

TRAINING GUIDE

Parts Warehousing

# Parts Warehousing in the Web

The Parts Warehousing modules in Lucity Web allow your agency to keep track of parts, locations, quantities, costs, vendors, purchase orders, transactions, and receipts. 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. This documentation is meant to serve as a starter guide to using Parts Warehousing in the web and provide basic information about the functionality and tools available to users.

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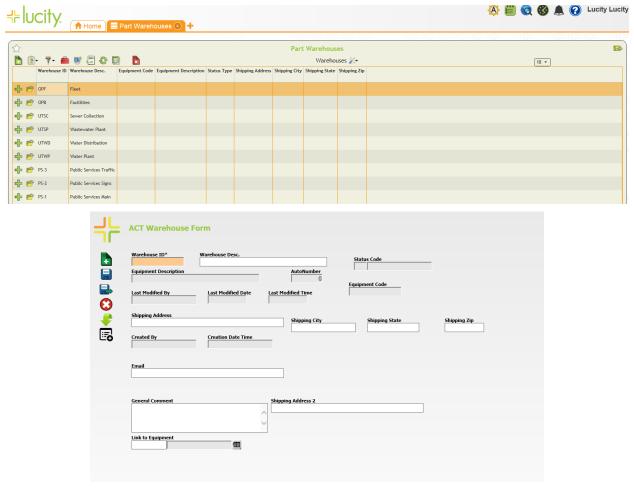
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## Parts Warehousing in the Web

Lucity Parts Warehousing in the web 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 the module works, first as a stand-alone system and then, later in this document, we will be demonstrating how the integration acts with work orders functions.

### Web 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. Once the grid and form are set up in Lucity Administration, users can go into Lucity Web and create a warehouse by clicking the green add button on the left side of the upper toolbar. This will bring up the warehouse form.



The Warehouse ID must be unique and is required. 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.

The grid is customizable to what the user or users want to see and what is necessary when they open the Parts Warehouse. These fields can be controlled using the View/Form Manager in Lucity Administration making the grid easily editable to be either highly detailed or as basic as is desired.

• Warehouse To Warehouse Parts Transfer - This Toolkit allows for users to select multiple parts from One Warehouse location and Transfer them, in bulk to another Warehouse and location. Users must Identify Destination Warehouse and location in the toolkit as well as the Parts that will be transferred. Once done a second window will open asking you to specify how many units of each part you would like to transfer

UTWD	Water Distribution			
Destination Warehouse Loca	tion			
UTWD-1	Water Dist Room 1			
Parts to be transferred				
F-BRK-OTH-05, F-BRNG-OT	TH-05, F-FL BRAKE DRUM 1875,	BEARING ANTI F 4, 73, 269	9, 46, 27	
Transaction Description				
Transaction Description				
Transfer Start Date	Transfer Start Time			
8/29/16	HH MM AM			
Click OK to enter a quantity t	o transfer for each part			
Circle Ore to enter a quantity to	o transfer for each part.			
Cancel				OK
re Information				
Part				
T uit		Max Quantity Allowed	From Location	
F-BRK-OTH-05: BRAKE DR	UM 1875	Max Quantity Allowed	From Location  OPF-M	
	UM 1875	_		
F-BRK-OTH-05; BRAKE DR	UM 1875	_		
F-BRK-OTH-05: BRAKE DR Quantity to Transfer 2	UM 1875	_		
F-BRK-OTH-05: BRAKE DR Quantity to Transfer 2 Part	UM 1875  S ANTI FRICT 47, MET250 M94 5 1/	4	OPF-M	
F-BRK-OTH-05: BRAKE DR Quantity to Transfer 2 Part		4 Max Quantity Allowed	OPF-M From Location	
F-BRK-OTH-05: BRAKE DR Quantity to Transfer 2  Part F-BRNG-OTH-05: BEARING		4 Max Quantity Allowed	OPF-M From Location	
F-BRK-OTH-05: BRAKE DR  Quantity to Transfer  2  Part  F-BRNG-OTH-05: BEARING  Quantity to Transfer  10		4 Max Quantity Allowed	OPF-M From Location	
F-BRK-OTH-05: BRAKE DR  Quantity to Transfer  2  Part  F-BRNG-OTH-05: BEARING  Quantity to Transfer  10	S ANTI FRICT 47, MET250 M94 5 1/	Max Quantity Allowed	From Location  OPF-M	
F-BRK-OTH-05: BRAKE DR  Quantity to Transfer  2  Part  F-BRNG-OTH-05: BEARING  Quantity to Transfer  10  Part	S ANTI FRICT 47, MET250 M94 5 1/	Max Quantity Allowed 73  Max Quantity Allowed	From Location  OPF-M  From Location	

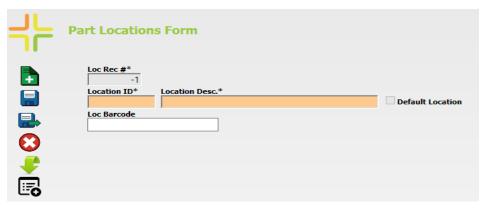
Notes:	 	 

#### **Location Tab**

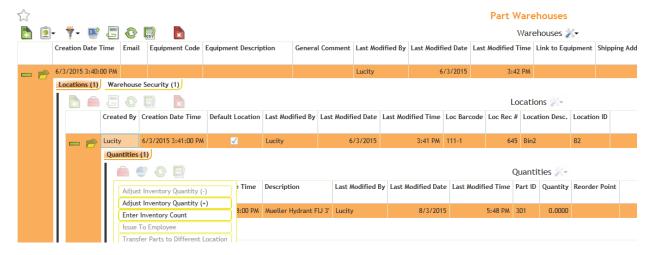
The location tab provides a list of all the locations found within the warehouse. This could be a general as a section of the warehouse, or as specific as a particular bin. It is found by expanding the warehouse record using the green plus symbol on the left hand side.



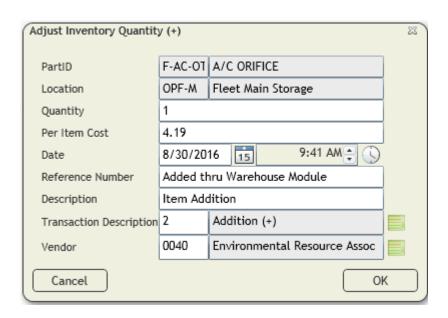
The first Location entered for the warehouse will automatically be the Default location. To add a location to the warehouse the user must click the green add button on the toolbar under the expanded locations tab. By doing the user brings up the Location Form. Fields such as Location Description and Location ID are required by the system while others are optional unless previously set to be required in Lucity Administration.



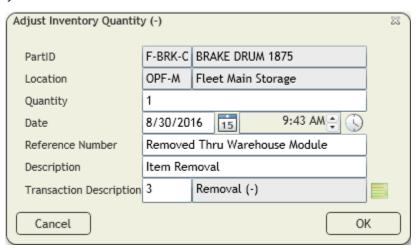
By further drilling down into the record on the Location tab you can see the quantities of each part at that location. When working with a part in the web users have several options. By clicking the toolbox icon on the toolbar users can adjust quantities by adding or subtracting from the inventory, entering inventory count, issuing a part to an employee, or transferring parts to a different location.



• Adjust Inventory Quantity (+) By clicking the Add Inventory option the following window appears and can be filled out by the user. Part ID, location, and per item cost are all filled out automatically when the window appears.



Adjust Inventory Quantity (-) - By clicking the Subtract Inventory option the following window
pops up and can be filled out by the user. Again, Part ID and location are filled out
automatically.

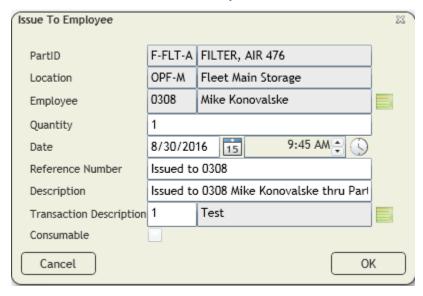


Notes:			

• 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 (adding or subtracting) to make the parts inventory quantity match the stock count. If the count is different than the original quantity the system will calculate the adjustment automatically as seen in the following graphic.

Enter Inventory Count		83
PartID	F-BRNG-	BEARING ANTI FRICT 47, MET25
Location	OPF-M	Fleet Main Storage
Count	70	Original Quantity: 65
Per Item Cost	124	Adjustment: 5
Date	8/30/20	16 15 9:44 AM 🗘 🕓
Reference Number	Added th	hru Warehouse Module
Description	Item Cou	unt
Transaction Description	1	Test
Cancel		OK

• Issue to Employee- Using this tool the user can issue a part directly to an employee. Several fields including quantity, employee name, date, and reference number all help in the tracking of parts. If the count is greater than the original quantity the user must enter the per item cost. The reason for this is because a new entry must be made into the PTPartCost table.



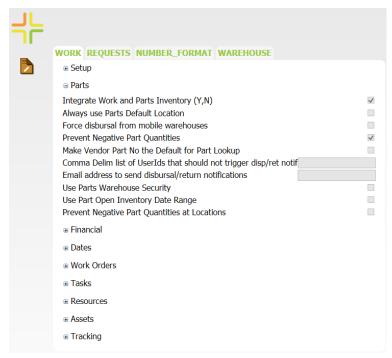
• Transfer Parts to Different Location- This tool allows users to transfer parts from one location to another. Some fields like the Part ID and current location are already filled in. Fields helpful in tracking during a transfer include quantity, date, location, and description. The description of the transaction can also sometimes helpful.

ransfer Part	s to Diffe	rent	Location			×
PartID	F-WHL-(	WH	IEEL RIM			
Location	OPF-M	Fle	et Main S	orage		
Transfer	To Loca	atio	n			
Quantity			8		Max Quantity:51	
Date			8/30/20	6 15 9:46	AM 😩 🕓	
Location			PS-1Y	PS Yard		
Description	l		Transfer			
Transaction	Descripti	ion	1	Test		
Employee	0307	Eva	ın Grace			
Cancel						OK

Notes:			

#### **Security Tab**

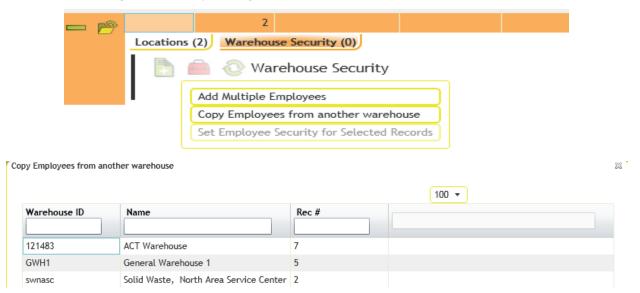
This tab gives users the ability to lock staff out of certain warehouses while still giving them the ability to use other warehouses (and the parts contained therein). The Security system will not work unless the Parts Warehousing option "Use Parts Warehouse Security" is checked. This option can be found on the web in the modules section under general, options, work options, parts.



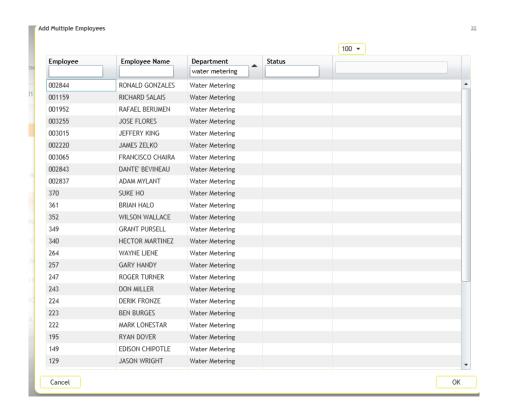
- Adding a Record Individual users can be added manually to each warehouse. The
  employee list comes from the Employee Setup module. To add employees click the green add
  button on the tool bar to bring up the warehouse security form. There are only two types of
  Security status allowed
  - WO only 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 Parts Warehouse Security functionality not be turned on until the warehouse security is setup for all users that need access.



• Copy employees from another warehouse - 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 - Using this tool the user can quickly add an entire group of employees to the security of the selected warehouse. Fields can also be searched and filtered based on a common item like department.



• 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.



Notes:	

## Parts Inventory

### 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)
  - o 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.

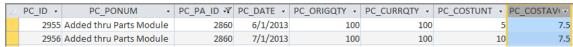
- **Reorder Point** once the total quantity on hand reaches this value, the user should be notified that they need to reorder the parts. Lucity contains a report that can be run on demand that prints out all parts needing to be reordered.
- **AutoNumber** this displays the computer generated number for 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 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



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 is \$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 and onward so that the user gets to select what locations that they want to have active for each part.

4	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.

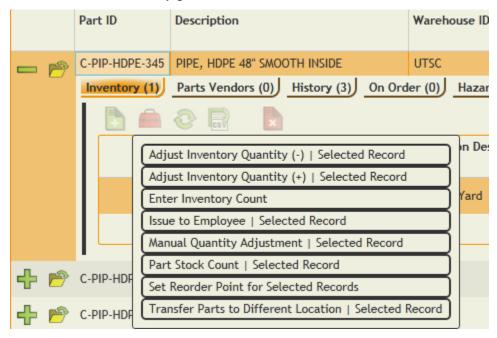
Notice that costs are not associated to the location of the part in any way. The value of the part cannot be determined for any warehouse or location unless the part is using Cost Averaging.

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Notes:

#### **Inventory Tab**

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 was 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 tools that exist for the Inventory grid as seen below.



#### Adjust Inventory Qty (+)

The only difference between this dialog that pops-up and the "Add to Inventory toolkit" 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 (-)

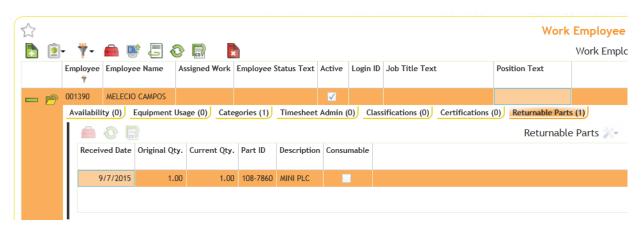
This tool allows the user to enter the quantity of the parts that have been removed from the location. All other information and appearance is similar to the Adjust Inventory Qty (+).

#### Issue to Employee

This tool 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 records returnable parts grid. 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.



The above image 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.

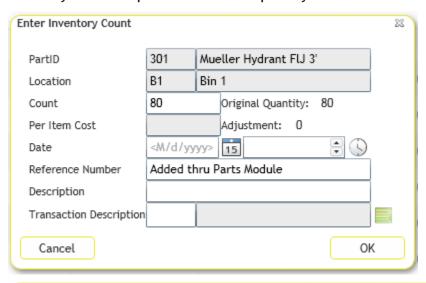
ansfer Parts to Diff	erent Location   Select	ed Record	
Part Number	Part Description		
C-MH-OTH-180	MANHOLE CONE, 48" X 2"	Ecc., Polymer	
From Location ID	From Location Description		
UTSC-Y	Sewer Yard		
Transfer To Location			
Quantity	Max Quantity	Date	Time
2	8	8/30/16	09 : 55 AM
To Location			
UTSP-M	WWTP Main Storage		
Description			
Transfer			
Transaction Description			
3	Removal (-)		
Cancel			ок

-

#### **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 in the transaction grid.

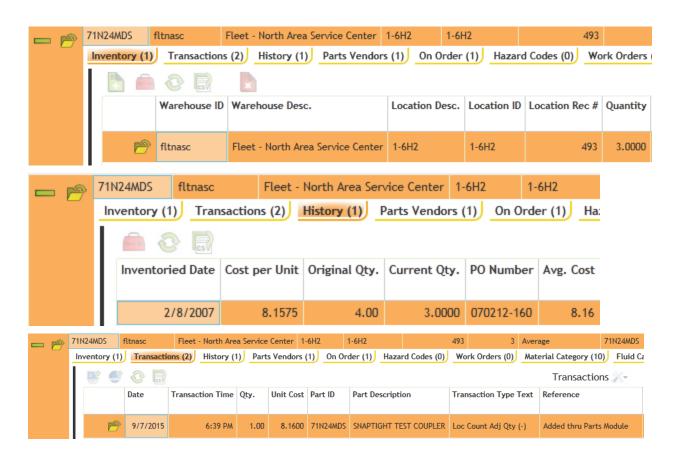
Notes:		 

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

In this example, our count equaled 3 (and not the original quantity of 4).

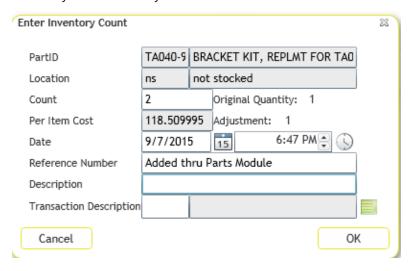
Enter Inventory Count						23
PartID	71N24M	SNA	PTIGHT TEST	COL	JPLER	
Location	1-6H2	1-6	<del>1</del> 2			
Count	3	-	Original Quan	tity:	4	
Per Item Cost	8.1575		Adjustment:	-1		
Date	9/7/201	5	15	6:39	РМ 🔁 🕓	
Reference Number	Added th	nru P	arts Module			
Description						
Transaction Description						
Cancel					OI	K

The system automatically grabs the Per Item Cost similar to how work order dispersals work. After hitting save, the Quantity becomes 3 at that location.



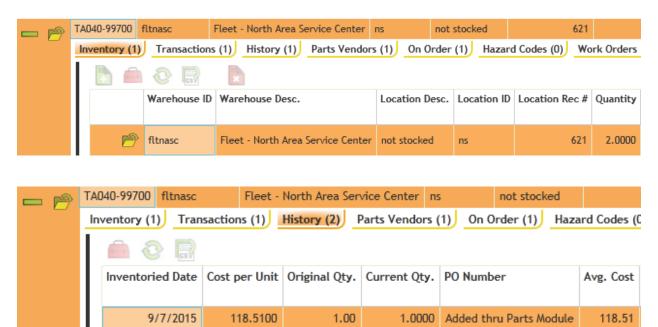
#### Inventory count is greater than the current quantity at that location.

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.



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118.51

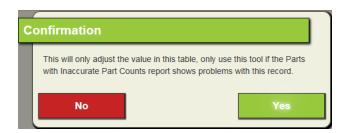
#### **Set Reorder Point**

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.



#### Manual Quantity Adjustment

This tool allows for users to manually adjust the inventory count of a part, in order to resolve any inaccuracies between the Transaction Count of the Part and the actual inventory Count. This tool can actually cause inaccuracies in your data if you are not careful. When a user first clicks the tool they will receive the warning prompt below.



The Confirmation prompt warns the user to ensure that they are using this tool on a part that is listed as inaccurate in the 'Parts with inaccurate Part Counts' Report

Parts With Inaccurate Part Counts □ □ □ □ □ □							
Rec#	Part ID	Part Description	Transaction Count	Inventory Count	On Hand		
1,291	F-BRK-OTH-05	BRAKE DRUM 1875	4.00	2.00	4.00		
1,296	F-BRNG-OTH-05	BEARING ANTI FRICT 47, MET250 M94 5 1	80.00	70.00	80.00		
1,297	F-FLT-AIR-100	FILTER, AIR 475	269.00	259.00	269.00		
1,298	F-FLT-AIR-105	FILTER, AIR 476	14.00	16.00	16.00		
1,305	F-FLT-FUL-60	FILTER, FUEL 0235	46.00	40.00	46.00		
1,332	F-OTH-OTH-30	GRIP BELT	27.00	22.00	27.00		

Upon running the report you will see several inaccurate part counts within our dataset. We will be adjusting 'Brake Drum 1875' in this example.



The report indicates that this part's inventory count should read as 4. The tool only has 'New count' and 'Description' as editable fields. Whatever value is entered in the 'New Count' field will overwrite whatever values are listed for that inventory count (Changing this value from 2 to 4). The 'Description' field allows users to record why this change is occurring.



Once complete, the tool should have placed whatever value you entered into the 'New Count' field into the inventory quantity. If you were to run the 'Parts with inaccurate Part Counts' report again, you would not find the 'Brake Drum 1875' part listed.

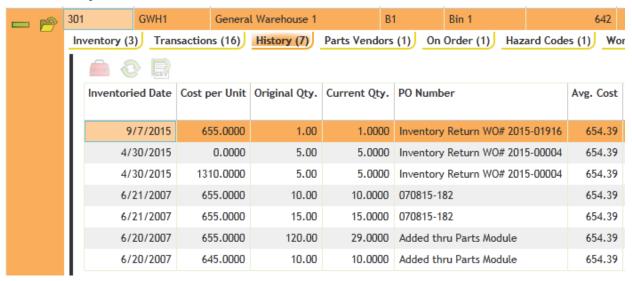
### Vendor Tab



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 in depth in the Vendor section.

Notes:	 	

#### Part History Tab



#### 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.

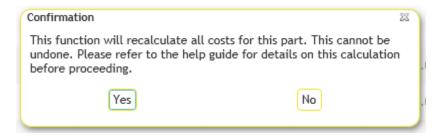
There are two tools that are available in this grid.

#### Adjust Cost per Unit

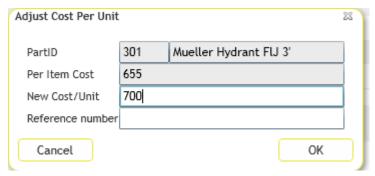
The Adjust Cost per Unit tool allows the user to make modifications to a per unit cost for a particular entry. For example, lets say that the user accidently entered a \$655 cost per unit below and they should have used \$700.



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.

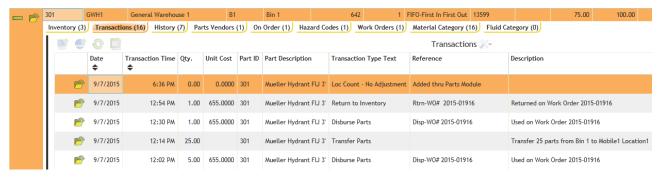
It is important to note that the average cost is recalculated based not on the Original Quantity of the parts but on the Current Quantity of the parts.

#### Change PO Number

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

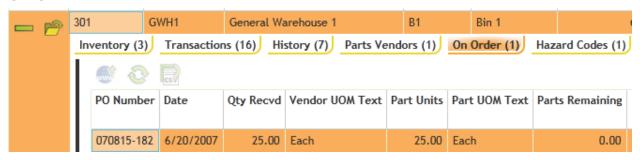


#### Transaction Tab



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 alphanumeric popup list that they wish to use to track hazardous items as Lucity does not have a prepopulated list.

#### **WO Tab**



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:

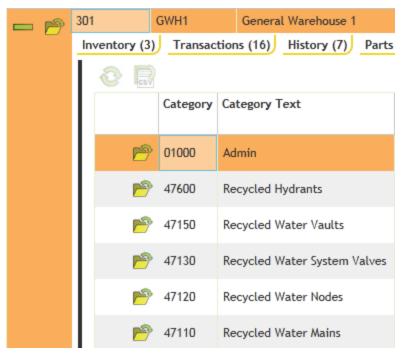


Notice how the Reference number in the transaction displays the WO # that is found in the WO tab.

Notes:	 	 

#### Material Cat Tab

It allows users to assign categories to parts directly. Once assigned, it automatically assigns the linked material to the same category.



#### Fluid Cat Tab

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

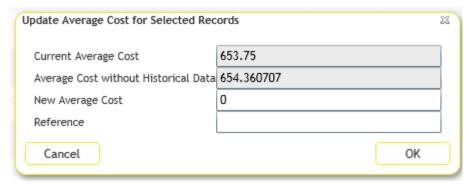
Notes:	 	 	 

#### **Toolkits**

There is four toolkits featured in the Parts module, Update Average Cost for Selected Records, Manual Parts On Hand Count Adjustment, Manual Transaction Count Adjustment and the Add to Inventory Tool.

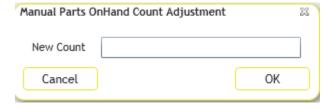
#### Update Average Cost for Selected Records (Toolkit)

This tool can be used to quickly update the average cost for a specific part if the part comes out of synch between the average cost found in the PTPARTSCOST Table and the average cost displayed on the parts form in the average cost field. The tool can also be used if an agency desires to cost a part at a different average cost than the one the system calculated. In the tool dialog you simply have to enter a new average cost for the part you are also provided with a field to provide a reason for the change in the parts average cost.



#### Manual Parts on Hand Count Adjustment (Toolkit)

This tool allows you to manually adjust the quantity on hand field for a specific part. Lucity provides you with a report called parts with inaccurate Parts counts we recommend that you only run the Manual Parts on Hand Count Adjustment tool after running the report and verifying a part has a discrepancy between its quantity on hand value and its transaction records. When you run the tool give the part a new count and a corresponding record is created in the parts transactions grid.



#### Manual Transaction Count Adjustment (Toolkit)

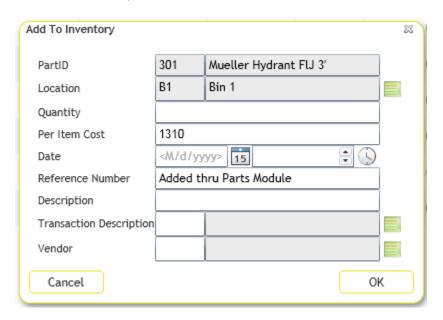
This tool allows you to manually add a transaction record for a part to adjust the parts transaction quantity. This tool does essentially the exact same thing as the Manual Parts on Hand Adjustment tool but for the transaction count specifically. This tool should also only be run after the parts with inaccurate part counts report has been run and you verify that the specific part needs an adjustment to its transaction count. The appears the exact same as the Manual Parts on Hand Count Adjustment tool only with a different title.

#### Add to Inventory (Toolkit)

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One quick way to enter parts quantities into the system is to find the part in the parts module and use the Add to inventory toolkit. The following dialog appears after selecting the toolkit.

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 Location field is 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. 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.


## **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. This grid can be accessed from the Inventory module drop down list.



Users can add a new record by clicking the green add button on the tool bar which brings up the vendors form. When adding a record, the Vendor ID must be unique and the Vendor Description should be filled in. The rest of the first page is strictly optional and is customizable.



### Vendor Parts Tab

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



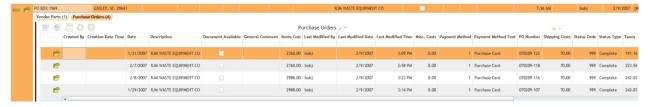
From this screen users can add parts that have been previously entered into the system and associate them with a particular vendor. The Vendor Part ID must be unique (against all other Vendor Parts). However, it can be the same as the Part ID. The UPC Code is particularly useful when entering work resources (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 'case' 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).



## Purchase Orders 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. Adding purchase orders must be done from the Part Purchase Order module located within the Inventory drop down menu.

## Parts Purchase Orders

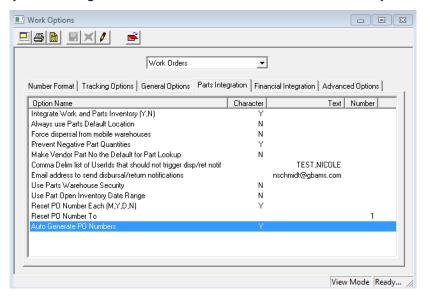
Notes:

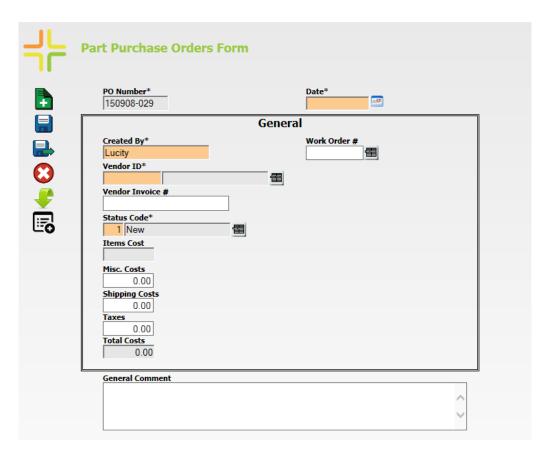
The Parts Purchase Orders module gives the users a quick and easy way to see important information about the purchase orders associated with specific parts.



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To create a new purchase order users select the add option on the Parts Purchase Orders module toolbar. Doing this brings up the purchase order form. The PO Number is automatically filled out and generated by the system so long as the Auto Generate PO Number tool is set to yes.





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).

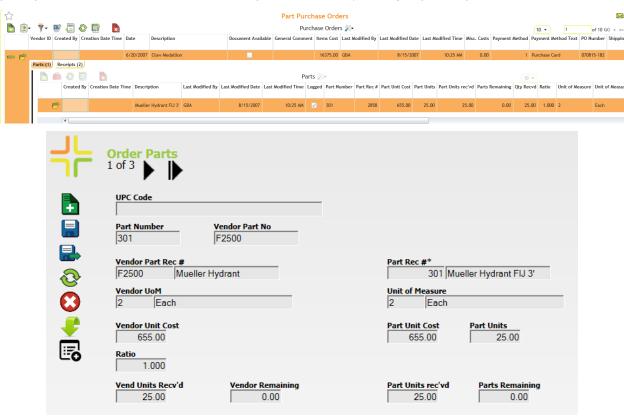
### Parts Purchase Order Grid

The grid users see is again customizable through the Lucity Administration program. Information available at a glance can be as detailed or as basic as is desired. When a field is expanded, two tabs appear. One for Parts and one for Receipts.



### Parts Tab

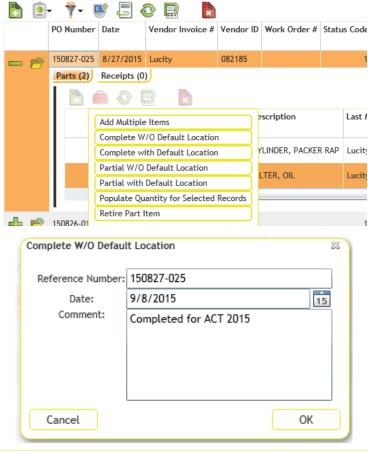
This is where users can enter what they want to order from the Vendor. This is different from the parts inventory tab discussed earlier. By clicking the add symbol for this tab it brings up the form for the parts purchase orders. Here users can add parts individually or in groups to a purchase order.

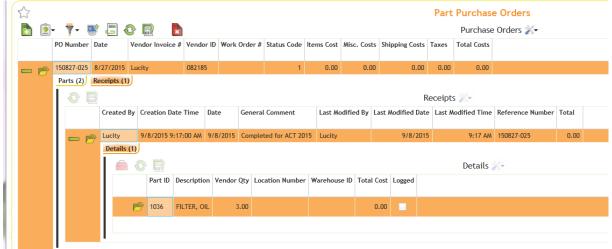


In the above example basic information on the part is provided at the top of the form including UPC code, part number, and vendor part number. Below we see the vendor part record number and part records number, vendor and client unit of measure fields, vendor unit cost and part unit cost, parts units, and several fields for quantities on both the vendor and client sides. The ratio in this case is 1 because the number of parts units is equal to the number of vendor units.

## Receipts Tab

On the receipts tab under parts purchase orders there is no way for the users to directly add a receipt. The receipts are generated by altering the status of the purchase order using the toolbox options. Once one of these options is selected and the corresponding information is provided a receipt for that part will be generated and will show up under the receipts tab.

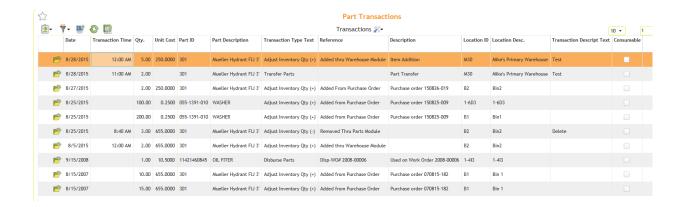




In the views above we see the process by which a receipt is created within the purchase order module. Once the receipt is in the system users can view the receipt created by the system or view more specific details about the receipt under the details tab.

### Transactions

The Transactions module is like a general ledger for every part. Every time a part quantity or cost is modified a transaction is logged in the system. Below is an example of what the transaction log looks like after we have been adding, subtracting, ordering, and transferring parts. A few items of note within this module for users to be aware of; first, there is no add button. Users cannot add a transaction from within the module since these records are automatically created and added to the list through other means.



## Integrating Parts with Work Orders

There are a number of options that govern the integration between the Work Orders and Parts Inventory modules. 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.

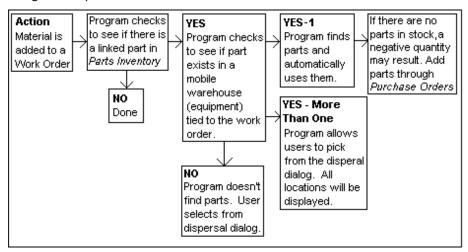
Some items that need to be setup prior to the integration actually working are:

- 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 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":



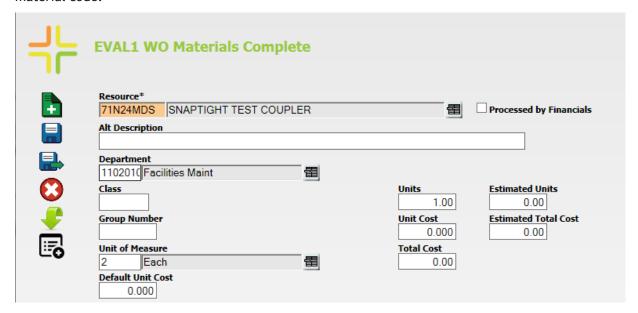
The basic concept is that the program will automatically try and use the mobile warehouse first.

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.



The Part is only located in 1 Warehouse, and Location. There are 3 parts at an average cost of \$8.16. Then I enter a new Work Order and add the part to the work order as a resource using the parts material code.

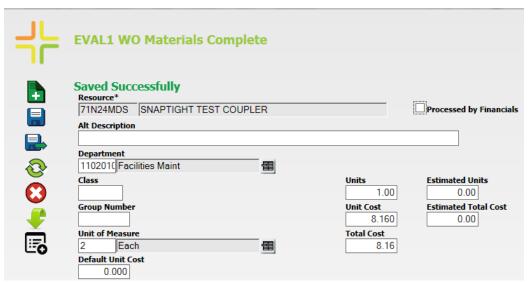


In the screen shot above I am just about to hit Save.

• 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. 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 and onward, if there is only one location from which the system can grab a part then it does so.

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

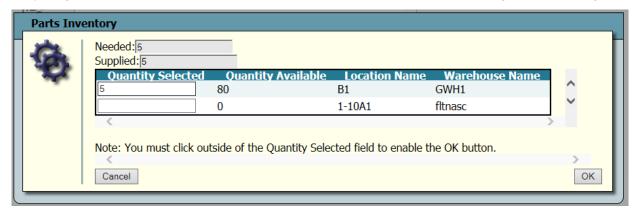


The Part record then shows the reduction of the 1 part used on the work order in the parts Inventory grid.



Now, we need to see what happens when there is more than one location from which to pull a part. I will add a warehouse location to a part. Now let's repeat what we did before.

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

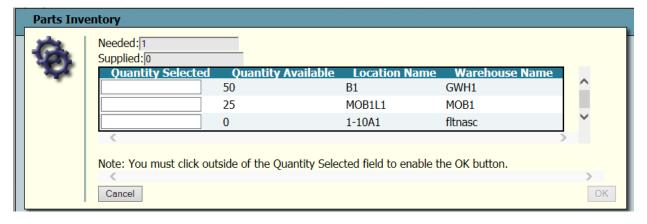


We get this dialog because there are multiple locations where the part could come from and the computer does not know automatically which location to use. Therefore, the user must tell the computer this information. A couple of items of note:

- The number needed so that parts can be disbursed is in the upper left hand corner (the Needed amount). As the user enters the Quantity to take from each location the Supplied quantity increases. Once the Supplied 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.
- 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 the Part, 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.

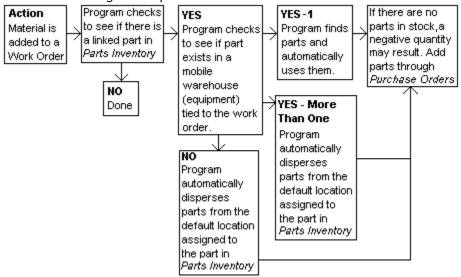
If there were two mobile warehouses listed as resources (MOB1 and Fitnasc in this example) that both at one time had Part quantities, then when the part resource was saved, it would again prompt the user for the location from which it should grab the part.



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.

### 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":



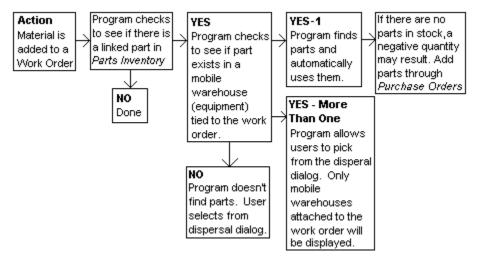
This scenario is almost exactly like Scenario 1 with the exception that if there are no mobile warehouses present and there are more than two other warehouse locations that could provide the quantity, the system will always automatically disperse the parts from the Part's default location. That is the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

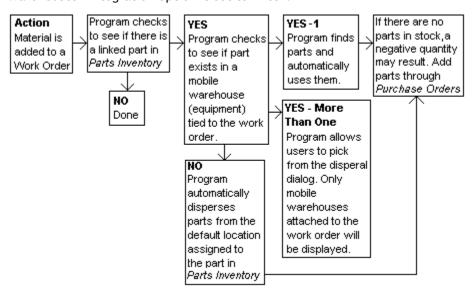
If the "Always Use Parts Default Location" is set to "No" and the "Force Dispersal from Mobile Warehouses" integration option is set to "Yes":



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":



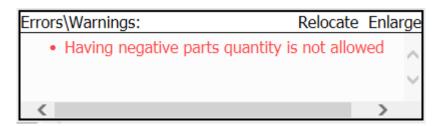
This is almost exactly the same as Scenario 1 except that it automatically uses the Default Location if a mobile warehouse does not exist in the work resource record.

## Other Options

#### 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

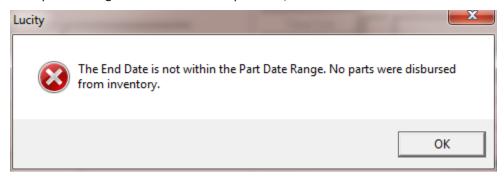
This would be the one email address to send a notification when users disperse or return parts. This notification is not sent if the user's ID appears in the Comma Delimited List of UserIDs that should not trigger... setting.

#### 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.

Notes:			