lucity™

TRAINING GUIDE

Parts Warehousing

Parts Warehousing and Bar coding

The Parts modules allow your agency to keep track the locations, quantities, costs, vendors, and purchase orders, of all the parts that they use. These modules can be integrated with the Work modules to show where and how the parts are being used in relation to your agency's work. Finally Lucity has software to collect inventory information using barcoding devices.

Table of Contents

Parts Warehousing Analysis 3
- Warehouses & Warehouse Locations 3
  - Location Tab 4
  - Security Tab 10
  - Custom and Comments Tab 11
- Parts 12
  - LIFO, FIFO, and Cost Averaging 13
  - Add to Inventory (Order Info Tab) 15
  - Inventory Tab 16
  - Vendor Tab 21
  - Part History Tab 22
  - Transaction Tab 24
  - On Order Tab 24
  - Hazard Codes Tab 24
  - WO Tab 25
  - Material Cat Tab 26
  - Fluid Cat Tab 26
  - Custom Tab 26
  - Custom 2 Tab 27
  - Comments Tab 27
  - Toolkit 27
- Vendors 29
  - Vendor Parts Tab 30
  - POs Tab 31
  - Custom and Comments Tab 31
- Purchase Orders 31
  - General Tab 32
  - Items Tab 33
- Transactions 39

Integrating with Work Orders 41
- Parts Dispersal Scenario 1 - Default Location = N & Force Mobile = N 42

Parts Dispersal Scenario 2 - Default Location = Y & Force Mobile = N 48
Parts Dispersal Scenario 3 - Default Location = N & Force Mobile = Y 49
Parts Dispersal Scenario 4 - Default Location = Y & Force Mobile = Y 49
Prevent Negative Part Quantities 50
Make Vendor Part Number the Default for Part Lookup 50
Comma Delimited list of UserIDs that should not trigger a dispersal or return notification. 50
Email address to send dispersal/return notifications 50
Use Parts Warehouse Security 51
Use Part Open Inventory Date Range 51
Special Items of Note 51
Deleted or Reduction in WO Resource Materials 51
Not enough Parts in stock for WO Resource record 52
Parts Markup 52
WO Cost Estimates 54
Warehouse Operations using a PDA with Bar Coding 55
Adjust Quantities Screen 56
Input Adjustment Screen 56
Warehouse Transfer Screen 57
Input Transfers Screen 57
Stock Counts Screen 58
Input Counts Screen 58
Receive Inventory Screen 59
Receive Inventory Screen 59
General Import 60
Review and Post 61
Enhancement Requests 63
Parts Requisition System 63
Parts Serialization and/or Lot Numbers [#5507] 63
Creation of a Part Audit Count Module [#2149] 63
Support of Open Inventory Date Range [#2572] 63
Bar Code Program Enhancements [#5776, #5735, #4877, #4060] 63
Cascade Update Part Description [#1583] 64
Add a Transaction Type for Receiving Inventory [#6162] 64
Upgrade the inventory parts module [#6163] 64
When Adjusting Quantity (+), please autopopulate Unit Cost field with FIFO (most recent) part history cost the inventory parts module [#6063] 64
AutoNumber for Parts Inventory module [#5713] 64
Block PM if Inventory is too low [#4195] 64
Part Adjustment Limit Popup [#2387] 64

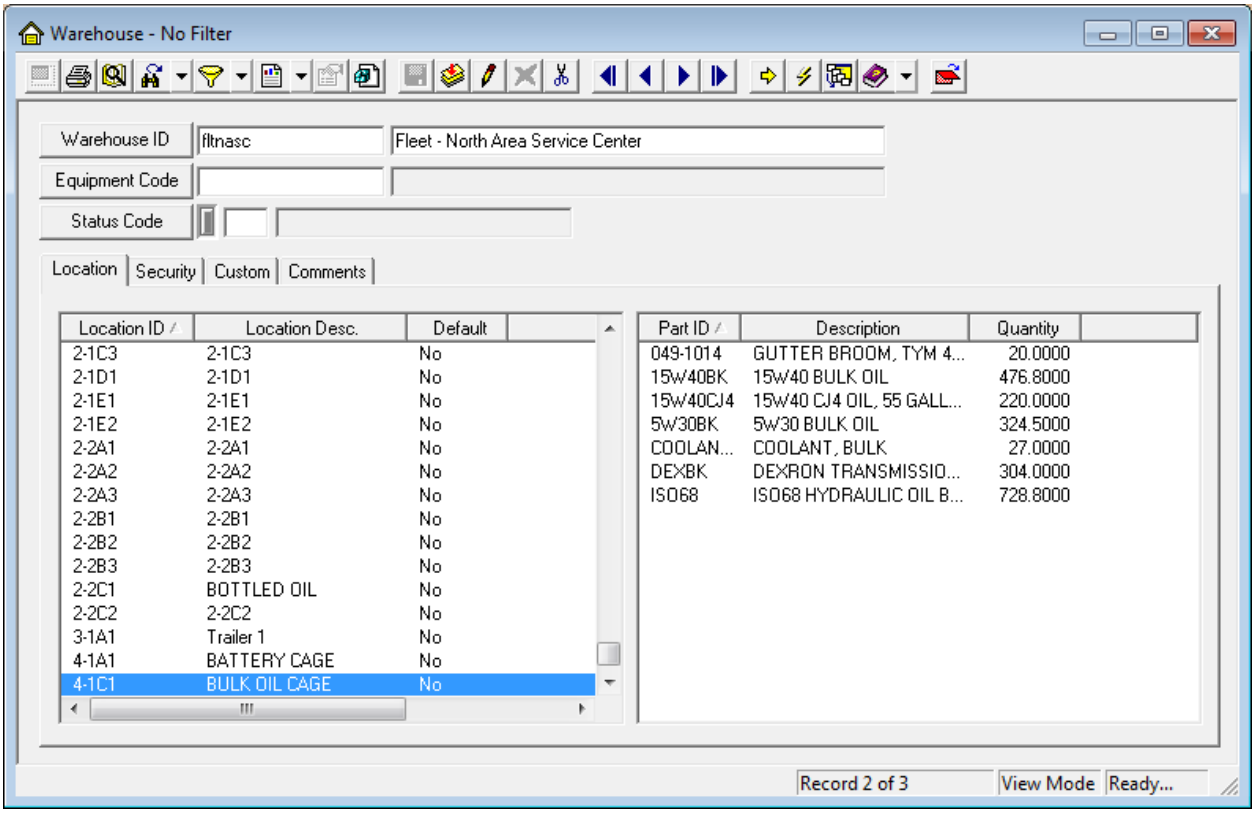
Parts Warehousing Analysis

The Lucity Parts Warehousing suite can be used as a stand-alone product or integrated with Lucity's Work Order system. In this section we are going to focus on how it works first as a stand-alone system and then, later in this document, we will be documenting how the integration with Work Orders works.

As of September 2013, the Parts Warehousing suite has not been converted to work in the web so for consistency sake, this entire document will be showing screen shots from the desktop product.

Warehouses & Warehouse Locations

The first step in the setup of the Parts Warehousing suite is to create at least one Warehouse with at least one location.



The Warehouse ID must be unique. The Warehouse description does not need to be unique but it may be helpful if it is.

The Equipment Code links to an Equipment record in the Work Order setup system. This is only used if the warehouse is a mobile warehouse (a vehicle where parts are stored).

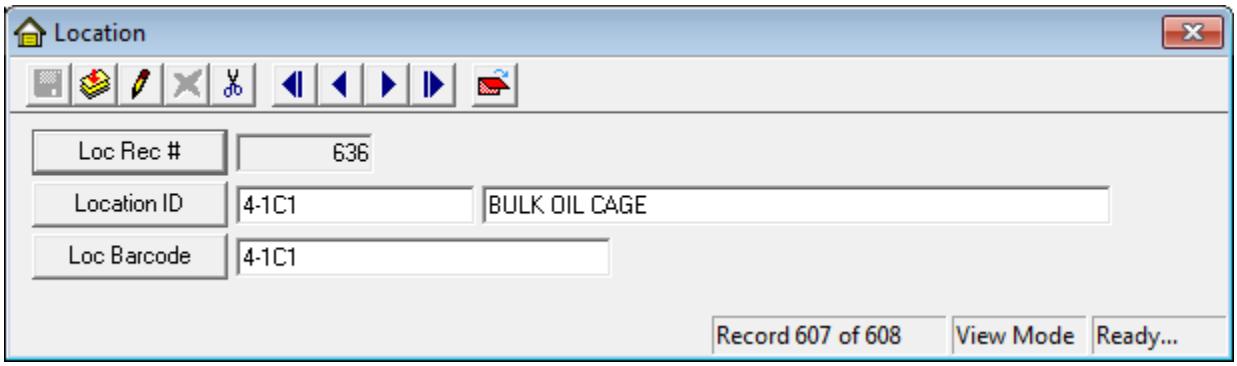
The Status code was added for Version 7.6. No special functionality is associated to this field. We also added the Security, Custom and Comments tab for Version 7.6. The Security tab is documented later in this document.

Location Tab

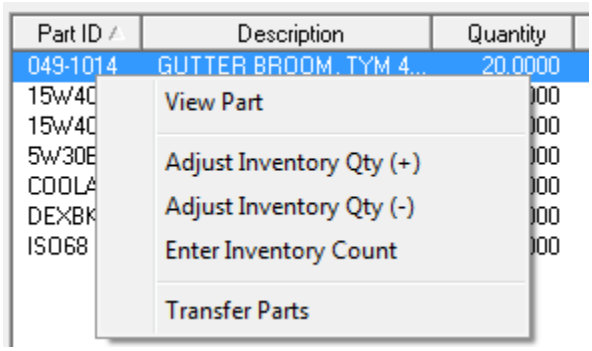
The location tab provides a list of all the locations found within the warehouse. This could be a general as a section of the warehouse, or as specific as a bin.

The first Location entered for the warehouse will automatically be the Default location. This is important as there is a Work Order Parts Integration Option for "Always Use Parts Default Location". Therefore, the software always has to know where that location resides. If more than one Location is entered for the warehouse, the user will have the ability to right-mouse click on any other warehouse location to set it as the default. The Location ID has to be unique for all locations for all warehouses.

If you desire to use a bar-code scanner for moving parts, receiving parts, etc., then you will want to put in the Barcode text for each location in the Loc Barcode field. The Loc Barcode text has to be unique for each location for all warehouses.



The right grid shows all of the parts that currently reside at the location highlighted on the left. Parts cannot be added directly into this grid; however there are several tools (right-mouse clicks) that have been created to make life a little easier.



- **View Part** – This launches the Parts module allowing the user to see more information regarding the part.

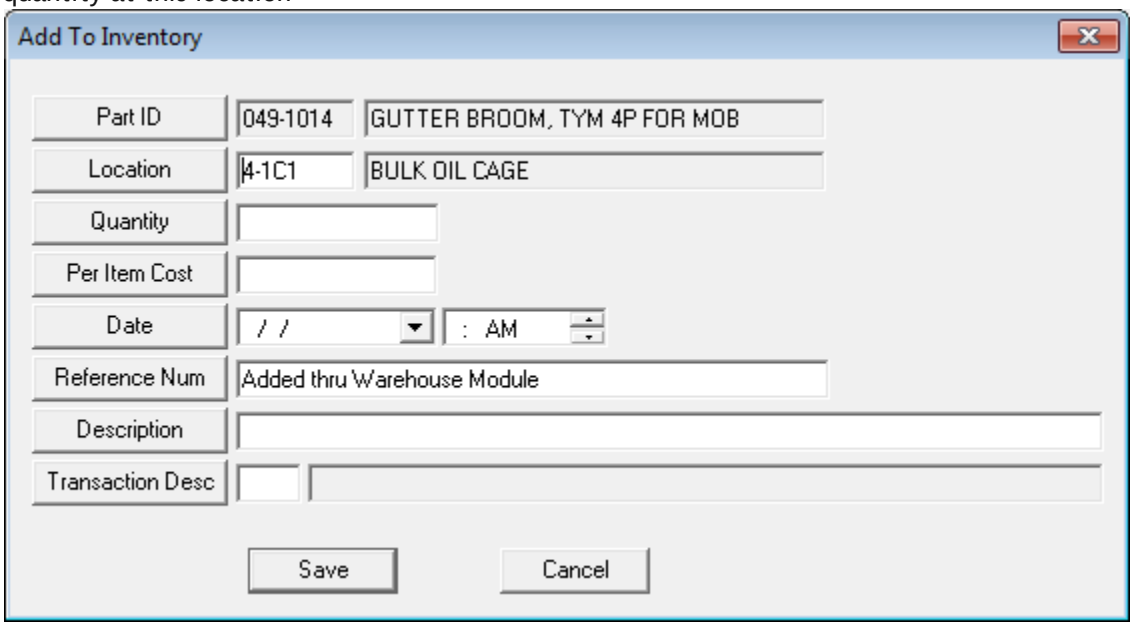
Notes:_____

_____

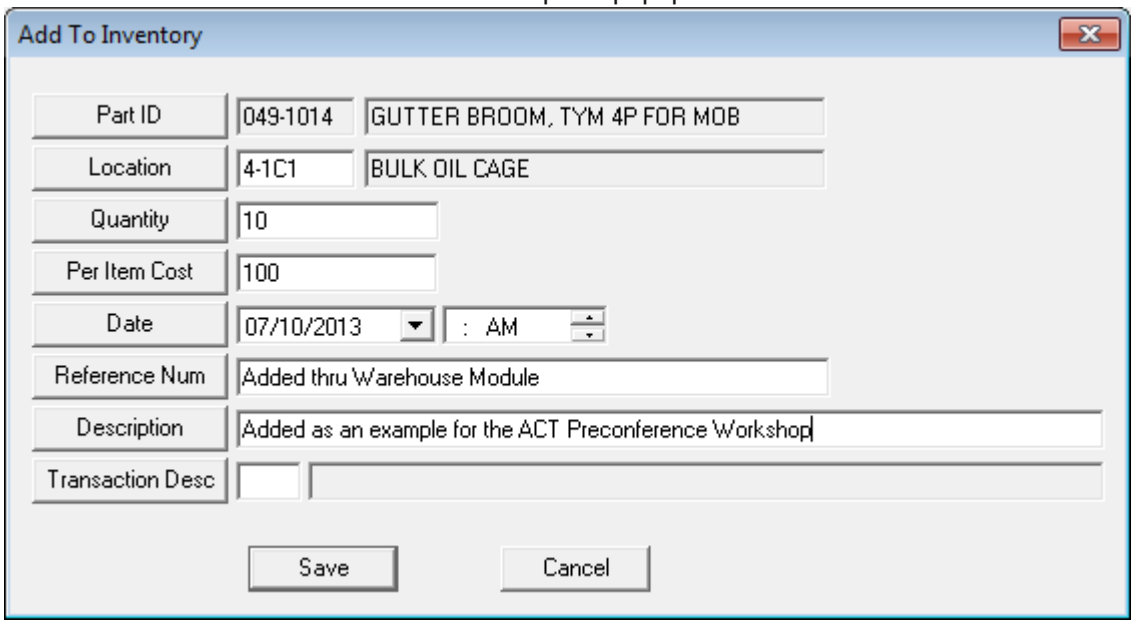
_____

_____

Adjust Inventory Quantity (+) – This pops-up a screen that allows the user to add onto the quantity at this location

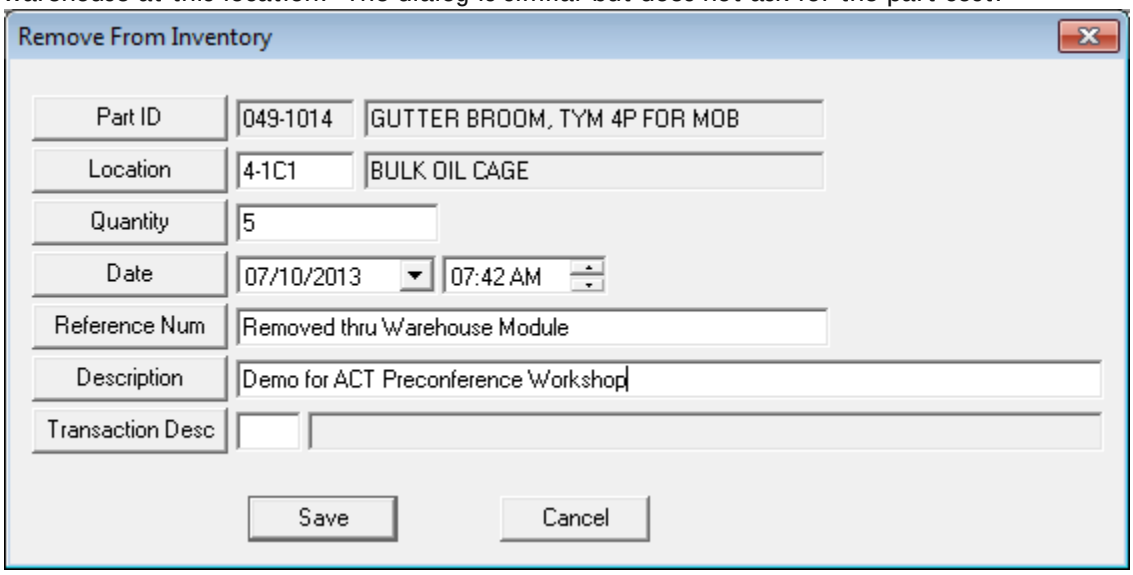


The above dialog shows that the Part ID, Location and Reference number are all automatically filled out. Quantity, Per Item Cost and Date are required fields. The other fields are optional. The Transaction Time and Transaction Description popup are both new to Version 7.6.



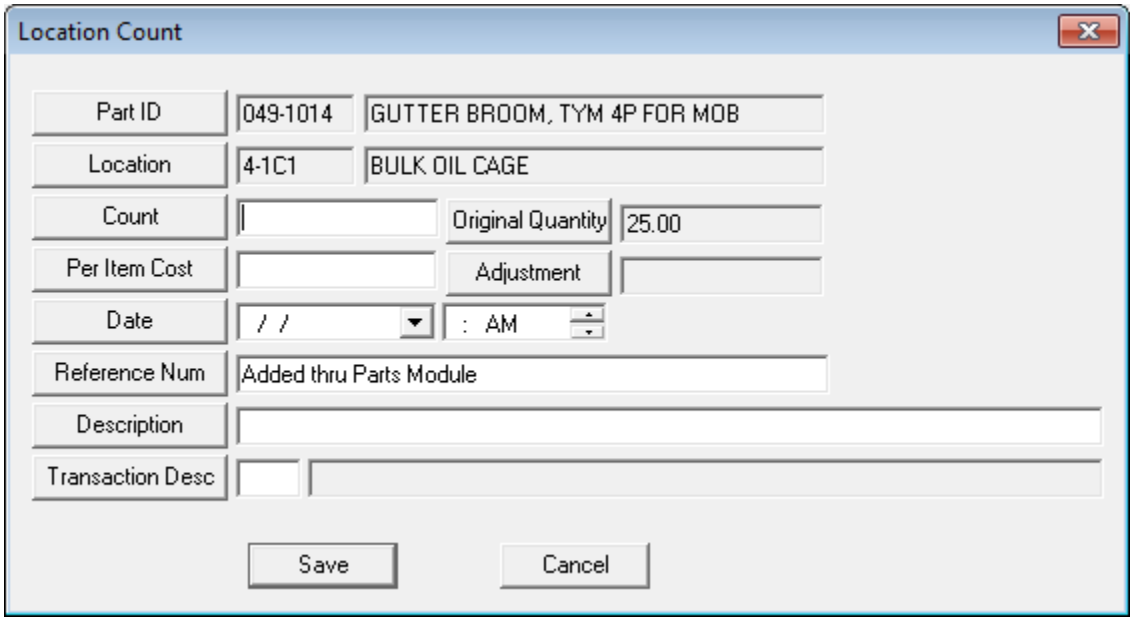
The above shows us adding 10 more parts at a cost of $100 each into the Bulk Oil Cage location. On hitting save, the dialog disappears and the Quantity is updated.

- **Adjust Inventory Quantity (-)** – This tool does the opposite as it removes parts from the warehouse at this location. The dialog is similar but does not ask for the part cost.



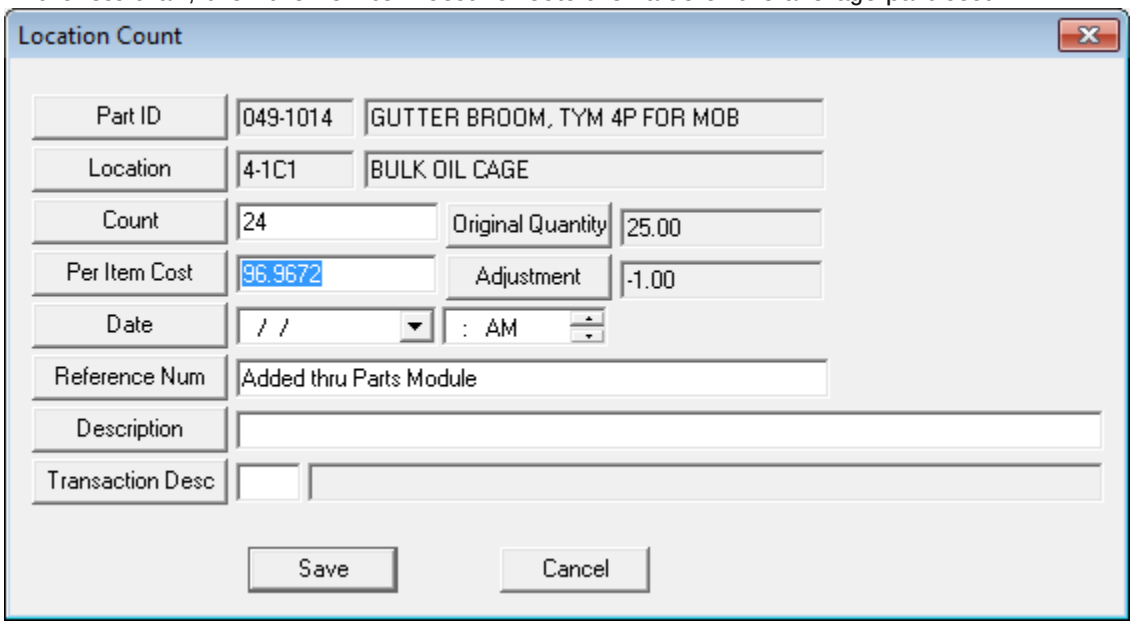
Once save is selected, the part quantity at this location is automatically reduced.

- **Enter Inventory Count** – This tool allows users to enter the current stock quantity at this location. The system will then make whatever adjustments to the system (up or down) to make the parts inventory quantity match the stock count.

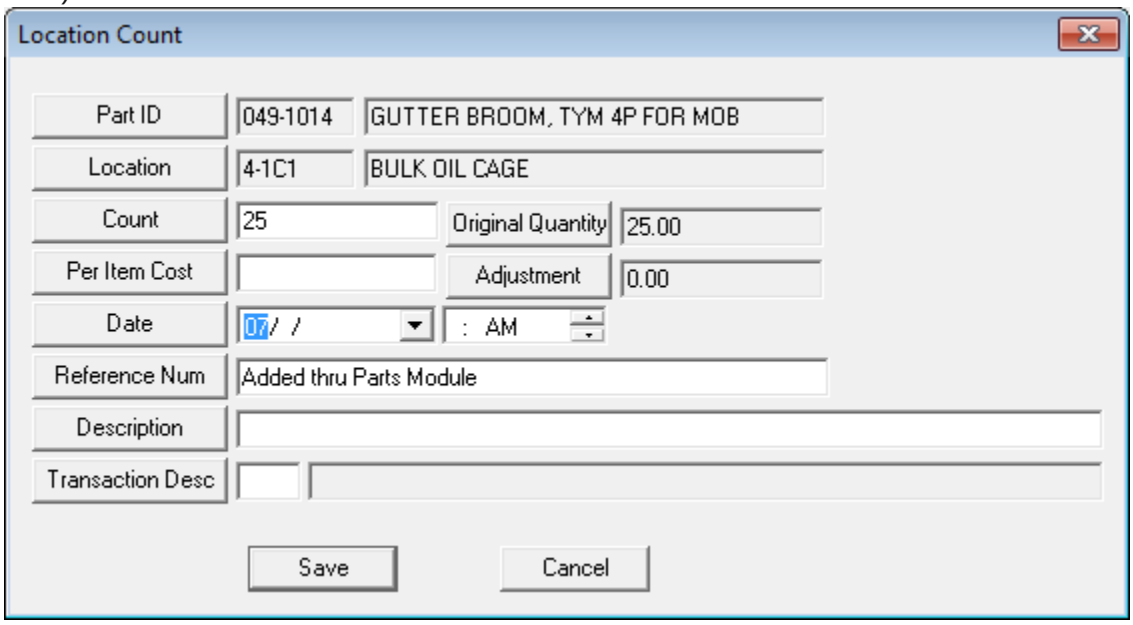


In the above example, 25 items are currently at this location. How the system behaves will depend on if the stock count is less than, equals to or is greater than the current quantity.

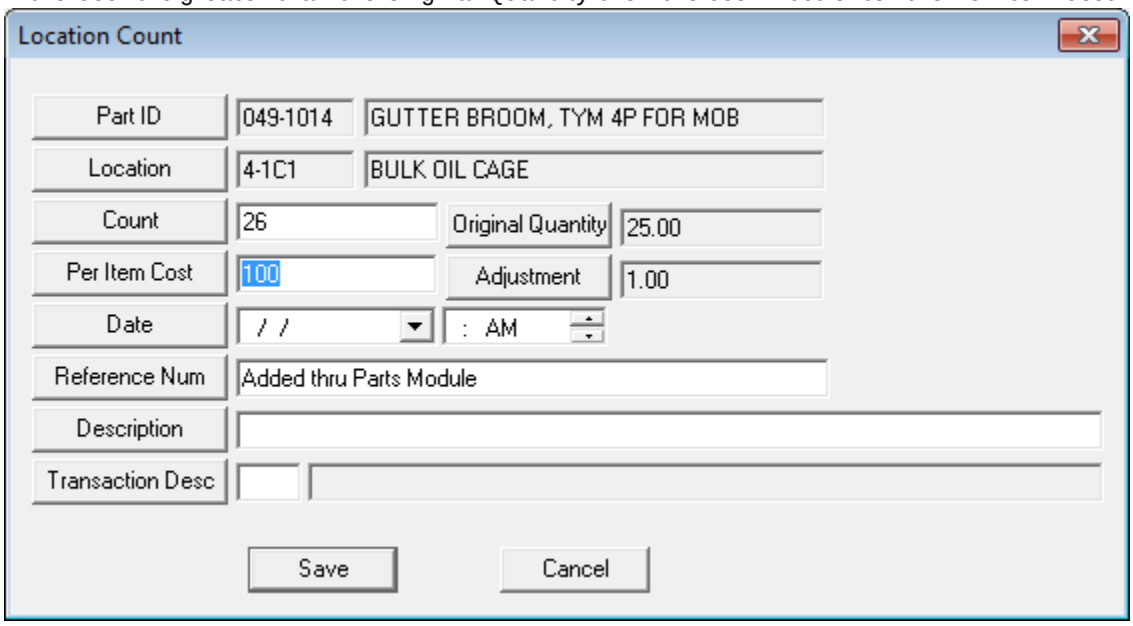
- If it is less than, then the Per Item Cost reflects the value of the average part cost.



If the Count equals the Original Quantity then the Per Item Cost is blank (as no adjustments are done).

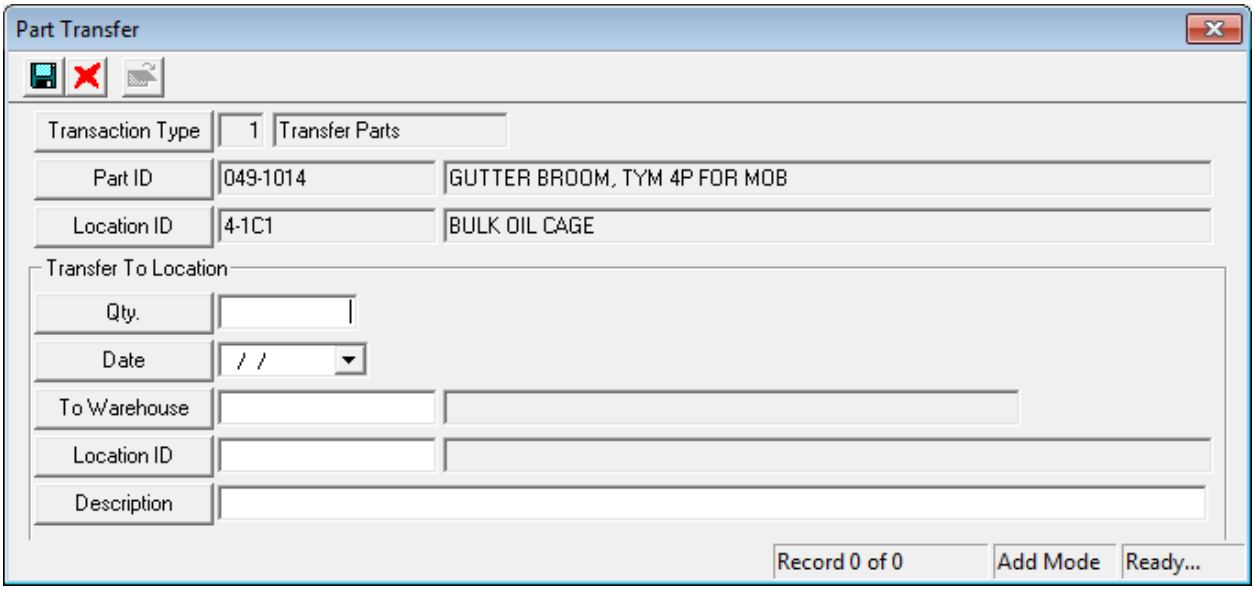


- If the Count is greater than the Original Quantity then the user must enter the Per Item Cost.

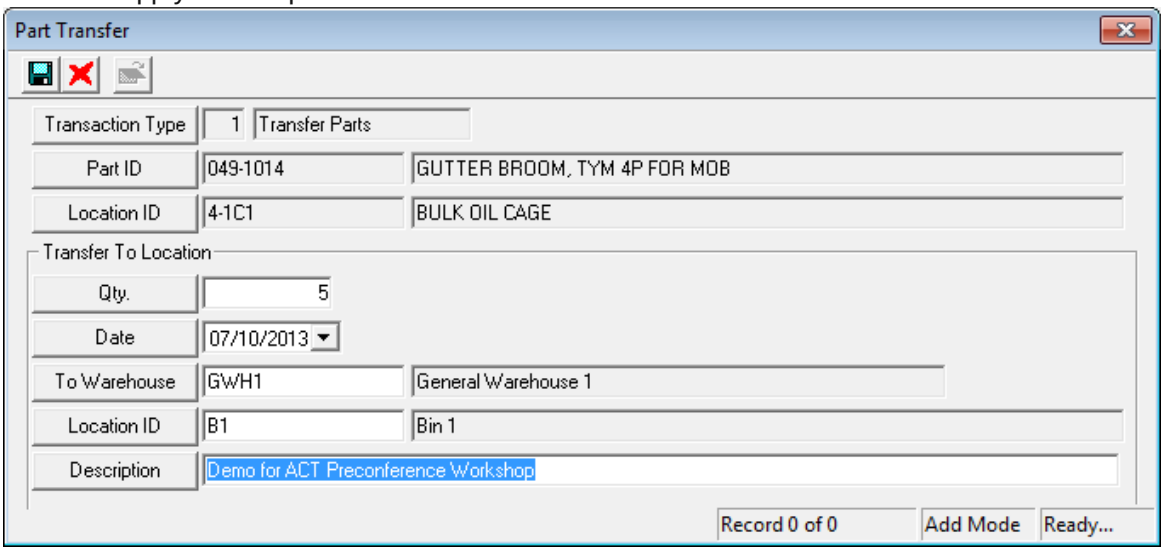


The reason that a Per Item Cost must be entered is because a new entry must be made into the PTPARTCOST table. For a more detailed explanation, please see the section titled LIFO, FIFO and Cost Averaging.

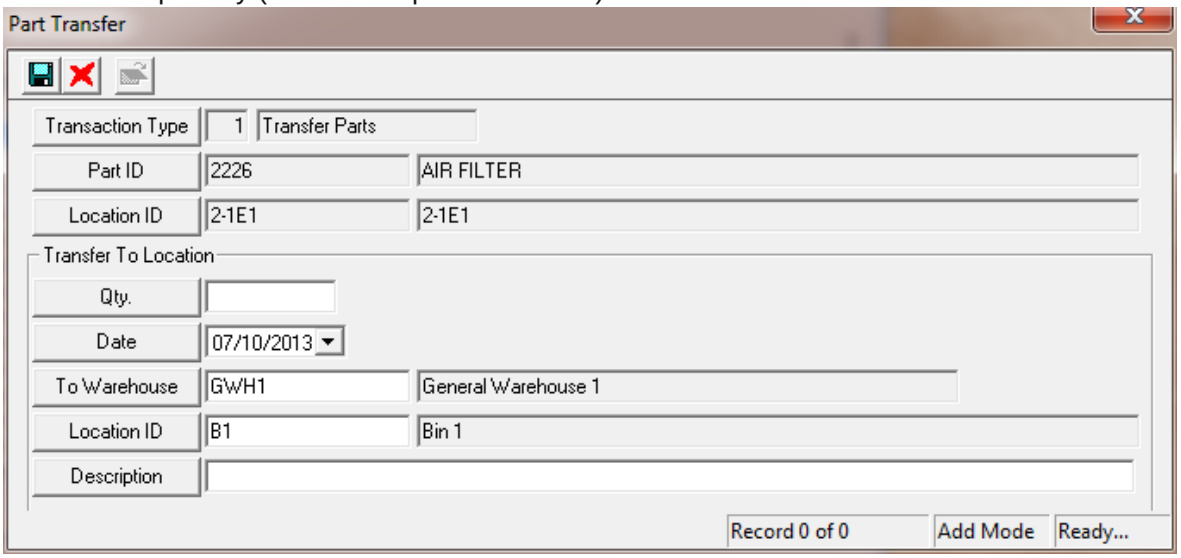
- **Transfer Parts** – *New for Version 7.6* – The tool allows users to transfer parts from the current location to another location.



It automatically fills in the Part ID and Part Location where the part is being transferred from which location the user right-clicked on. The user enters the quantity to be transferred and the date. Then the To Warehouse is selected from a drop down list. Once selected the Location ID list will display only those locations associated to that warehouse. If desired, the user can supply a description for the transfer.



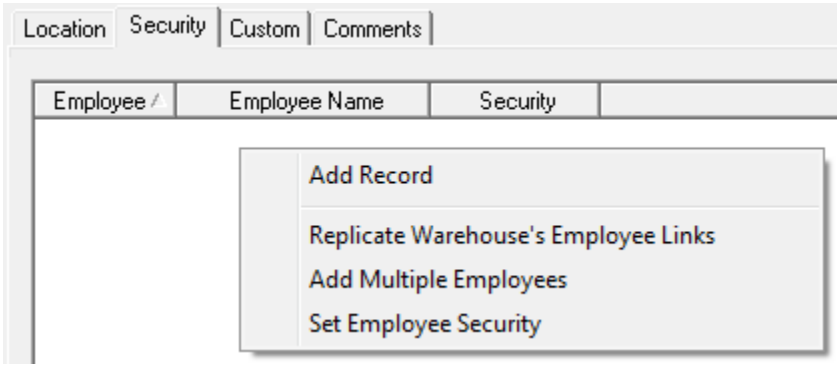
Then, while still in the Warehouse module, the user can select any other warehouse and location, highlight the appropriate part and select Transfer Parts. The system will remember the last "Date, To Warehouse and Location ID" that was selected. Then all the user needs to enter is the quantity (and a description if desired).



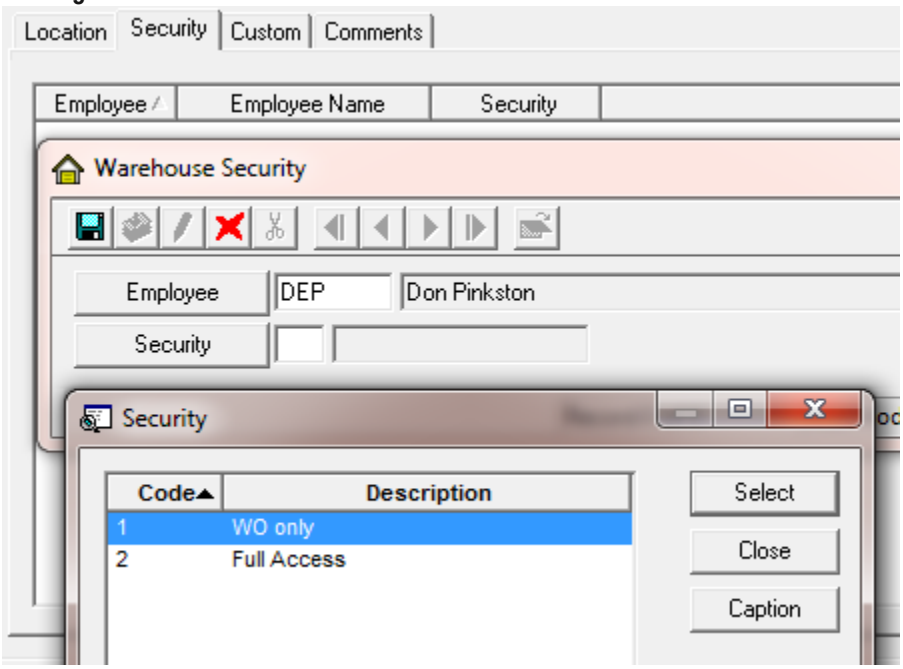
This can be especially helpful when sending parts to mobile warehouses for specific work order requests.

Security Tab

This is a **new tab for Release 7.6**. It gives users the ability to lock staff out of certain warehouses while still giving them the ability to use other warehouses (and the parts contained therein). The Security system will not work unless the Parts Warehousing option "Use Parts Warehouse Security" is set to Y.



- **Adding a Record**



Notes:_____

_____

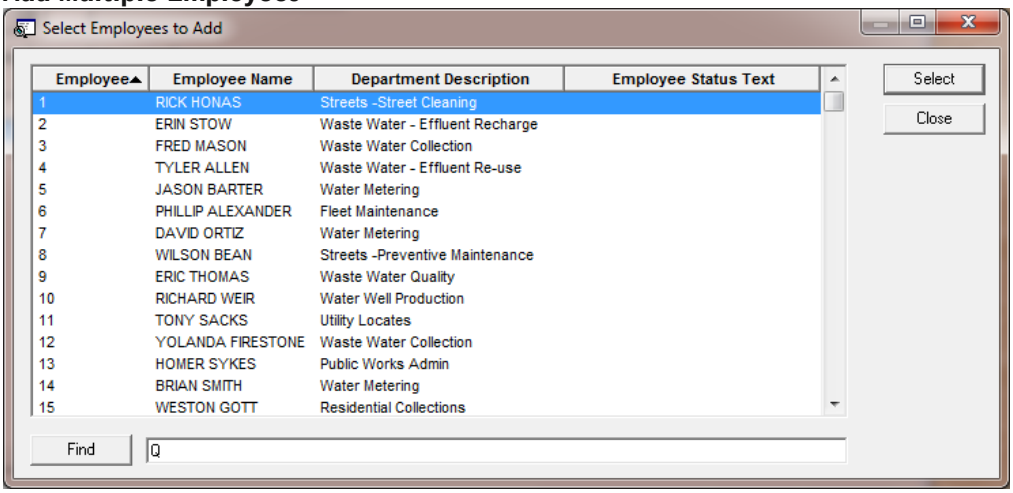
_____

_____

Individual users can be added manually to each warehouse. The employee list comes from the Employee Setup module. There are only two types of Security status allowed

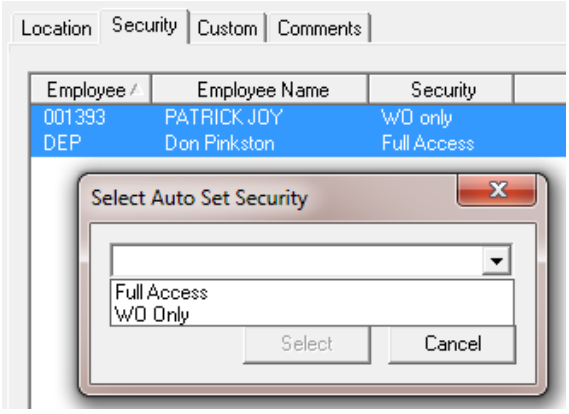
- **WO only** – this gives an employee rights to pull parts from the warehouse on a work order (or return parts from the work order back into the warehouse). When completing a work order, the work order will only display those locations to the user for which that user has rights to use.
- **Full Access** – this setting allows the user to have full rights to this warehouse including adding parts, transferring parts, and removing parts. When transferring parts between warehouses, the user must have Full Access to both warehouses.
- We recommend this functionality not be turned on until the warehouse security is setup for all users that need access.

- **Replicate Warehouse's Employee Links** - It can take some effort to setup a warehouse's security. This tool is valuable as it lets you copy the security from one warehouse into another warehouse. You can actually run the tool more than once, selecting different warehouses each time. When doing so, it will always bring in the new staff from the next warehouse but it will never change the Security settings, once established.
- **Add Multiple Employees**



This tool allows the user to select multiple employees at once – by either holding the shift key down or by holding the Ctrl key down.

- **Set Employee Security** - Once the user has multiple employees in the grid, one or more can be highlighted and all of the highlighted employees can have their security changed with this tool.



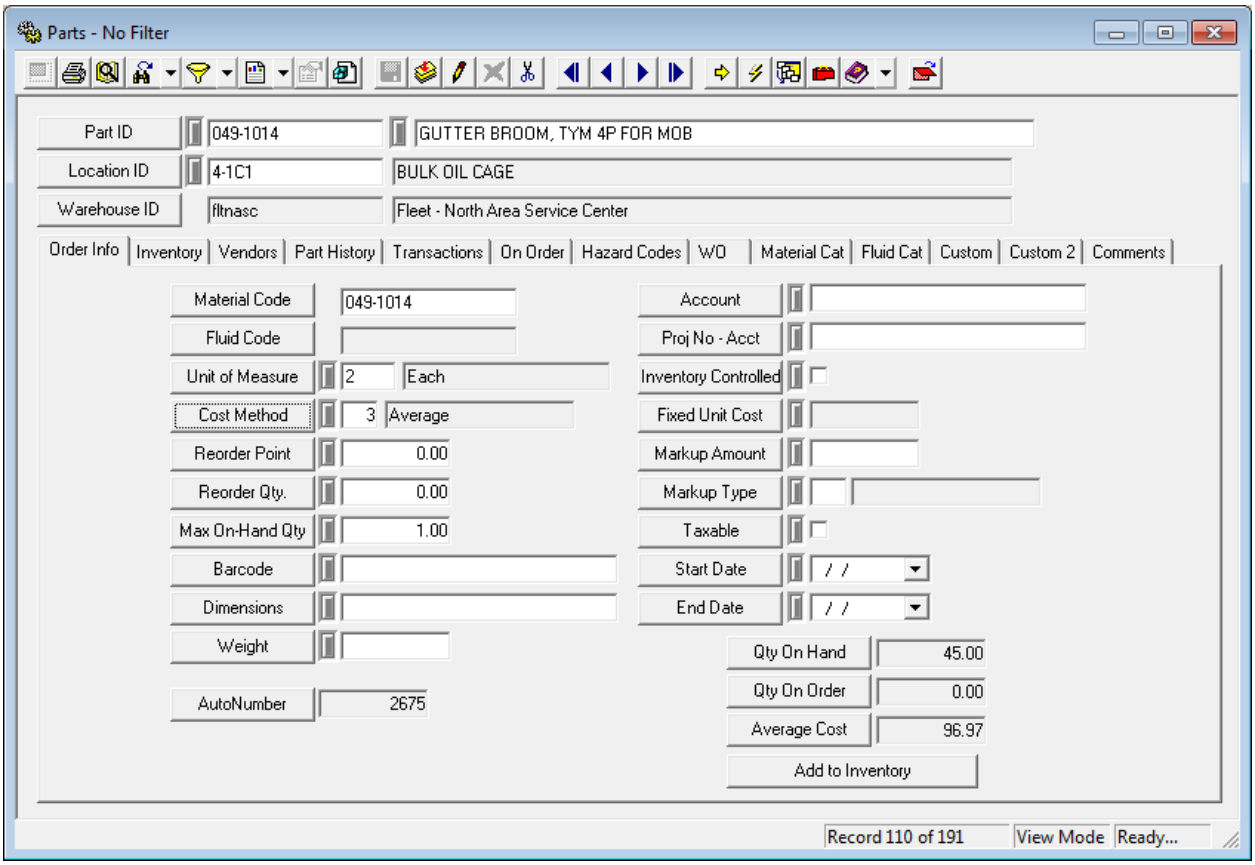
Custom and Comments Tab

These are the standard Lucity custom and comments tabs.

Parts

Parts have to be added into the system through the Parts module. When adding a new part record several fields are required including

- **Parts ID** (and this must be unique and cannot be longer than 20 characters).
- **Part Description**
- **Location ID** (which must have been set up previously)
- **Cost Method** (LIFO, FIFO, Average or Fixed Cost)



Several other fields of note are:

- **Material Code** – This field links the part to record in the Work Materials module. Materials are used on work orders and if they are linked to a part that part is dispersed from the inventory to the work order. If this field is blank, the user can click in this field, and press F5 to populate the Code from the Part ID. If this field is filled out:
    - The Fluid Code becomes inactive (because a part cannot be both a material and a fluid at the same time)

- On Save, the Material Setup data will be searched. If that material code is not found, then a new record will be added into the Material module based on the following:
  - The Material ID = Part ID
  - The Material Description = Part Description
  - The Unit of Measure = the Part Unit of Measure
  - Automatically sets the material as Active
- This process takes place whether or not the user has the "Integrate Work and Parts Inventory" option set to Yes or No.

- **Fluid Code** – works the same as Material Code except that it works with the Work Fluid module and the Material Code field is then set to inactive.
- **Reorder Point** – once the total quantity on hand reaches this value, the user should be notified that they need to reorder the parts. Lucity contains a report that can be run on demand that prints out all parts needing to be reordered.
- **AutoNumber** – this displays the computer generated number for this part. This can help if you are ever looking behind the scenes at the database and need to know the PA_ID value.
- **Start Date & End Date** – *New Version 7.6 fields* – If the integration with Work is turned on, then the Resource End Date has to be greater or equal to the start date or less than or equal to the End Date (if the End Date is entered). There is a flag in the Work Options to turn this test on.
- **Parts On-Hand** – this is the total number of parts available at all locations
- **Parts On-Order** – this is the total number of parts that are on-order in the Parts Purchase Order system and have not yet been received
- **Average Cost** – This field is only displayed if the Part uses Cost Averaging for its pricing
- **Add To Inventory** – This is a button that the user can use to add Parts into the system without going through the Purchase Order system

LIFO, FIFO, and Cost Averaging

When a part is first entered into Lucity, the user must pick if the cost of the part is going to use LIFO (Last In First Out), FIFO (First In First Out), Cost Averaging or Fixed Cost. Fixed cost is the easiest to explain because then the cost entered is simply the value of the Fixed Cost value entered. The rest require some explanation.

When the user receives parts into the system, Lucity requires the value (or unit cost) of the parts is entered as well. For each increase in part quantity several new records are created in the Work database.

PTPARTCOST – This table tracks the date that the quantity was entered, the total original quantity entered, the quantity remaining (as parts get extracted), the unit cost of these parts, and the average cost of the part based on the total quantity and cost of the part that exist in the system

PC_ID	PC_PONUM	PC_PA_ID	PC_DATE	PC_ORIGQTY	PC_CURRQTY	PC_COSTUNT	PC_COSTAVI
2955	Added thru Parts Module	2860	6/1/2013	100	100	5	7.5
2956	Added thru Parts Module	2860	7/1/2013	100	100	10	7.5

The above image is from the PTPARTCOST table. The values are linked to the Part by the PC_PA_ID value. There were 2 different times that parts have been added to the system – both directly from the Parts Module. The first entry in June had 100 units at a unit price of $5. The July record added 100 parts at $10. The average of all of the parts after the last upload as $7.5.

If the Part used LIFO (and no other parts were added), the July parts would be used first until the 100 parts were totally removed. So the unit cost of each part would be $10. Thereafter, the parts entered in June would be used so the unit cost of each would be $5.

FIFO is just the opposite. The first parts entered (the June entry) would be used first so the unit cost for a work order would be $5 for the first 100 units and $10 for the next 100.

If Average Cost is used, then all 200 units would be charged out at $7.5.

PTINV – This is a table that stores the quantity of the part at each location. Prior to Version 7.6, Lucity automatically created a record in this table so that every part had a PTINV record for ever warehouse location (making for a very large table). This has been **changed for Version 7.6** so that the user gets to select what locations that they want to have active for each part. During the conversion of 7.6, the conversion program is automatically going to delete PTINV records for non-active locations. Those are locations with a quantity of 0 and a Reorder point of 0.

PI_ID	PI_PA_ID	PI_PL_ID	PI_QTY	PI_REORDER
3682448	2860	5	200	1
3682449	2860	6	0	0
3682450	2860	7	0	0
3682451	2860	8	0	0

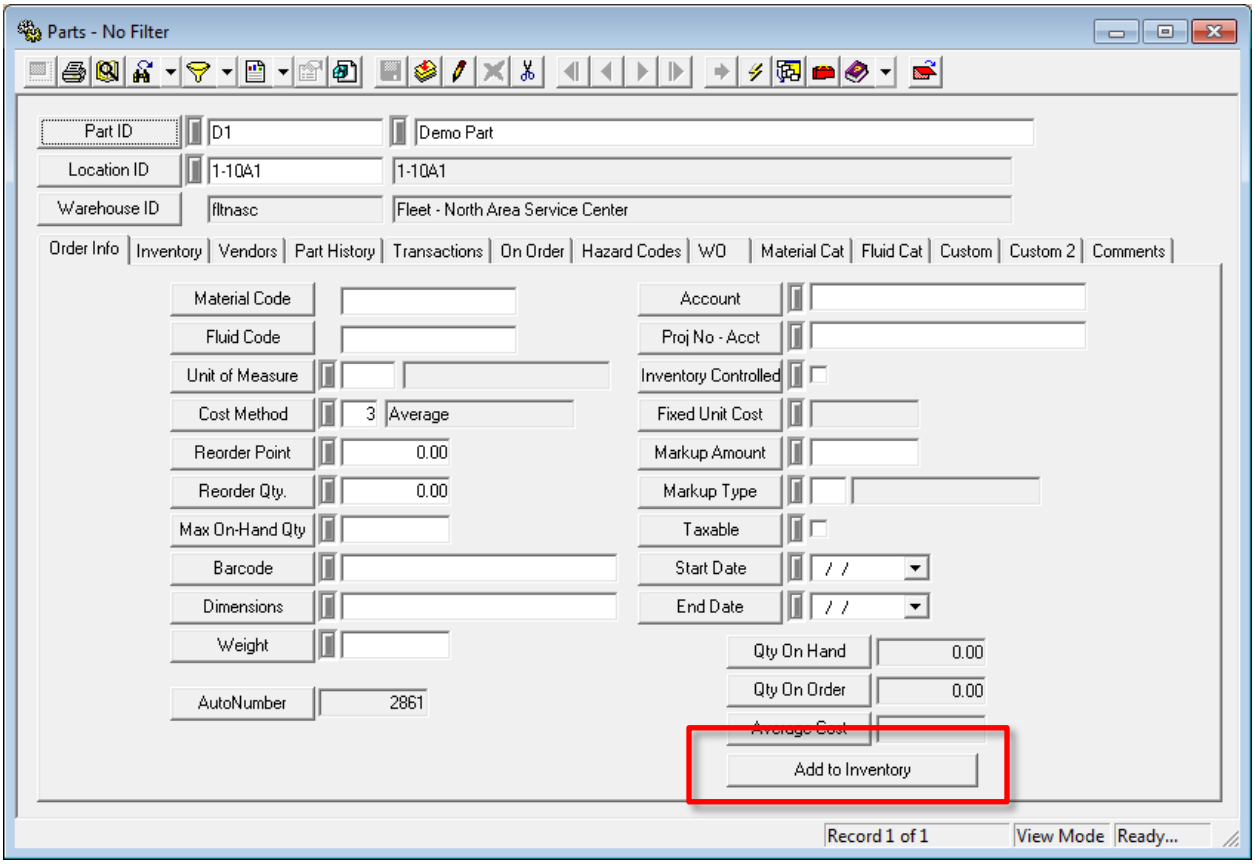
As can be seen from the above picture of the PTINV table, Part Location 5 (PI_PL_ID) stores all of the quantity for Part 2860 (PI_PA_ID). This location also has a reorder point of 1. Therefor Location 5 is an Active Location. In this example, the other three PTINV records will be deleted during the conversion to 7.6. Users can then add locations back in that they want to have active for each part.

Notice that costs are not associated to the location of the part in any way. The value of the part cannot be determined for any warehouse or location unless the part is using Cost Averaging.

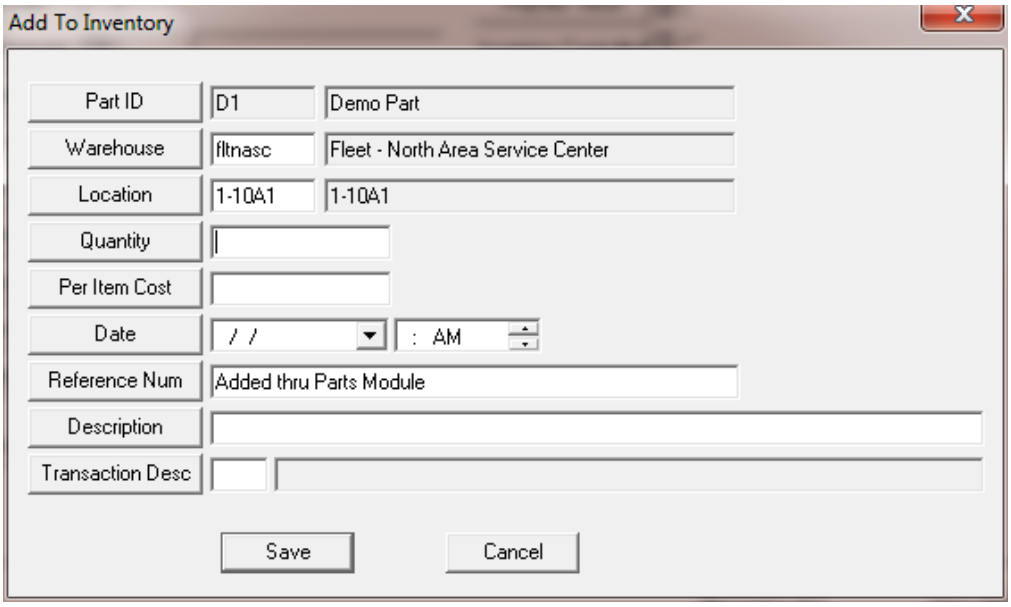
Notes:_____

Add to Inventory (Order Info Tab)

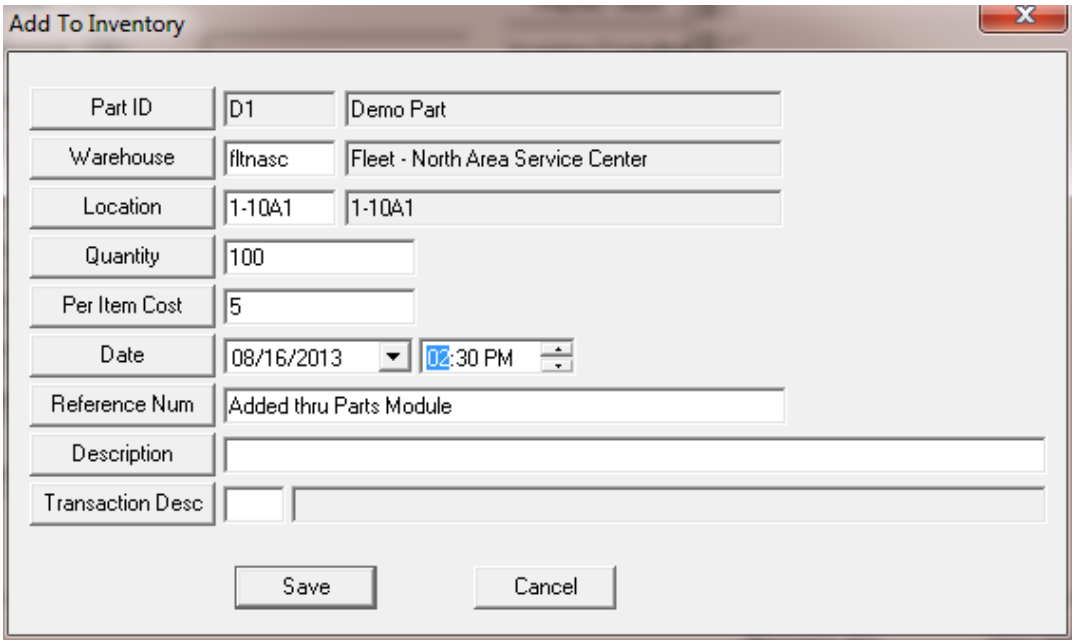
One quick way to enter parts quantities into the system is to find the part in the parts module and look at the Order Info tab. In the lower right-hand of the Tab is an ***Add to Inventory*** button.



Once clicked, the user gets the standard "Add to Inventory" dialog as shown below. This is the dialog that they will always get when adding a new part quantity (and is the same dialog as described in the Warehouse section).



In this case, the Warehouse and Location fields are defaulted to the Part's default Warehouse/Location. If the part quantity is actually going to be placed in another location, the location can be changed. **(New for Version 7.6, the user selects the Warehouse first and then only the Locations associated with the selected warehouse can be viewed.)** Then the user enters the Quantity to be added, the Per Item Cost and the Date. Those four fields (including the Location) are all required prior to hitting Save. The Reference Number can be changed and a Description can be entered if desired. **New to 7.6 are the Transaction Desc popup fields that can be used, if desired. The Add to Inventory Time is also a new field for Version 7.6 and can be used, but is not required.**

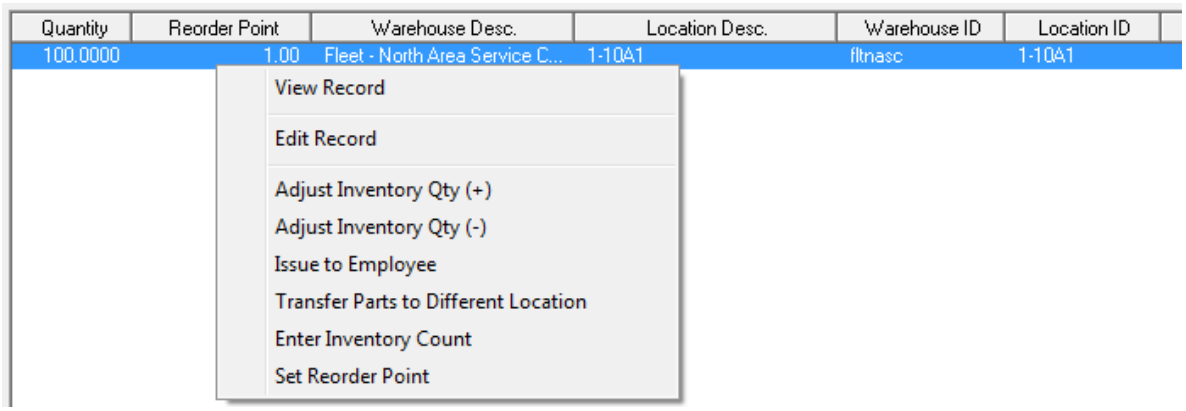


When the save is selected, the Quantity on Hand is displayed and the Inventory tab is updated.

Inventory Tab

The inventory tab has been updated in 7.6. Previous to 7.6 Lucity added a record in the PTINV table for every possible part and warehouse location combination. Starting with Version 7.6 this has been changed. Now records in the PTINV table only store those part/warehouse location combinations where either the part has a quantity in the location or the part has a Reorder Point for that location.

In this section we will be describing all of the special right-mouse click tools that exist for this grid.

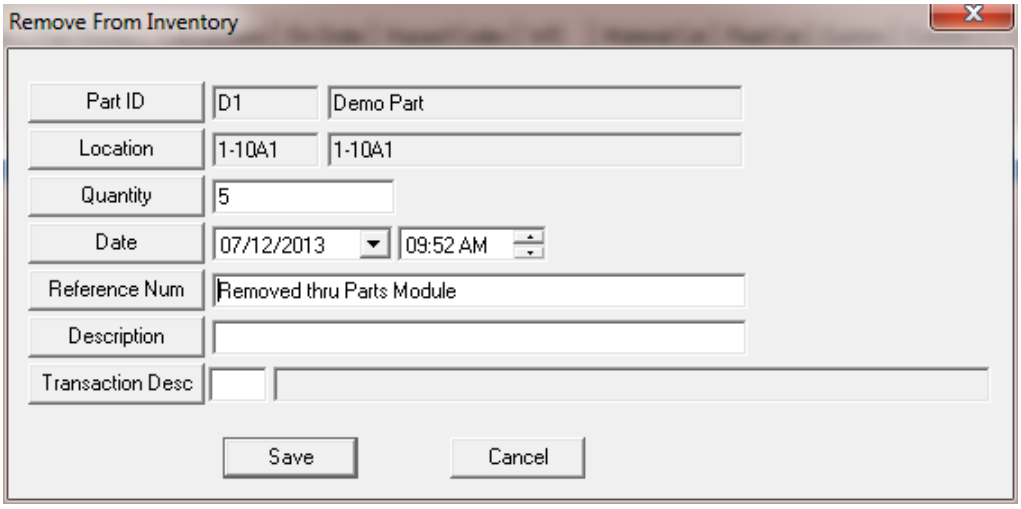


Adjust Inventory Qty (+)

The only difference between this dialog that pops-up and the "Add to Inventory" dialog is that the Location is set to the location that is highlighted and cannot be changed. This is also the same dialog that the user has in the Parts Warehousing module in the Parts grid.

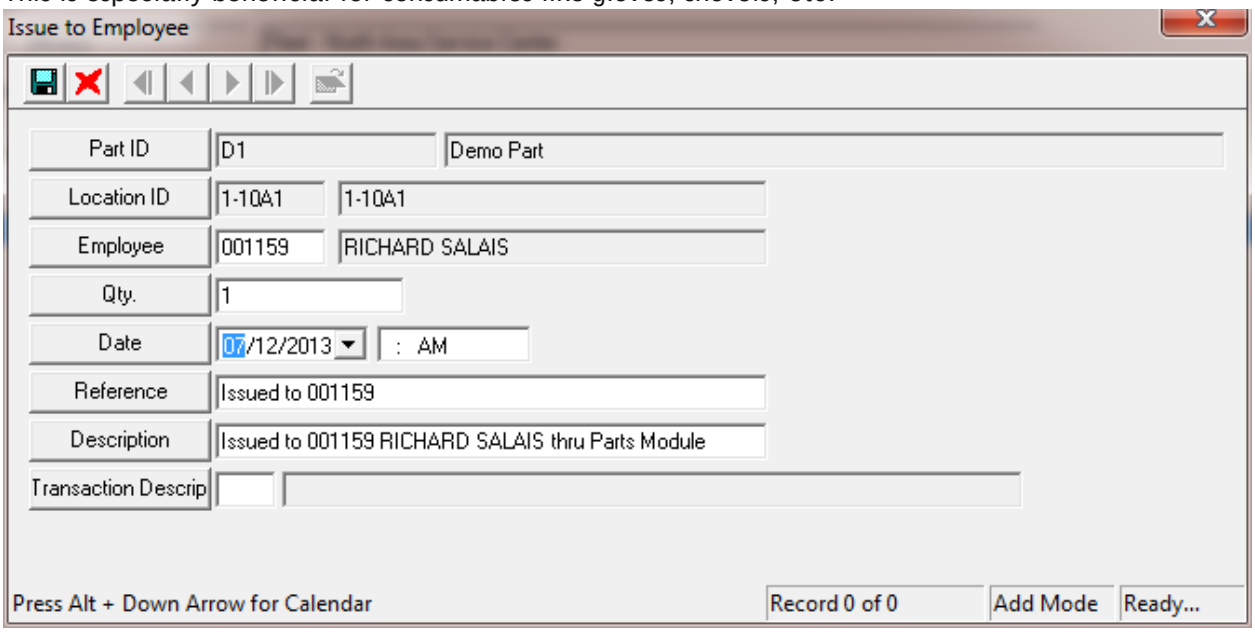
Adjust Inventory Qty (-)

This tool allows the user to enter the quantity of the parts that have been removed from the location. All other information is similar to the Adjust Inventory Qty (+).

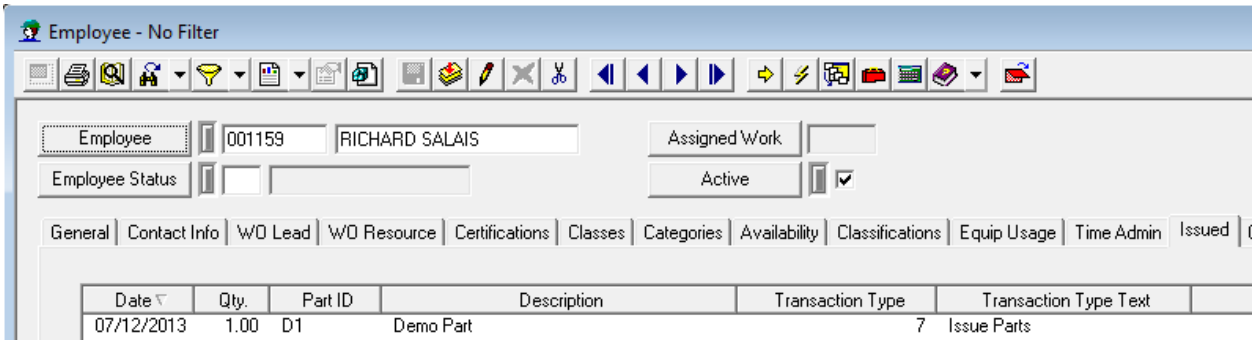


Issue to Employee

This is a new tool added in Version 7.6. This allows the user to assign and track parts to employees. This is especially beneficial for consumables like gloves, shovels, etc.



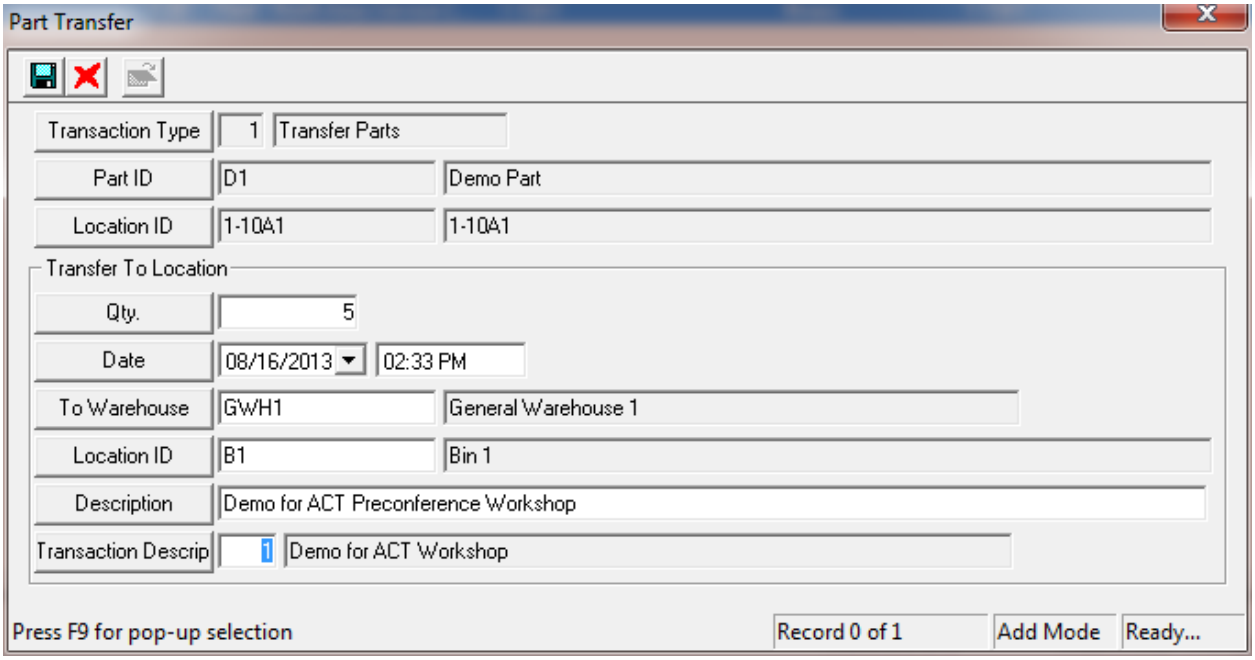
The employee must be in the Work Flow Setup Employee module. The tool removes the quantity from the location specified and adds that quantity to the Employee. The Reference and Description are defaulted but can be changed by the user. The Date, Quantity and Employee are all required in order to save the record.



Above shows how this transaction appears in the Employee record.

Transfer Parts to Different Locations

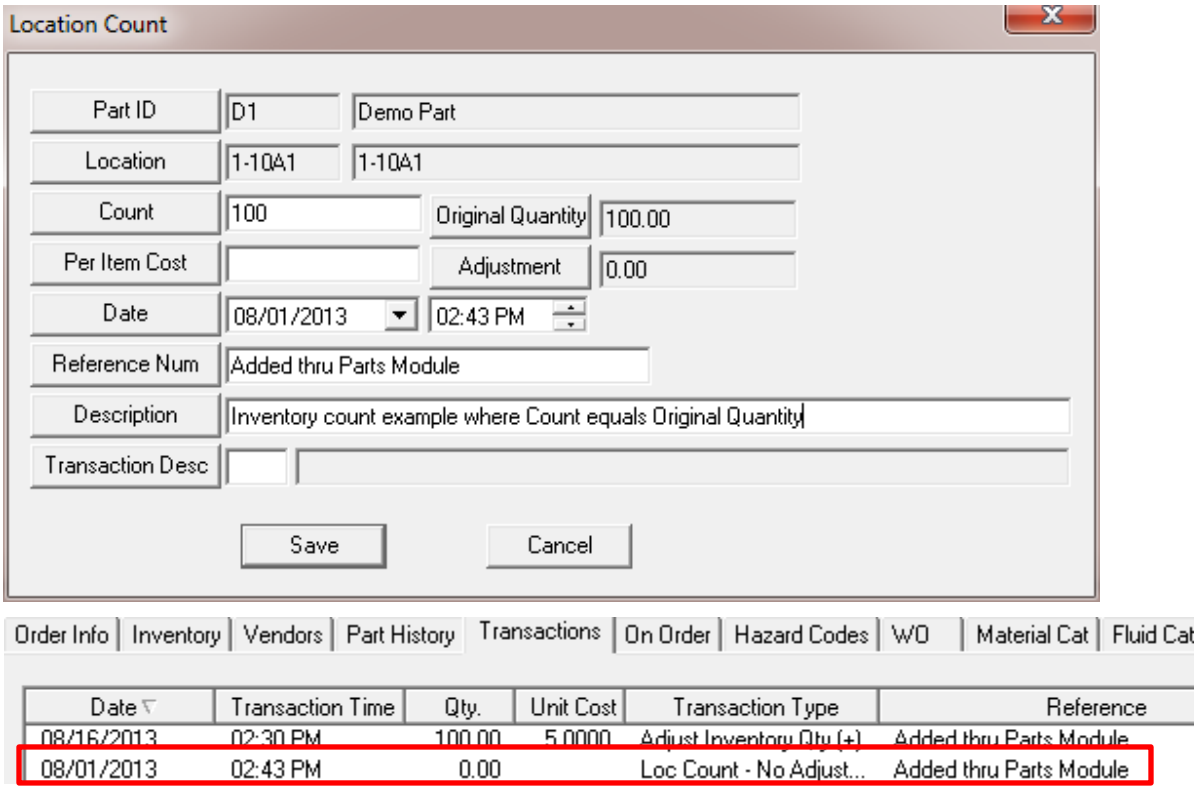
This works exactly the same as described in the Warehouse module.



Enter Inventory Count

The Enter Inventory Count dialog allows the user to enter the results of a stock count. There are three things that can happen. The stock count can equal the current quantity at that location, the stock count can be greater than the current quantity at that location or the stock count can be less than the current quantity at that location. We will go through all three scenarios and see how the transaction table is impacted.

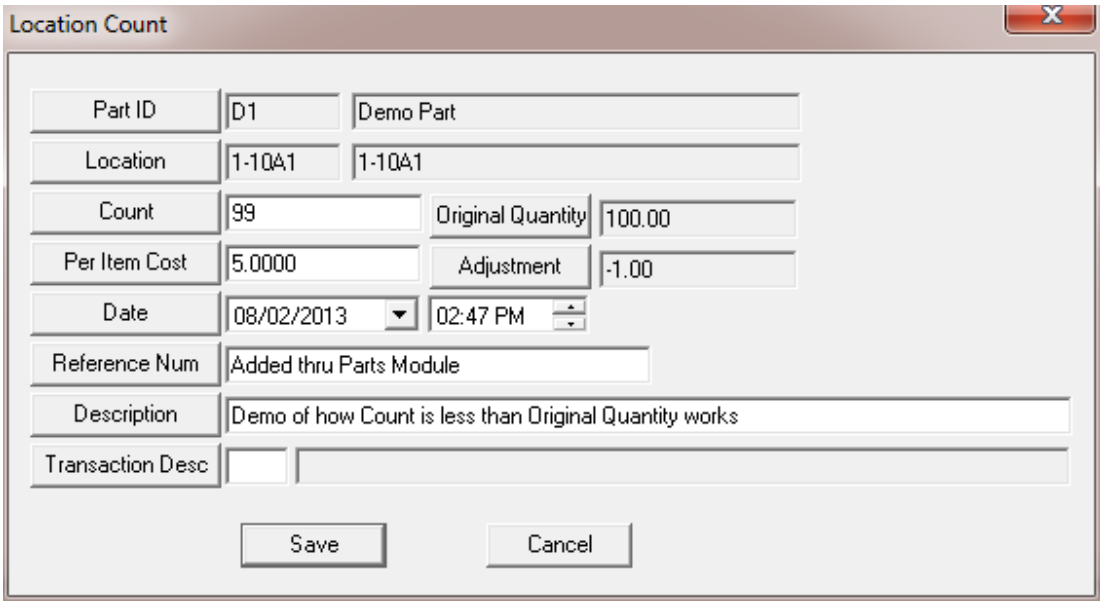
Inventory count is equal to the current quantity at that location.



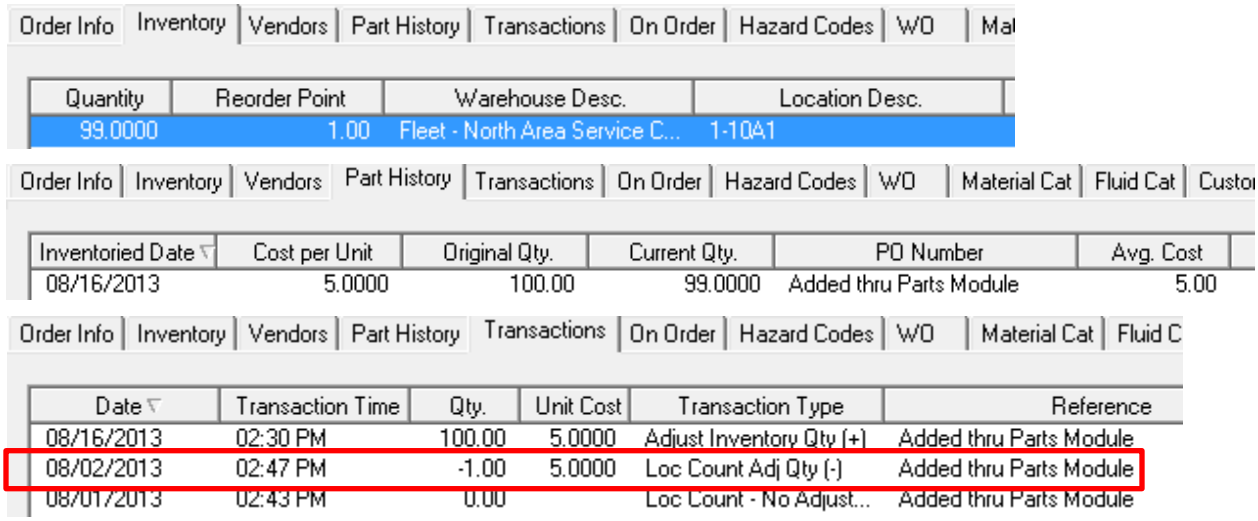
As can be seen above, nothing much really happens if the count equals the original count. We simply log a record of the count being performed.

Inventory count is less than the current quantity at that location.

In this example, our count equaled 99 (and not the original quantity of 100).

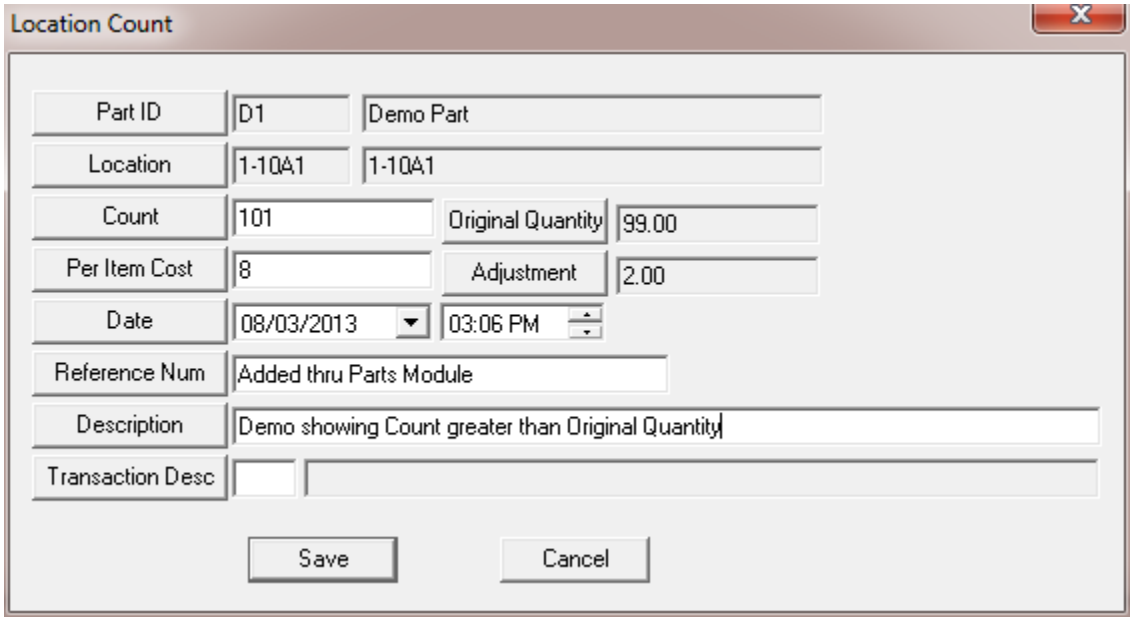


The system automatically grabs the Per Item Cost similar to how work order dispersals work. After hitting save, the Quantity becomes 99 at that location.



Inventory count is greater than the current quantity at that location.

When the user enters a count that it greater than the original quantity, it is like hitting the Add to Inventory button – the system enters a new record in the PTPARTCOST table.

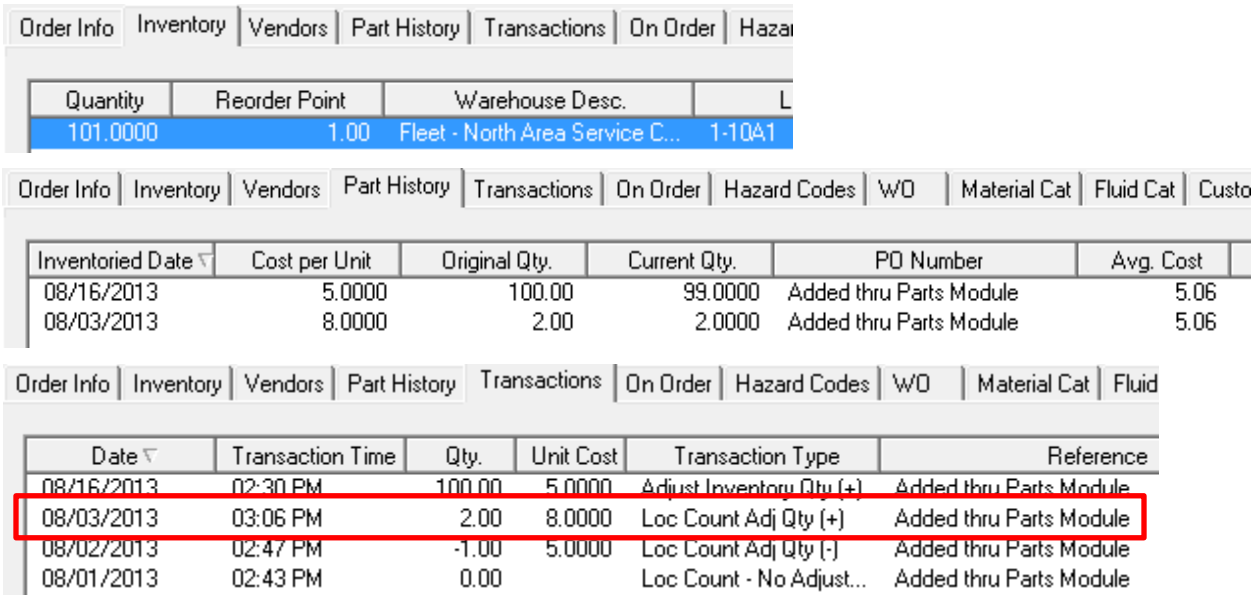


Notes:_____

_____

_____

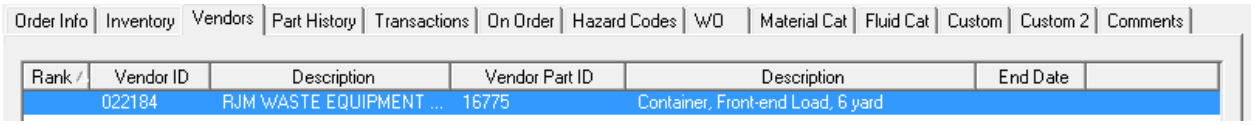
In the above example, 2 parts will be added at a unit cost of $8 on 8/3/13. A new average cost will then be calculated.



Set Reorder Point

This tool allows the user to quickly set the reorder point for this part at this location. Prior to Version 7.6 this was important because the grid would only show locations where the Quantity > 0 or the Reorder Point > 0. The grid now shows all locations that the parts are deposited at one time or another. The reorder point is still used to send out reminders about parts that need to be reordered or restocked at a warehouse.

Vendor Tab



This tab shows all vendors from whom you can get the part (or at least have a link to the part). If you plan on using the Purchase Order module, you must have vendors defined and what parts the vendor can supply to you. The vendor module is described more fully in the Vendor section.

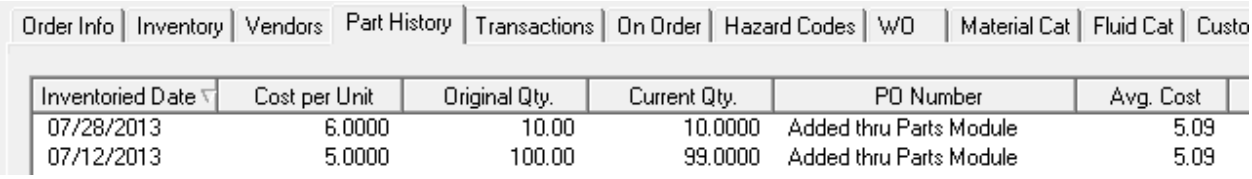
Notes:_____

_____

_____

_____

Part History Tab



Inventoried Date	Cost per Unit	Original Qty.	Current Qty.	PO Number	Avg. Cost
07/28/2013	6.0000	10.00	10.0000	Added thru Parts Module	5.09
07/12/2013	5.0000	100.00	99.0000	Added thru Parts Module	5.09

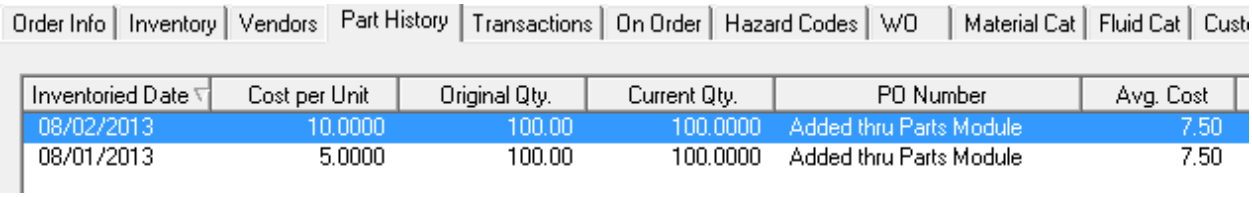
This tab shows several things:

1. The transaction every time more of the part was added to the inventory system – the date, the cost per unit, the original quantity and the description of how it was entered – manually or through the Purchase Order system
2. The current quantity remaining from the original quantity that was added.
3. The current Average Cost of the part. This is generally not calculable unless no further transactions have occurred since the last part entry.

There are two special right-mouse click tools that are available in this grid

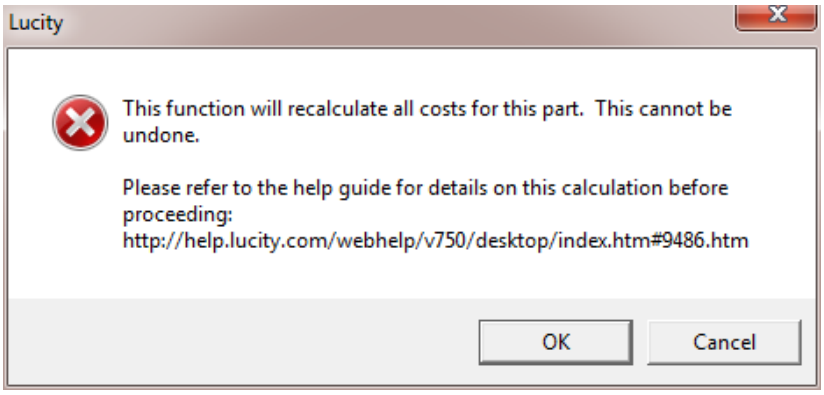
Adjust Cost per Unit

The Adjust Cost per Unit tool allows the user to make modifications to a per unit cost for a particular entry. For example, lets say that the user accidently entered a $10 cost per unit below and they should have used $7.

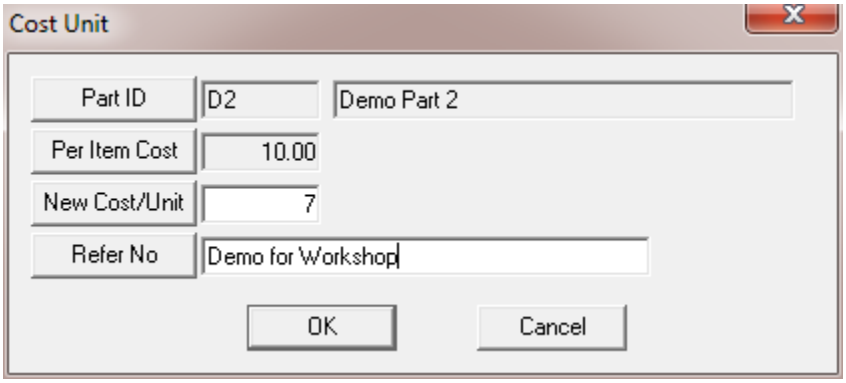


Inventoried Date	Cost per Unit	Original Qty.	Current Qty.	PO Number	Avg. Cost
08/02/2013	10.0000	100.00	100.0000	Added thru Parts Module	7.50
08/01/2013	5.0000	100.00	100.0000	Added thru Parts Module	7.50

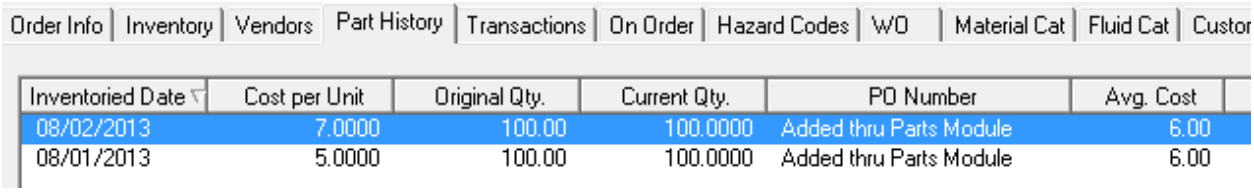
The user can highlight the row, right-mouse click and select the Adjust Cost per Unit tool. A dialog will appear that warns the user that this will recalculate all costs for this part. This is important because there is no undo button. Each undo will have to be done manually and they can be quite tedious.



Cancelling this dialog mean that no changes are performed. If the user hits OK then a new dialog appears.



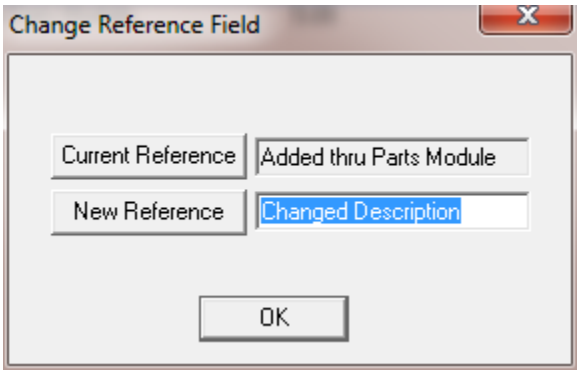
The New Cost/Unit is initially empty. This is where the user enters the new cost. Cancelling again at this point means that no changes are made. Once OK is selected the system is recalculated.

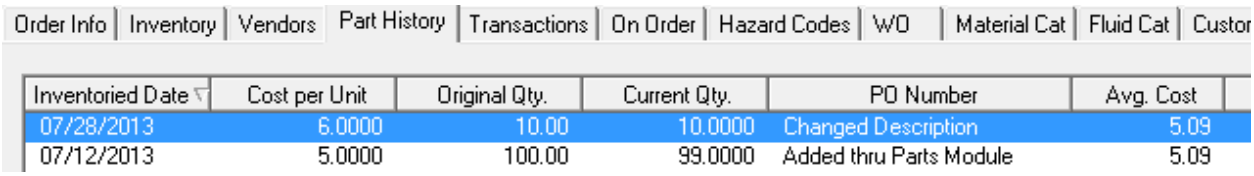


It is important to note that the average cost is recalculated based not on the Original Quantity of the parts but on the Current Quantity of the parts. Therefore, if the current quantity of the $5 record was 50, the new average cost would be $6.33 (not $6).

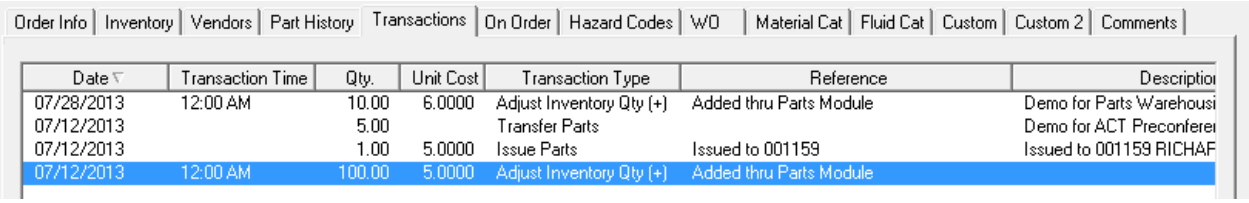
Change PO Number

This tool simply allows the user to manually change the text field currently displayed under the PO Number column.



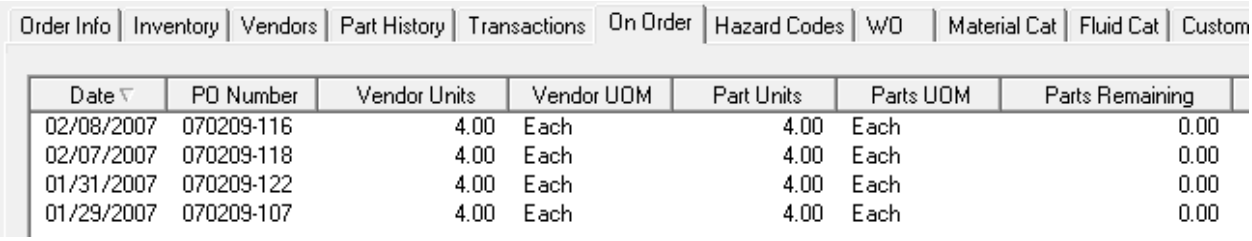


Transaction Tab



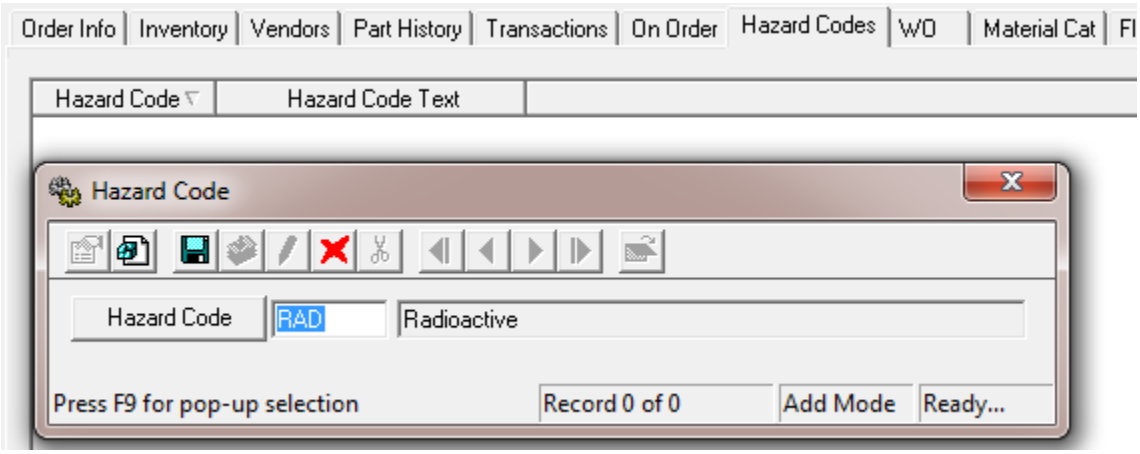
This tab shows all of the transactions that have been logged for the part. This is not used to Add, Edit or Delete transactions but a user can view more details of any transaction record from here.

On Order Tab



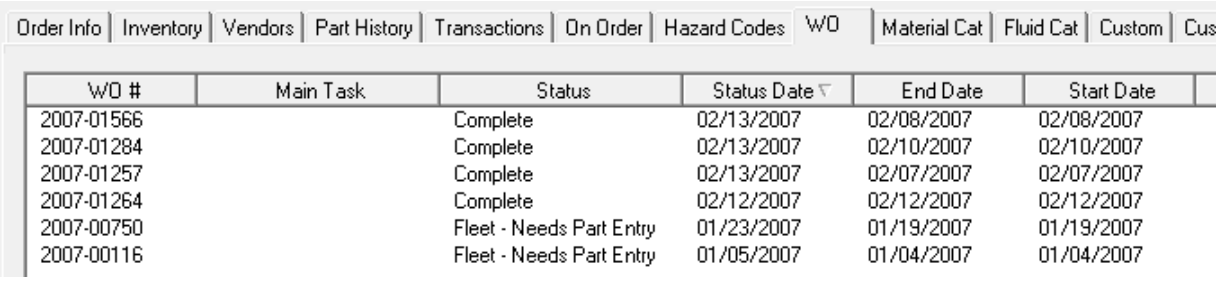
This tab displays all POs for which the Part has been included in a purchase order, how many parts were ordered and how many are still remaining to be received from active purchase orders.

Hazard Codes Tab



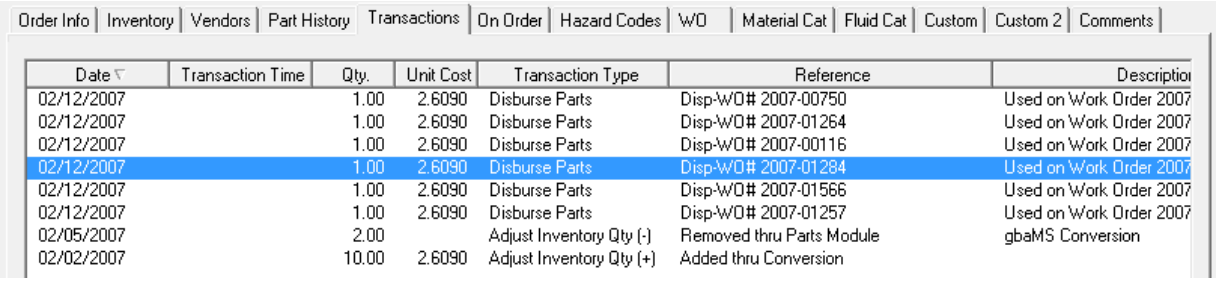
This tab shows all Hazard codes related to the Part. The user will have to determine the alpha-numeric popup list that they wish to use to track hazardous items as Lucity does not have a pre-populated list.

WO Tab



WO #	Main Task	Status	Status Date	End Date	Start Date
2007-01566		Complete	02/13/2007	02/08/2007	02/08/2007
2007-01284		Complete	02/13/2007	02/10/2007	02/10/2007
2007-01257		Complete	02/13/2007	02/07/2007	02/07/2007
2007-01264		Complete	02/12/2007	02/12/2007	02/12/2007
2007-00750		Fleet - Needs Part Entry	01/23/2007	01/19/2007	01/19/2007
2007-00116		Fleet - Needs Part Entry	01/05/2007	01/04/2007	01/04/2007

This tab shows every work order for which this part has been used. Similar to Transactions, the user only has the ability to view the WO record from here. As an example, below shows the results of the Transaction tab for this same part:



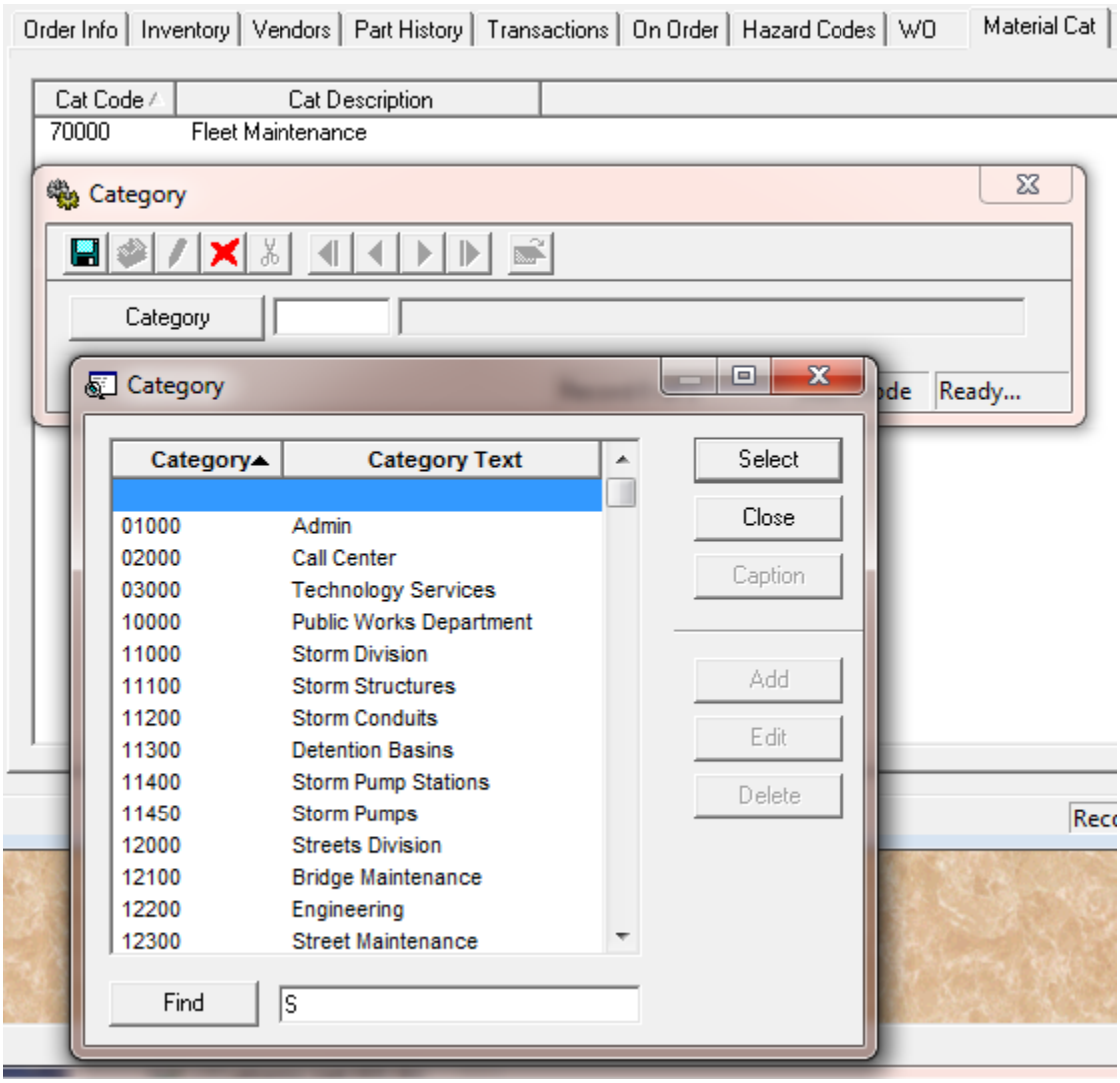
Date	Transaction Time	Qty.	Unit Cost	Transaction Type	Reference	Description
02/12/2007		1.00	2.6090	Disburse Parts	Disp-WO# 2007-00750	Used on Work Order 2007
02/12/2007		1.00	2.6090	Disburse Parts	Disp-WO# 2007-01264	Used on Work Order 2007
02/12/2007		1.00	2.6090	Disburse Parts	Disp-WO# 2007-00116	Used on Work Order 2007
02/12/2007		1.00	2.6090	Disburse Parts	Disp-WO# 2007-01284	Used on Work Order 2007
02/12/2007		1.00	2.6090	Disburse Parts	Disp-WO# 2007-01566	Used on Work Order 2007
02/12/2007		1.00	2.6090	Disburse Parts	Disp-WO# 2007-01257	Used on Work Order 2007
02/05/2007		2.00		Adjust Inventory Qty (-)	Removed thru Parts Module	gbaMS Conversion
02/02/2007		10.00	2.6090	Adjust Inventory Qty (+)	Added thru Conversion	

Notice how the Reference number in the transaction displays the WO # that is found in the WO tab.

Notes:_____

Material Cat Tab

This is a *new tab for Version 7.6*. It allows users to assign categories to parts directly. Once assigned, it automatically assigns the linked material to the same category. Users will not be able to link to a material code unless the Material Code value on tab 1 is valid.



Fluid Cat Tab

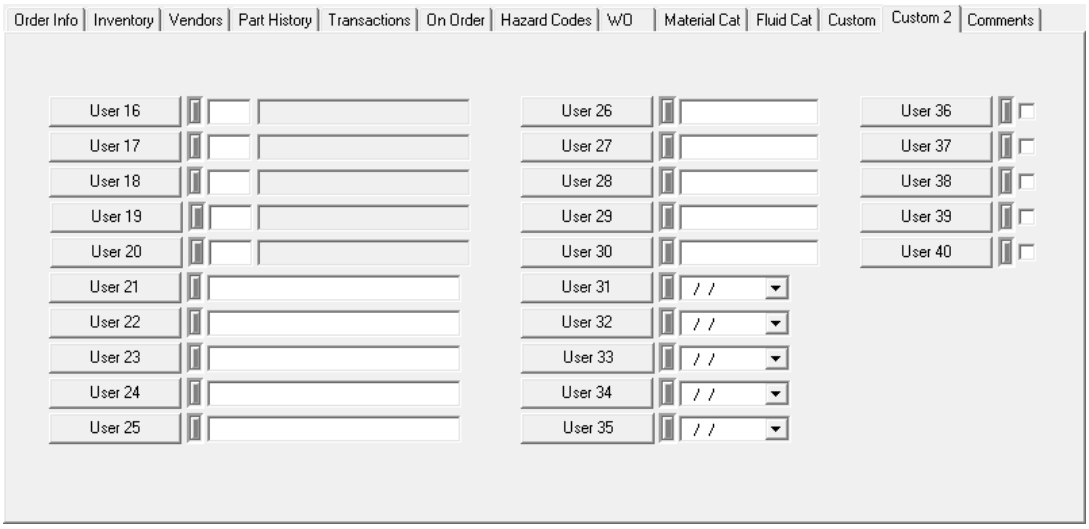
New for Version 7.6. Works just like the Material Category tab except that the Fluid Code in the Order Info tab must have valid data.

Custom Tab

This is our standard 15 field custom tab.

Custom 2 Tab

New for Version 7.6. We have added an additional 25 user-defined fields that the user can use to store additional data.



Comments Tab

Our standard comment tab.

Toolkit

There is one toolkit feature in Parts for "Update Average Cost for Current Part". Before describing the toolkit, we need to look behind the scenes at the data. We will use the D2 – Demo Part 2 for which we previously entered and made some changes to its part cost.

PTTRANS

PT_ID	PT_DATE	PT_PA_ID	PT_QTY	PT_COST	PT_REFER	PT_DESC
3428	8/1/2013	2872	100	5	Added thru Parts Module	
3429	8/2/2013	2872	100	10	Added thru Parts Module	
3430	8/16/2013	2872		7	Demo for Workshop	Don Pinkston Adjust Inventory Cost from 10.00 to 7.00
3431	8/16/2013	2872		6	Updated from Inv Cost Adjust	Don Pinkston Average Cost Adjustment from 7.50 to 6.00

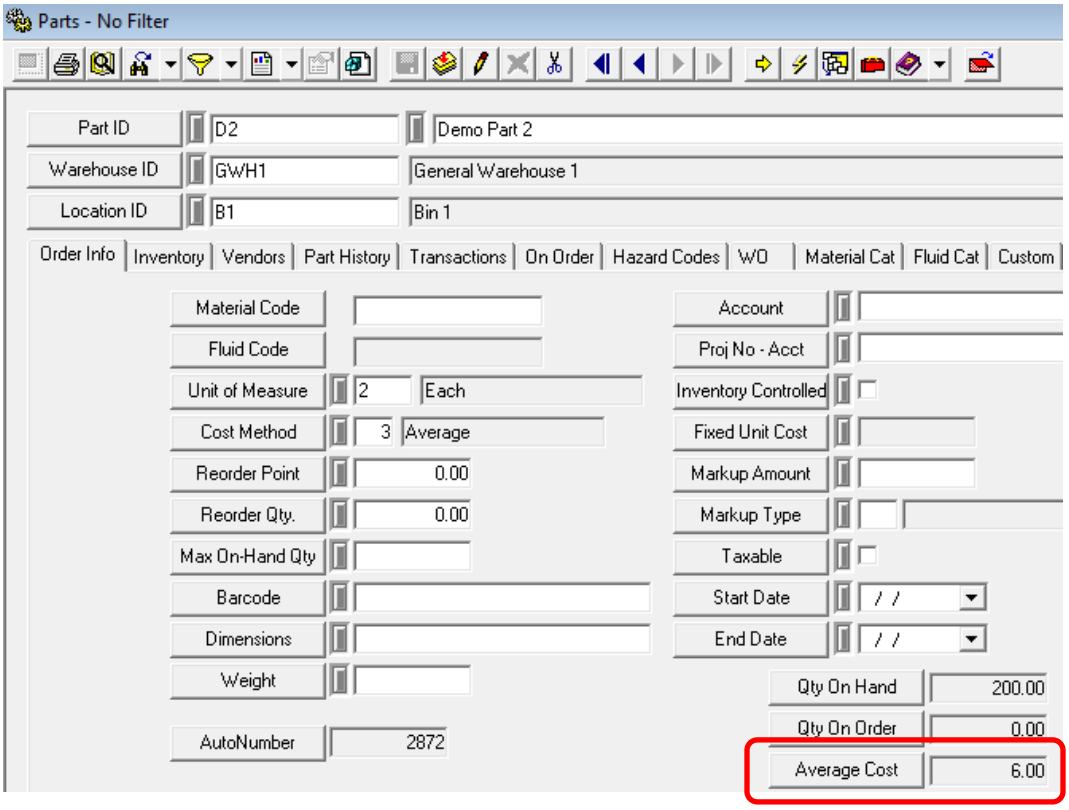
This part started with a $5 and $10 unit cost (at 100 parts each). Then I made a correction so that the $10 unit cost became a $7 unit cost (the third line of the PTTRANS table) and the $7.50 average cost became $6 (the fourth line of the PTTRANS table).

The current PTPARTCOST table for this part shows:

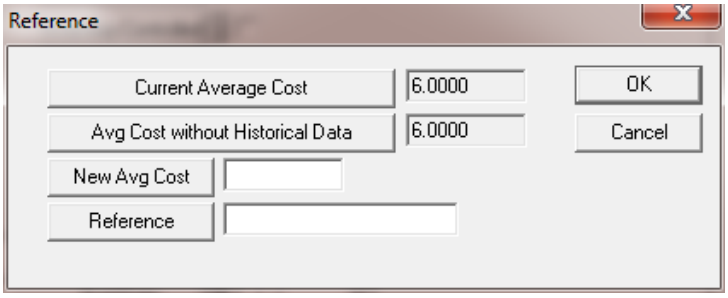
PTPARTCOST

PC_PONUM	PC_PA_ID	PC_DATE	PC_ORIGQTY	PC_CURRQTY	PC_COSTUN	PC_PROCDT	PC_COSTAVG
Added thru Parts Module	2872	8/1/2013	100	100	5	8/16/2013	6
Added thru Parts Module	2872	8/2/2013	100	100	7	8/16/2013	6

Notice the PC_COSTAVG field equals $6 (the last column). The system uses this average cost and the PC_CURRQTY amount to help determine the new average cost when more parts are entered. Normally this COSTAVG value equals the Average Cost value displayed on the first tab of the Parts screen.



This tool allows agencies to modify the Average Cost found on the Order Info tab if the averages are out of sync, or if they are costing the part on a different average than is automatically calculated.



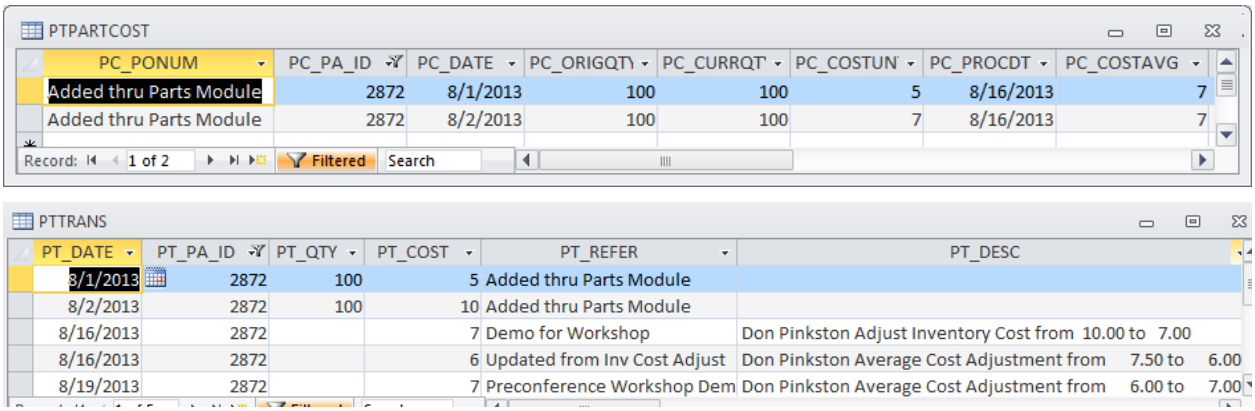
Notes:_____

_____

_____

_____

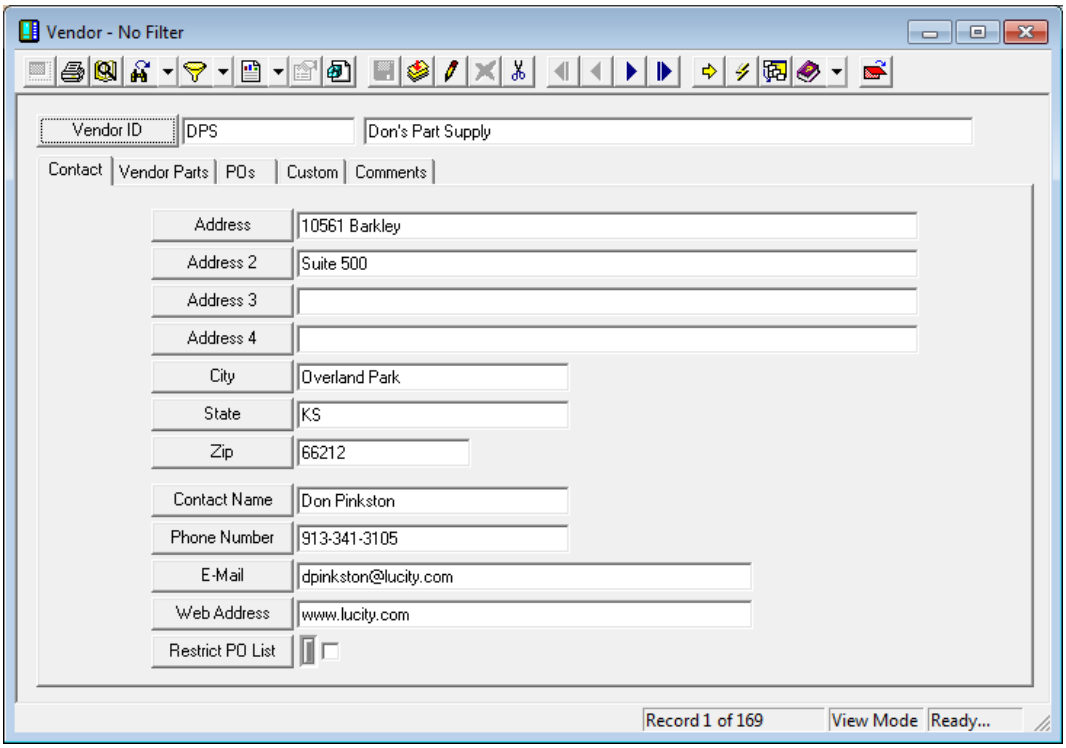
The Current Average Cost comes directly from the average cost field displayed in the Parts module. The Avg Cost without Historical Data shows the calculated average cost using the PTPARTCOST table. Now let's say we want to force the average cost to be $7 we can insert $7 into the New Avg Cost field above and click ***OK***.



The PTPARTCOST table now shows a PC_COSTAVG value of $7 and there is a new PTTRANS record showing the change as well.

Vendors

Vendor information must be filled in prior to purchase orders being entered. If the Purchase Order system is not used, then the Vendor module can be skipped.

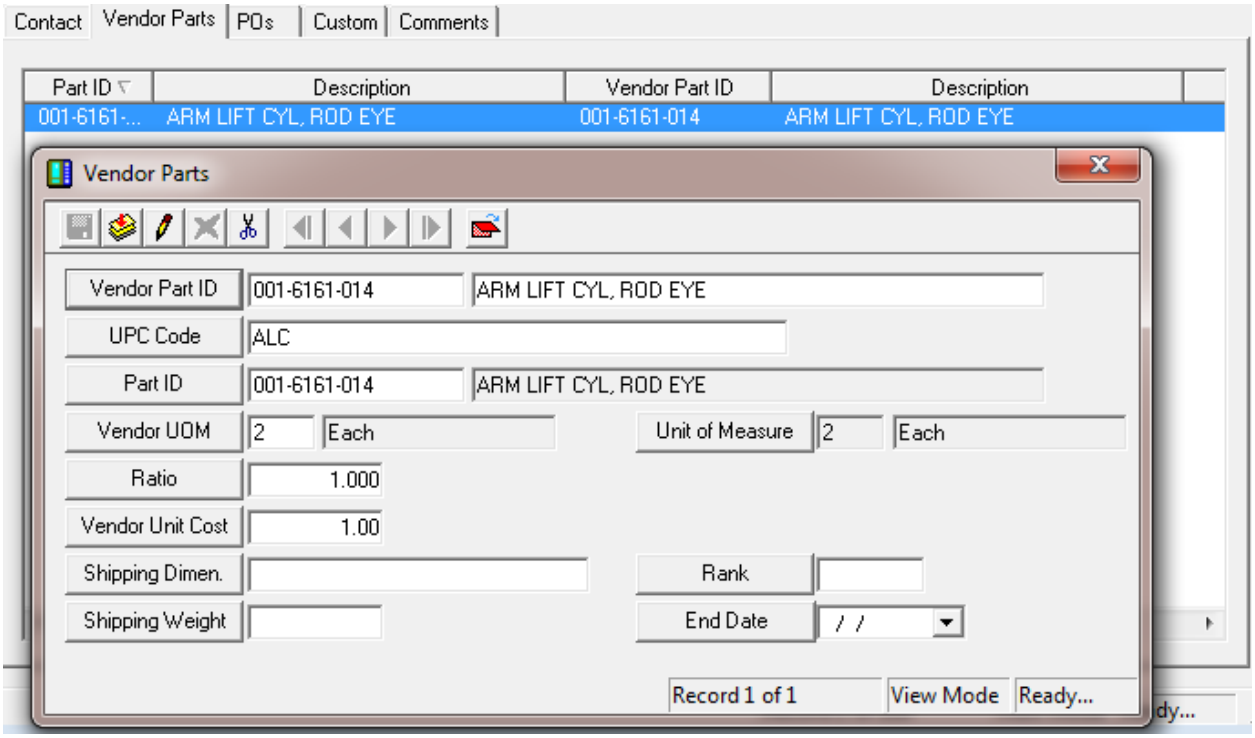


The Vendor ID must be unique and the Vendor Description should be filled in. The rest of the first page is strictly optional.

Restrict PO List – this flag is used by the PO system. If this flag is set to True then when the PO is created, the only parts that can be put on the PO are parts that have been associated to this vendor.

Vendor Parts Tab

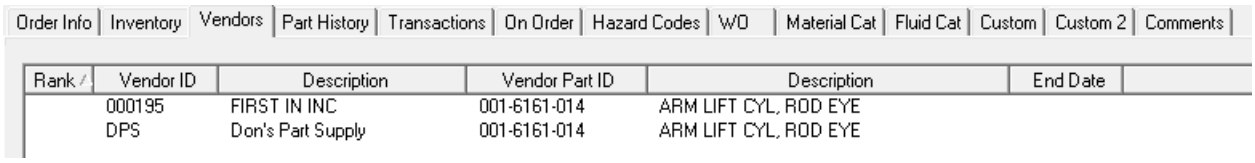
This tab tracks every Part that is associated with the Vendor.



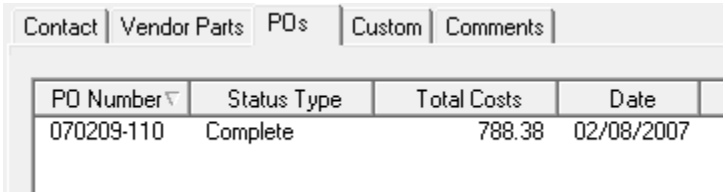
The Vendor Part ID must be unique (against all other Vendor Parts). However, it can be the same as the Part ID. The UPC Code is a new field for Version 7.6 and is particularly useful when entering work resources (as described later).

The Vendor UOM also does not have to match the Part UOM. For instance, the Vendor might sell the item in a box of 6 parts. Therefore the Vendor UOM may be Box and the Ratio would be 6. If the Vendor Unit Cost was $12.00, then the Part Unit Cost would be $2.00 each.

The Rank and End Date would be for situations where the Vendor was selected to provide this part for a period of time (say Sand or Gravel). In the Vendor Grid in the Parts module, the user can see all vendors that can provide a particular part and the end date as can be seen below.



POs Tab



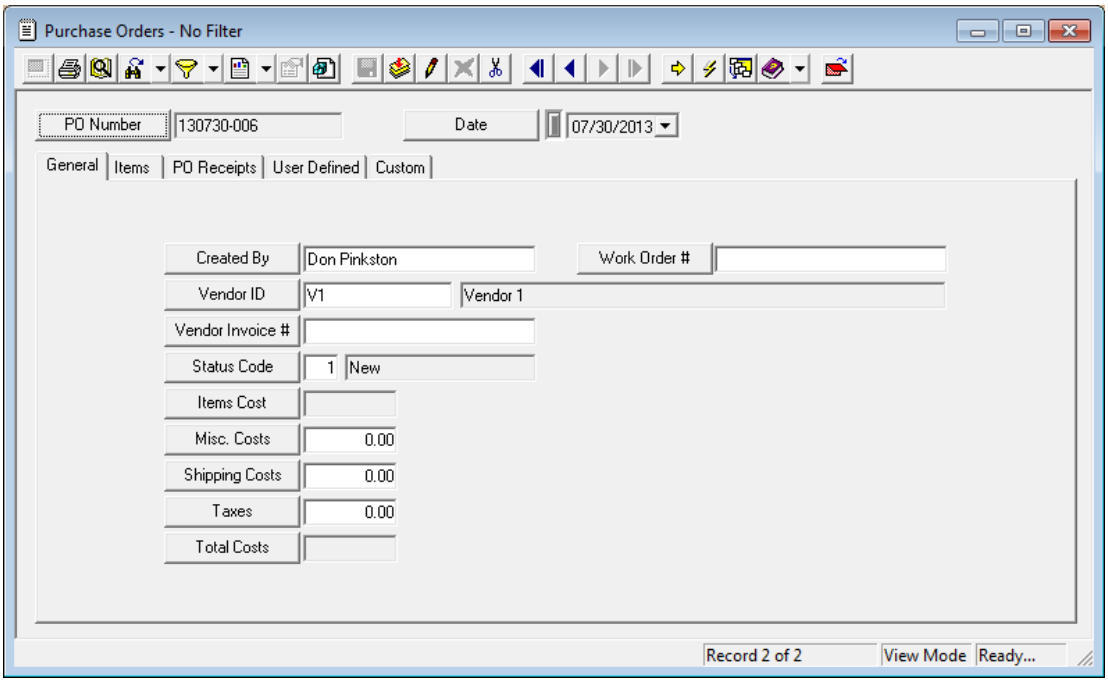
This tab shows all POs that are, or have been, assigned to the Vendor. Users cannot add POs from this tab. They only have the ability to view the POs from this tab.

Custom and Comments Tab

These are standard tabs.

Purchase Orders

To explain how the Purchase Order module works I have created a new warehouse (W1), location (L1), five new parts (P1 – P5), a new Vendor (V1) and have assigned the vendor all five parts (VP1 – VP5). I made parts VP1, VP3, and VP5 match the parts as a UOM Each. VP2 is sold by the case (10 units in a case) where the warehouse system tracks the part by each. VP5 is tracked by the ton by both the vendor and the warehouse.



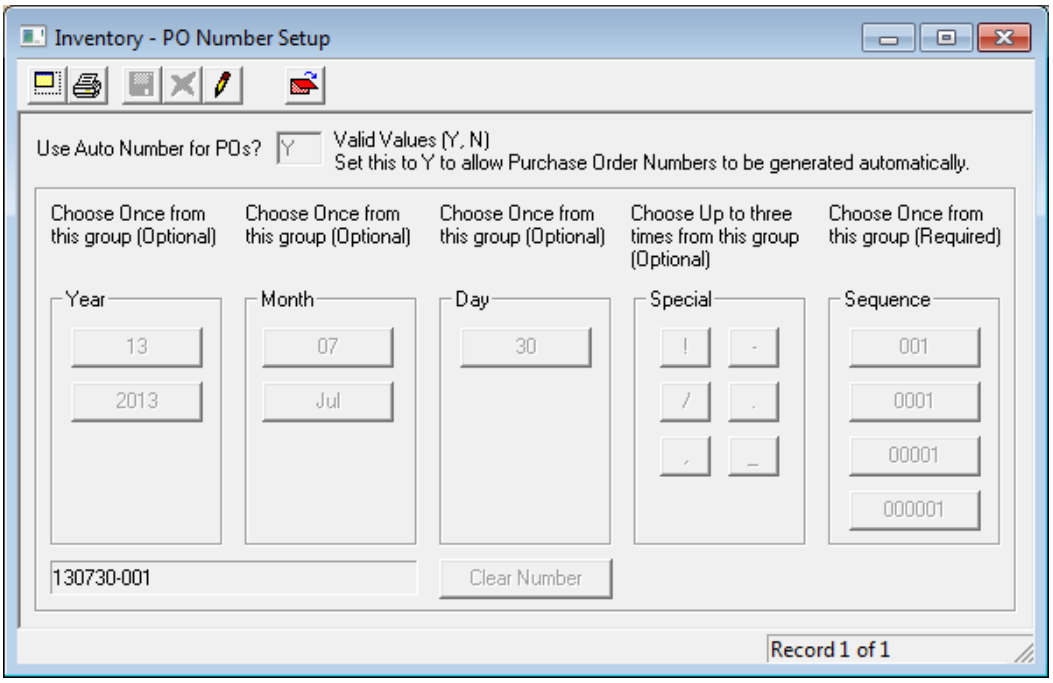
Notes:_____

_____

_____

_____

The system can be set up so that the Purchase Order number is automatically populated or the user can manually enter in a number. This is setup using the PO Number Setup Module and works the same way that work order and request numbers are automatically generated. To manually input the PO number set the Use Auto Number for POs value to "N".



Once the record is saved, the PO Number and PO date cannot be modified. The Vendor field is also required in order to save the record (and probably should not be changed either).

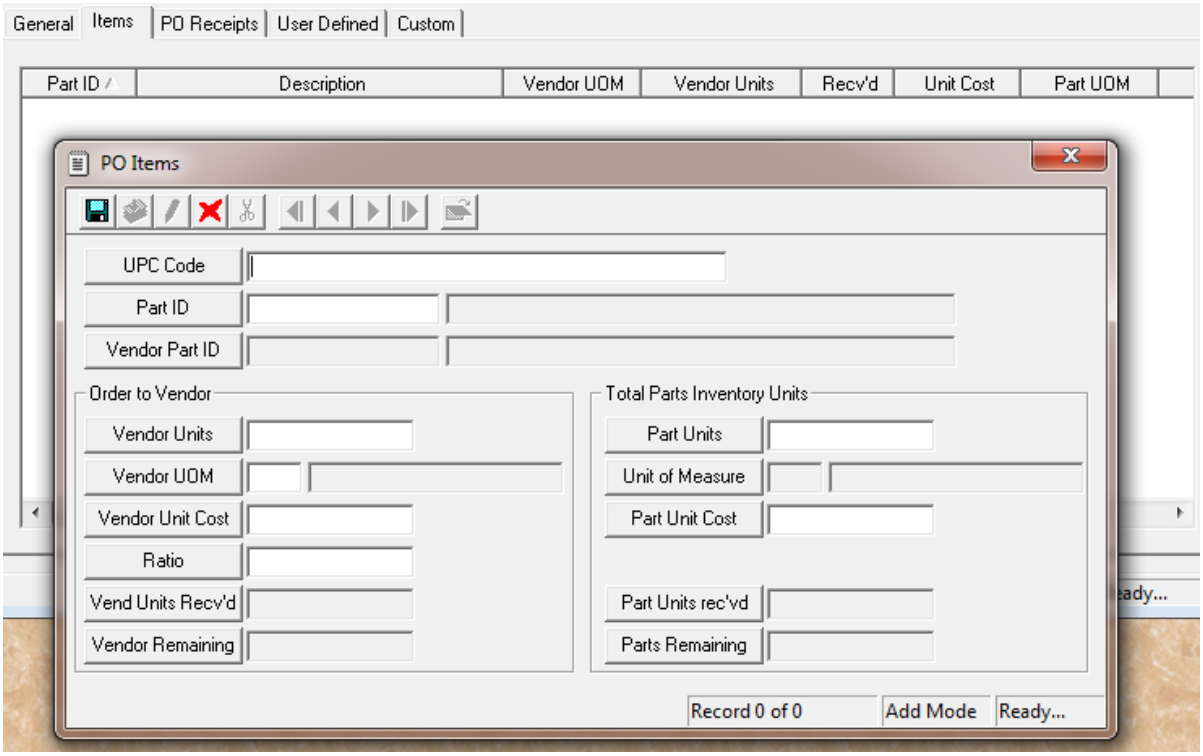
General Tab

The Vendor ID field is required prior to save. The Items Cost field is a calculated field based on the items that have been entered into the Items tab. Let's get back to this tab after we enter a few records.

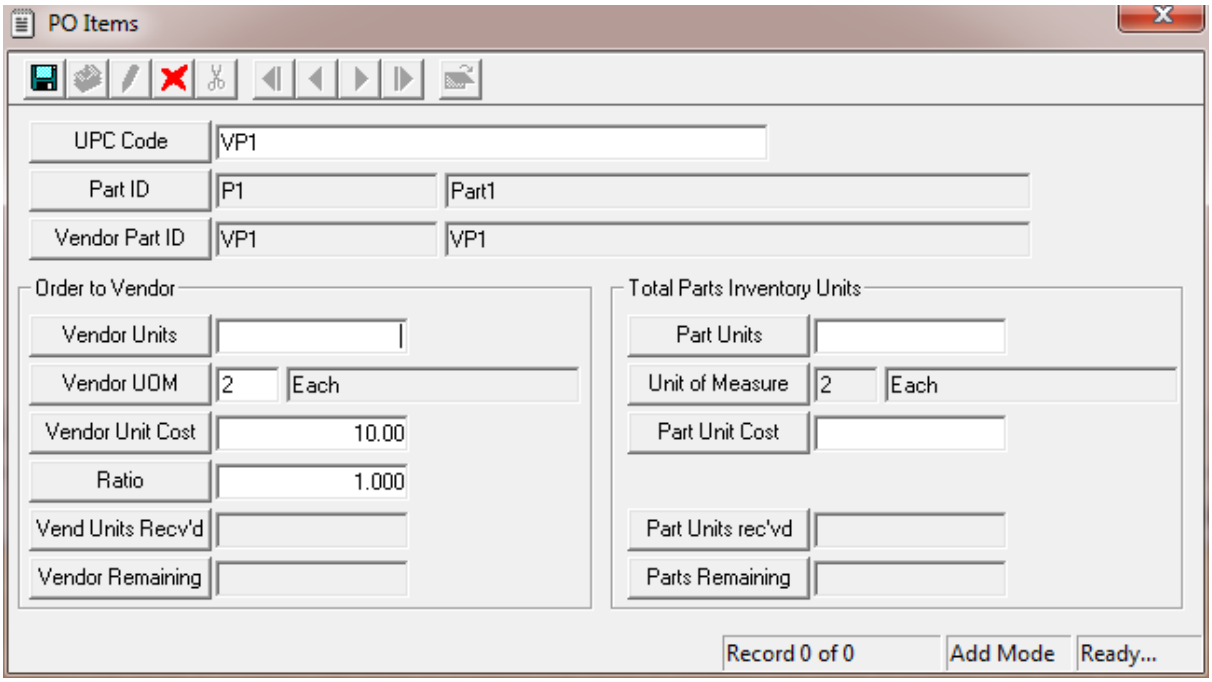
Notes:_____

Items Tab

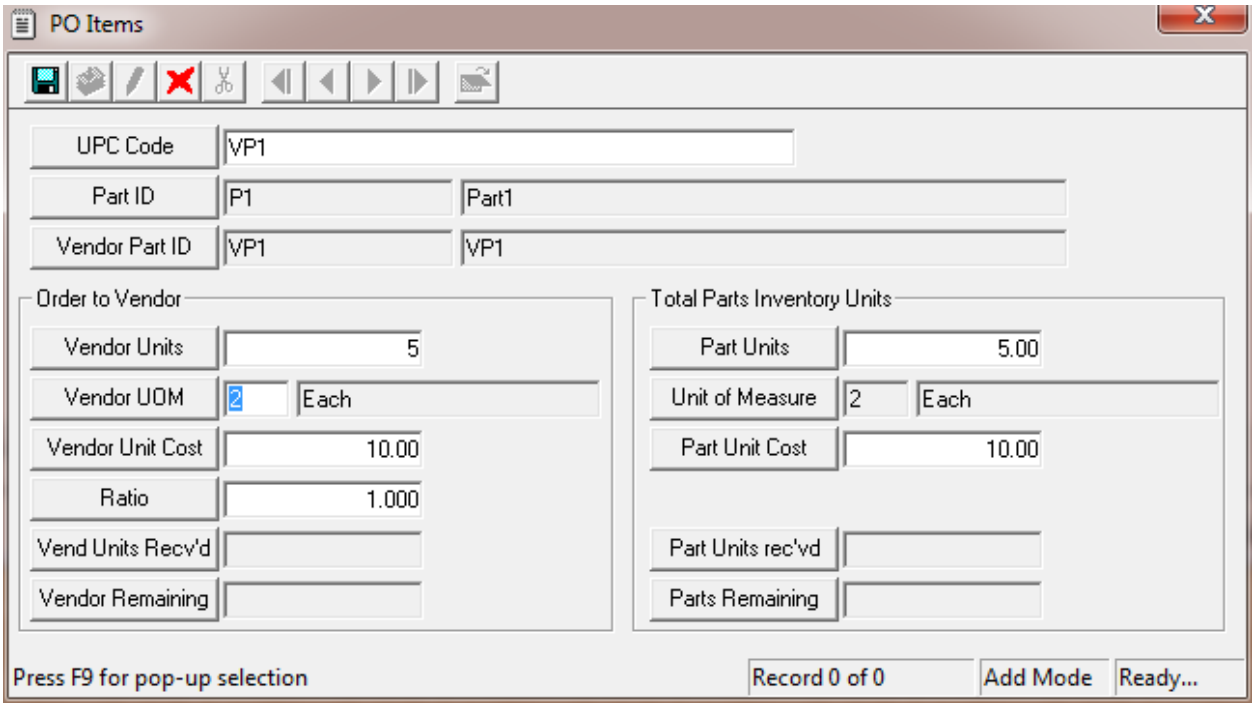
This is where users can enter what they want to order from the Vendor.



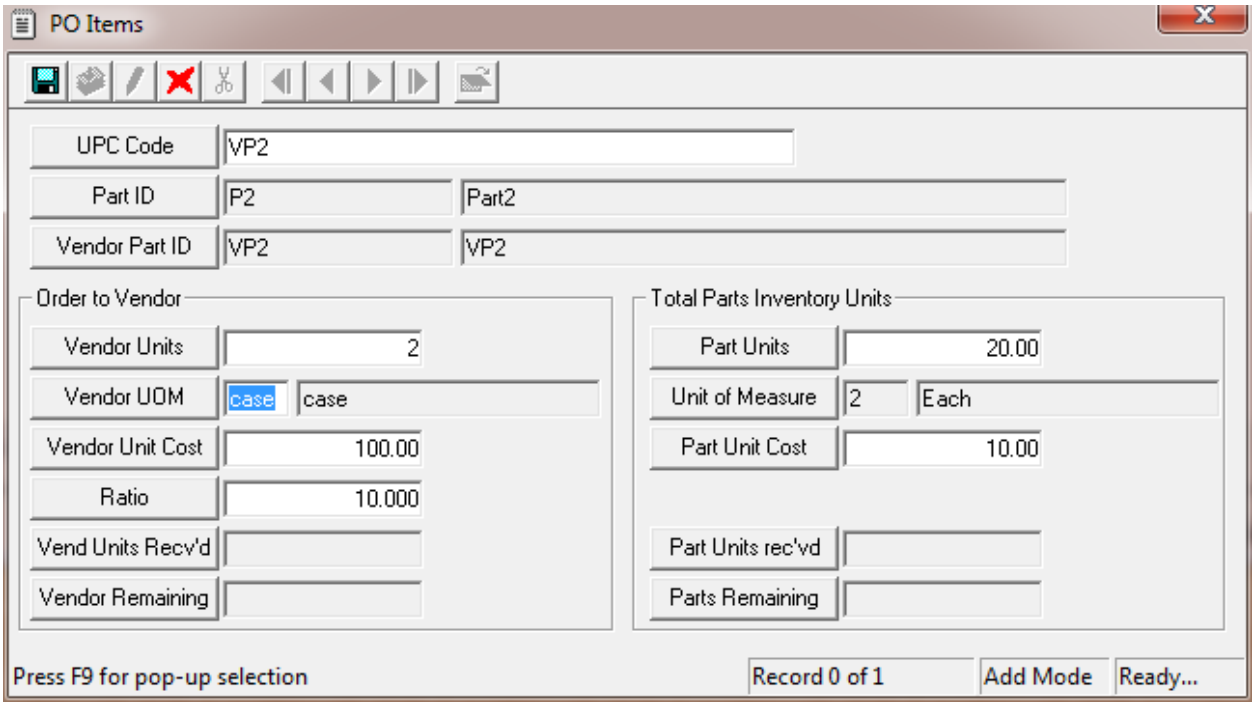
The user can use the UPC Code to enter the Vendor Part UPC to fill out most of the information. The other option is that the user can enter the Part ID and it will look up the Vendor Part ID as well.



Then the user can enter how many units from the vendor that they wish to order.



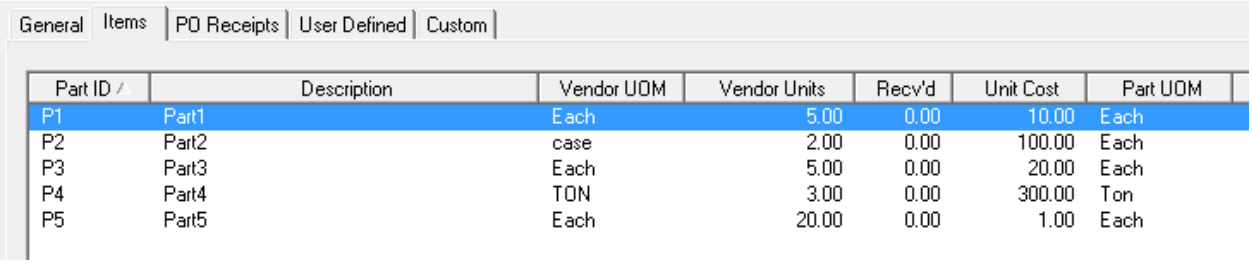
In the above example, since the Ratio is 1, the number of Part Units equals the number of Vendor Units.



In this example, the Vendor UOM was per case and there were 10 Parts per case. Therefore, the user orders 2 cases at $100 for each case and will receive 20 parts into inventory at $10 each.

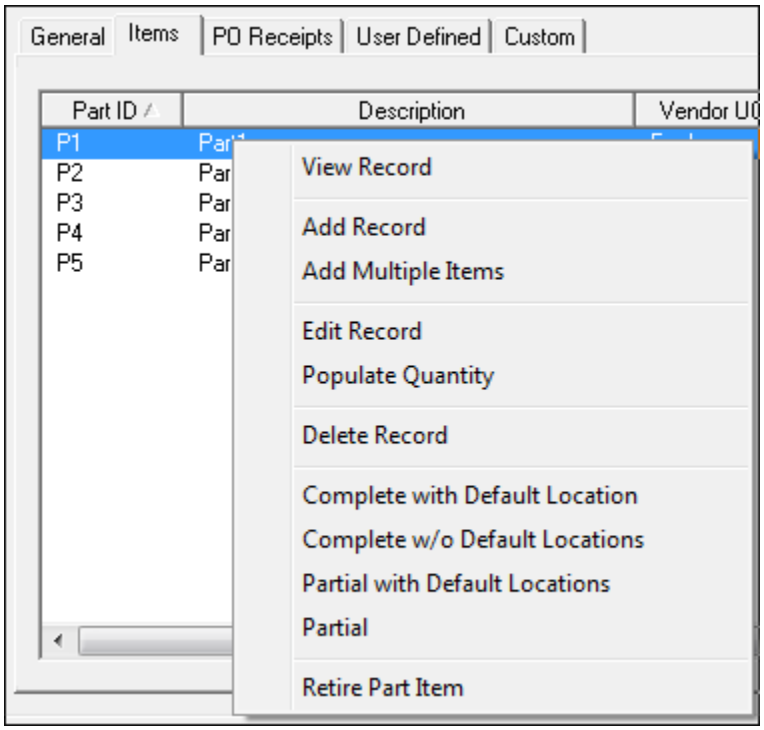
The bottom of 2 fields in each column show how many units have been received and how many are still remaining to be received.

After entering all of the parts, this is what the grid looks like.



Part ID	Description	Vendor UOM	Vendor Units	Recv'd	Unit Cost	Part UOM
P1	Part1	Each	5.00	0.00	10.00	Each
P2	Part2	case	2.00	0.00	100.00	Each
P3	Part3	Each	5.00	0.00	20.00	Each
P4	Part4	TON	3.00	0.00	300.00	Ton
P5	Part5	Each	20.00	0.00	1.00	Each

There are lots of special options for use in the grid



Add Multiple Items – This allows the user to add multiple parts in one dialog. This only adds the part – not the quantity for each part added.

Populate Quantity – This tool populates the quantity ordered for each part highlighted

Notes:_____

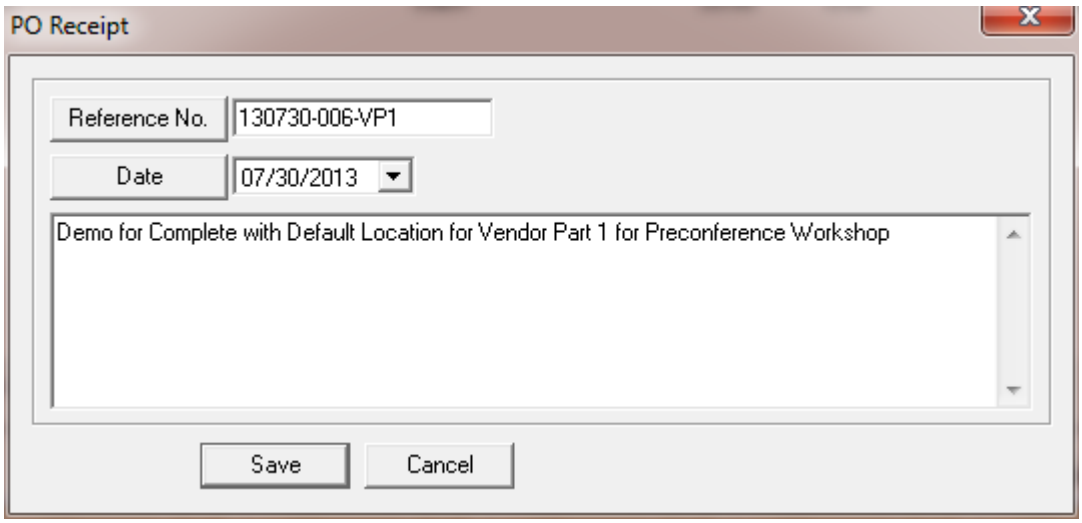
_____

_____

_____

The next four tools help with the receiving of the part.

Complete with Default Location – this tool takes all highlighted parts and assumes that all quantities for each part has been received and it automatically places that quantity into the default location for that part. First, a PO Receipt record is created that stores a reference number for the reception as well as a Date (and any comments)

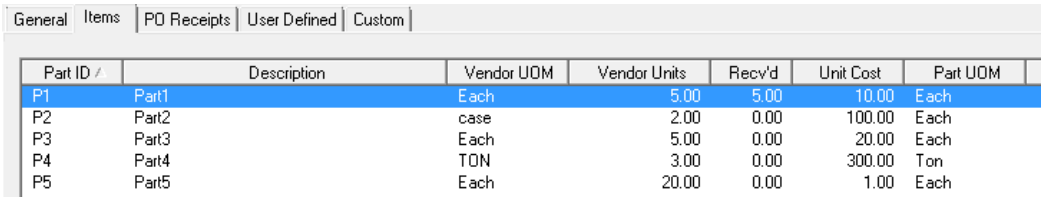


In this case there is no other dialog because none is needed. They system automatically put the parts in the correct location.

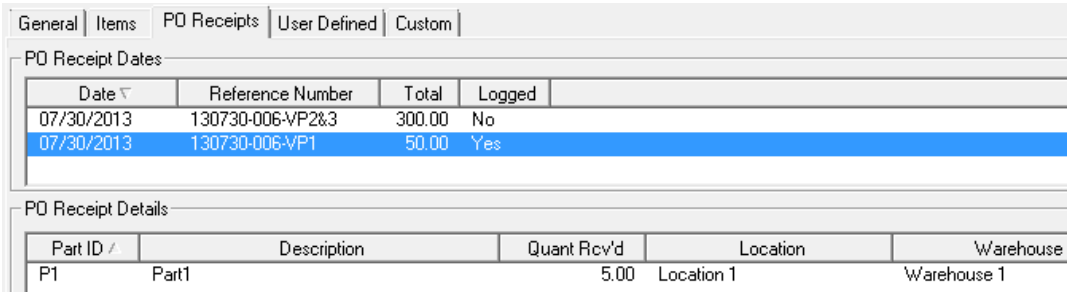
Notes:_____

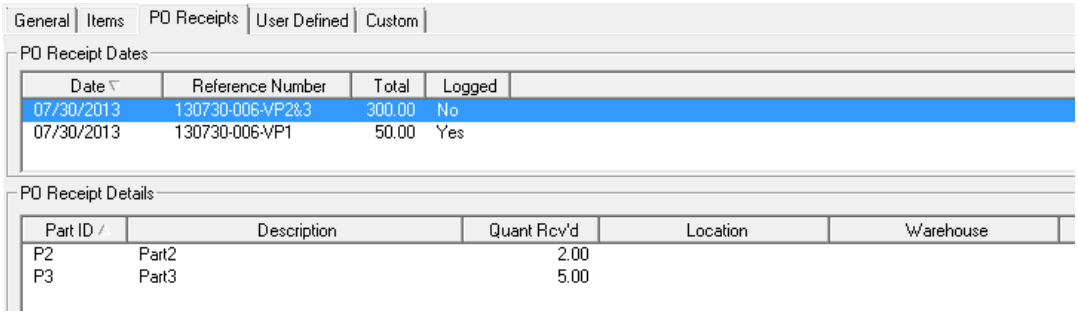
Complete w/o Default Location - This is used when you want to place parts in another location other than the default location. The same type of PO Receipt dialog comes up but then you have to pick where the part will be placed.

In the above example, Part 1 was Complete with Default Location and Parts 2 & 3 was complete Without Default Location.



On the PO Receipts Tab, both transactions are tracked separately





Notice how the Part 1 Receipt Detail shows a location and warehouse (the default) and that the PO Receipt Details for Parts 2 & 3 do not show location and warehouse. The next step for Parts 2 & 3 is to select the warehouse & location for the parts. This is done by highlighting one or both and then right-mouse click selecting "Populate Location". This will prompt a dialog from which the user can pick the appropriate warehouse and location.

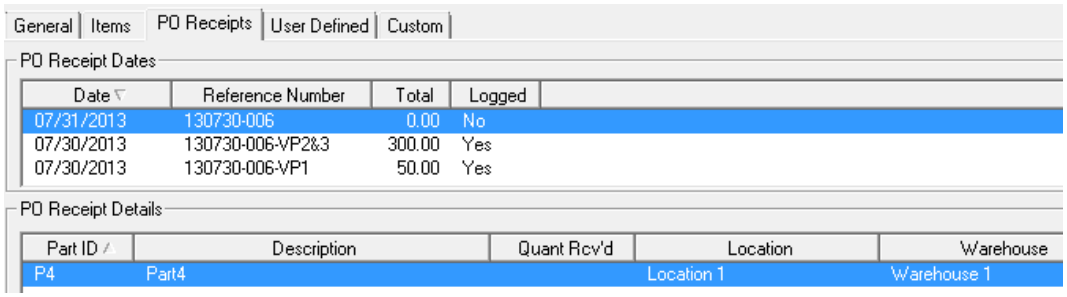
Notice how in the top grid, the Part 1 record shows Logged as Yes and the Part 2 & 3 show the Logged as No. The Logged value will automatically be set to Yes when the Location is selected.

Notes:_____

_____

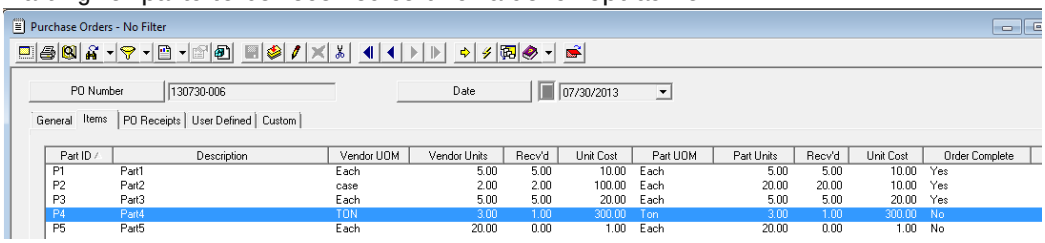
_____

Partial with Default Locations - This is used for those parts for which the user has received a partial shipment. This selection creates another PO Receipt Date record and creates new records into the PO Receipts Details grid defaulting the Part and the Part's default location.



Notice how the location is now filled in but there is nothing in the Quant Rcv'd column. The user can highlight the part (or parts) and right-mouse click select Populate Quantity to enter the amount received.

For this record I entered a quantity received of 1 (3 was on our initial order). In the Items grid there is a column on the far right-hand side showing Order Complete. In this case we are still waiting for parts to be received so this value is kept as No.



Partial – This is used when the user has not received all of the parts ordered and the parts are not going to their default location. This creates another PO Receipt Date record and places the highlighted parts into the PO Receipt Details grid but with no quantity received or warehouse location. The user will then need to enter that data manually.
For this example, I used Part 5 and only received 10 (20 were on order) and placed it in Warehouse 1 Location 2.

Retire Part Item – This tool is used if the Order was not complete but the user is not expecting to receive any additional shipment of parts. This tool then converts the No under Order Complete to Yes.
Once the order is complete, the highlighted rows no longer show the right-mouse click toolkits for receiving parts.

Notes:_____

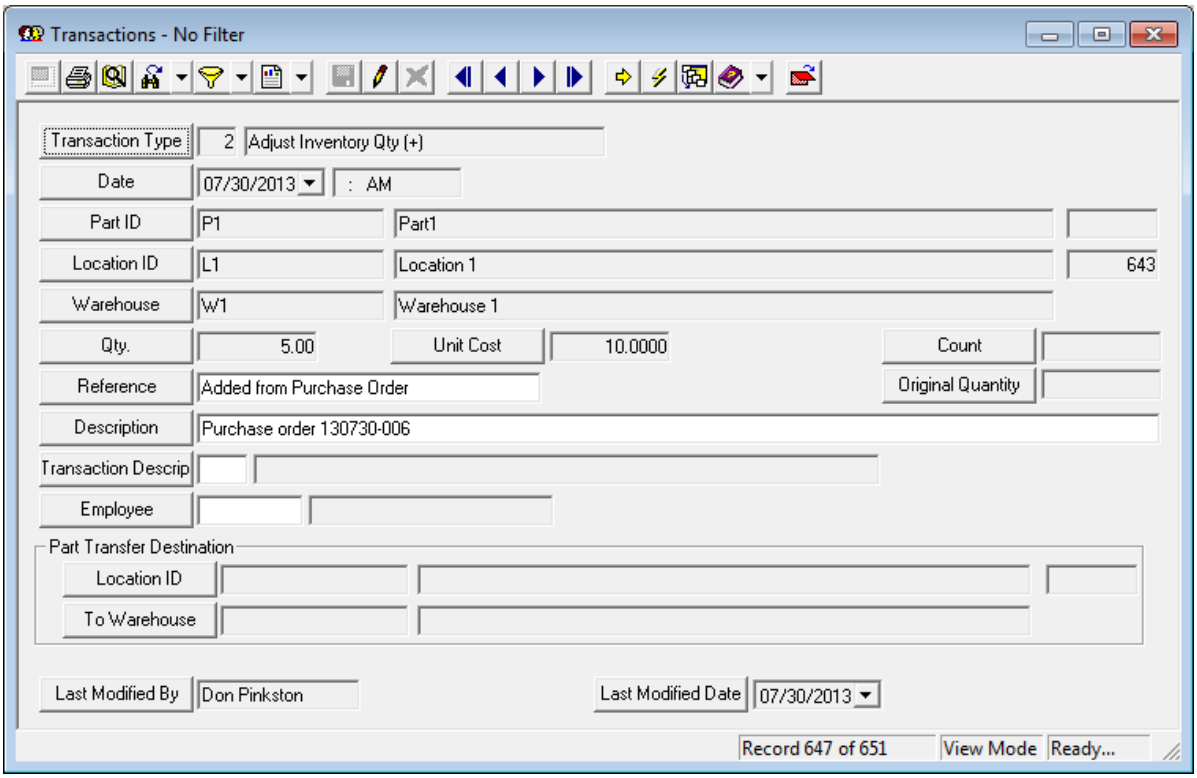
_____

_____

_____

Transactions

The Transaction module is like a general ledger for every part.



Every time that the parts quantity or cost is modified a transaction record is logged. Above is an example for Part 1 that we created when adding 5 units from the Purchase Order module. Most fields are pretty self-explanatory. However, there are some special items of note for this module.

1. There is no Add button. Users cannot add a transaction record from within transactions. Instead, transactions are created automatically as a result of work done in other modules.
2. The edit button only allows the user to modify the Reference, Description, and Transaction Description fields.

Notes:_____

Special field information:

Transaction Type	This field indicates the type of transaction recorded in this record. Examples include Transfer Parts, Adjust Inventory, Receive Inventory, etc.
Date	The date the transaction occurred. For Parts dispersals from Work Orders, this date reflects the End Date of the Work Order Resource record, or if no End Date exists, the Start Date. If both the End Date and Start Date on the Work Order Resource record are blank, the system's current date will be used in its place.
Part ID	The specific part (from ***Parts Inventory***) affected by this transaction.
Location ID **Warehouse**	Identifies the part's location in the warehouse.
Qty.	The affected part quantity for this transaction. This is not used for part cost adjustments.
Unit Cost	The price per unit for this transaction.
Reference	The tracking number for this transaction.
Count	This field is used only for Inventory Count transactions. It displays the current stock count.
Original Quantity	This field is used only for Inventory Count transactions. It displays the stock count prior to the transaction.
Description	A brief text description of the transaction.
Part Transfer Destination Fields	If this transaction involved a part transfer, these fields will display the new part location for the affected quantity.
Last Mod By **Last Mod Date**	These fields display the login name for the person who orchestrated the transaction along with the date the *Transaction* record was made.

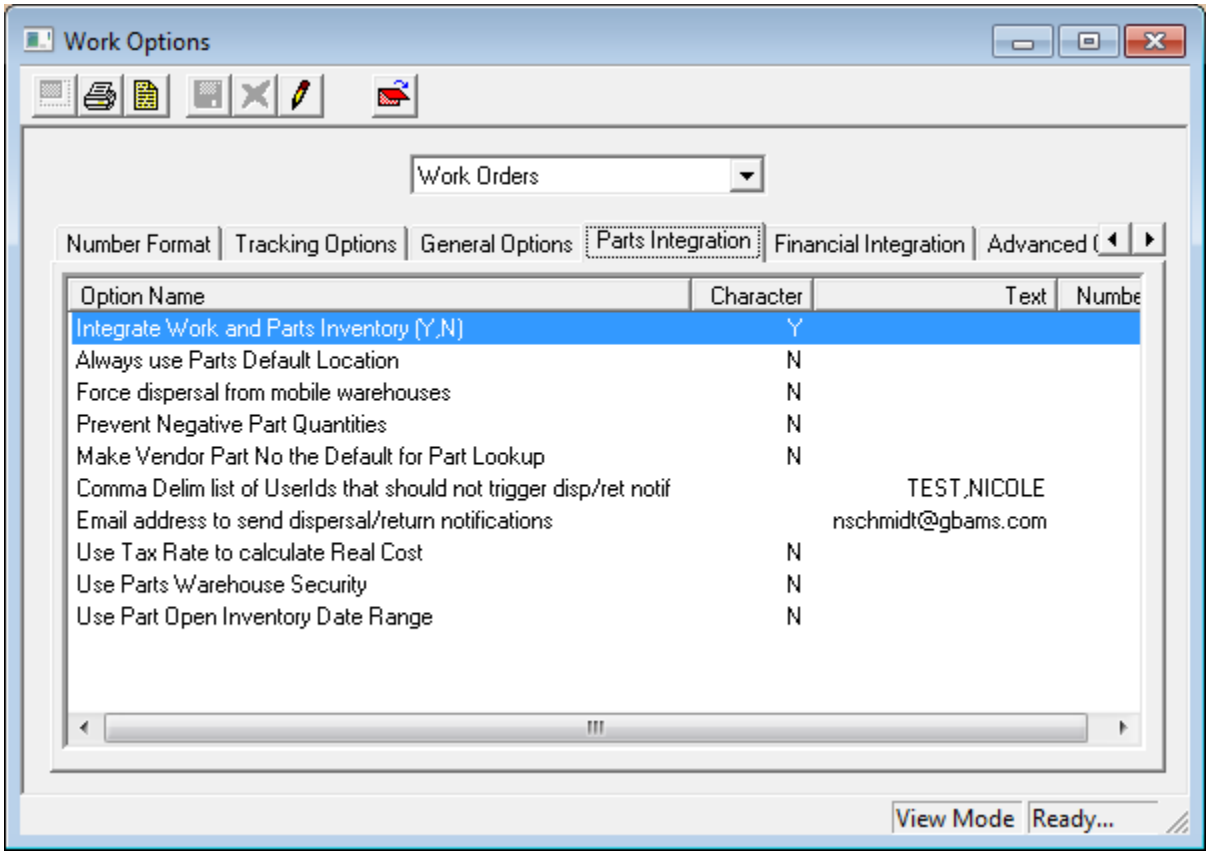
New fields for the Version 7.6 release include:

1. Transaction Time
2. Transaction Description code/type field
3. Employee field

Notes:_____

Integrating with Work Orders

There are a number of Integration Options for Parts. We will be discussing all of them. Our initial focus will be on simply setting the Integrate Work and Parts Inventory (Y,N) to Y. This means that the user desires the integration to work.



This integration allows users to automatically remove parts from warehouse locations when using the work order system. It automatically returns parts to the warehouse if not all parts were actually used.

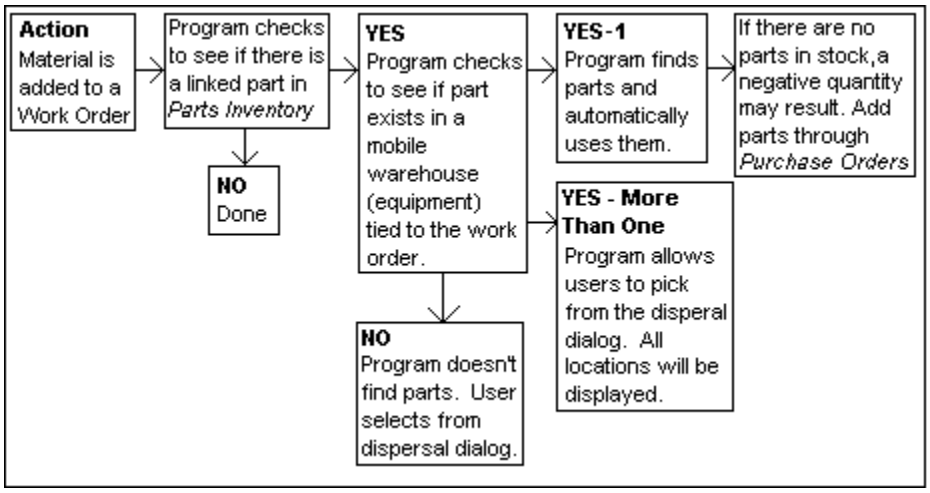
Some items that need to be setup prior to the integration actually working are:

1. Material Setup records are linked with Parts Records
2. Fluid Setup records are linked with Parts Records
3. Equipment Setup records are linked with Warehouses (if desired) so that vehicles or trucks can be used as mobile warehouses out in the field.

How the system interacts with the user is based on many things including which option flags are turned on, the quantity of the parts that are in stock and the number of locations where the part is in stock and the quantity in each location. Our on-line help guide does an excellent job of documenting four scenarios based on the combination of two of these flags: "Always Use Parts Default Location" and "Force Dispersal from Mobile Warehouse". So let's start with these scenarios.

Parts Dispersal Scenario 1 - Default Location = N & Force Mobile = N

If both the "Always Use Parts Default Location" and "Force Dispersal from Mobile Warehouses" integration options are set to "No":

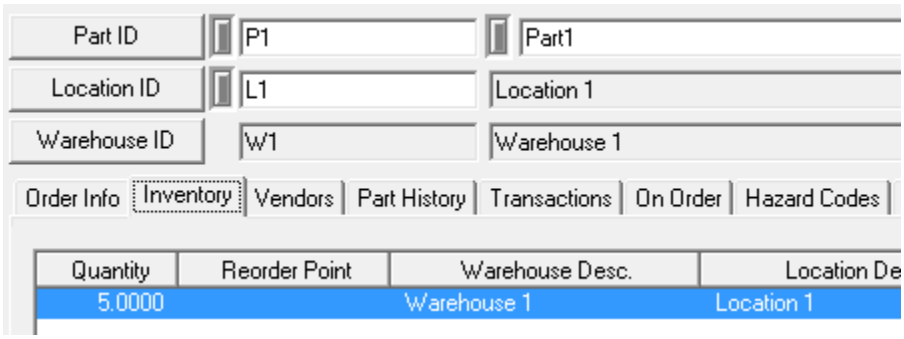


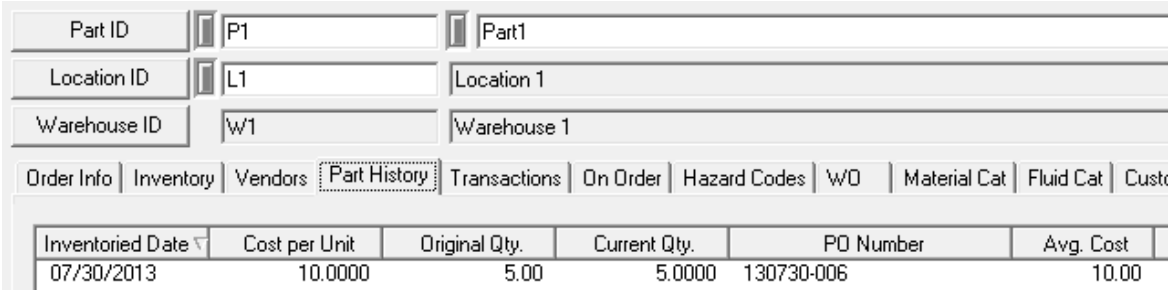
The basic concept is that the program will automatically try and use the mobile warehouse first.

> *Note: Mobile Warehouses are Work Order Equipment records that are linked to Inventory Warehouse records.*

Therefore, users should always add the Equipment records to the Work Order Resources grid prior to adding their Material or Fluid records. If there is more than one mobile warehouse record entered, then the user will have to select from which mobile warehouse to take the parts from. If no mobile warehouse exists, then the program prompts the user for where to extract the parts from.

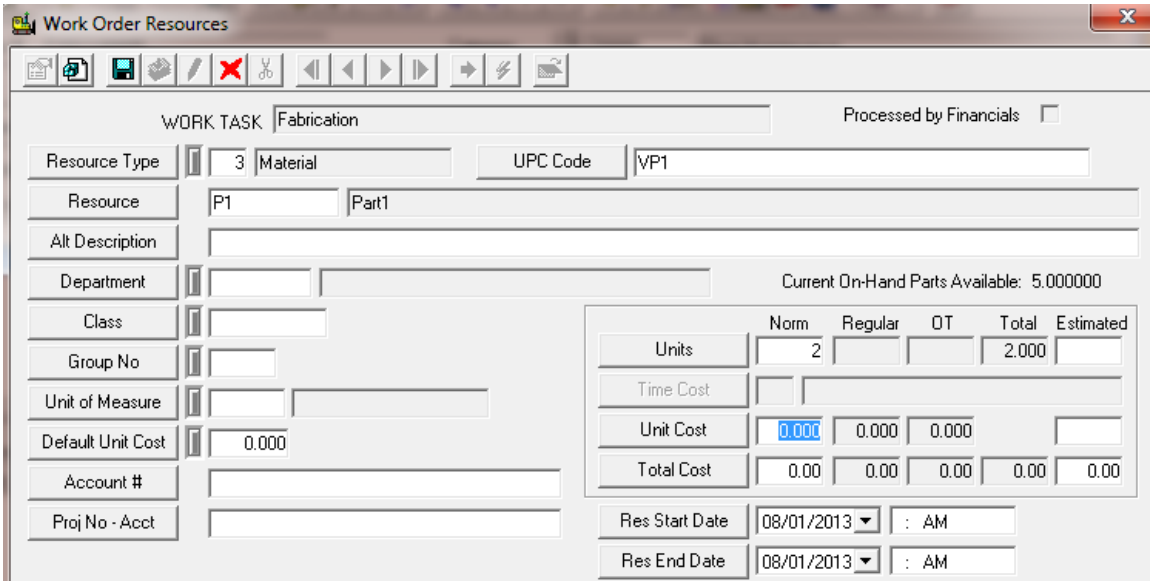
Let's use the Part 1 that was created earlier to see how this flows.





Part 1 is only located in Warehouse 1, Location 1. There are 5 parts at an average cost of $10.

Then I enter a new Work Order with a material work order resource for Part 1.



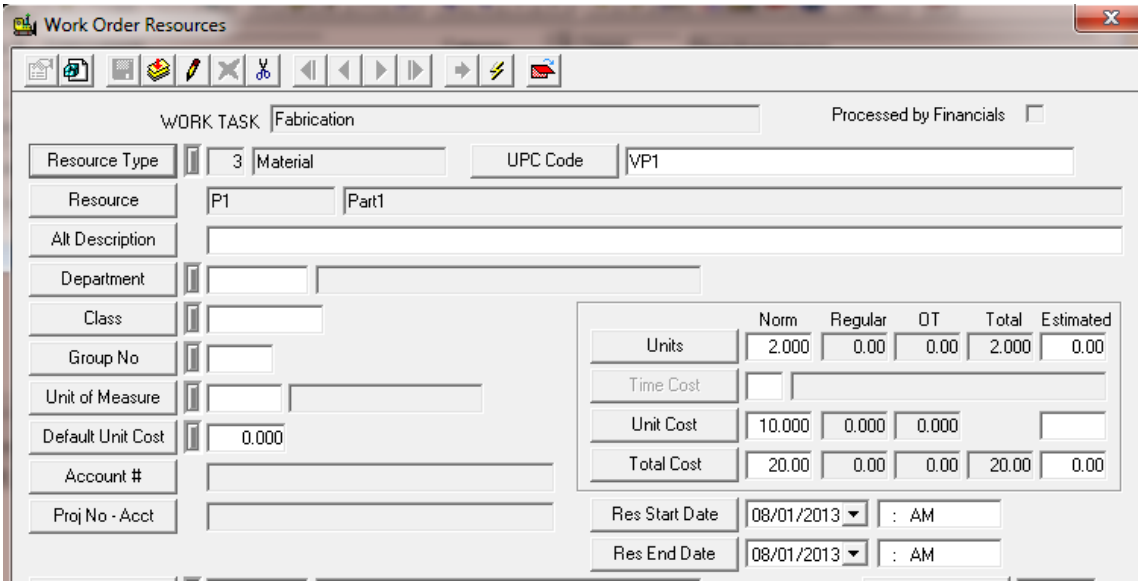
In the screen shot above I am just about to hit Save. Notice

- **New for Version 7.6** there is a UPC Code value. This will allow clients to enter Parts using the UPC bar codes. The system finds the UPC code from the Vendor Parts table and then looks up the Part Code and from there finds the Material (or Fluid) code to put on the Resource record.
- The screen shows how many current on-hand parts that are available.
- Now because the material is linked to the Parts module the Unit cost is $0. This is because the system does not yet know if the part is average cost, LIFO, FIFO or fixed cost. All of these calculations happen on the save.

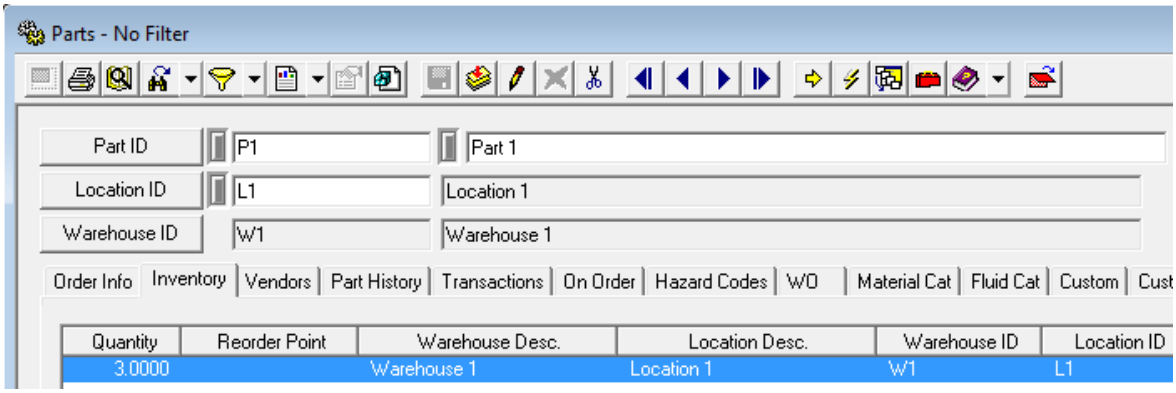
In hitting save, the user is not prompted at all. **This is new for Version 7.6.** Previously, the user had to put into the system how many parts they wanted to extract from each location, even when there was only one location to grab the part from. With Version 7.6, if there is only one location from which the system can grab a part then it does so.

Notes:_____

This is what the WO resource record now looks like after hitting the save



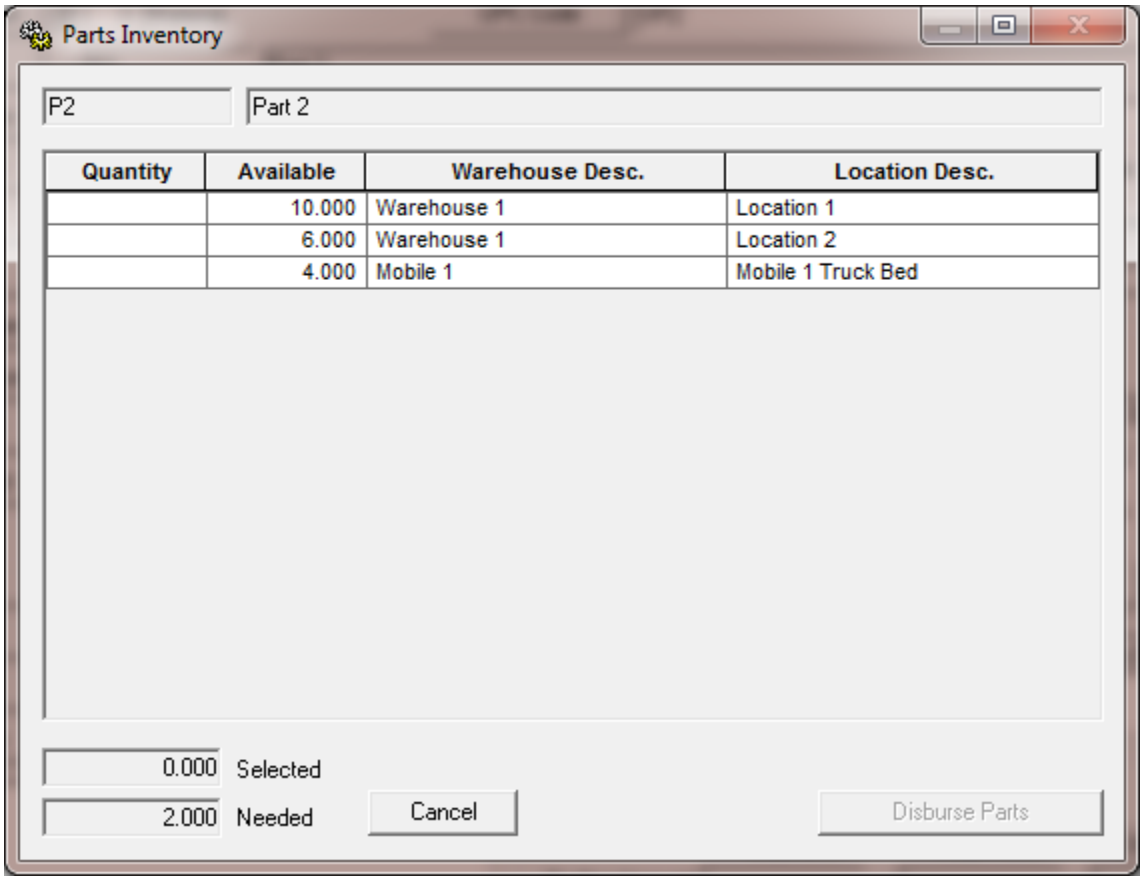
The Part Inventory then shows the reduction of the 2 parts in the Inventory grid.



Now, we need to see what happens when there is more than one location from which to pull a part. I will transfer half of the parts for Part 2 to a Location 2 in Warehouse 1. I will also transfer 4 parts to the Mobile 1 Truck Bed. Now let's repeat what we did before.

Notes:_____

Everything until we hit Save on the WO Resource remains the same. On Save, we get a new dialog

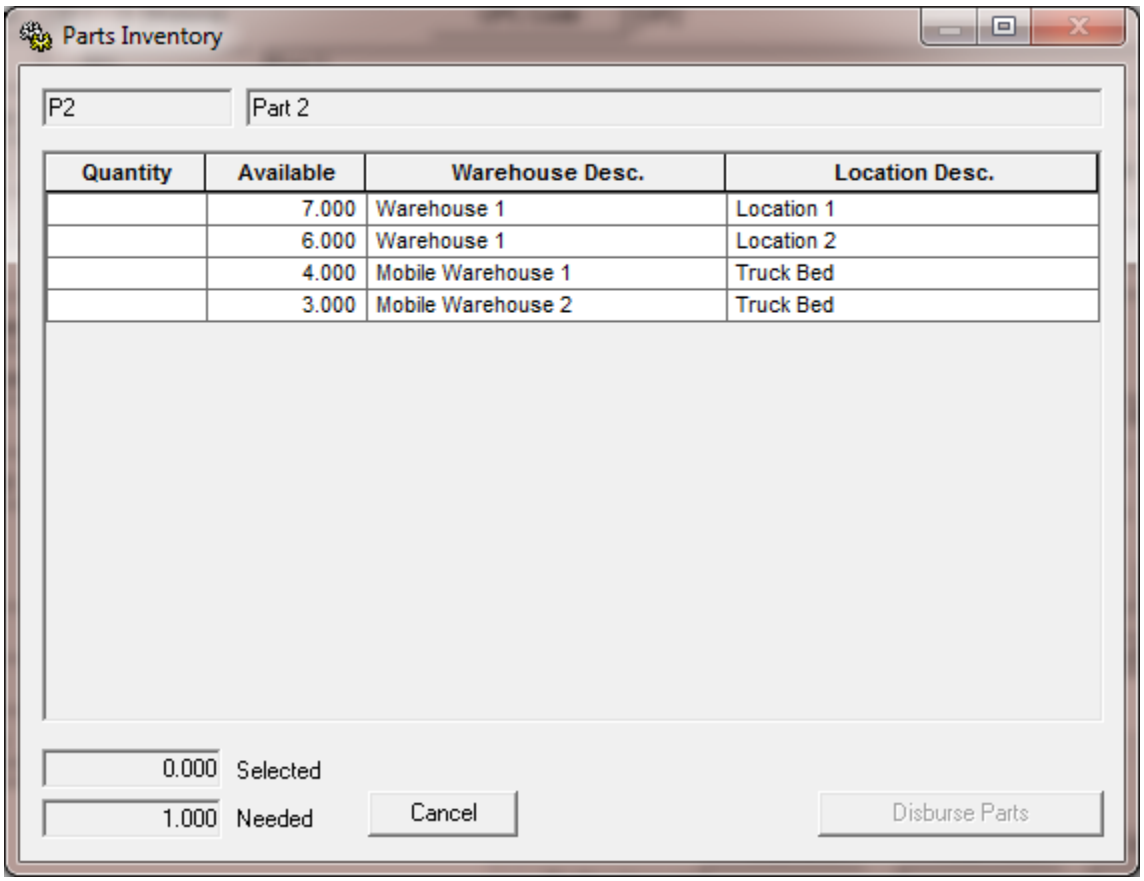


We get this dialog because there are multiple locations where the part could come from and the computer does not know automatically which location to use. Therefore, the user must tell the computer this information. A couple of items of note:

- The number needed so that parts can be disbursed is in the lower left hand corner (the Needed amount). As the user enters the Quantity to take from each location the Selected quantity increases. Once the Selected amount equals the Needed amount, the Disburse Parts becomes active.
- Every time that a location is associated with a part, the location appears in the above dialog. Prior to 7.6, it only showed those locations that either had a quantity that was not equal to 0 and/or the Location had been setup with a reorder point for that part.
- **New for Version 7.6** – The Cancel button. If selected, the dialog box disappears and the user will be provided a message stating that no parts were disbursed. Then the Resource Dialog box will return and the Quantity is reset to 0.

Now let's try the same thing but prior to adding Part 2, we add the Mobile Warehouse as a resource. In this example we will see that the parts are automatically taken from the Mobile Warehouse because the mobile warehouse is always the first place that the software looks to remove parts from if it is included as a resource.

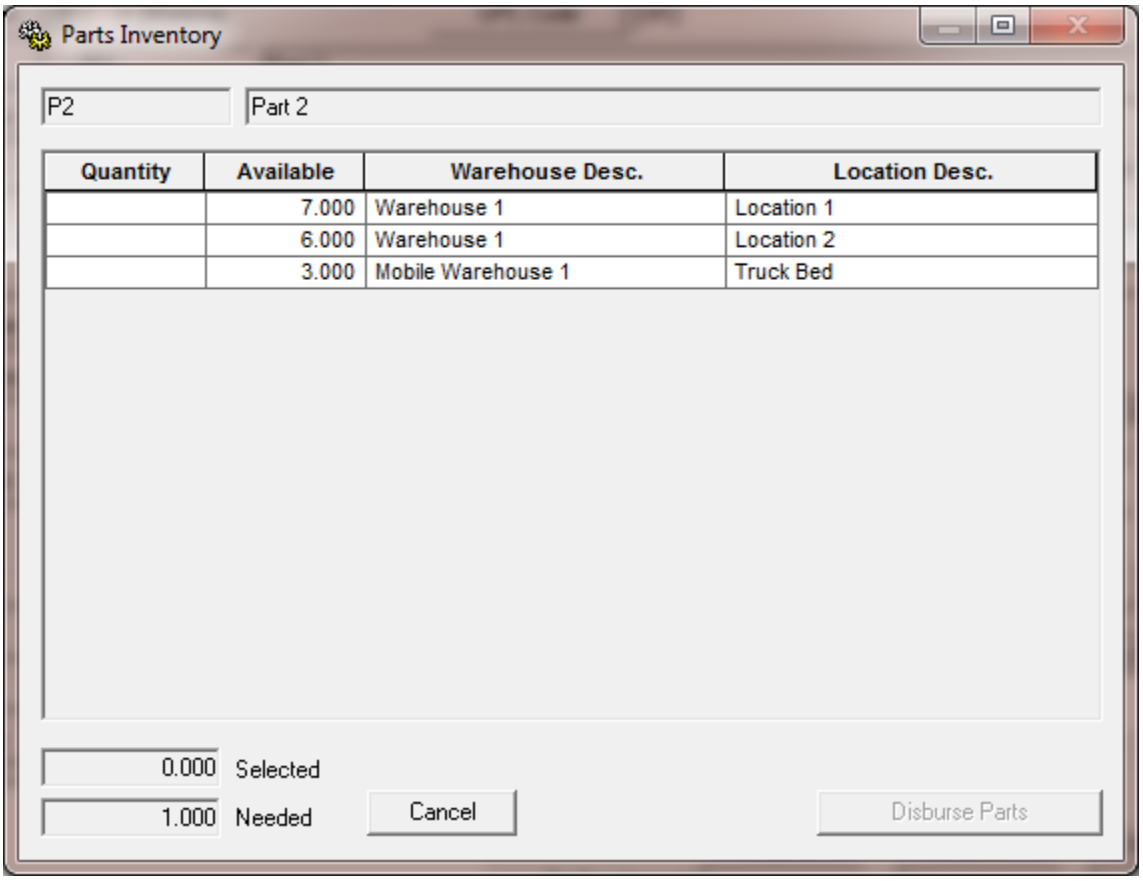
If there were two mobile warehouses listed as resources that both had Part 2 quantities, then when the part resource was saved, it would again prompt the user for the location from which it should grab the part.



Notes:_____

Notice that even though only one part was needed, the computer did not know where to take the one part from so it shows all locations from which the part can be taken.

> *NOTE: Using the same setup as above but with the Security turned on and if the user only had WO Access to one of these locations (say Mobile Warehouse 1), then the work order would automatically grab the part from Mobile Warehouse 1. However, if the user only had WO Access rights to Mobile Warehouse 1 and Warehouse 1 then those are the locations that they would have available to pull from as can be seen below.*



Notes:_____

_____

_____

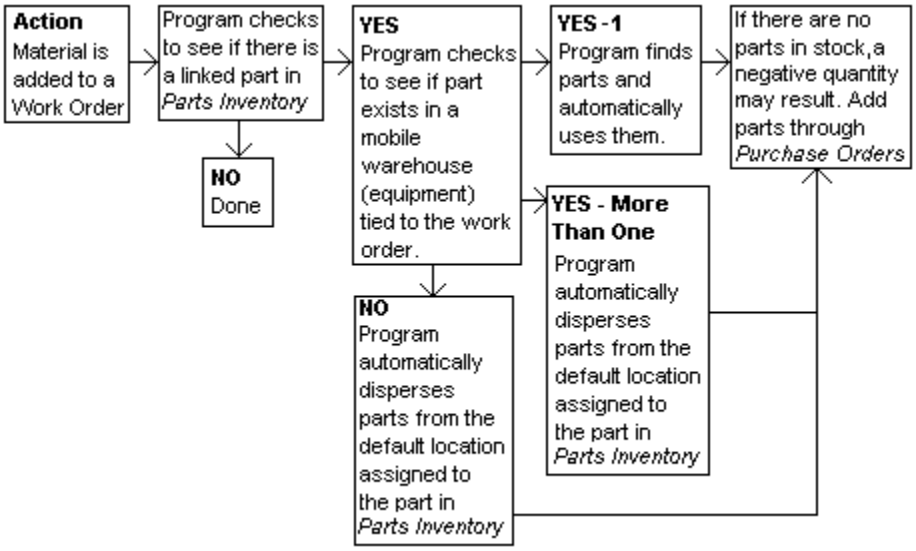
_____

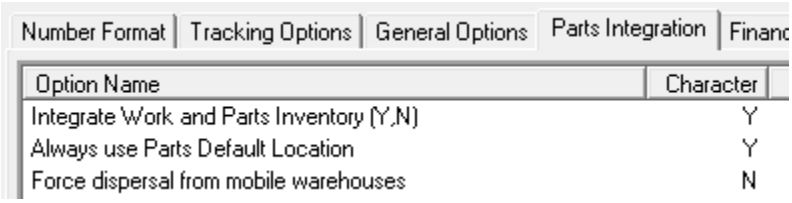
_____

_____

Parts Dispersal Scenario 2 - Default Location = Y & Force Mobile = N

If the "Always Use Parts Default Location" is set to "Yes" and the "Force Dispersal from Mobile Warehouses" integration option is set to "No":





This scenario is almost exactly like Scenario 1 with the exception that if there are no mobile warehouses present and there are more than two other warehouse locations that could provide the quantity, the system will always automatically disperse the parts from the Part's default location. That is the case even if the Default Location ends up going negative.

Using Part 2 (which has parts in Warehouse 1, Locations 1 and 2 as well as some mobile warehouses we can demo this. The Always use Parts Default Location is set to Y. We create a work order with a quantity of 1 for Part 2. On the save, it automatically grabs the part from the default location (with no prompt for the user).

Notes:_____

_____

_____

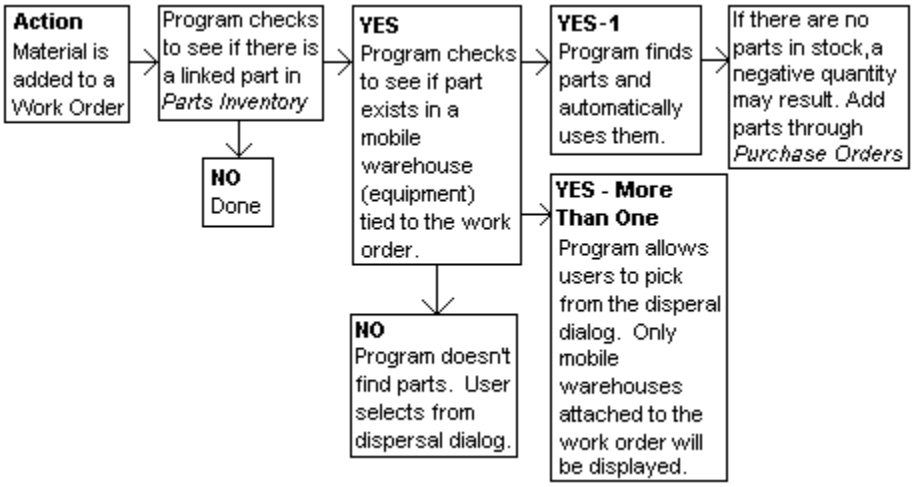
_____

_____

_____

Parts Dispersal Scenario 3 - Default Location = N & Force Mobile = Y

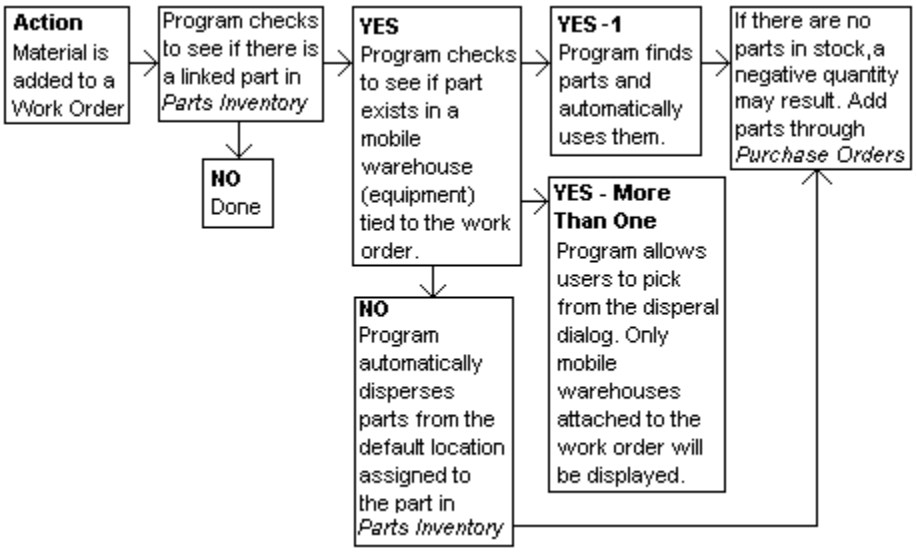
If the "Always Use Parts Default Location" is set to "No" and the "Force Dispersal from Mobile Warehouses" integration option is set to "Yes":



This setup is almost exactly the same as Scenario 1 except when there are multiple mobile warehouses as work resources. If so the dispersal dialog only shows mobile warehouses. If no mobile warehouses exist as work resources then the dialog shows all warehouses that have that part.

Parts Dispersal Scenario 4 - Default Location = Y & Force Mobile = Y

If the "Always Use Parts Default Location" is set to "Yes" and the "Force Dispersal from Mobile Warehouses" integration option is set to "Yes":

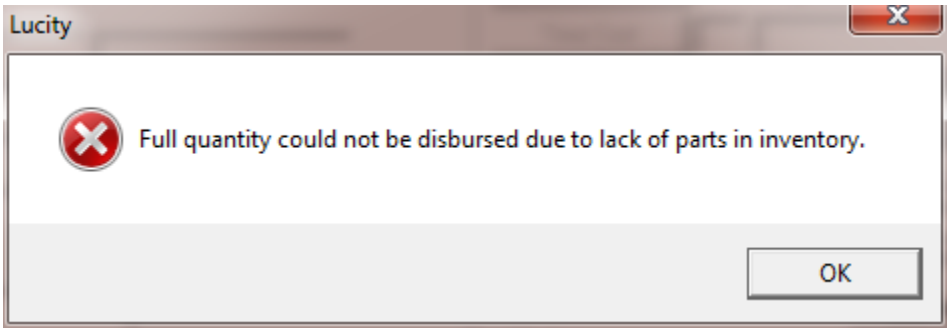


This is almost exactly the same as Scenario 1 except that it automatically uses the Default Location if a mobile warehouse does not exist in the work resource record.

Prevent Negative Part Quantities

The following example helps demonstrate what will occur when the "Prevent Negative Part Quantities" option is turned on:

If you try to disperse 100 parts in a work order, but only 60 parts were in stock, you will receive the following warning:



Then the system would automatically adjust the requested part quantity to 60.

If you use the Populate Material Units function in the Resources grid of a work order, and the specified amount of the material(s) exceeds the on-hand quantity, you will receive a warning (pictured above) and the system will automatically adjust the requested quantities to disburse the on-hand amount.

If you have default units for materials or fluids (setup in the *PM/Template* module or in the Work Flow Setup *Tasks* module) and the specified amount exceeds the on-hand quantity, the system will automatically adjust the part quantities to disburse the on-hand amount without giving a warning.

If you try to disburse parts in work order using Lucity Field and the specified amount exceeds the on-hand quantity, the system will disburse the parts anyway. This could result in a negative inventory. You will not receive a warning when this occurs.

Make Vendor Part Number the Default for Part Lookup

This work option flag allows the user to determine if they want to enter purchase order items by Part ID (when the flag is set to N) or by Vendor Part ID (when the flag is set to Y). With the addition of the UPC code in Version 7.6, this flag may not be as useful.

Comma Delimited list of UserIDs that should not trigger dispersal or return notifications.

This option works in conjunction with the "Email address to send dispersal/return notifications" option. This comma delimited list of Lucity UserIDs (or login IDs) lets the system know that when one of these individuals disperse or return a part the system should not send out the dispersal/return notification.

Email address to send dispersal/return notifications

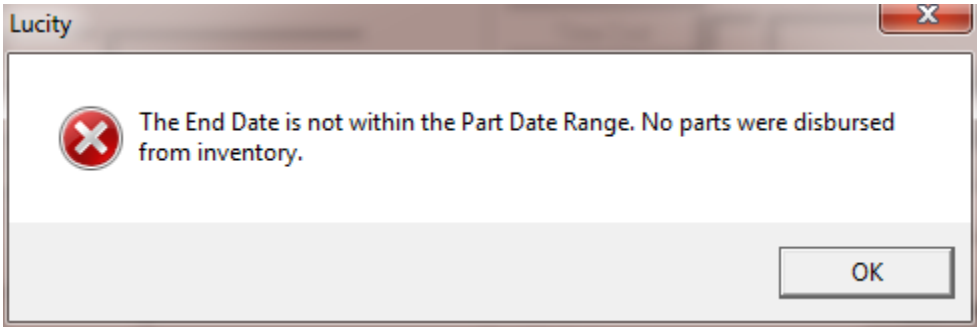
This would be the one email address to send a notification when users disperse or return parts. This notification is not sent if the user's ID appears in the **Comma Delimited List of UserIDs that should not trigger…** setting.

Use Parts Warehouse Security

This option is new for Version 7.6. We recommend that the user does not set this to Y until they have all of the managers of each warehouse setup and given then Full Access. The Warehouse Security is documented thoroughly in the Warehouse section.

Use Part Open Inventory Date Range

This option is new for Version 7.6. If this option is set to Y then when work orders resources are being saved, the system obtains the end date of the resource and compares it with both the Start Date and End Date of the Part record. If neither field has information, then the test is ignored. Otherwise, if either or both of the fields have values, then the resource end date has to be on or after the Start Date and/or on or before the End Date. Otherwise the user will be prompted with the following (this example showing the end date is the problem)



When the user hits OK, the Resource is changed so that the units used are back to 0.

Special Items of Note

Deleted or Reduction in WO Resource Materials

- If a material is deleted from a work order (whether by deleting the task the material is attached to or by deleting the work order itself), the system performs an inventory return. If all parts were originally dispersed from a single location, the return will be performed automatically to that same location without any user interaction. When parts are returned, they will be assigned the same cost as found in the work order (at the time of dispersal). The date of return will be the date the parts were deleted from the task or work order. The record of return will appear in the part history grid.
- If a material is deleted and the material was originally dispersed from more than one location, then there are several logic paths that are used to determine where the part gets returned to.
    1. If the work order resource record is deleted, the work order task was deleted or the work order was deleted and there is more than one location from which the parts were pulled, then the part automatically gets returned to the part's default location.
    2. If the work order resource record is reduced and the record is saved then if the flag for "Always use Default Part Location" is set to Yes, then the part will always be put back into the Default Park Location.
    3. If neither 1 nor 2 are true, then the user will be prompted with a dialog to determine the warehouse(s) to which the parts need to be returned. The dialog window is similar to the dispersal dialog, but will read "Return Parts" instead of "Disperse Parts."

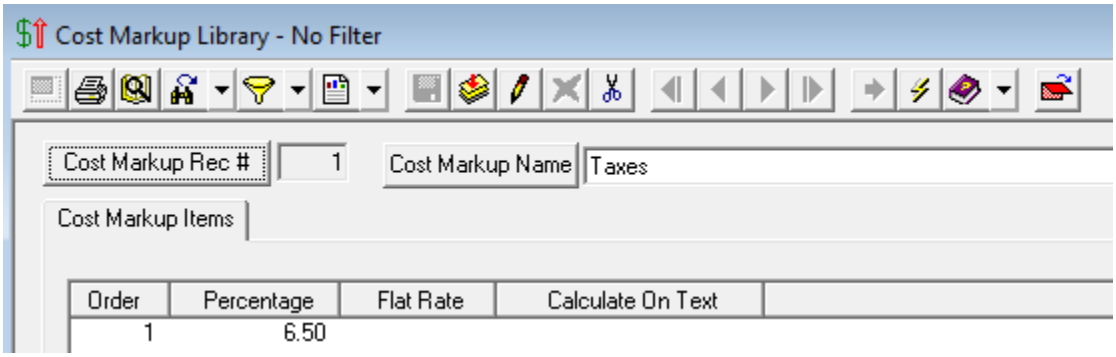
Not enough Parts in stock for WO Resource record

- If there are not enough parts in inventory when a part is dispersed to a work order,"Inventory Understock" will be displayed in the part history. Any time parts are returned from a work order, the system will attempt to clear the inventory understock using the returned parts.
- If the cost information is unavailable for a part, a cost of "zero" will be assigned.
- **New for 7.6** - If you accidentally select the wrong part and the dispersal dialog pops up, the user can hit Cancel on the dispersal dialog. This will return the user to the resource record allowing the user to change the resource and/or the quantity.

Parts Markup

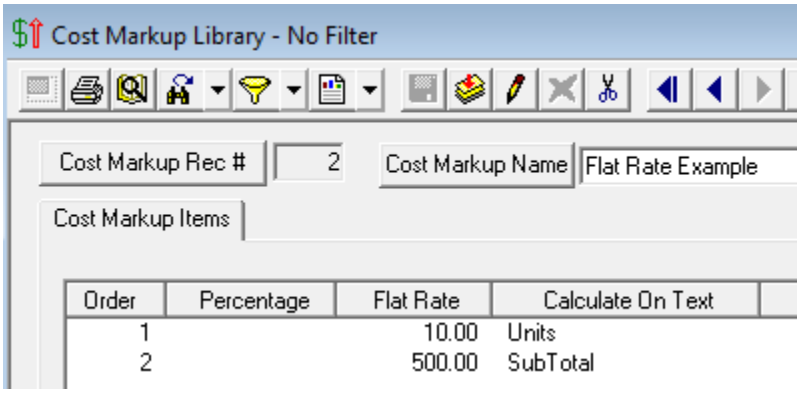
New for 7.6 – More accurately, this should be termed Work Order Resource Markup because this function will work with any type of WO resource. We have had numerous requests for the ability to markup a part with sales tax, external cost markup, etc. We solved this issue by creating the ability to easily markup a resource record.

In the work flow setup menu, there is a choice for Cost Markup Library. This allows users to setup multiple types of markups that may be repeated many times.



Above shows an example of a Library record for taxes where the resource cost would be increased by 6.5%.

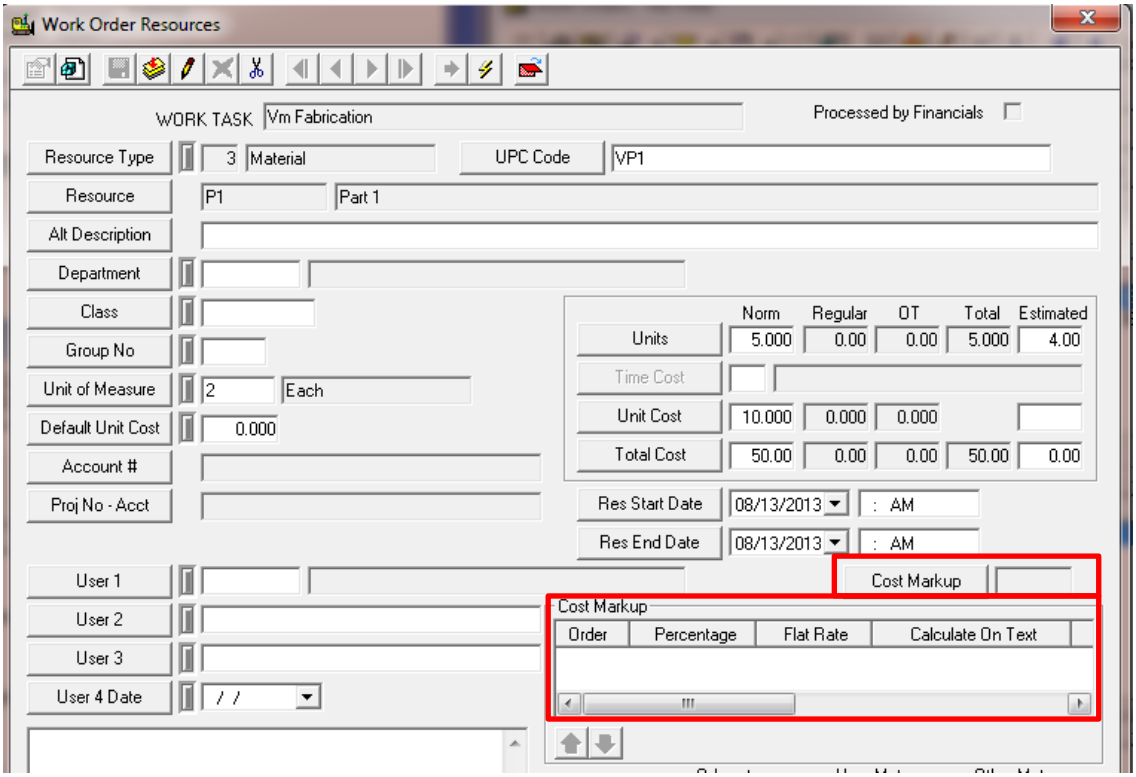
Besides percentages, the user has the ability to add flat rate markups on either each individual item or the subtotal of the cost of all of the units.



The above example shows that $10 will be added to the cost of each unit in the resource and that $500 will be added to the record one time.

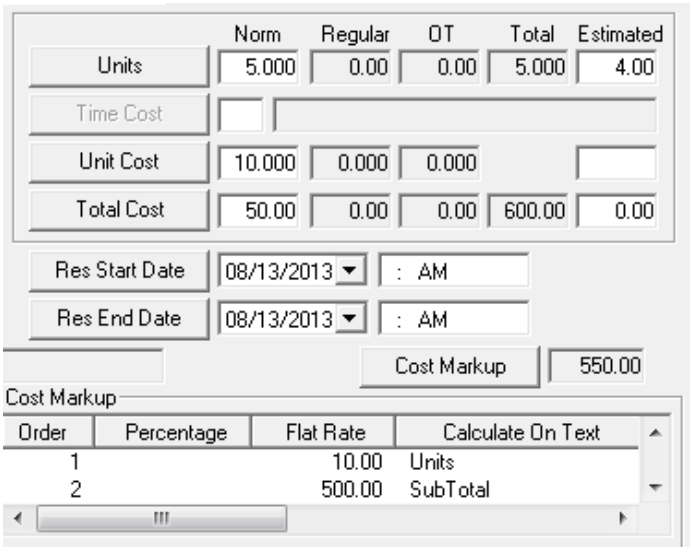
There is no limit as to how many cost markup library records a user can define or the number of cost markup items that can be added.

The user can apply these cost markups (or add new cost markups on the fly) to any work order resource record.

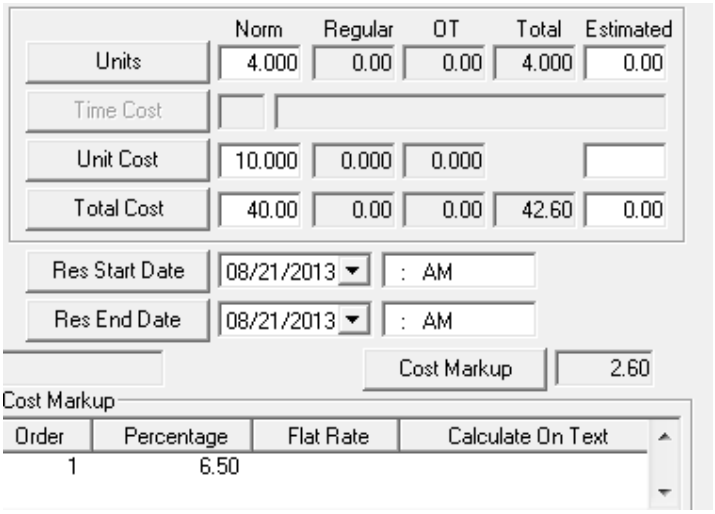


There is now a Cost Markup field and grid in work order resources. The grid is where the user can enter one or more cost markup items and the field will display the total additional cost that this adds to the resource. The Total Cost of resource will equal the Total Normal Cost plus the Cost Markup. Please note that Regular Time and Overtime Costs do not use the Cost Markup calculation.

The user can right-mouse click in the grid and add a record or Load a Cost Markup Library record. There is not limit as to how many Cost Markup records can be added.



Notice that the Cost Markup field is now $550. That is calculated by 5 units at $10 per unit plus $500. The $550 is added to the Norm Total Cost of $50 to give a new total cost of $600



The above example shows the Taxes Cost markup addition. It takes the $40 and multiplies is by .065 and gets $2.60 (the Cost Markup value). This is added to the Norm Total Cost to get the new Total cost of $42.60. The percentage value always uses the Normal Total Cost value for its calculation.

Again – this cost markup function can be used not only for materials but for employees, equipment, fluids and contractors but please remember that it only works on the Normal Units and Normal Total Cost fields (not Regular and OT fields).

WO Cost Estimates

New for Version 7.6. A new Unit Cost field under the Estimated column has been added in Version 7.6. This field is an editable field and accessible for all resource types. However, if the resource is connected to the Parts Warehousing system then when there is a value entered in the Estimated Units field then the average cost of the part will automatically appear in the Estimated Cost field and the total estimated cost will be calculated (estimated units * estimated unit cost).

The estimated unit cost field is editable so the user could modify it if they desired.

Notes:_____

_____

_____

_____

_____

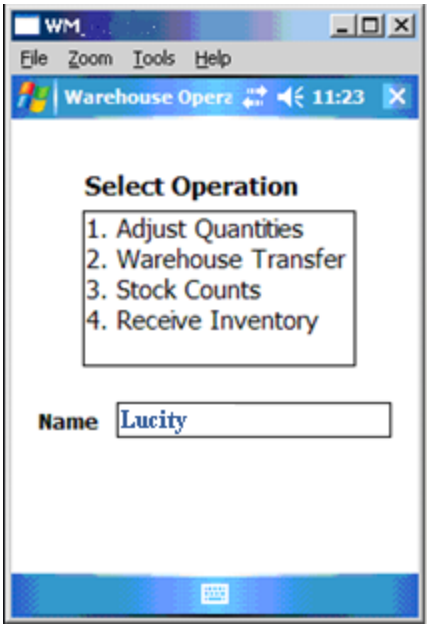
_____

Warehouse Operations using a PDA with Bar Coding

The Lucity Warehouse operations tool helps to maintain inventory counts and allows for users to use PDA devices for barcoding.

To begin using ***Warehouse Operations***, enter your user name into the Name field on the main screen. By default, this field will contain the name found in **Start > Settings > System tab > About > Device ID tab > Device Name**. The Name field is used as the default for the selected operations.

Next, tap a line item in the Select Operation box to begin working. You can use this module to adjust part quantities, transfer parts from one warehouse to another, review stock counts, and input data when inventory is received.



Notes:_____

Adjust Quantities Screen

This operation allows you to adjust quantities for parts in your warehouse. This screen contains the following fields:

Name - This is Required and can accept a scanned code.
Date – The date of entry. Defaults to the system date.
Reference – Can accept a scanned code.
Description – Info about the adjustment. Defaults to "Bar Code Adjust Quantity".

Bar code entry can be triggered by tapping "Trigger Scanner" on the toolbar at the bottom of the screen, or by pushing the third hard key on most barcoding devices. This key has an envelope on it and is usually used for messaging. On the SoMo 650 barcoding device, you'll press the left programmable application button. This button is found on the left-hand side of the device, directly below the hands-free connector.

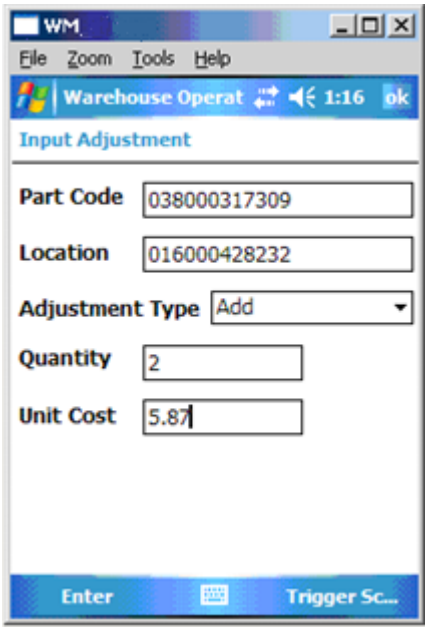
Select "Input Adjustment" on the left-hand side of the toolbar to progress to the next level of input.

Input Adjustment Screen

This operation allows you to add or remove parts from your warehouse and track the adjusted quantity. This screen contains the following fields:

Part Code - Required. Can accept a scanned code.
Location - Required. Can accept a scanned code.
Adjustment Type - Select from the drop down box to choose ***Add*** or ***Remove***.
Quantity - Required. Can accept a scanned code.
Unit Cost - This is only show if you chose to Add Adjustment. This is not required.

1. Selecting "Enter" from the toolbar at the bottom will write the data to a comma delimited text file named BarCodeData.txt in the root directory. After the record is written the fields will be reset to allow you to enter another Input Adjustment record.
2. When you are finished Inputting Adjustment records, hit [OK] to return to the previous screen.
3. Hit [OK] again to return to the Main screen.



Warehouse Transfer Screen

This operation allows you to track warehouse transfers. This screen contains the following fields:

Name - Required. Can accept a scanned code.
Date - Defaults to the system date.
Reference - Can accept a scanned code.
Description - Defaults to "Bar Code Warehouse Transfer".

Bar code entry can be triggered by tapping "Trigger Scanner" on the toolbar at the bottom of the screen, or by pushing the third hard key on most barcoding devices. This key has an envelope on it and is usually used for messaging. On the SoMo 650 barcoding device, you'll press the left programmable application button. This button is found on the left-hand side of the device, directly below the hands-free connector.

Select "Input Adjustment" on the left-hand side of the toolbar to progress to the next level of input.

Input Transfers Screen

This operation allows you to transfer parts from one warehouse to another. This screen contains the following fields:

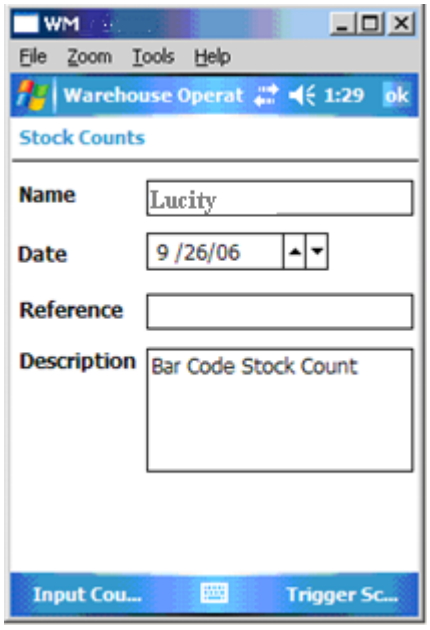
Part Code - Required. Can accept a scanned code.
Location - Required. Can accept a scanned code.
To Location - Required. Can accept a scanned code.
Quantity - Required. Can accept a scanned code.

1. Selecting "Enter" from the toolbar at the bottom will write the data to a comma delimited text file named BarCodeData.txt in the root directory. After the record is written the fields will be reset to allow you to enter another Input Adjustment record.
2. When finished Inputting Adjustment records, hit [OK] to return to the previous screen.
3. Hit [OK] again to return to the Main screen.

Stock Counts Screen

This operation allows you to count parts in your warehouse. This screen contains the following fields:

Name - Required. Can accept a scanned code.
Date - Defaults to the system date.
Reference - Can accept a scanned code.
Description - Defaults to "Bar Code Stock Count".



Input Counts Screen

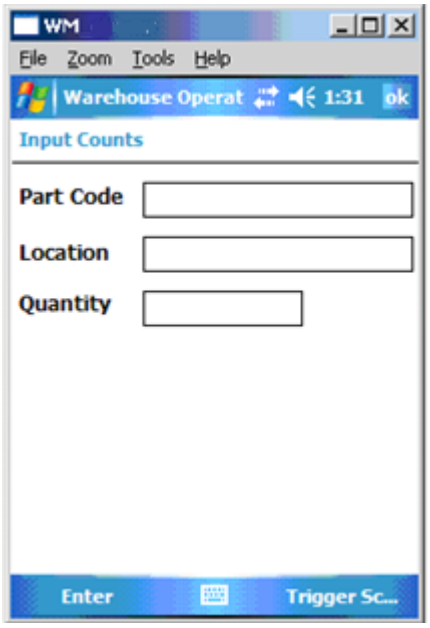
This operation allows you to add parts to your warehouse. This screen contains the following fields:

Part Code - Required. Can accept a scanned code.
Location - Required. Can accept a scanned code.
Quantity - Required. Can accept a scanned code.

1. Selecting "Enter" from the toolbar at the bottom will write the data to a comma delimited text file named BarCodeData.txt in the root directory. After the record is written the fields will be reset to allow you to enter another Input Adjustment record.

2. When finished Inputting Adjustment records, hit [OK] to return to the previous screen.

3. Hit [OK] again to return to the Main screen.



Receive Inventory Screen

This operation allows you to track parts coming into your warehouse. This screen contains the following fields:

Name - Required. Can accept a scanned code.
Date - Defaults to the system date.
PO Number - Required. Can accept a scanned code.
Reference - Can accept a scanned code.
Description - Defaults to "Bar Code Receive PO".

Bar code entry can be triggered by tapping "Trigger Scanner" on the toolbar at the bottom of the screen, or by pushing the third hard key on most barcoding devices. This key has an envelope on it and is usually used for messaging. On the SoMo 650 barcoding device, you'll press the left programmable application button. This button is found on the left-hand side of the device, directly below the hands-free connector.

Receive Inventory Screen

This operation allows you to track parts received from vendors. This screen contains the following fields:

Part Code - Required. Can accept a scanned code.
Location - Required. Can accept a scanned code.
Vendor Quantity - Required. Can accept a scanned code.
Vendor Unit Cost - Not a required field. This field is user-entered.

1. Selecting "Enter" from the toolbar at the bottom will write the data to a comma delimited text file named BarCodeData.txt in the root directory. After the record is written the fields will be reset to allow you to enter another Input Adjustment record.
2. When finished Inputting Adjustment records, hit [OK] to return to the previous screen.
3. Hit [OK] again to return to the Main screen.

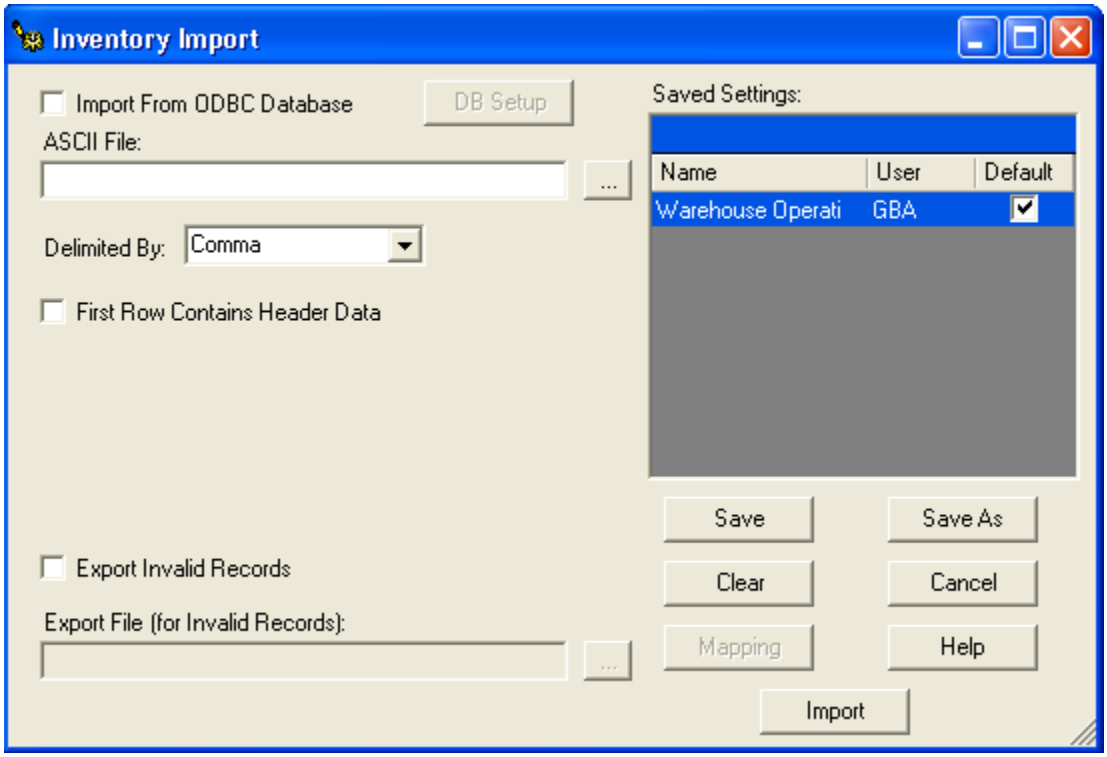
General Import

The Field Transaction Import tool allows clients to import data into Parts Inventory using the Warehouse Operations program. This tool allows you to import stock counts, update part quantities, and transfer data using a PDA/Bar Coding device or other inventory device that requires an export. You can import data from an ASCII file or an ODBC compliant database.

1. To use this tool, check to make sure Warehouse Operations is the default mapping.
2. Then, browse out to the location where you've placed your BarCodeData.txt file. Refer to the Warehouse manual for additional information.
3. To use this tool for a custom import, you are required to map data from the import file/database to the appropriate fields in the ***Lucity*** modules (i.e. you must map fields to existing inventory records; you cannot create inventory records in the field).

> *Note: This tool will only be available if you have purchased a licensed copy of the Parts Import program. See your system administrator for further details.*

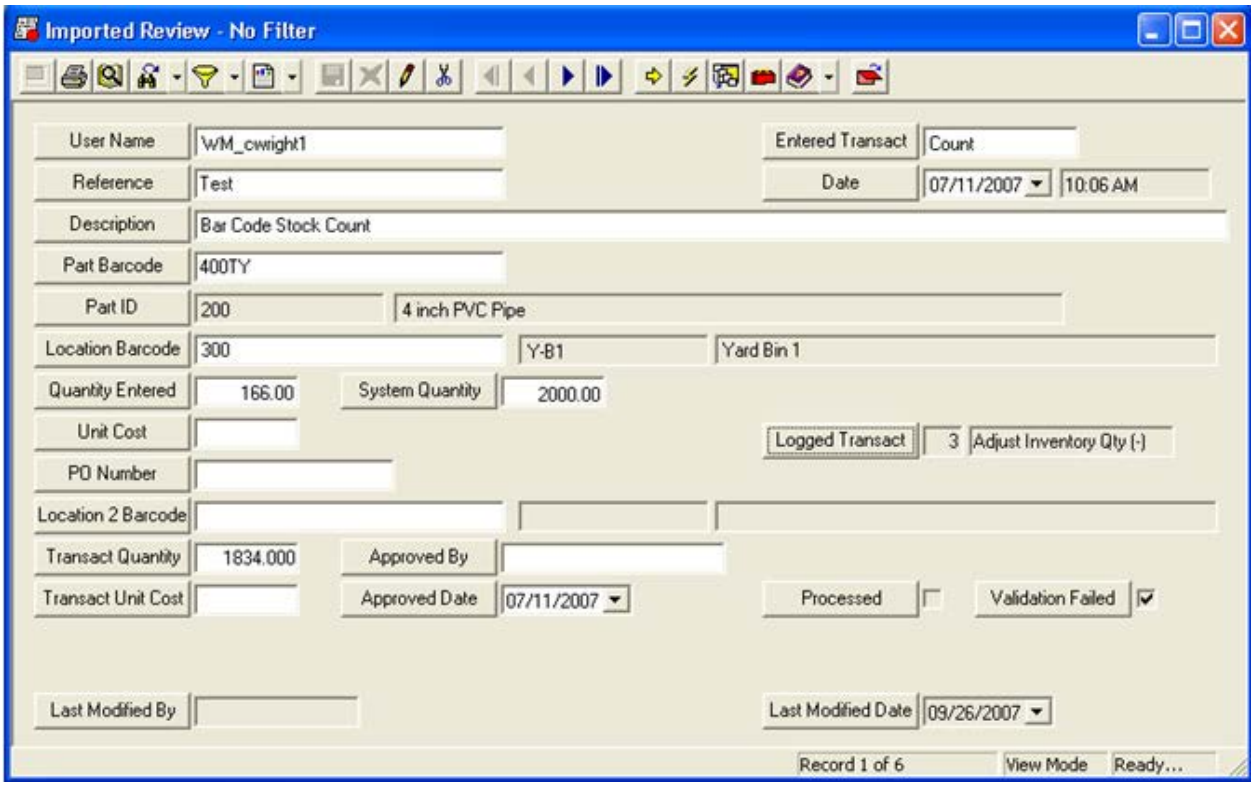
To access the ***Parts Import*** tool, select **Inventory > Field Transaction > Import** and the following window will appear:



Once everything is mapped and saved, then the data can be imported into the Review and Post module

Review and Post

After importing the data using the Field Transaction Import, the system will add a record for each item and location that you scanned using the barcode device to the Review and Post module. This module allows you to review your data, edit it, perform validation checks, and post it to the Parts Inventory. Review the topics below for details on using the Toolkit.



Toolkits

After data has been added to the ***Review and Post*** module, you'll need to run the following three toolkit functions:

1. Click the Toolkit  icon at the top of the module toolbar. The following window will appear:

2. First, you'll need to execute the "Validate Imported Data" function. This checks the records in the Review and Post module against the following:

1. It checks the Parts Barcode against the Barcode field on the ***Parts Inventory*** record, Order Info tab. A matching barcode must be found in ***Parts Inventory*** in order for this record to be validated.
2. It checks the Location Barcode against the Warehouse Location Barcode. A matching barcode must be found in the ***Warehouses*** module in order for this record to be validated.
3. For details on the specific fields validated in this process, consult the Validating Imported Records topic.

Note: If the Validate Imported Data function is successful it will allow the records to be posted to Parts Inventory in the next step. If these validation checks are unsuccessful, the Validation Failed checkbox will be marked instead. For records that have failed, go back and check the details. Make sure that matching barcodes are found in the Parts Inventory and Warehouse Location records and then run the Validation again.

3. Next, execute the "Post Adjustments from Filtered Set" function. All records where the validation check was successful will be added to the Parts Inventory. After records have been added to ***Parts Inventory***, the Processed checkbox will be marked.
4. Finally, execute the "Delete Processed Records" function. All records that have been posted to ***Parts Inventory*** and marked as Processed will be removed from the ***Review and Post*** dataset. You'll want to run this function in order to clear your dataset. This prevents records from being posted to ***Parts Inventory*** multiple times.

Validating Imported Records

The Toolkit checks the following in ***Review and Post*** to determine if a record is valid or not:

1. There must be a valid quantity
2. PTPARTS.PA_BARACODE must equal PZ_PCODE
3. PTLOCATION.PL_BARCODE must equal PZ_LCODE
4. If PZ_LCODE2 is not empty, PTLOCATION.PL_BARCODE must equal PZ_LCODE2
5. For "Count" or "Add" record types:
    - PZ_TCOST must be greater than 0
    - If PZ_TCOST and the Parts Cost type (PTPARTS, PA_CMET_TY) is "Average", the cost will come from PTPARTS.PA.AVECOST. Otherwise, the cost will come from PZ_COST.
6. For "Remove" record types:
    - If PZ_LCODE must be filled, PTINV.PT_QTY must be greater than PZ_QTY
7. For "Transfer" record types:
    - PZ_LCODE2 must be filled
8. For "Receive" record types:
    - PZ_PO must be filled and match a PTPO.PO_NUMBER, and
    - There must be a detail record matching the part, and
    - The PO and PTPODETAIL.PD_PQTYREM must be greater than or equal to PZ_QTY

Enhancement Requests

Parts Requisition System

We have had several clients request that we either link with a Parts Requisition System or create a Parts Requisition System. Thoughts?

Parts Serialization and/or Lot Numbers [#5507]

Add a parts warranty module

Creation of a Part Audit Count Module [#2149]

Create a module that allows you to see Part ID, Desc and Location. Allow data entry to update a new Quantity, and then create a Transaction record to reflect that + or - change (only create a transaction if the Quantity is different). In the transaction record that is created, populate a consistent value that could be triggered on to pull those transactions out. A custom report could then be created to show whether the known inventory is above or below the actual count value, and to show how much money that
represents. This would be for an external audit and should be done outside of the normal Parts module (where you can see the quantities and fudge the numbers).

Support of Open Inventory Date Range [#2572]

Add 2 new fields to PTPARTS for PA_STRT_DT, PA_END_DT. Force users to enter a PA_STRT_DT (conversion should populate this date with 1/1/2010). When dispersing parts from work orders, compare this date (to WR_STRT_DT). If it is less than this date, then the part should not try and disperse any parts from the warehouse. If PA_END_DT is populated, then the WR_END_DT must also be less than or equal to that date.

The purpose of this is two-fold
1. To prevent edits of old data from modifying the parts inventory data
2. To help clients who are doing EOY rectification of their inventory counts

Later we may want to add an option that prevents users from using the part altogether (broken rule) if the part is in a "closed" period.

Bar Code Program Enhancements [#5776, #5735, #4877, #4060]

#5776

1. The Tab order needs to go from top to bottom on all screens. The TAB key for the Bar Code Scanner I am using doesn't seem to follow this order. Don't know if it is the program or the scanner.
2. After a Bar Code has been 'read' and recognized advance cursor to the next field automatically. This will help cut down on having to click on the scanner every time you scan a code.
3. The Quantity field needs to be blank so that when the cursor is in that field all the user has to do is enter a number instead of having to delete the 1 than enter a correct number.
4. The down arrow doesn't allow going down to 0. When doing a Stock Count sometimes the count will be '0'. Down arrow should be able to go to this amount

#5735

Bar Code Scanner Stock Counts requires Trans. Cost and nowhere to enter it on Scanner. In Review and Post module receive error on Stock Counts "Transaction Cost needs to be added", but cannot add them when doing a stock count. Must do this in the review and post screen/record.

Give an option in the software:
Either bring over Avg. Cost or add another field in the table of last known cost for that part.
So don't add another field in the bar code scanner to enter this data.

#4877

When importing new inventory with Barcode Scanner using FIFO would like it to pull/default to most recent cost that is listed in the database. They do not want to populate the cost for every part that is scanned and using FIFO. They would like it to use the last cost that was entered for the part/inventory.

#4060

When entering data into fields in the PDA Warehouse, commas and hard returns result in the BarCodeData.txt file getting read incorrectly during the import.

Cascade Update Part Description [#1583]

Change a part description and having the change cascade to POs, work orders, transaction history, etc.

Add a Transaction Type for Receiving Inventory [#6162]

Currently the software is not capable of having the transaction type of "receive inventory" it can only adjust upward. These two options should be used for different purposes and need to be able to be reported separately.

Upgrade the inventory parts module [#6163]

Currently when an error is made in the entry of receiving an inventory item, there is no way of fixing the error. We use FIFO cost method and you cannot correct any specific layer (entry). If the date, quantity or item number is incorrect the only way to fix the record is to zero out the item quantity and recreate the history. Inventory systems must have the ability to adjust specific layers and not just adjust up or down.

When Adjusting Quantity (+), please autopopulate Unit Cost field with FIFO (most recent) part history cost the inventory parts module [#6063]

AutoNumber for Parts Inventory module [#5713]

Would like to an Auto-number option similar to the PO, WO, & Request Auto-number added to Parts Inventory Module.

Block PM if Inventory is too low [#4195]

Customer would like to block the generation of a PM if the inventory that the PM requires is too low. They would also like an alert that would warn them if the Inventory reached a certain point.

Part Adjustment Limit Popup [#2387]

Create an option for parts inventory where you can set a max limit on the quantity adjustment function. If you try to adjust quantity (+ or -) with a value over the amount set in the option, then it would pop up a warning message. If the user intended to do this, they would be able to hit 'ok' to continue with the adjustment. If there was a data entry error that caused the popup, the user could 'cancel' out of that adjustment and try again.