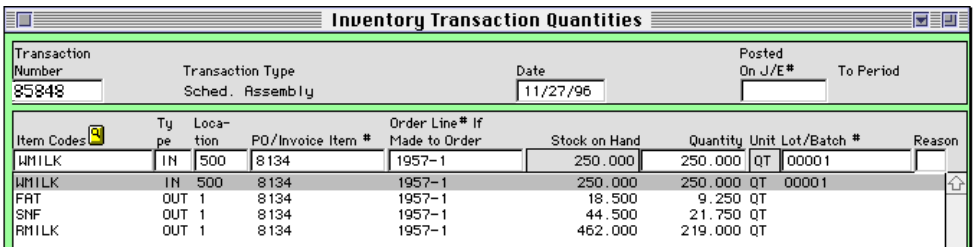
When this selection is on, non-scheduled assemblies will look for positive quantity lots and batches associated with the components being used. As components are consumed during the assembly transactions, the function will use up the lots and batches on a FIFO basis, calculated on expiration dates. If the first lot or batch used for an item is not enough to cover the requirement, the function will cover the balance based on the lot/batch splitting policy in place for that item (*see* "Lot/Batch Splitting Policies" *on page LBS-9*).

Hopefully, this will reduce the amount of time needed to edit assembly transactions. Qube ERP™ can only guess, however, as to which lot/batch was used for each component. A user may wish to select a different lot/batch. This is done by editing the transaction in the **Inventory Transaction** window.

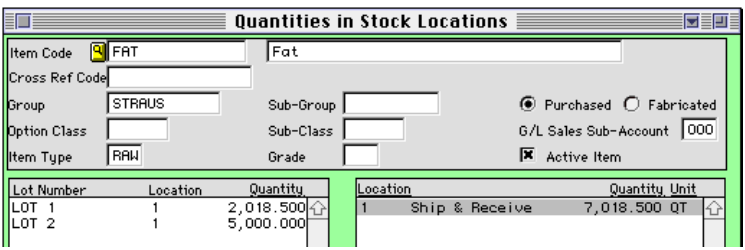
• To manually enter or change lot/batch number references in assembly transaction components

1. **Open the Inventory Transactions window, and find the transaction you wish to edit.**

   You should see a window similar to this one:



   So you can see the results of making this edit, the **Stock Quantities by Lot & Batch Numbers** window is shown below. This illustration shows that the data file contains two lots of FAT at location 1:



2. **To make entries referencing batch and lot numbers of components, click <*EDIT*> and make your entries into the Lot/Batch # column of the Inventory Transaction Quantities window.**

   Tab through each line of the transaction and enter the lot or batch number consumed for each line in the transaction. If you require more than one lot or batch reference per item, you will need to split the transaction into two lines, adjusting the quan-

tity of each line to reference the proper quantity of each lot or batch used.

Inventory Transaction Quantities

Transaction Number	Transaction Type	Date	Posted On J/E#	To Period
85638	Sched. Assembly	11/27/96		

Item Codes	Type	Location	PO/Invoice Item #	Order Line# If Made to Order	Stock on Hand	Quantity	Unit	Lot/Batch #	Reason
RMILK	OUT	1	8134	1957-1	957.000	219.000	QT	12345	
WMILK	IN	500	8134	1957-1	250.000	250.000	QT	00001	
FAT	OUT	1	8134	1957-1	7,027.750	9.250	QT	LOT 1	
SNF	OUT	1	8134	1957-1	66.250	21.750	QT	LOT 1	
RMILK	OUT	1	8134	1957-1	957.000	219.000	QT	12345	

Changing the transaction to indicate that components were used from a selected batch or lot to create an assembly will cause the system to reduce the quantity in stock of the referenced lot or batch. Looking again at the record for FAT after the transaction is recorded shows that the amount of SKUs in LOT 1 at location 1 is reduced by the amount of the transaction:

Quantities in Stock Locations

Item Code: FAT — Fat
Cross Ref Code:
Group: STRAUS — Sub-Group:
Option Class: — Sub-Class:
Item Type: RAW — Grade:
(•) Purchased ( ) Fabricated
G/L Sales Sub-Account: 000
[x] Active Item

Lot Number	Location	Quantity
LOT 1	1	2,009.250
LOT 2	1	5,000.000

Location		Quantity	Unit
1	Ship & Receive	7,009.250	QT

Multiple Batch Records with the Same Number

Qube ERP™ allows the use of the same batch number, as long on the combination of the batch number and the item code <u>or location</u> are unique. For example, batch #1-A may exist for item 30000 and also for item 40000. Or it may exist for item 30000 at several different inventory locations.

Lot/Batch Assignments in Sales Orders

The system allows you to manually enter lots and batches being sold, or will make the assignments for you on a FIFO calculation based on expiration dates.

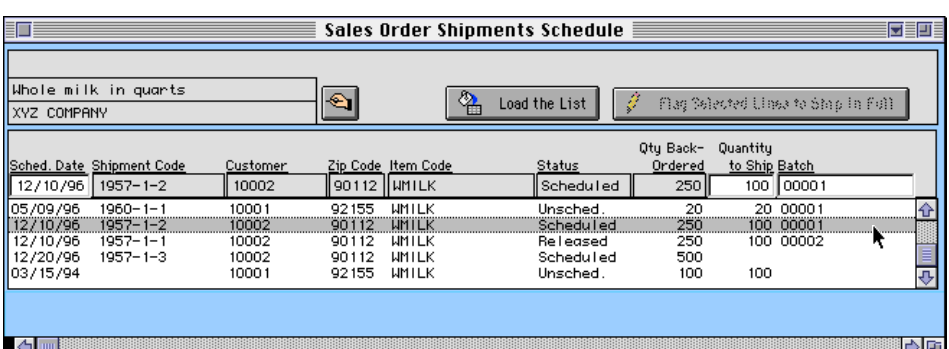
Manually Assigning the Batch Being Sold

You may wish to manually enter batches for each shipment. For example, the warehouse may return a pick slip or packing slip showing quantities and batches shipped on the order. Then the office enters the selected batches into the computer. Each item on each order may have an associated batch number.

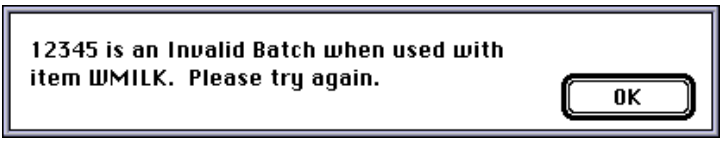
Batch numbers may be entered into the order item records either while viewing the **Sales Order Items** window or while viewing the **Prepare Orders to Invoice** window. The former displays all items for one order. The latter displays all items for all orders which have not yet been shipped.

Using the Prepare Orders to Invoice Window

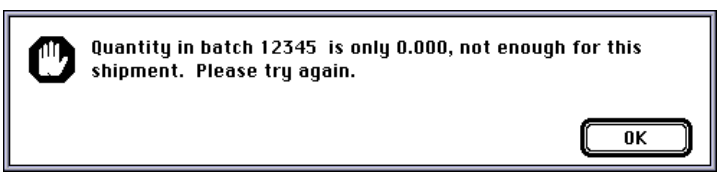
This window provides a field to enter batch numbers, as shown below. The window displays each shipping record for each sales order line item. Therefore, if each shipment record within a sales order line number requires a separate batch number (split batches), you may enter them, as in order-line number 1957-1 shown here.



The batch number must be a valid batch for this item at the shipping location, or the following error message will be displayed:



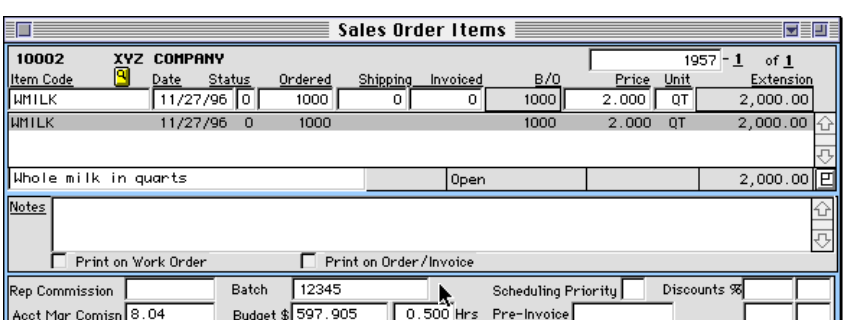
Also, if the quantity available in the batch at the shipping location does not meet the necessary requirements for the shipment, the following message will be displayed.



Assigning Batches on the Sales Order Items Window

Single Batches per Line Item

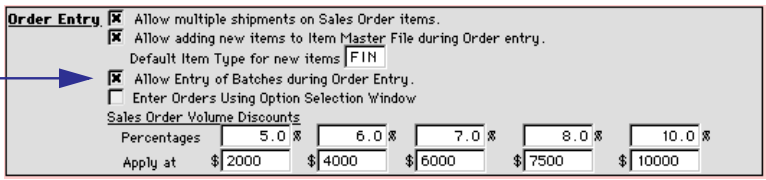
The batch # field used for manual entry of this information is located in the lower middle area of the order item detail window as shown below. If you have only one batch number for the entire order line, enter the information in this field.



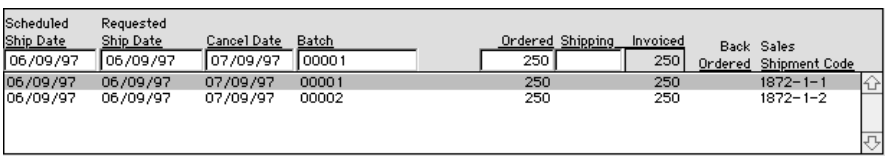
Multiple Batches per Line Item

A window is also provided to allow entry of multiple batches for each order item. If you wish to use this function, the following must be activated on **System Set Up, Card #1**:

Set this flag, here

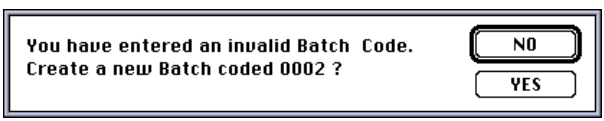


When this selection is made, the bottom portion of the order item detail window looks like this:



Scheduled Ship Date	Requested Ship Date	Cancel Date	Batch	Ordered	Shipping	Invoiced	Back Ordered	Sales Shipment Code
06/09/97	06/09/97	07/09/97	00001	250		250		
06/09/97	06/09/97	07/09/97	00001	250		250		1872-1-1
06/09/97	06/09/97	07/09/97	00002	250		250		1872-1-2

When entering data into the **Batch** field, the function will validate the lot/batch entry. If it does not find a valid match, it will return the following message as you <*TAB*> out of the field:



Click <*YES*> to create a new lot or batch and continue. Click <*NO*> to return to the field and correct the lot/batch entry.

Lot/Batch References on Printed Picking and Packing Lists

The lots and batches which are entered on a **Sales Order** will be printed on the **Pick List** and **Packing List** documents. You may use the **Order Items** window which allows the reference to a different lot/batch in each shipment record, or you may use the window which allows reference to only 1 lot/batch for each sales order item. In either case, the function will print the data on both documents in different places on the document depending on where it finds the lot/

batch reference. Below is an example of the body of a packing list showing multiple lot numbers for each order item.

Line No.	Total Qty Ordered	Qty This Shpmt	Qty Prior Shpmts	Qty Back-Ordered	Unit	Item Code and Description						No. Cartons Shipped
1	1,500	0	1,500	0	LB	04-731-25 NESTLE'S 5000 CT. CHOC. CHIPS						
						Lot numbers	1,500	LB				
2	3,200	0	3,200	0	LB	04-717-40S CHOCOLATE CHIP COOKIE DOUGH						
						Lot numbers	1,680	LB	961742	1,520	LB	970581
3	2,340	0	2,340	0	LB	07-010-585F CARAMEL RIBBON						
						Lot numbers	2,340	LB	96326112			
4	1,600	0	1,600	0	LB	05-032-40 CANDY BAR BLEND						
						Lot numbers	320	LB	970201	80	LB	970381
						Lot numbers	320	LB	970201	280	LB	970591
						Lot numbers	320	LB	970201	880	LB	970382
						Lot numbers	320	LB	970201	40	LB	970592

Lot/Batch Assignments in Sales Invoices

If you have manually preassigned the batch number, the invoicing procedure will carry that batch assignment through to the invoice item record and reduce the stock quantity associated with the batch.

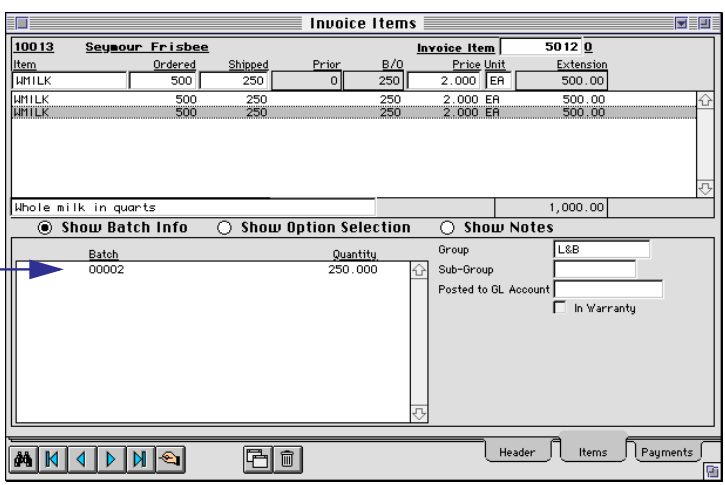
Automatic Batch Assignments at Invoicing

If you do not preassign the lot/batch number in one of the methods outlined above, the system attempts to guess which lot or batch to assign at invoicing and shipping. It looks for the lot or batch with the earliest expiration date for the selected item and reduces its stock quantity by the amount shipped. If the first lot or batch used for an item is not enough to cover the requirement, the function covers the balance based on the lot/batch splitting policy in place for that item (*see* "Lot/Batch Splitting Policies" *on page LBS-9*).

In the case of lot and batch splits, only one line item will remain in the sales order; however, there will now be as many lines in the invoice as there are batches as shown here:

When shipments are split automatically, two line items are created in the invoice record

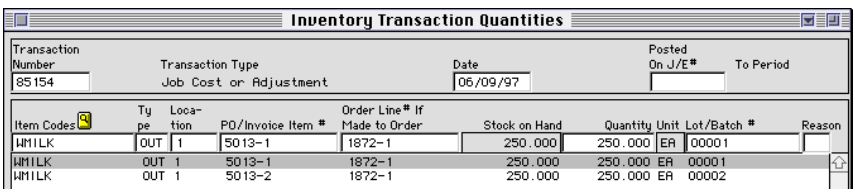
A batch number reference is recorded for each line item



Either way (manual or automated lot/batch assignments), the lot/batch assignment will be recorded in each invoice item record and can be viewed at the bottom of the invoice items window as shown.

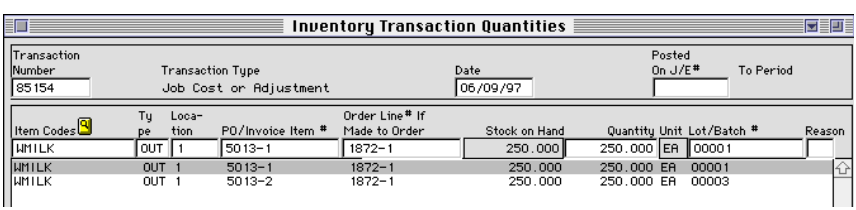
Important: In order to view the Lot/Batch info in the Invoice Items window, you must have the *<SHOW BATCH INFO>* **radio button selection active as shown in the example above.**

In addition, two inventory transactions will be generated. This provides precise tracking of the stock through the different batches.

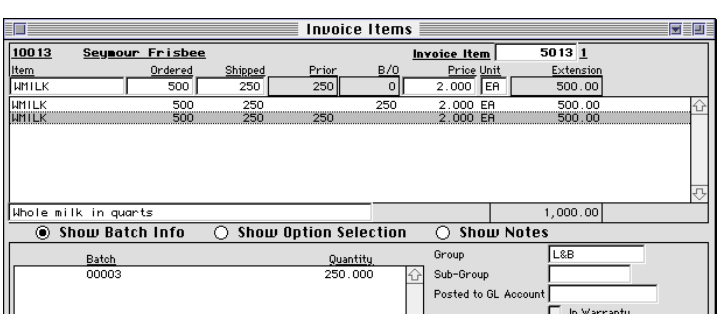


Changing the Batch Reference After Invoicing

If it becomes necessary to change the batch reference after invoicing, this can be accomplished by editing the inventory transaction. If we take the example above and change `00002` to `00003`, the inventory transaction will look like this:

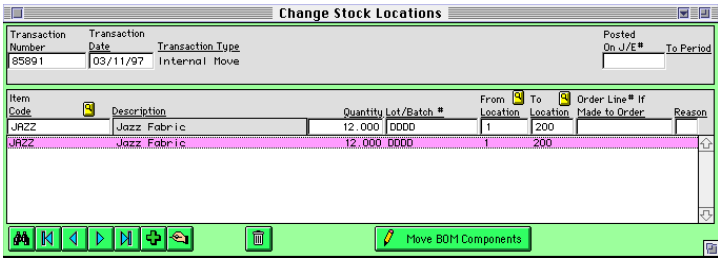


The invoice item detail window will also reflect this change, appearing like this, now:

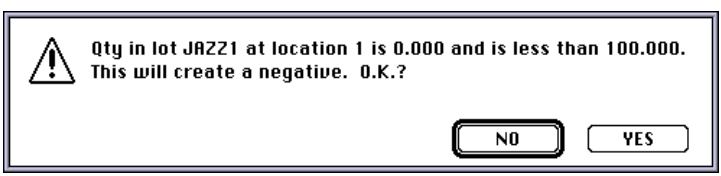


Note: Editing the inventory transaction changes the invoice items which were related to that inventory transaction. No change is made to the sales order from which the invoice was generated.

Lot/Batch Assignments in the Change Stock Locations Window

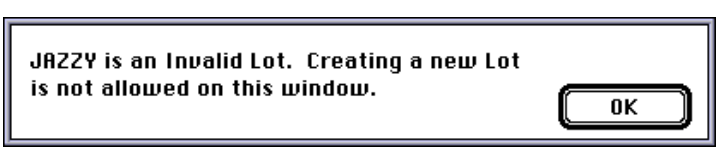


When using this window, the function will validate the location, quantity, and lot number. If you are moving more of a lot/quantity out of a location than exists there, the system will display a message similar to the following:

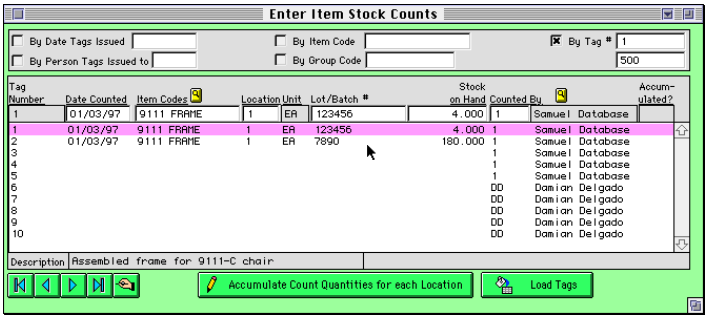


If you click OK, the function will create a negative lot quantity of the number specified. If you do not wish to do this, click <*NO*>.

New lots and batches cannot be created on this window. If you try to enter an invalid lot or batch number for an incoming quantity, the following message will be returned:



Lot/Batch Assignments in the Physical Inventory Module

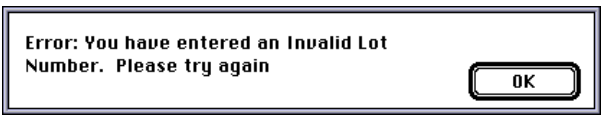


Item Stock Counts Window

Lot and batch tracking has been integrated into this module. All windows and functions of this module will reference lots and batches, where necessary.

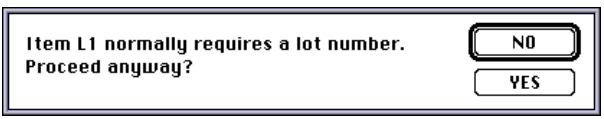
Lot/Batch # Field

{Validated} When you enter data into the Lot/Batch # field, lot and batch validation will be done on the lot or batch code only, not on the lot or batch at a selected location. The function will not allow the user to create new lots or batches on this window. If an invalid lot or batch is entered, the following type of message will be displayed:

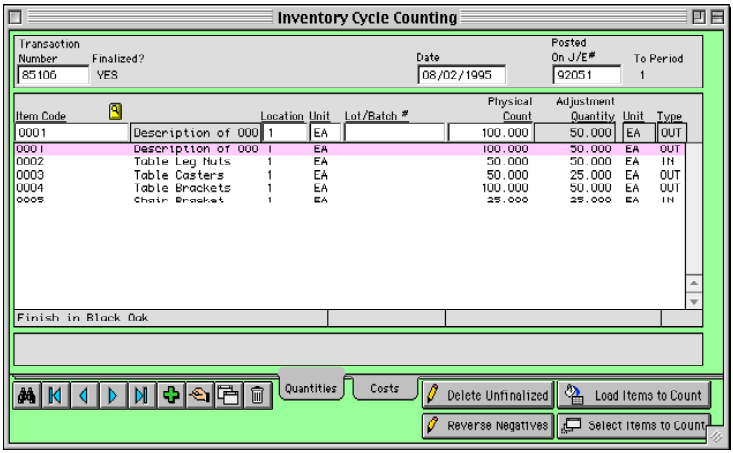


Reference Lists

The **Reference List** is not enabled for this window. If you try to use it, you will receive the following message:



Cycle Counting Window

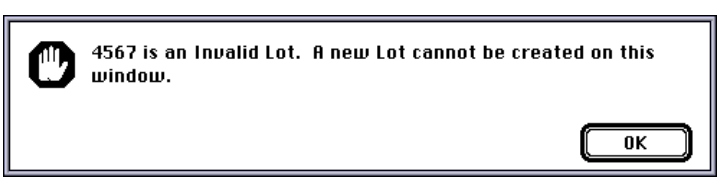


Load Items Due to Count

{Button} This function will load the quantities associated with every lot or batch for each item, not just the various stock locations.

Lot/Batch # Field

{Validated} Lot and batch validation will be done on the lot or batch code only, not on the lot or batch at a selected location. The function will not allow the user to create new lots or batches on this window. If an invalid lot or batch is entered, the following type of message will be displayed:

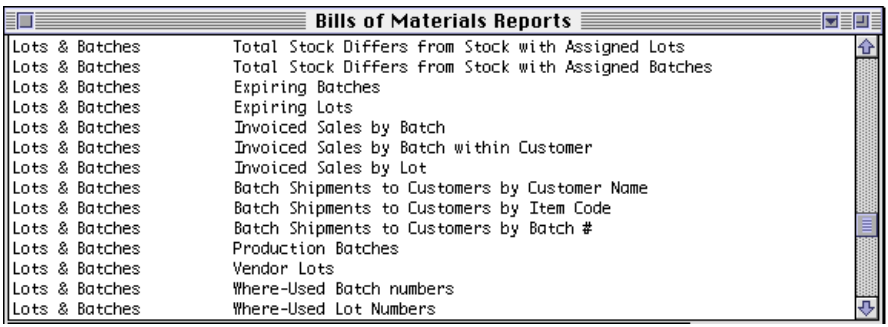


Reference Lists

The Reference List is available in this window. When you are in the **Lot/Batch #** field, access the **Reference List** window. Double-clicking on any item in the list will insert the lot/batch # in the field.

Lot & Batch Reporting

Qube ERP™ provides several lot and batch tracking reports. These are found in the **Bill of Material Reports** list. In some cases, if you have not updated your reports file recently, these reports may be found in the **Inventory Items Reports** list.



Using these reports, it is possible to determine which lots and batches were used in which production batches, and when, where, and to whom they were ultimately shipped.

Do NOT delete lot and batch records, even if they have been used up and show a zero balance! Deleting records destroys the history required for Lot and Batch reporting.

Production Batches

This report shows the batches created through production and their current stock levels.

Expiring Lots and Batches

If the items referenced in the batch show a nonzero shelf life on **Item Master File, Card #2**, an expiration date will be computed at the time of assembly. The expiration date will be the assembly transaction or PO receipt date plus the number of days shown as shelf life (*see* "Shelf Life/Expiration Dating" *on page LBS-10*). Only batches carrying positive quantities will show an expiration date. If a batch has been entirely used up, it will not appear on the **Expiring Batches** report.

Reporting Invoiced Sales by Batch

Reports may be printed of invoiced sales by batch.

Where Used

The system provides the user with the ability to track the usage of any lot or batch through all levels of production through an unlimited number of levels of indentation. Each item will print with leading asterisks to show the number of levels of indentation for that item.

Screen report

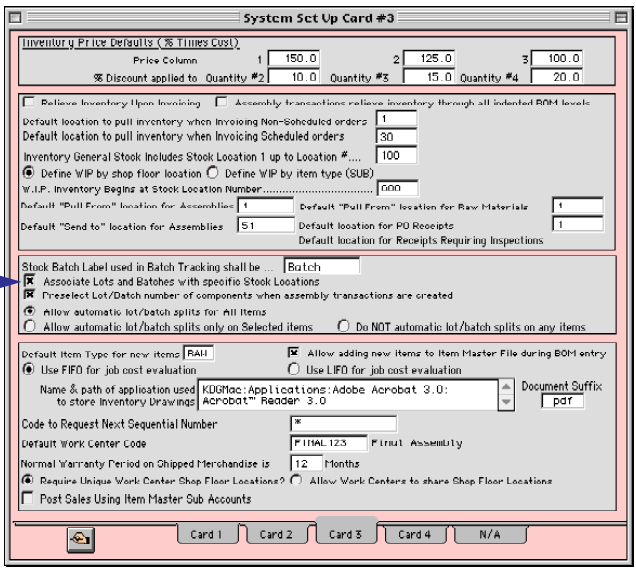
World Class Industries
Where Used Lots and Batches, All Transaction Levels
Period Covering 02/11/97 - 03/11/97
Report Printed on 03/11/97 at 16:51, Page #1
Fiscal Week: 163 - 167

Lot Number	Item Code & Description	Quantity In Stock	Location
123-A	FIN-2 Finish in Black Oak Received on 08/28/92	70.000	1
*	PO Receipt of 50.000 of FIN-2 Finish in Black Oak on 08/28/92 Transtn #85111		
* *	PO Receipt of 20.000 of FIN-2 Finish in Black Oak on 11/20/92 Transtn #85134		
123-B	FIN-1 Finish in light oak Received on 08/28/92	55.000	1
*	PO Receipt of 75.000 of FIN-1 Finish in light oak on 08/28/92 Transtn #85111		
123-D	KALEID Kaleidescope Fabric Received on 08/28/92	40.000	1
*	PO Receipt of 40.000 of KALEID Kaleidescope Fabric on 08/28/92 Transtn #85111		
123456	9111 FRAME Assembled frame for 9111-C chair Received on 12/28/92	2.000	1
*	PO Receipt of 10.000 of FIN-1 Finish in light oak on 12/28/92 Transtn #85141		
* *	PO Receipt of 11.000 of FIN-1 Finish in light oak on 12/28/92 Transtn #85142		
* * *	PO Receipt of 10.000 of 9111 FRAME Assembled frame for 9111-C chair on 12/28/92 Transtn #85143		
* * * *	PO Receipt of 2.000 of 9111 FRAME Assembled frame for 9111-C chair on 12/28/92 Transtn #85144		
* * * * *	12.000 of 9111 FRAME Shipped on Order-Line #2027-3 Invoice item 5185-1 to ABC COMPANY on 12/02/96 Transaction #85813		
* * * * * *	12.000 of 9111 FRAME Shipped on Order-Line #2027-3 Invoice item 5185-1 to ABC COMPANY on 12/02/96 Transaction #85814		
* * * * * *	5.000 of 9111 FRAME Shipped on Order-Line #2027-3 Invoice item 5189-1 to ABC COMPANY on 12/21/96 Transaction #85829		
* * * * * *	5.000 of 9111 FRAME Shipped on Order-Line #2027-3 Invoice item 5189-1 to ABC COMPANY on 12/21/96 Transaction #85830		
* * * * * *	5.000 of 9111 FRAME Shipped on Order-Line #2027-3 Invoice item 5190-1 to ABC COMPANY on 12/21/96 Transaction #85831		
1A	FINISH Genetic record for all finishes Received on 11/13/96	50.000	1000
1ST JAZZ LOT.	JAZZ Jazz Fabric Received on 07/20/93	35.000	1
*	PO Receipt of 100.000 of JAZZ Jazz Fabric on 07/20/93 Transtn #85251		
* *	50.000 of JAZZ Shipped on Order-Line #1911-1 Invoice item 5050-1 to ABC COMPANY on 07/20/93 Transaction #85252		
222	FIN-1 Finish in light oak Received on 12/17/92	85.000	1
*	PO Receipt of 60.000 of FIN-1 Finish in light oak on 11/20/92 Transtn #85134		
2A	FINISH Genetic record for all finishes Received on 11/13/96	15.000	1000
2ND JAZZ LOT	JAZZ Jazz Fabric Received on 07/20/93	50.000	1
*	PO Receipt of 100.000 of JAZZ Jazz Fabric on 07/20/93 Transtn #85251		
* *	50.000 of JAZZ Shipped on Order-Line #1911-1 Invoice item 5050-1 to ABC COMPANY on 07/20/93 Transaction #85252		
3RD JAZZ LOT	JAZZ Jazz Fabric Received on 07/20/93	100.000	1
*	PO Receipt of 100.000 of JAZZ Jazz Fabric on 07/20/93 Transtn #85251		

Appendix A: Lots & Batches by Location

If you plan to associate lots and batches with specific stock locations, you will need to set the **Associate Lots and Batches with specific Stock Locations flag** on **System Set Up, Card #3**;

Set this flag here



The purpose of this function is to enable you to keep track of the quantity of items when selected lots or batches are found at more than one stock location.

Note: This is the preferred way to work if you wish to have any real accuracy as to what items are in which lots; and where they are in the system. If you think you do not wish to use this functionality, you should have a discussion with QCI Technical Support before making this decision.

Without this function activated, Qube ERP™ will track the total quantity of each item at each stock location. Another set of files keeps track of the total quantity of each item associated with lots or batches. But there is no effort to track the quantity of each item as-

sociated with each lot or batch at each location. In order to do this, this function must be activated.

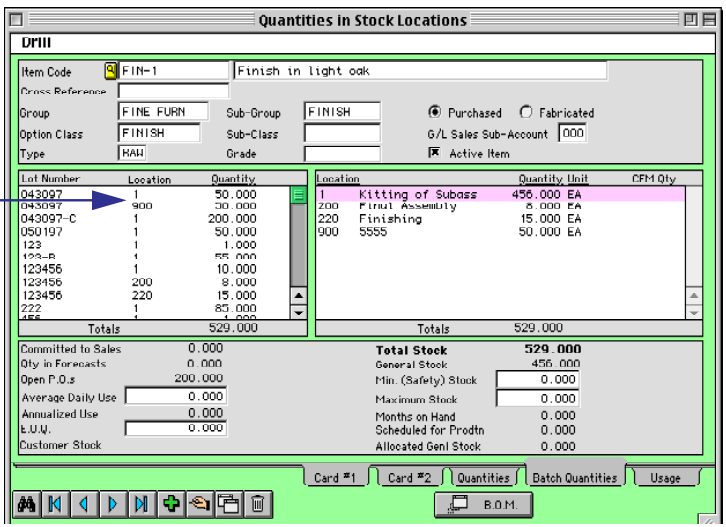
Impact on Windows & Procedures

Without this function activated, several windows display only the lot/batch or the stock location, not both. With this selection, these windows reference both stock location and lot/batch. The following section will describe the differences in the way the system behaves when this function is turned on.

Stock Quantities Window

Stock Quantities (displaying lot & batch quantities) displays a reference to a stock location.

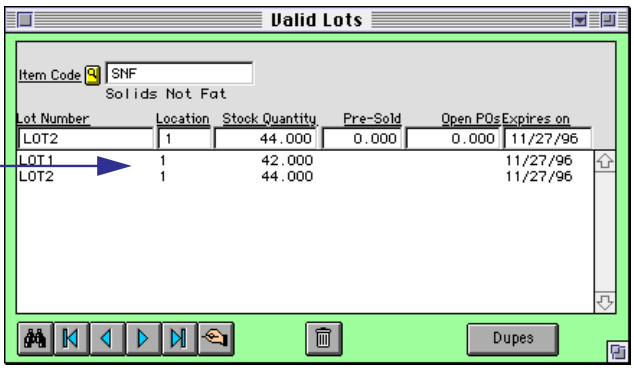
Each lot & batch reference includes a location code



Valid Batches and Valid Lots Windows

Valid Batches and **Valid Lots** windows include reference to a stock location.

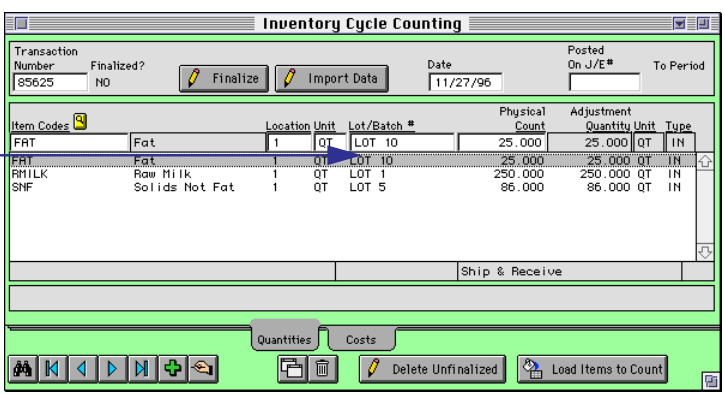
Each lot & batch reference now includes a location code



Cycle Counting

The **Cycle Counting** window will display a reference to a Lot/Batch number.

You may enter a lot or batch number for each cycle count transaction



Cycle counts referencing a lot or batch and a location will base the adjustment amount on the quantity found in the selected lot or batch location record, *not that found in the stock location record* (since there may be several lots & batches of that item in that location). For example, this item has many different batches found at location 40.

Batch Number	Location	Quantity
01035	40	37.000
01045	40	42.000
01065	40	44.000
01095B	40	5.000
01165	40	43.000
01175	40	45.000
01185	40	41.000

Location		Quantity	Unit
1	Receiving/QA		EA
40	Finished Goods	2,765.000	EA
135	FG Quarantine Flo	24.000	EA

If a cycle count transaction is entered referencing this item, batch 01035 and location 40, both the stock location and the batch record will be increased or reduced by the adjustment amount, as follows:

Item Codes		Location	Unit	Lot/Batch #	Physical Count	Adjustment Quantity	Unit	Type
IS-1	InfusaSleeve	40	EA	01035	40.000	3.000	EA	IN

Note that the expected quantity was 37 units (based on the selected lot #), not the total number of units in location 40. Therefore the adjustment quantity is computed as 3 units (40 minus 37). When the transaction is finalized, both the batch and the stock location quantities are increased by 3 units.

Batch Number	Location	Quantity
01035	40	40.000
01045	40	42.000
01065	40	44.000
01095B	40	5.000
01165	40	43.000
01175	40	45.000
01185	40	41.000

Location		Quantity	Unit
1	Receiving/QA		EA
40	Finished Goods	2,768.000	EA
135	FG Quarantine Flo	24.000	EA

Inventory Transactions

These work the same way when they reference both a stock location and a lot or batch code. In other words, any transaction referencing both a stock location and lot or batch number will have the impact of moving items from one lot or batch in a specific location to another; even if that location code remains the same.

Here is an example of this. The following is an item which has 37 total quarts in location 1. Two of these items have no lot reference number.

Lot Number	Location	Quantity
FAT 1	1	16.000
FAT 2	1	19.000
No Lot Ref.	1	2.000

Location		Quantity	Unit
1	Ship & Receive	37.000	QT

To move those with no lot reference number, an inventory transaction is entered moving the items out of location 1 with no lot reference, and into location 1 with a reference to lot # FAT 1.

Inventory Transaction Quantities

Transaction Number	Transaction Type	Date	Posted On J/E#	To Period
85629	Job Cost or Adjustment	11/27/95		

Item Codes	Type	Location	PO/Invoice Item #	Order Line# If Made to Order	Stock on Hand	Quantity	Unit	Lot/Batch #	Reason
FAT	OUT	1			37.000	2.000	QT		
FAT	OUT	1			37.000	2.000	QT	Lot/Batch Error	
FAT	IN	1			35.000	2.000	QT	FAT 1	

This results in the following. Note that there is no longer a reference to any items with no lot reference. These have been moved into lot number FAT 1.

Lot Number	Location	Quantity
FAT 1	1	18.000
FAT 2	1	19.000

Location		Quantity	Unit
1	Ship & Receive	37.000	QT

PO Receipts

PO receipt transactions also increase quantities in both files. Here is an item showing 600 units in lot number 100110 at location 20.

Lot Number	Location	Quantity
100110	20	600.000
100110	50	145.000

Location		Quantity	Unit
1	Receiving/QA		EA
20	Stock Room	600.000	EA
50	WIP	145.000	EA

This is a PO Receipt for 2 units referencing stock location 20 and lot number 100110.

Item Code	Expected Receipt Date	Quantity Ordered	Quantity Received	Prev. Rec'd	Unit	Sent To Location	Lot/Batch Number
0100-002-01	11/14/95	20.000	2.000		EA	20	100110

After the PO receipt, the number of units in lot number 100110 at location 20 is incremented by 2, to 602.

Lot Number	Location	Quantity
100110	20	602.000
100110	50	145.000

Location		Quantity	Unit
1	Receiving/QA		EA
20	Stock Room	602.000	EA
50	WIP	145.000	EA

Assembly Transactions

Assembly Transactions which reference batch numbers will update the batch number based on the selected send-to location. For exam-

ple, this illustration is **before** the assembly transaction, reflecting 51 units at location 40, but only 3 in batch 06085K:

Batch Number	Location	Quantity
06085K	40	3.000
06285K	40	10.000
07065K	40	10.000
07105K	40	10.000
07125K	40	10.000
A11014K	40	8.000

Location		Quantity	Unit
1	Receiving/QA		EA
40	Finished Goods	51.000	EA

This is the assembly transaction referencing batch 06085K, and location 40. The transaction reflects the assembly of one unit.

Transaction Number	Date	Posted To J/E#	Order Line# If Made to Order	Batch Number
3834	11/14/95		Made to Stock	06085K

Assembled Item Code	Quantity	Sent to Location	Unit	Standard Unit Cost
IS-1K	1.000	40	EA	111.53470

The illustration below reflects the results of the assembly transaction. Note that there are now 52 units in location 40, but 4 in batch 06085K.

Batch Number	Location	Quantity
06085K	40	4.000
06285K	40	10.000
07065K	40	10.000
07105K	40	10.000
07125K	40	10.000
A11014K	40	8.000

Location		Quantity	Unit
1	Receiving/QA		EA
40	Finished Goods	52.000	EA

The multiple assembly transactions function will also handle the batch tracking associated with locations.

Valid Lots & Batches Window

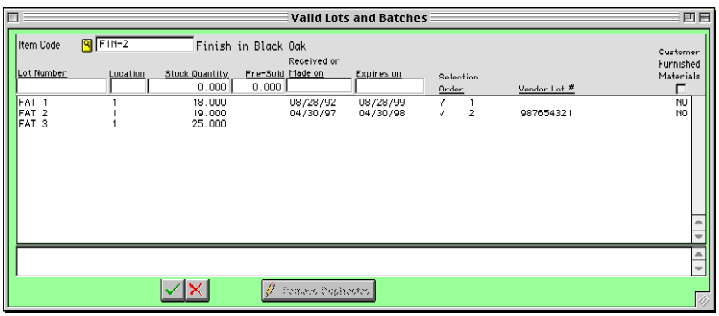
Editing quantities in the **Valid Lots and Batches** window will **not** change both the batch (or lot) record and the stock location record. This window will edit only the selected lot or batch, not the associated stock location record. This window exists only to allow the user to bring lot or batch quantities into line with the stock location quantities.

For example, here is an item which reflects 37 units in stock, 18 in lot FAT 1, and 19 in lot FAT 2

Lot Number	Quantity
FAT 1	18.000
FAT 2	19.000

Location		Quantity	Unit
1	Ship & Receive	37.000	QT

In the following transaction, 25 units are being added to lot # FAT 3 at location 1, using the **Valid Lots** window.



Looking at the **Stock Quantities by Lot and Batch** window, you can see that only the quantity in the lot was increased, resulting in a negative quantity in the "no lot referenced" category. In addition, no items were added to location 1; the number remains a 37. In order to bring this quantity back to neutral or positive, an inventory transaction would have to be generated.

Lot Number	Quantity
FAT 1	18.000
FAT 2	19.000
FAT 3	25.000
No Lot Ref.	-25.000

Location		Quantity	Unit
1	Ship & Receive	37.000	QT

Note: The best way to make lot or batch adjustments is through the inventory transaction window, as this provides a permanent record of the adjustment for audit trail purposes.

Converting Your Data to Work with Lots and Batches by Location

If you have previously been utilizing lot and batch tracking, but not using the lot and batch by location tracking, you may convert your

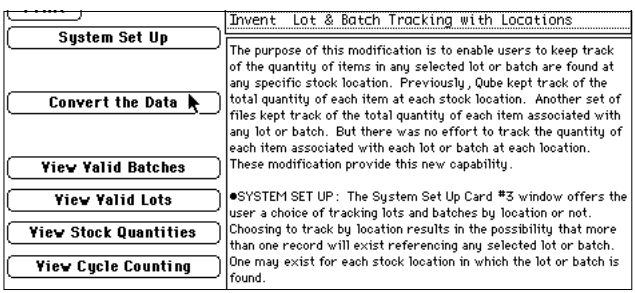
data file to use this functionality. To do so, you must do the following.

• To convert the data

1. **Check and, if necessary, reorganize the three impacted data files, Master, FLOT and FBITEMS.**

2. **Access the Task Assistant and view the *NEW FEATURES* list.**

   If you have imported the 1115Task.ODT file, you will see a new entry describing these modifications.



3. **Click the <*CONVERT DATA*> button to associate lots & batches to locations.**

   Qube ERP™ will attempt to allocate quantities among lots and batches based on quantities found in stock locations. For example, if it finds 100 units in location 51 and 200 units in location 52 and 300 units assigned to lot A, Qube ERP™ will allocate 100 units from lot A to location 51 and the remaining 200 units to location 52.

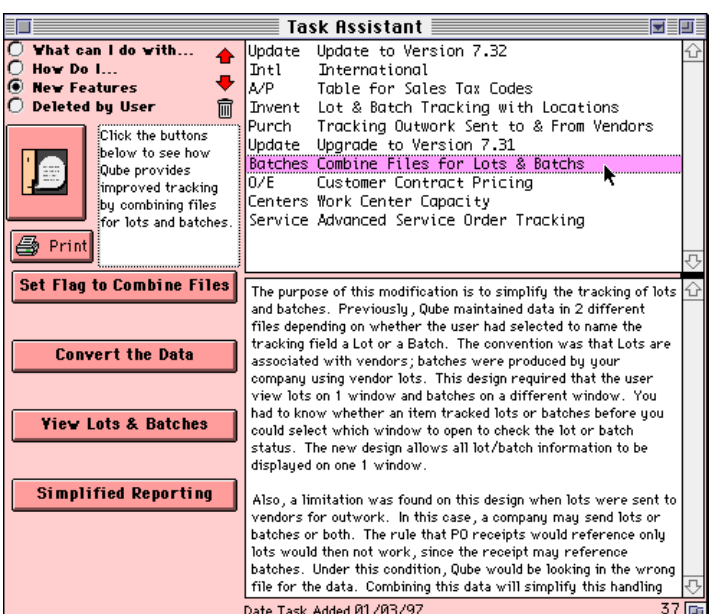
Appendix B: Combining Lot and Batch Files

Early designs of Qube ERP™ held lot numbers in one file, and batch numbers and serial numbers in another file.

The current design utilizes one data file for both lots and batches, and a separate file for serial numbers. This makes managing the lot and batch functionality much easier. It also facilitates the use of both lot and batch tracking and serial number tracking, which was not possible before.

Anyone receiving the system or establishing lot and batch tracking after 12/31/96 will find that the data is already set up to accommodate this. You may ignore this section.

Anyone utilizing lot & batch tracking prior to this date, however, will probably find that the two data bases are split and should be combined. This conversion functionality is available in a **Task Assistant** record.



Set Flag to Combine Files

{Button command} Setting this flag will cause the system to expect lots and batches to be in one file. You should click this first.

Setting the flag will also cause selected reports to be flagged as inactive (those dealing with batches only in the old file), and the titles of other reports to be changed to show that they apply to both lots and batches. This will make reporting easier, as well, since one report can be used to print all valid lots and batches.

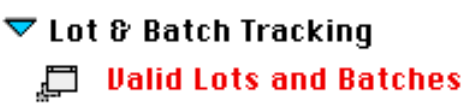
After setting this flag, the lot and batch reports will be reduced to the following:

Bills of Materials Reports

Lots & Batches	Total Stock Differs from Stock with Lots/Batches
Lots & Batches	Expiring Lots and Batches
Lots & Batches	Invoiced Sales by Batch within Customer
Lots & Batches	Invoiced Sales by Lot and Batch
Lots & Batches	Production Batches
Lots & Batches	Lots and Batches
Lots & Batches	Where Used Lots and Batches

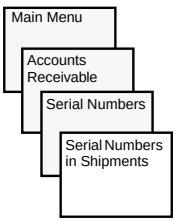
Convert the Data

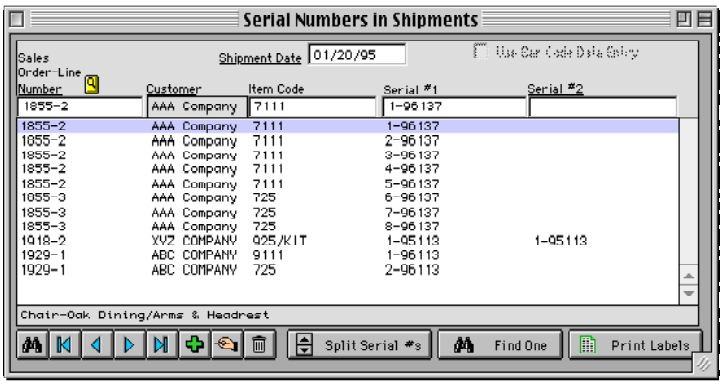
{Button command} Converting the data will move all batch related data to the lot file. This enables all lot and batch data to be viewed on one window, instead of two. Therefore, the function selection in the **Inventory Module** will look like this (after regenerating the list):



The column label over the lot or batch number will display **Lot Number** or **Batch Number**, depending on which setting is found for the selected item master record (*see* *"Item Master File, Card #2" on page LBS-9*).

Serial Number Tracking





Serial Numbers in Shipments

This window provides the user with the ability to enter product serial numbers and to associate those serial numbers with different shipments and customers.

It is assumed that data entry of serial numbers will occur just before the shipment is invoiced and that the user wishes to have the function assign the next sequential serial number to that order. The above window is used to enter, view and edit serial numbers.

Automatically Generated Data

To make the assignment of serial numbers easier, Qube will automatically generate some defaulted information for you. After entering a shipment date into the **Shipment Date** field, and then entering a valid **Sales Order Line Number**, tabbing through the other available fields will cause a record to be entered for each item on a sales order as shown above. In the above window, for example, order number 1855 had five 7111s left to ship, so tabbing through the window fields loaded the information and an automatically generated **Serial #1** for each of these items. Once the five remaining 7111 serial numbers had been assigned, Qube automatically assumed that 1855-3 should also have serial numbers assigned, and began calculating serial number values for it. It will do this for all of the unshipped items in a sales order. After the sales order has been completed, you may add another sales order line number and process it as well.

Split Serial Numbers

You can also generate multiple serial numbers automatically with a minimum of user data entry by using the *SPLIT SERIAL #S* button. This function will operate on an existing list of serial numbers. Therefore, begin by entering the jobs to be assigned serial numbers, but enter only the starting serial number in each series, like this:

Sales Order-Line Number | Shipment Date 03/06/1999 | Use Bar Code Data Entry

Customer	Item Code	Serial #1	Serial #2
ABC COMPANY	925	123B456	
ABC COMPANY	925	123B456	
AAA Company	9111	199910-1	
AAA Company	9111	199910A	
CCC Company	9111	1234567890123	

Next, click the *SPLIT SERIAL #S* button. Qube expands the window to allow entry of a new list field (Number of Serial #s) and defaults the value to the quantity shipping on each referenced job, like this:

Sales Order-Line Number | Shipment Date 03/06/1999 | Use Bar Code Data Entry

Customer	Item Code	Serial #1	Serial #2	Nbr. of Serial #s
ABC COMPANY	925	123B456		2
ABC COMPANY	925	123B456		2
AAA Company	9111	199910-1		3
AAA Company	9111	199910A		4
CCC Company	9111	1234567890123		5

You may tab through each of these values and enter whatever number you wish. When you click the *SAVE* button, Qube adds the new serial numbers to the list, formatting each one to ensure it has a unique value, like this:

Sales Order-Line Number | Shipment Date 03/06/1999 | Use Bar Code Data Entry

Customer	Item Code	Serial #1	Serial #2	Nbr. of Serial #s
ABC COMPANY	925	123B456		1
ABC COMPANY	925	123B456		1
ABC COMPANY	925	123B457		1
AAA Company	9111	199910-1		1
AAA Company	9111	199910-2		1
AAA Company	9111	199910A		1
AAA Company	9111	199910B1		1
CCC Company	9111	1234567890124		1
CCC Company	9111	1234567890125		1

Once again, you will be allowed to edit the serial numbers in the list. If you click the *SAVE* button, Qube saves the list values to disk.

Qube assigns serial numbers depending on the starting value that you provide. Three different conditions may be found:

1. The user-assigned serial number ends with a non-numeric character (alpha or special character). Under this condition, Qube will add numeric values to the end (e.g., A, A1, A2, etc.)

2. The user-assigned serial number ends with a number but contains an alpha character in the middle. Under this condition, Qube will add to the ending numeric value (e.g., A456, A457, A458, etc.).
3. The user-assigned serial number is strictly numeric. Qube will simply increment the numeric serial number (e.g., 123456, 123457, 123458, etc.).

Shipment Date

{Date field, validated} The value entered in this field must be a valid date. This date must match the actual shipment date of the items to which the serial numbers are being assigned, or you will not be able to look up these serial number shipment records later.

Sales Order Line #

{Alphanumeric, validated} A valid sales order line number must be entered into this field. The sales order line number is defined as the sales order number, a dash, and the line number in the sales order. The first line item for sales order number 1802 would be displayed as 1802-1, and so on.

Customer

{Display only} The customer name for the designated order will be displayed in this field.

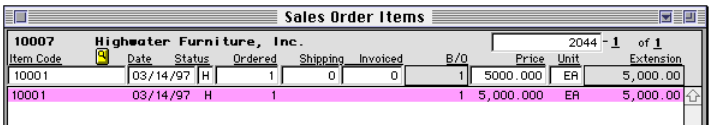
Item Code

{Validated, defaulted} The item code defaulted in this field is that of the item being shipped on the invoice. You may accept the defaulted item code and assign two serial numbers to the item.

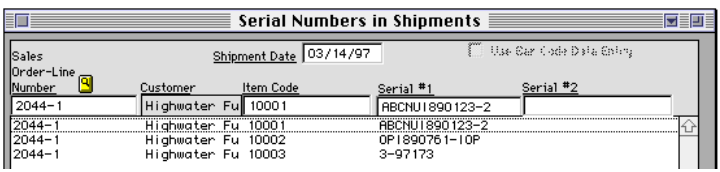
Adding Additional Item Codes

Sometimes you will wish to add additional *component* serial numbers to an item. For example, you might be shipping a computer as a line item, and in addition to the computer, you might be shipping a hard drive and a monitor, but not be itemizing them on the sales order. In order to facilitate this, Qube ERP™ provides the ability to enter as many item codes for each shipment as necessary.

For example, here is a sales order item for a computer bundle:



The above outlined serial number assignments might look like this:



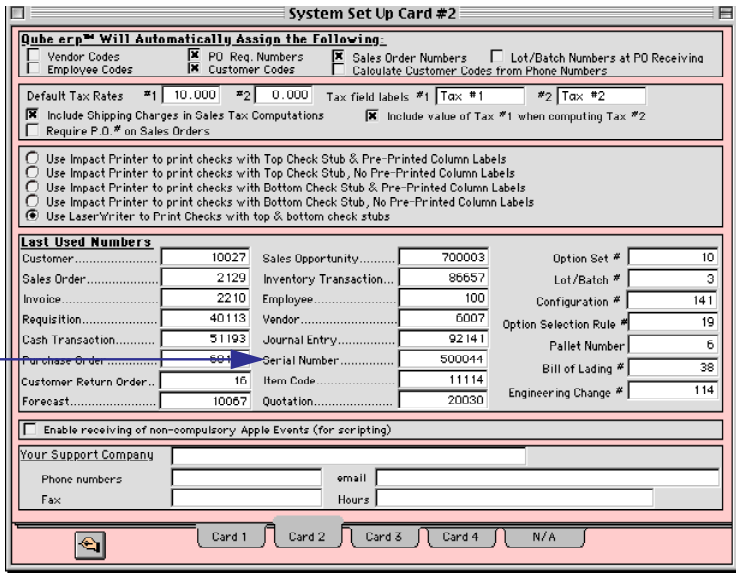
This provides the ability to enter as many items and serial numbers as necessary for any shipment. This tracking of parent items and components *at the point of shipment* can dramatically cut down on the number of transactions necessary to track component serial numbers over making serial number assignments during the manufacturing process.

Serial #1

{Defaulted, 14 characters, alphanumeric} The system will automatically calculate this number based on the current fiscal period preceded by the number of items shipped during this period. It has nothing to do with the field, **Last Used Serial Number**, as shown in System Set Up, Card #2. You may override the automatically generated number by keying in new serial numbers, or scanning them in with bar code equipment. Serial Number 1 may be up to 14 characters long.

Last Used Serial Number

You should ignore the field in System Set Up Card #2, **Last Used Serial Number**. This is obsolete and no longer used.



Ignore this field; it serves no purpose in the current design

Serial #2

{13 characters, alphanumeric} You may enter up to two serial numbers per sales order item without entering additional item codes (see "Adding Additional Item Codes" *on page LBS-61*). This second serial number field may be for an integrated sub component which you do not wish to call out separately, or a manufacturer's serial number, or anything else you wish. This may be up to 13 characters long.

Printing the Serial Numbers

After assigning serial numbers, the information must be communicated to the shipping department so that the items can be pulled from inventory, assigned serial numbers can be attached to the items, and the items can be shipped to the customers. In order to print this list, find the shipments for the date in question by finding on the **Shipment Date** field. Once you are looking at the serial number assignments for that date, print default screen report by pressing *<CTRL/*

COMMAND-P>. The following report will be generated for the shipments viewed on the window:

Screen report

World Class Industries
Serial Number List
Report Printed on 03/14/97 at 10:11, Page #1

Serial #1	Serial #2	Customer Code and Name		Order-Line #	Item Code	Date Assigned	Date Shipped	Invoice Number
1-95113	1-95113	10002	XYZ COMPANY	1918-2	925/KIT		01/20/95	5117
1-95113		10001	ABC COMPANY	1929-1	9111		01/20/95	
				Series 9 Chair				
2-96113		10001	ABC COMPANY	1929-1	725		01/20/95	
				Series 9 Chair				
1-96137		10004	AAA Company	1855-2	7111		01/20/95	5004
				Series 7 Chair				
2-96137		10004	AAA Company	1855-2	7111		01/20/95	5004
				Series 7 Chair				
3-96137		10004	AAA Company	1855-2	7111		01/20/95	5004
				Series 7 Chair				
4-96137		10004	AAA Company	1855-2	7111		01/20/95	5004
				Series 7 Chair				
5-96137		10004	AAA Company	1855-2	7111		01/20/95	5004
				Series 7 Chair				
6-96137		10004	AAA Company	1855-3	725		01/20/95	5004
				Chair-Oak Dining/Arms & Headrest				
7-96137		10004	AAA Company	1855-3	725		01/20/95	5004
				Chair-Oak Dining/Arms & Headrest				
8-96137		10004	AAA Company	1855-3	725		01/20/95	5004
				Chair-Oak Dining/Arms & Headrest				

Serial Number Labels

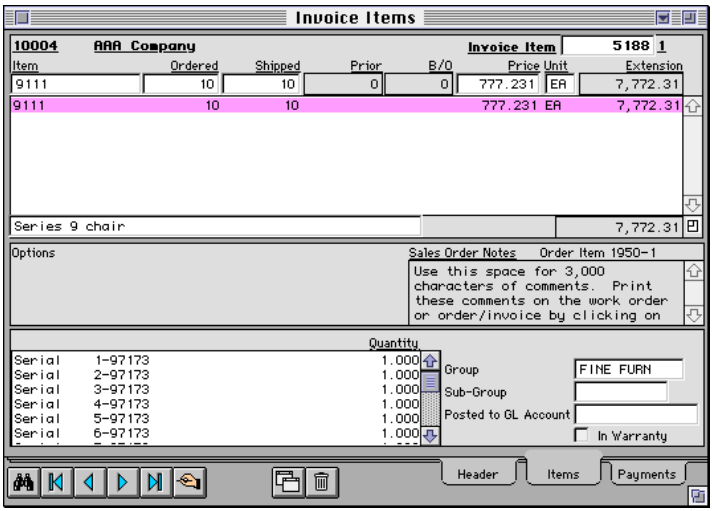
You may also print out labels with the serial number assignments on them to affix to the products being shipped. To do this, click the button, <*PRINT LABELS*>, while looking at the serial number assignments for which you wish to print them. A different label will print for each item code designated. They will look something like this:

Computer Bundle
10001
ABCNUI890123-2

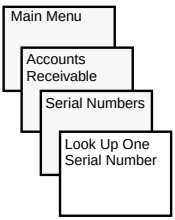
Viewing the Sales Orders and Invoices Associated with the Serial Numbers

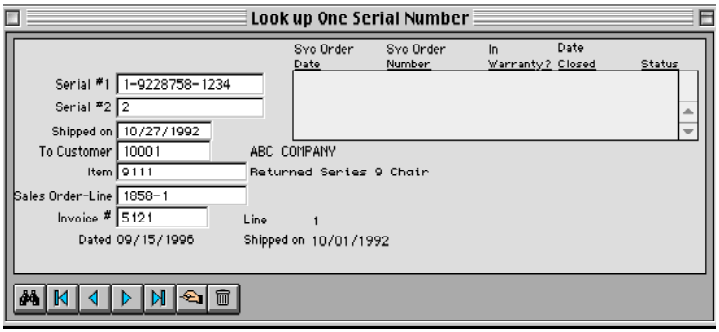
To view the order or invoice associated with any selected serial number, **double-click** on the selected line in the list. If you have accessed this function from the **Order Entry** module, the system will display the **sales order** referenced in the list. If you accessed the function through the **Accounts Receivable** module, the system will display the **invoice record**.

The serial numbers recorded on the invoice may be viewed in the lower left corner of the **Invoice Line Items Window**, as seen here:



Look Up One Serial Number





Viewing One Serial Number at a Time

This window can be accessed by clicking the <*FIND ONE*> button on the **Serial Numbers in Shipments** window, or by selecting **Look up One Serial Number** in the **Order Entry Functions window**.This window enables you to find and edit serial numbers one at a time.

Finding a Serial Number

Use this window to find out the information on a serial number shipment. You can find on any of the fields on the window, except the Invoice # field. If you need to locate where a specific serial number was shipped, find on the serial number fields in this window.

Changing Serial Numbers

It is possible to change the serial numbers from the ones assigned by the system. By selecting the **Edit** command from either the **Serial Numbers in Shipments** window or the **Look Up One Serial Number** window, where one serial number set is viewed at one time, you may edit the serial number field. You may enter either any number which has not already been assigned by the system, or a number that was already shipped and returned for credit. If you enter a serial number that has already been assigned by the system, Qube ERP™ will display the message: “Serial# was assigned on Date to order Item Sales-Line#. Use a different number?” If you wish to reuse a number, as in the case of the number that was already shipped and returned for credit, respond NO, and Qube ERP™ will add the same Serial Number to the new Sales Order Line number.

Issues Related to Dates

Changing Shipment Dates so that Serial Number records match Invoice records

If an invoice exists but the serial number does not indicate an invoice number, either of two things can be changed to create a match: The shipment date of the invoice can be changed to match the one shown in the serial number records or the shipment date of the serial number records can be changed to match the date shown on the invoice.

Matching Serial Numbers to Invoices

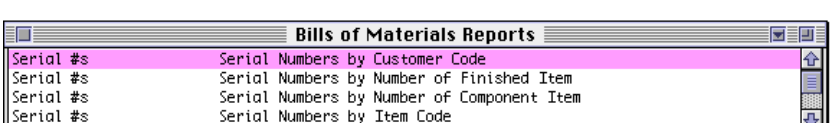
Each sales order allows multiple invoices per order. Therefore the system matches the invoice assigned to each serial number based on the serial number shipment date. If the serial number was entered indicating a shipment date of the 1st and the invoice were not created until the next day and was given a shipment date of the 2nd, no match would occur. The simple fix is to edit the serial number shipment date to match the invoice shipment date. Or you can change the invoice shipment date to match the serial number's shipment date. Either one will do the trick.

Multiple Invoices for 1 Sales Order-Line

If a single order-line item has more than one invoice issued against it, the function will use the shipment date to determine which invoice to associate with which serial number records. This assumes that the multiple invoices will each show different shipment dates. This also assumes that the shipment date on the serial number will match that on the corresponding invoice. It may not if the user edits the serial number shipment date field and fails to also change the invoice shipment date field. The invoice shipment date field can only be edited before the record is posted.

Serial Number Reports

Serial number reports are found in the **Bill of Material Reports** list. They present the information sorted and subtotaled by Serial Number, by Customer Number and by Inventory Item Code.



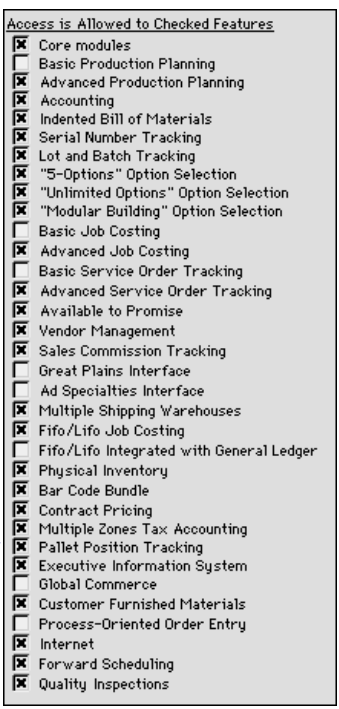
Pallet Position Control Introduction

The **Pallet Position Control** module allows you to locate items and pallets within the rack system. By recording racks, pallets, and events which associate items to pallets and to rack positions, you are able to track the locations of both items and pallets.

Features Set

The following setup function must be completed in order to use the **Pallet Position Control** module. This is an optional, for-sale module. It must therefore be activated in the **Features Set** window to be available for use (*see* *"Application Features Set Window" on page SYS-138*).

Make sure Pallet Position Control is active

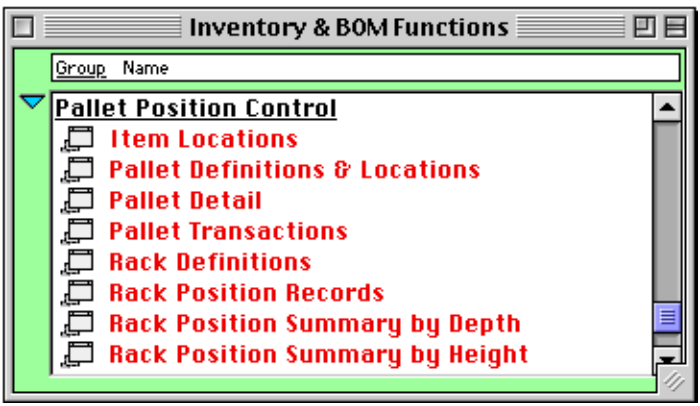


About the PPC Module

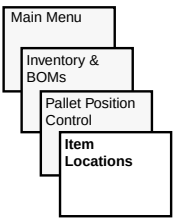
The basic elements of the **Pallet Position Control** module are:

1. Items: records in the item master file which are being stored or moved.
2. Pallets: the element on which the items are stored and which moves into and out of and between rack positions.
3. Racks: the structure which holds the pallets.
4. Inventory locations: The areas in which racks are found.
5. Pallet transactions: Records of items moving around within a rack-controlled area. These events associate quantities of items (with lot or batch code) to specific pallets.
6. Pallet Movements: Events which move a pallet and all of its contents from one position in the rack system to another.

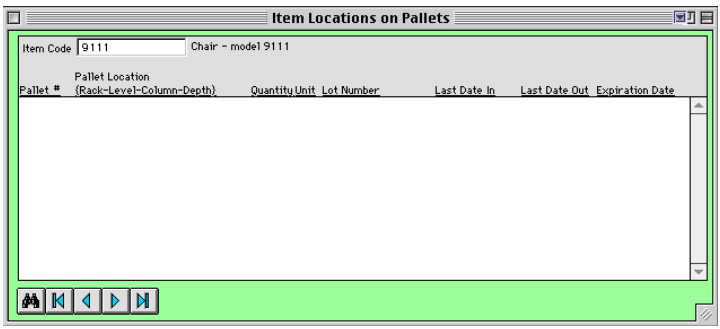
From the **Inventory and BOM Functions** menu, you can select from the different **Pallet Position Control** options.



Item Locations

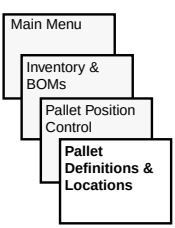


When you select the Item Locations option, the **Item Locations on Pallets** window displays.

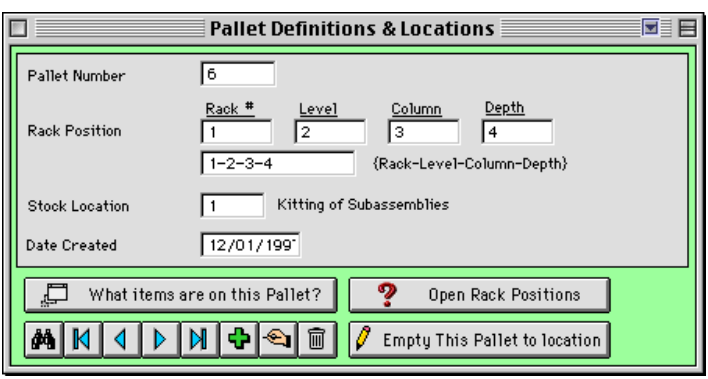


This window displays the Pallet number, Pallet Location (including rack, level, column, and depth), Quantity Unit, Lot Number, Last Date In, Last Date Out, and Expiration Date for each item code.

Pallet Definitions & Locations



When you select the Pallet Definitions & Locations option, the **Pallet Definitions & Locations** window displays.

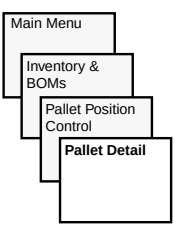


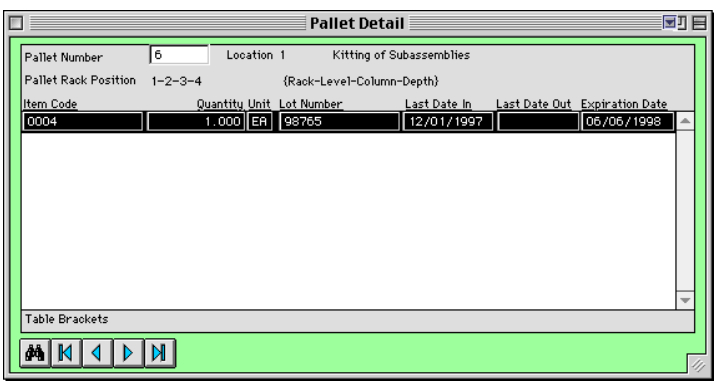
Use this window to create and delete pallet records. Define the Pallet Number, Rack Position (including rack number, level, column, and depth), Stock Location, and Date Created. You can also use this window to change the position of a pallet. Almost every field value can be edited, thus allowing you to move a pallet to a different rack or a different position within the same rack simply by editing the win-

dow. All related records are updated appropriately. The only field you can't edit is the stock location, which is set by the rack number.

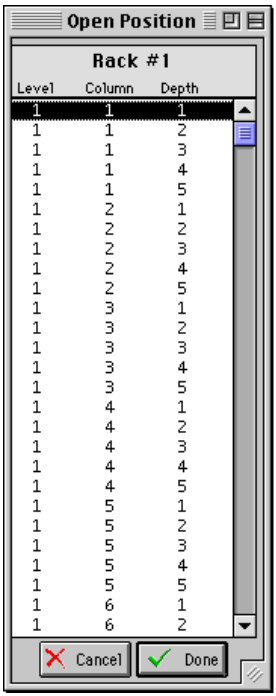
You can associate a pallet with a different location by performing an edit on this window. If Qube ERP™ detects that the New Stock Location is different than the Current Stock Location, it will create an inventory transaction for all items on the pallet to the new location. This is normally a move from general stock to non-general stock or visa-versa.

If you click on the *WHAT ITEMS ARE ON THIS PALLET* button, the **Pallet Detail** window displays:





If you click on the *OPEN RACK POSITIONS* button, Qube ERP™ will calculate all open rack positions and display the **Open Position** window:

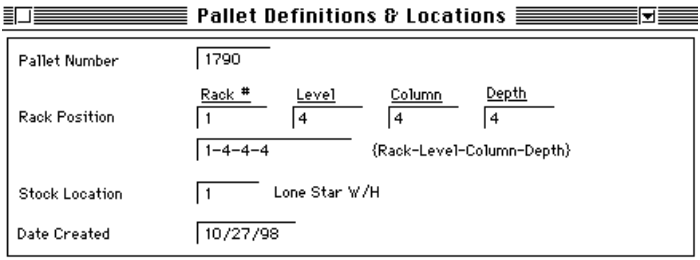


Level	Column	Depth
1	1	1
1	1	2
1	1	3
1	1	4
1	1	5
1	2	1
1	2	2
1	2	3
1	2	4
1	2	5
1	3	1
1	3	2
1	3	3
1	3	4
1	3	5
1	4	1
1	4	2
1	4	3
1	4	4
1	4	5
1	5	1
1	5	2
1	5	3
1	5	4
1	5	5
1	6	1
1	6	2

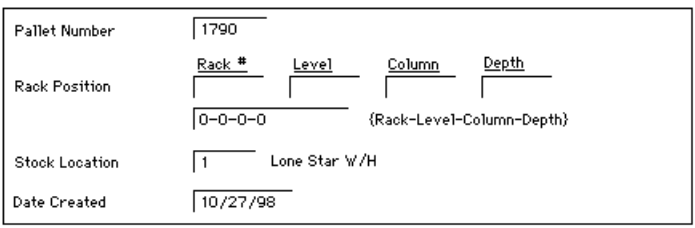
You can sort the list by clicking on the Level, Column, or Depth column labels. It can also be expanded to the full height of the window.

If you click on the *EMPTY THIS PALLET TO LOCATION* button, Qube ERP™ will display a field in which you can enter a location code. If you click the *SAVE* button, Qube ERP™ will move all items found on the selected pallet from their current rack positions, disassociating them from the selected pallet and changing the pallet rack location to 0-0-0-0 (null rack position).

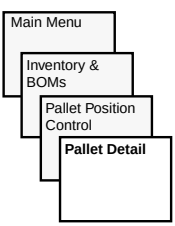
Here is an example before choosing to empty the pallet:



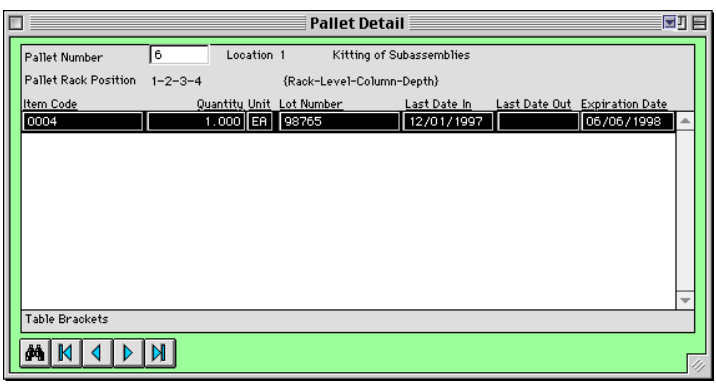
and the same example after clicking the *EMPTY THIS PALLET TO LOCATION* button:



Pallet Detail

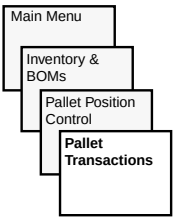


When you select the Pallet Detail option, the **Pallet Detail** window displays.

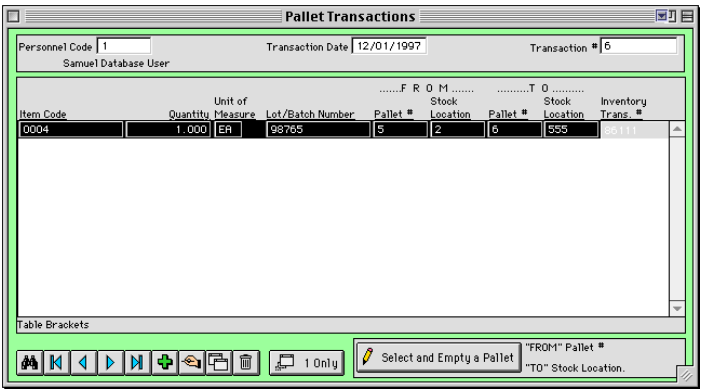


This window displays the Item Code, Quantity, Unit, Lot Number, Last Date in, Last Date out, and Expiration Date for a specific pallet.

Pallet Transactions



When you select the Pallet Transactions option, the **Pallet Transactions** window displays.



Use this window to put things onto and move things off of pallets. You can enter items in list form. Define the Personnel Code, Transaction Date, Transaction Number, Item Code, Quantity, Unit of Measure, Lot/Batch number, FROM Pallet Number and Stock Location TO Pallet Number and Stock Location, and Inventory Transaction.

This window allows you to enter multiple transaction lines at the same time. If the pallet number entered on each line is either new or already exists and contains no items, Qube ERP™ will allow a pallet position to be entered.

You can empty an entire pallet by clicking on the *SELECT AND EMPTY A PALLET* button; see "Emptying a Pallet" *on page PPC-12*.

In addition, a window is provided to view or enter transactions one at a time. The one-at-a-time window is accessed by clicking the *1 ONLY* button labeled or by double-clicking on one line in the list. You can reference a pallet position when the "to" pallet is either a

new pallet or an existing pallet which has nothing else on it. For example:

"TO" Pallet Number or "NEW"	1790			
"TO" Stock Location.....	1			
Pallet Position	1 Rack	4 Level	4 Column	4 Depth

This sample transaction will associate the items with the selected pallet and move the pallet to the specified position in the rack, resulting in this pallet definition window:

Pallet Number	1790			
Rack Position	Rack # 1	Level 4	Column 4	Depth 4
	1-4-4-4	{Rack-Level-Column-Depth}		
Stock Location	1	Lone Star W/H		
Date Created	10/27/98			

.

Pallet Transactions

Item Code	BG810	Chocolate Cake-Cut	
Personnel Code	1	Startup Employee	
Transaction Date	09/20/96	Transaction #	29
Quantity	10.000	Assoc. Inventory Transaction #	
Unit of Measure	LB		
Lot/Batch Number	BG810		
"FROM" Pallet Number	3	"TO" Pallet Number or "NEW"	
"FROM" Stock Location	1	"TO" Stock Location.....	1

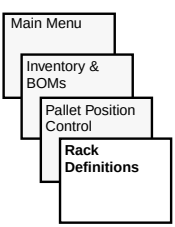
Select and Empty a Pallet

This window shows a transaction in which the user took 10 units of item BG810 and put it onto pallet number 3, which was located in stock location 1. The window allows the user to a) move items from one pallet to another, b) move items onto a pallet from a floor location or c) remove a quantity of the item from a pallet (as will happen when the item is being moved out for use in WIP or to be shipped to

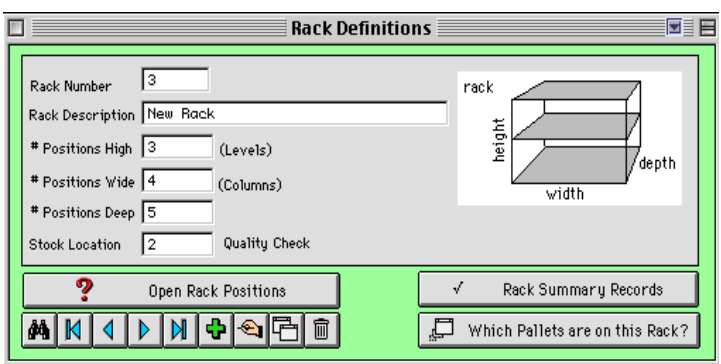
a customer). It also allows units to be moved between rack-controlled and non-rack-controlled locations.

In the example above, the move occurred from the floor (no pallet) to a pallet and all within location 1. It could have moved product from location 213, no pallet to location 1 onto a pallet. Or it could have pulled the item off of a pallet in location 1 and put it into location 728 (no pallet). Qube ERP™ will create whatever inventory transaction may be necessary when a move between stock locations is detected. When a move to or from a specific pallet occurs, Qube ERP™ will control the stock location code, since it will know the location of the pallet. You do not have to worry about getting this right.

Rack Definitions



When you select the Rack Definitions option, the **Rack Definitions** window displays.



Use this window to define the Rack Number, Rack Description, Number of Positions (levels) High, Number of Positions (columns) Wide, Number of Positions Deep, and Stock Location.

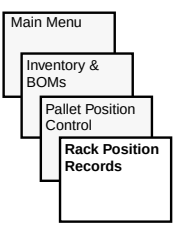
Racks are defined in terms of their height (number of rows), width (number of columns), and depth. This enables Qube ERP™ to validate rack positions and disallow transactions which move things into or out of rack positions which do not exist.

If you click on the *OPEN RACK POSITIONS* button, Qube ERP™ will calculate all open rack positions and display the **Open Position**

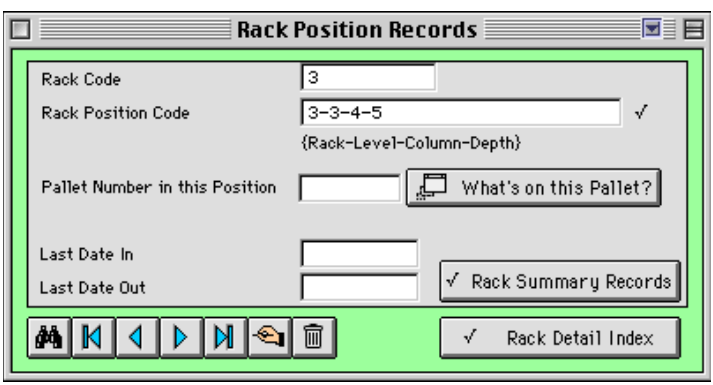
window. You can also check Rack Summary Records or verify which pallets are on this rack by clicking on the appropriate buttons.

A combination of utilities is provided for use if a rack definition record is deleted or redefined. In the case of a delete, the rack summary records will be automatically deleted. In the case of a redefinition, the Purge Rack Summary data can be executed for the selected rack. Then a new utility (Rack Summary Records) can be used to repopulate the file based on the new rack definition. For more information on utilities and purge functions, see *"System Utilities" on page SYS-153* and *"Purging Data" on page SYS-204*.

Rack Position Records

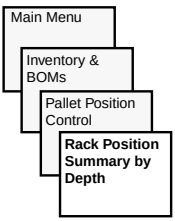


When you select the Rack Position Records option, the **Rack Position Records** window displays.

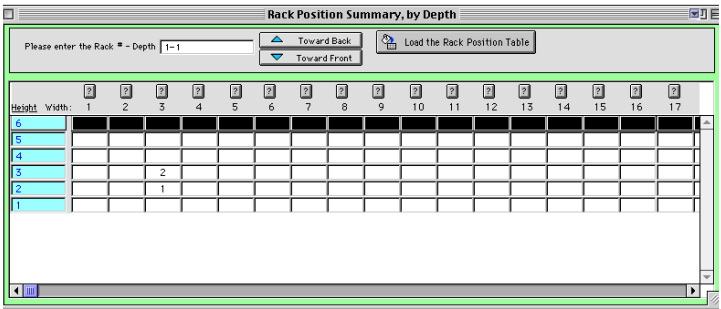


Use this window to define the Rack Code, Rack Position Code, Pallet Number in this Position, Last Date In, and Last Date Out. You can also check What's on this Pallet, Rack Summary Records, or Rack Detail Index by clicking on the appropriate buttons.

Rack Position Summary by Depth

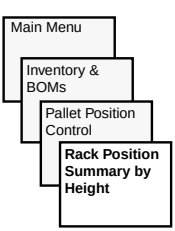


When you select the Rack Position Summary by Depth option, the **Rack Position Summary by Depth** window displays.

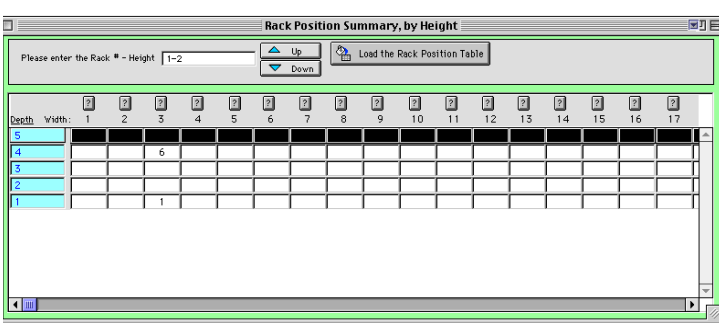


Use this window to define the Rack Number - Depth and adjust the position toward the back or toward the front. You can also click a button to load the Rack Position Table; for more information, see "Loading the Rack Position Table" *on page PPC-14*. You can have both this window and the **Rack Position Summary by Height** window open at the same time.

Rack Position Summary by Height



When you select the Rack Position Summary by Height option, the **Rack Position Summary by Height** window displays.



Use this window to define the Rack Number - Height and adjust the position up or down. You can also click a button to load the Rack Position Table; for more information, see "Loading the Rack Position Table" *on page PPC-14*. You can have both this window and the **Rack Position Summary by Depth** window open at the same time.

Using Pallet Position Control

Qube ERP™ provides tools to allow recording racks, pallets and events which associate items to pallets and to rack positions and thereby enable you to locate items and pallets within the rack system.

Controlling Pallet Numbers

You can control the reuse of pallet numbers by editing the last used pallet number on System Setup Card #2. For more information, see "System Set Up, Card #2 Window" *on page SYS-105*.

Shop Floor Location Codes & Descriptions

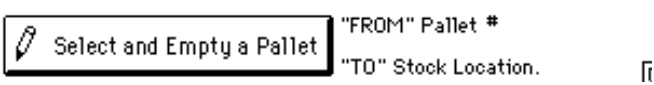
You must distinguish between those locations in the warehouse which are rack-controlled and those which are not. Transactions within a rack-controlled location will not need an inventory transaction. These transactions are instead maintained in a separate file, so that the number of inventory transactions does not grow to an unmanageably large number. When goods move into, out of, or within any rack-controlled location, transactions must specify the rack and position information.

Shop Floor Location Codes & Descriptions

Location Codes	Description	Rack Controlled
1	Lone Star Plant	YES
99	Lucerne Consignment - Burnaby, BC	
96	Lucerne Consignment - Edmonton, AB	
2537	Or-Tech	
51	Pacific Cold Storage - Los Angeles, CA	
100	Rework (1)	YES

Emptying a Pallet

A button is provided on both Pallet Transactions windows. After a pallet has been removed from the rack, you may want to remove selected items from it. Or you may want to empty the pallet (take everything off of it).



When you click this button, Qube ERP™ will create a transaction removing everything found on that pallet from the pallet position. For example, we start out with a pallet containing the following:

Pallet Detail

Pallet Number	1	Location 1	Lone Star Plant	
Pallet Rack Location	99-1-1-1		{Rack-Level-Column-Depth}	

Item Code	Quantity	Unit	Lot Number	Last Date In
01-001-45	5.000	LB	970251	05/06/97
01-003	10.000	LB	970701	05/06/97

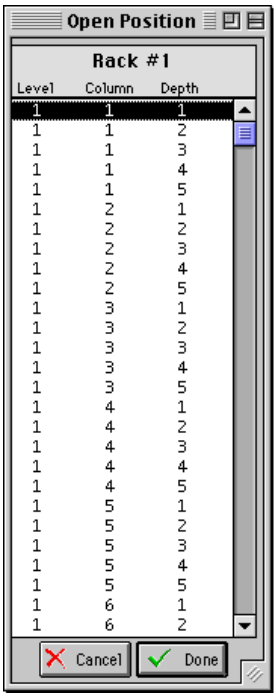
In this example, the pallet is in stock location 1. Therefore, entering the Empty Pallet transaction with parameters indicating that it is still in stock location 1 will remove the items from the pallet, creating pallet transactions, but not move the stock to another location (i.e., no inventory transaction).

"FROM" Pallet #	1
"TO" Stock Location.	1

If we send it to a different location (e.g., location 2), we will get both a pallet transaction(s) and inventory transaction(s).

Empty Positions

There is a button found on the **Rack Definitions** window labeled *OPEN RACK POSITIONS*. When you click the button, Qube ERP™ will display a list of all open positions on the selected rack.

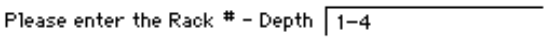


The list can be sorted by Level, Column, or Depth by clicking on any column label. Also it can be expanded to the full height of the window to minimize the need to scroll down the list. The first time this list is loaded during any log-on session, Qube ERP™ will take a while to load the list. However, the list will be retained in RAM and will also be updated on the fly as pallets are moved in and out of various positions. After the first load, the list will be displayed very quickly.

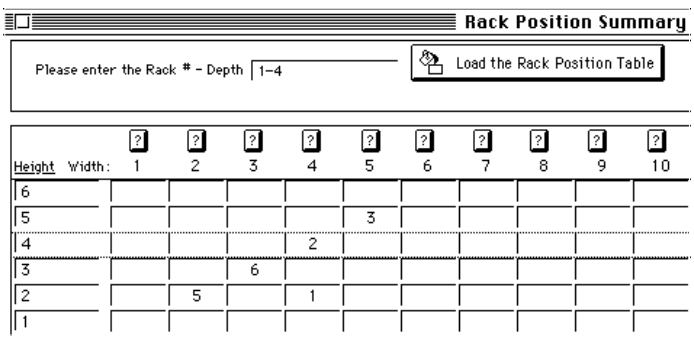
Loading the Rack Position Table

You must be able to see easily which pallets are located in which positions within the rack system. The following window is used for this purpose. The window is loaded by clicking the *LOAD THE RACK*

POSITION TABLE button. Qube ERP™ will prompt you to select a rack and a depth to use for the table display:

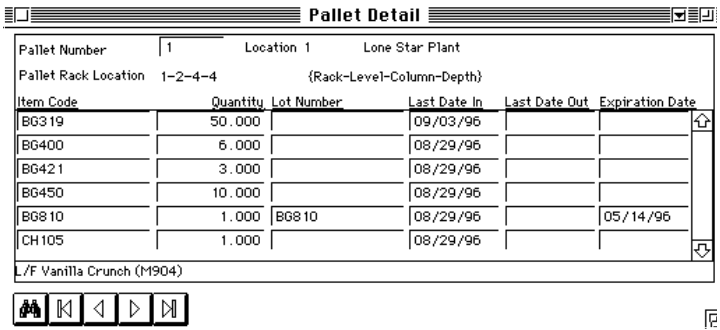


Qube ERP™ will first set up the table according to the rack's definition (height and width), displaying all available cells. Then it will load the pallets, displaying each pallet number in its appropriate position.



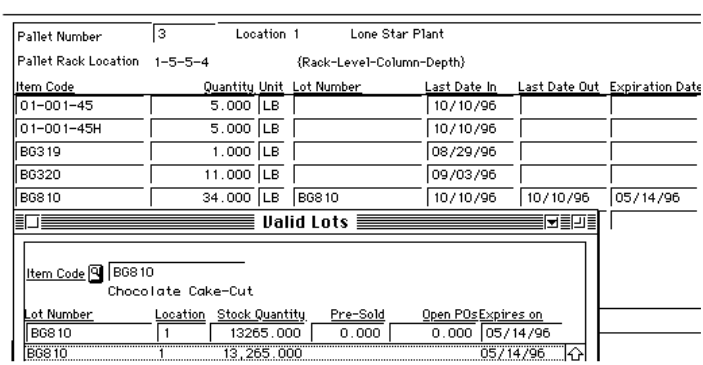
The display shows the different pallets which can be found in the different positions of the select slice of the selected rack. It is obvious from this display which positions are currently open and can therefore be filled by other pallets.

Qube ERP™ also allows you to easily see what is on each pallet. Select the line (height) and click the "?" button to select the column. Qube ERP™ will display the selected pallet and its contents.



This table can be sorted on any of the columns. It can also be opened and used independently of the rack position summary table to see what items are located on which pallets.

The value in the Expiration Date field is pulled from the lot or batch expiration date.



The column labeled "Expiration Date" refers to the lot or batch, not the item.The expiration date of the lot or batch is set when the record is added via an inventory transaction or PO receipt (another type of inventory transaction). Or, you may manually edit the value using the Valid Lots or Valid Batches window.

Locating Items

Qube ERP™ also provides the ability to locate items within the rack system (i.e., I'm looking for some of item ABCDE; where can I find it?). The window used for this purpose is the following:

Item Locations on Pallets

Item Code: BG810 — Chocolate Cake-Cut

Pallet #	Pallet Location (Rack-Level-Column-Depth)	Quantity	Lot Number	Last Date In	Last Date Out	Expiration Date
1	1-2-4-4	1.000	LBG810	08/29/96		05/14/96
2	1-4-4-4	1.000		08/29/96		
3	1-5-5-4	46.000	LBG810	09/20/96		05/14/96

In this example, you can see that the item BF810 can be found on three different pallets. The Last Date In field shows you how long each has been there so that the user can select to pull the oldest first, if he wishes.

Locating Pallets

Additional drill-down capability is provided on the **Rack Definitions** window. You can click on the *WHICH PALLETS ARE ON THIS RACK* button. This will display a list of pallets which can be found anywhere on the selected rack.

Pallet Locations

Rack: 1 — Rack number 1

Pallet #	Rack Location	Last Date In	Last Date Out	Stock Location
7		09/07/96		1
9		09/07/96		1
10		09/07/96		1
5	1-2-2-4	09/04/96		1
1	1-2-4-4	09/04/96		1
6	1-3-3-4	09/04/96		50
2	1-4-4-4	08/30/96		50
3	1-5-5-4	08/30/96		1

Double-click on any line to display the contents of the selected pallet

It is then possible to double-click on any line in this table to see what the contents are of the selected pallet.

Setting User Access Privileges

All windows for the rack control function have been added to user access privileges; for more information about user access privileges, see "User Access Privileges" *on page SYS-123*.

Function	Access Privileges			
Item Master Records	View	Add	Edit or Delete	Print
Rack Definitions	YES	YES	YES	YES
Rack Position Records	YES	YES	YES	YES
Rack Position Summary by Depth	YES	YES	YES	YES
Pallet Definitions and Locations	YES	YES	YES	YES
Rack Position Summary by Height	YES	YES	YES	YES
Pallet Detail	YES	YES	YES	YES
Item Locations	YES	YES	YES	YES
Pallet Transactions	YES	YES	YES	YES

Reports

Four reports are provided in this module:

Inventory Items Reports

Summary	Summary of Usage (SKUs for each period)
Summary	Available to Promise
Averages	Weekly Rolling Average of Inventory Usage
Averages	Weekly Rolling Average of Booked Order Usage
Pallets	Pallet Positions
Pallets	Items on Pallets
Pallets	Lots & Batches on Pallets
Pallets	Pallet Transactions

Pallet Positions Report

The Pallet Positions Report includes pallets currently in rack positions, pallets not currently in rack positions, and empty pallets.

Pallets — Pallet Positions

Please Double Click to Enter Parameters

```
Please Enter Beginning Pallet Number or ALL ALL
   Please Enter Ending Pallet Number or ALL ALL

Include Pallets Currently in Rack Positions? YES
Include Pallets Not Currently in Rack Positions? NO
Print Empty Pallets? NO
Sort by Pallet Number? NO
Sort by Pallet Position {Rack-Level-Column-Depth}? YES
```

Items on Pallets Report

The Items on Pallets Report sorts by lot or batch number, item code, and pallet position.

```
Pallets                    Items on Pallets

                 Please Double Click to Enter Parameters
                    Please Enter Earliest Expiration Date 09/23/95
                      Please Enter Latest Expiration Date 09/23/97
                 Please Enter Beginning Item Code or ALL ALL
                    Please Enter Ending Item Code or ALL ALL

                              Sort by Lot of Batch Number? NO
                                          Sort by Item Code? NO
      Sort by Pallet Position {Rack-Level-Column-Depth}? YES
```

Lots & Batches on Pallets Report

The Lots & Batches on Pallets Report sorts by lot or batch number, item code, and pallet position.

```
Pallets                    Lots & Batches on Pallets

                 Please Double Click to Enter Parameters
                    Please Enter Earliest Expiration Date 09/23/95
                      Please Enter Latest Expiration Date 09/23/97
      Please Select Lots {L} or Batches {B} or Both {O}: O
       Please Enter Beginning Lot or Batch Number or ALL ALL
          Please Enter Ending Lot or Batch Number or ALL ALL

                              Sort by Lot of Batch Number? YES
                                          Sort by Item Code? NO
      Sort by Pallet Position {Rack-Level-Column-Depth}? NO
```

Pallet Transactions Report

The Pallet Transactions Report sorts by lot or batch number, item code, and pallet position.

```
Pallets                    Pallet Transactions

                 Please Double Click to Enter Parameters
                   Please Enter Beginning Transaction Date 11/04/1997
                      Please Enter Ending Transaction Date 11/04/1999
                   Please Enter Beginning Item Code or ALL ALL
                      Please Enter Ending Item Code or ALL ALL

              Sort by Pallet Number (the "From" pallet)? NO
                             Sort by Lot of Batch Number? NO
                                        Sort by Item Code? NO
      Sort by Pallet Position {Rack-Level-Column-Depth}? YES
```

Multiple Shipping Warehouses Introduction

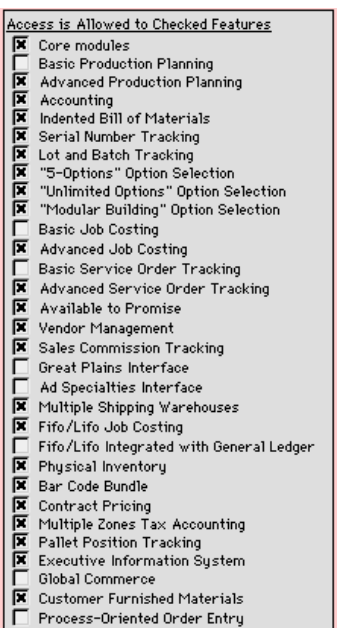
The Multiple Shipping Warehouses feature is designed for companies who use a central manufacturing facility which ships inventory to other warehouses. It is assumed that shipments to each customer will be made from the warehouse nearest to that customer. Therefore, if customer AAA is located in Texas and your company has manufacturing facilities in California but also has a warehouse in Dallas, customer AAA will be set up to have all purchased items shipped from the Dallas warehouse.

Parts of this feature's capabilities are provided to all users (default customer ship-from location). Other parts of this function are available only if the feature is enabled on the feature set window.

Features Set

The Multiple Shipping Warehouses module is an optional, for-sale module. It must therefore be activated in the **Features Set** window in order to be available for use (*see* *"Application Features Set Window" on page SYS-138*).

Make sure Multiple Shipping Warehouses is active



Customer Ship-From Locations

Qube ERP™ provides the ability to associate a ship-from location for each customer. This is useful when a company uses different stocking warehouses at different locations to better serve customers located at significant distances from each other. The **Convert the Data** procedure will set this value in each customer ship-to record to the default shipping location. Later, you may set this up to be different locations for selected customers. The location is used during the invoicing procedure. The inventory transaction generated during invoicing will pull the stock from the location indicated in the appropriate ship-to record. The ship-from location is displayed on each customer record.

Ship To	AAA Co. 2nd ship to address				
Division	2233 West Main Street				
Address	Suite 12345				
City	Tuskalusa				
State	AL	Zip Code	44556	Country	USA
Ship from location used by Invoicing	2				

The location is also displayed on the **Invoice Select Orders** window. When displayed on this window, the location acts as a default for invoicing purposes and may be overridden by the user.

Order Number		Shipped In Full?	Shipped Via	Shipped From Location
1021	Highwater Furniture, I	YES	*P.I.E.	1

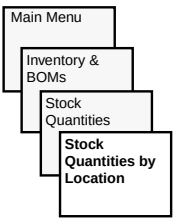
Sales Order Preferences

This window provides one additional choice for sites which have the multiple shipping warehouses enabled.

Recommend shipping quantity during order entry based on....
- ○ Base on Net Quantity Available at all general stock locations
- ◉ Base on Net Quantity Available at customer's default ship-from location only.

If you select the second option, **Base on Net Quantity Available at customer's default ship-from location only**, the **Stock Quantities by Location** window will display the **Committed to Sales** quantity by location using the **Committed to Sales** column.

Inventory Stock Quantities Window



This window will appear with additional fields when the selection has been made to base shipping quantities on the net available from the customer's default ship-from location. Note below that the quantity committed to sales is displayed, as well as minimum, maximum, net available and over or short for each location. In the example below, stock location 1 is short by 42 units. Location 40 (Chicago) is overstocked by four units. All other locations are stocked within the minimum and maximum levels.

Location	Description	Bin #1	Bin #2	Total Stock	Committed to Sales	Min. Stock 100	Max. Stock 200	Quantity Avail	Over or Short
1	Stock Room and			164.000	106	100	200	58	-42
2	Sacramento, CA								
3	Phoenix, AZ Dis			18.000		10	20	18	
30	San Antonio, TX			15.000		12	24	15	
31	Grand Prairie,			15.000		10	20	15	
40	Chicago, IL Dis			20.000	1	10	15	19	4

The minimum and maximum quantities can be manually edited on this window.

You can also determine which order(s) are responsible for the committed to sales quantity by double-clicking on the list. This action will produce a window that will display all order shipments which support the total quantity committed to sales for all locations of the selected item. The window may be sorted by any column displayed.

Open shipments of 10-100-51005 Minikit, 10 Fbh Black

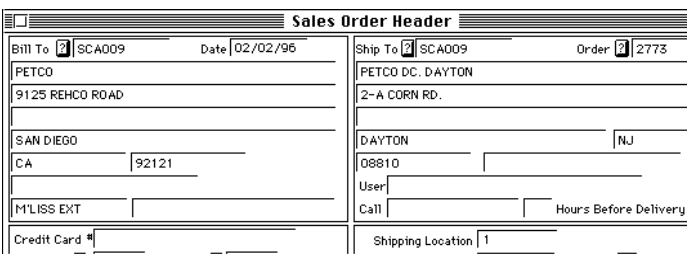
Sched Ship Date	Quantity Back Ordered	Item Code	Customer	City	Order Number	Ship-from Location
02/21/96	2	10-100-51005	ANIMAL KINGDOM	BURBANK	2722-5	1
03/02/96	2	10-100-51005	PETCO DC. DAYTON	DAYTON	2773-5	1
02/22/96	80	10-100-51005	600	RANCHO CUC	2774-4	1
02/28/96	12	10-100-51005	WEST WHOLESALE	FORT LAUDE	2925-4	1
02/23/96	6	10-100-51005	ORANGE COAST TROPICAL FIS	BUENA PARK	2985-7	1
02/22/96	2	10-100-51005	ATLANTIS TROPICAL FISH	TORRANCE	2990-3	1
02/21/96	1	10-100-51005	TERRI STRAYHORN	AUSTELL	2999-1	40
03/20/96	2	10-100-51005	PETCO	SAN DIEGO	3004-5	1

The window displays what quantities of the selected items are due to be shipped to which customers and what their default ship-from location is.

The default ship-from location for each order is determined by looking at the ship-to customer code on the sales order header.

Ship To SCA009

Note that the code, not the text, of the shipping address controls the logic used to default the ship-from location. In the example below, a ship-to code was entered that is identical to the bill-to code. But the ship-to address shows Dayton, N.J. while the bill-to address is San Diego. Qube ERP™ will default the ship-from location to that associated with the bill-to customer record (location 1, in this example).



There are two methods to correct this. The ship-to code can be entered correctly. This will cause the **Shipping Location** field to default correctly. Or the ship-to code can be left alone and the **Shipping Location** field can be edited directly. The **Shipping Location** field may contain any value (1-99999). It does not need to refer to a valid location code.

Defaulting Quantities Ready to Ship

During order entry, Qube ERP™ suggests a quantity ready to ship. Normally, Qube ERP™ recommends the quantity ready to ship on a new sales order item by comparing the quantity in general stock (all locations) minus the quantity committed to sales (at all locations). With this feature enabled, the quantity committed to sales is maintained separately for each location. Therefore, it is possible to recommend the quantity ready to ship based on what is in stock at the selected customer's normal ship-from location minus previously entered sales demand from that location.

If, for example, a quantity of 20 units was entered with the location of 40 (Chicago) showing on the order header, Qube ERP™ would default the quantity ready to ship as 19 (20 is in stock but 1 unit is already committed to sales on prior orders).

Item Code	Date	Status	Ordered	Shipping
10-100-51005	03/05/96	H	20	19

Reports

A new report is provided, found in the **Inventory Item Reports** list.

```
Transfers                    Items At or Near Re-Order Point


                 Please Enter First Item Code or ALL ALL
                  Please Enter Last Item Code or ALL ALL
            Please Enter First Location Code or ALL ALL
             Please Enter Last Location Code or ALL ALL


                     Sort & Subtotal by Item Code? YES
                 Sort & Subtotal by Location Code? NO
```

This report is designed to assist in identifying items which should be transferred from the central stocking facility to outlying warehouses. The parameters allow you to enter a range of item codes and/or locations. The report may also be sorted and subtotaled by item or by location.