

Chapter 5:

Inventory

Objectives

After completing this section, you will be able to:

- ☐ Set Up Inventory Items, Products and Bills of Material
- ☐ Receive / Consume / Reconcile / Transfer Inventory Items
- ☐ Build Inventory Items into Kits

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Inventory

In the Inventory module users are able to add, edit, and delete parts and products from inventory. This module can be accessed via Go To from the Task Bar or the appropriate Menu Group.

Products that are created through the WIP process are stored as Inventory Items and collocated in the same list as material and supplies. The setup of Products is discussed in the WIP – Set Up chapter.

The module consists of five submodules: Items, Receiving, Quantities, BOM, and Actions. The Items submodule contains the detail information of an inventory item or spare part whereas the Receiving submodule is where these items are received into the system (outside of WIP); the Quantities submodule show the quantity of Items in a specified locale or in the User's "My Inventory" (My Inventory transactions allow Users to transfer Inventory Items to and from themselves as if they are Locations); the BOM submodule allows the User to place items into Bills of Material for attachment to an Asset, Work Order, Kit or step in a WIP Operation; and the Actions submodule is where the User can perform various transactions that pertain to Inventory.

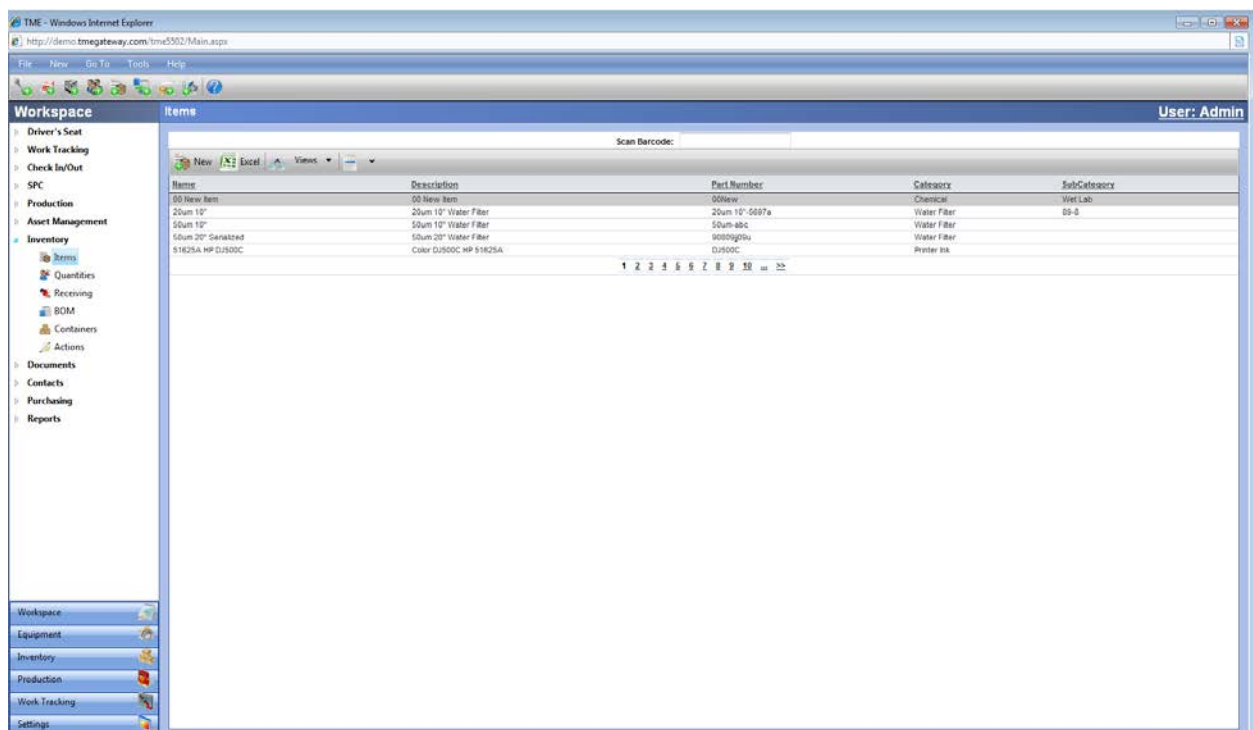


Figure 1 Inventory Items Viewer

Items

The Items submodule contains a table called the Inventory Viewer that displays all of the parts, materials and products that have been entered into TME. It can be accessed via Go To from the Task Bar or from the Inventory Module within a Menu Group. The data can be searched and sorted in order to easily access a specific record.

Exercise 1:




Add three Inventory Items—one standard, one serialized and one Kit.

1. Go to Inventory > Items
2. Click on  New

Figure 2 Inventory Item Detail Screen

3. Enter/select information for all the applicable fields.
 - a. The Barcode can be scanned in by clicking in the Barcode field and scanning the barcode of the item
 - b. Select the Type (hardcoded selections of Product, Material or Supply)
 - c. Select the Print Label (label for the Item itself), Batch and Serial Number Labels to be used.

- d. Check off the checkboxes accordingly: whether the item is Active in the system, Serialized (and therefore will only have transactions based in individual units with serial numbers), On Order (this is an FYI checkbox that needs to be selected and deselected as the status changes), a Kit (will be comprised of other Inventory Items), whether the Item does have an expiration and if a Batch number is required for all quantities of the item and if it must be placed on hold upon receipt.
 - e. Select the “Allow Negative Qty” checkbox if the Item can have a negative quantity at a locale meaning, a consume transaction can make the quantity at a locale go below zero. It would then be the responsibility of the appropriate User to research what happened and conduct the appropriate transaction to fix—i.e., Item was received in a locale in TME but placed somewhere else, Item wasn’t received in TME at all, Item wasn’t transferred in TME when it was moved to another locale, etc.
 - f. Select the “Check In/Out (Serialized) checkbox if the Item is available for check out and in via the Check In/Out module. This is for serialized Inventory only (“Serialized” checkbox must be selected). Users will be able to check serialized Items out and the locale for the Item will become “User: [Insert User Full Name]”. The Condition of the Item can be tracked as it is checked out and back in as well.
 - g. If the Item is a Kit, click on [Click here to select a BOM.](#) to select the BOM which contains the list of Inventory Items that comprise the Kit. Click on the  adjacent to the BOM to be selected. The link to that BOM will replace [Click here to select a BOM.](#)
- 4. Save. The additional links will now be available when opening this record.
 - 5. The screen has changed and has added action items and links.

The screenshot shows the 'Item: 20um 10"' detail screen. The left sidebar contains a 'Details' section with various icons for Information, Units, Location Mgt, Suppliers, Documents, Notification, BOM's, Transactions, Quantities, Attribute Setup, Collection Data, Collection Setup, Batch Numbers, Batch Attribute S, Batch Collection, and Permissions. The main area is titled 'General' and contains the following fields:

Name:	20um 10"	Active:	<input checked="" type="checkbox"/>
Description:	20um 10" Water Filter		
Category:	Water Filter	Type:	Supply
SubCategory:			
Part Number:	20um 10"-5967a	Barcode:	20um
Default Unit:	Each	Mfg Part Number:	
Price:	25	Manufacturer:	Cybertech, LLC
Minimum Qty:	5	Model:	20um 10" Filter
Maximum Qty:	200	Catalog Name:	
Serialized:	<input type="checkbox"/>	Catalog Page:	
Is A Kit:	<input checked="" type="checkbox"/> 20um 10" BOM	Print Label:	Inv Label 1x3
Does Expire:	<input checked="" type="checkbox"/>	Batch Label:	Batch 1x3
Is Batched:	<input checked="" type="checkbox"/>	Serial Num. Label:	SN 1x3
Receive On Hold:	<input type="checkbox"/>	On Order:	<input type="checkbox"/>
Allow Negative Qty:	<input type="checkbox"/>	Check In/Out (Serialized):	<input type="checkbox"/>
Comments:			

Figure 3 Inventory Item Detail Screen Filled In

Serialized:	<input checked="" type="checkbox"/>
Is A Kit:	<input checked="" type="checkbox"/> 20um 10" BOM

Figure 4 Settings for a serialized Kit Inventory Item

Additional Links for Item Detail Screen

Attributes

Just like Assets, Inventory Items have an unlimited number of Attributes fields available.

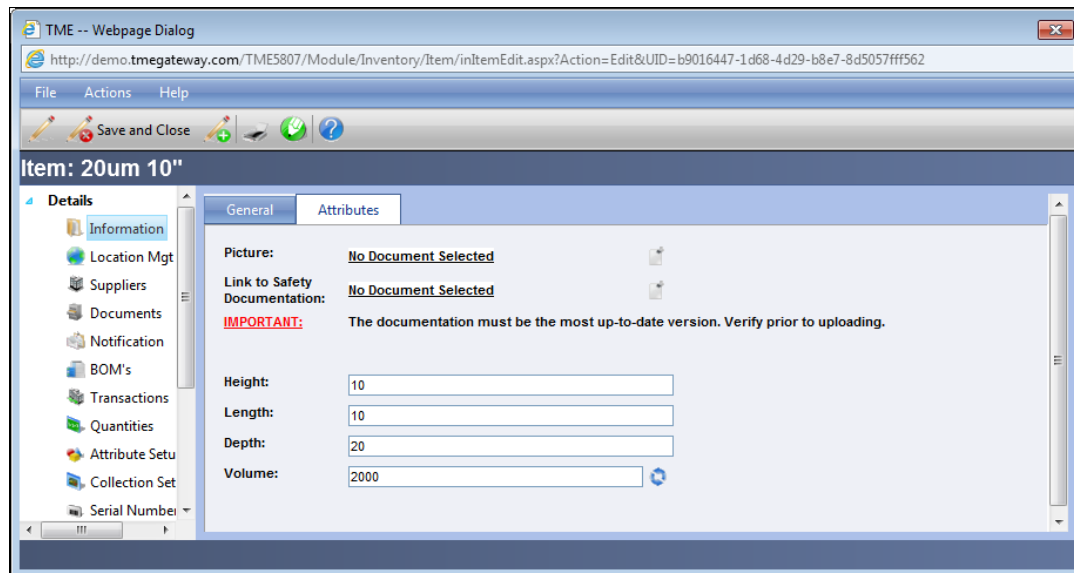


Figure 5 Inventory Item - Attributes Detail Screen

Units

The default unit for an Item is set on the Information link of the Details screen. However, additional units may be set up so that transactions can be placed in terms of these alternate units. For example, the default unit is "Each" with additional units of "Box" consisting of 4 each and "Case" consisting of 12 each. To set up the Units, click on the Units link on the Item's Detail Screen.

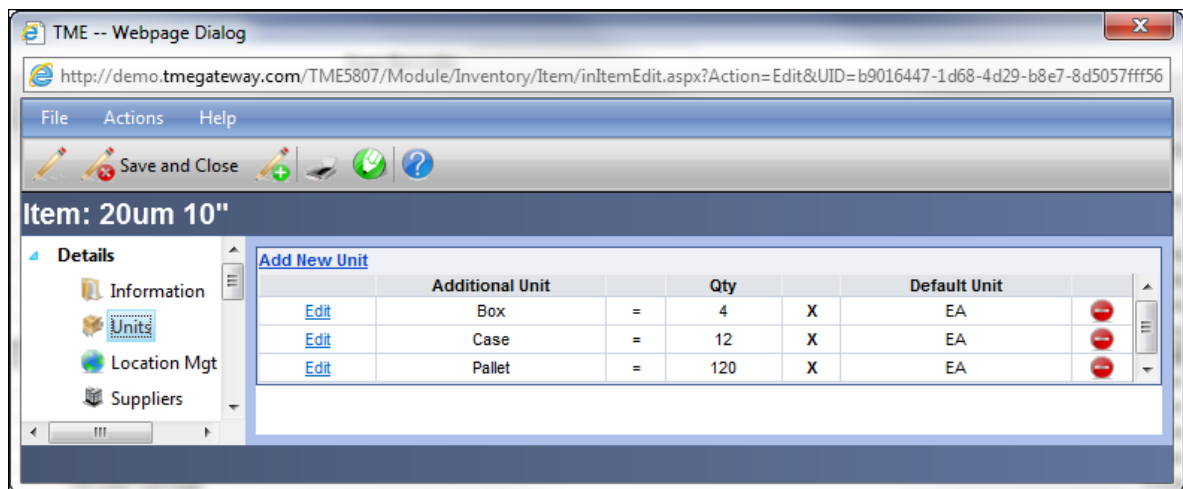


Figure 6 Inventory Item - Units Detail Screen

To add a Unit, click on [Add New Unit](#). Type-in a unit name and Qty and click [Update](#) to save or [Cancel](#) to close without saving. The [-](#) (to delete the unit) becomes available after a user exits from and returns to the Units screen. To change a Unit, click on [Edit](#) to the left of the Unit name and make the changes.

Location Management

Inventory Item transactions can take place anywhere for any Item as long as the Location itself is setup in the System as an Inventory location. However, to activate notifications for below minimum quantities for a specific location, that location needs to be tied to the Item and the minimum and maximum identified. To set up the Location, click on the Location Mgt link on the Item's Detail Screen.

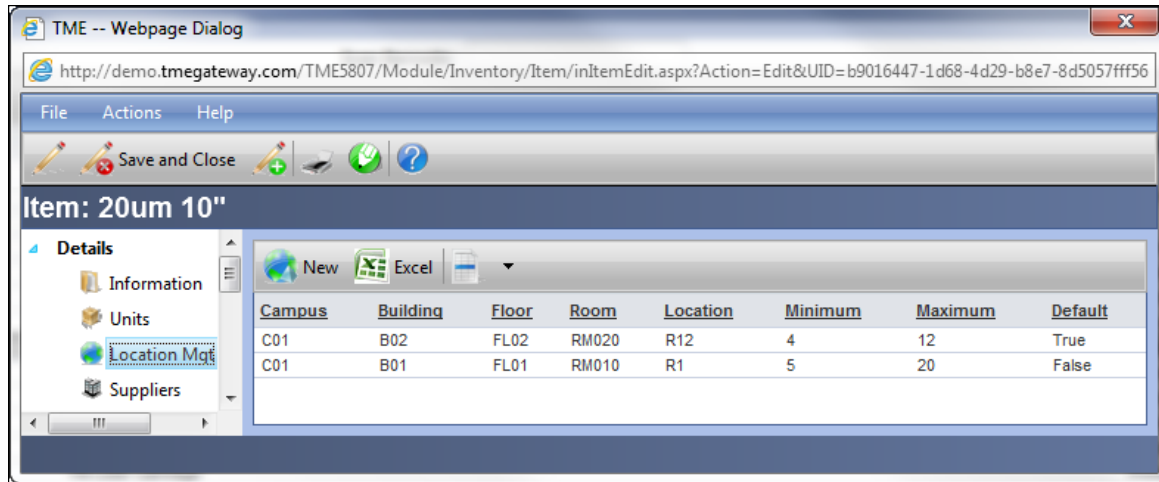


Figure 7 Inventory Item - Location Management Viewer

Adding a new location follows the same format as with other standard viewers. Select the location, add a minimum and maximum number of Items for that location, click on the Default checkbox if the Location is to serve as the Default and save. The Default location is the one to where the Item will be automatically received within the Receiving module.

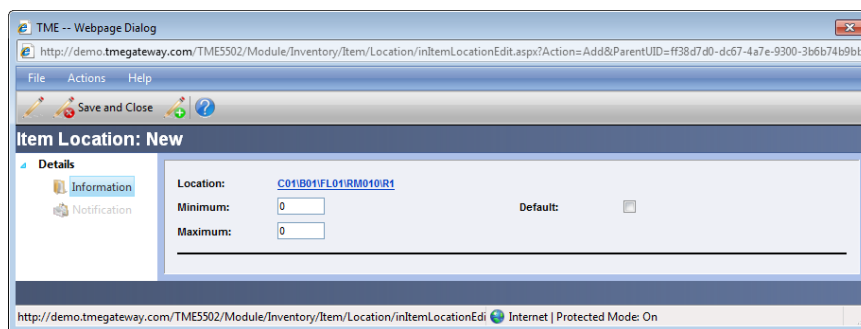


Figure 8 Item Location Detail Screen

Click on the Notification link to select which User or Email Group will get notified via email when the Item goes below the minimum or above the maximum for that Location.

Exercise 2:



Add two units and two locations with minimums of five and maximums of ten to the inventory item. Set yourself up to be notified when Items falls below minimum or above maximum.


Suppliers

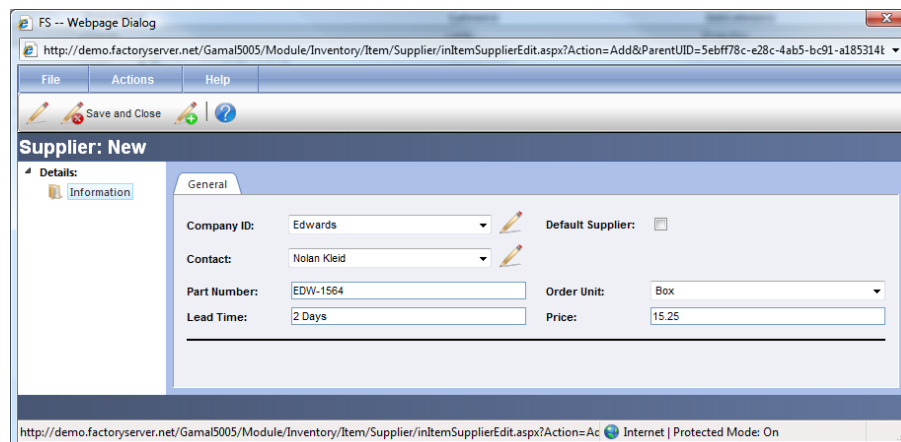
The Suppliers viewer lists those companies that supply the Inventory Item. In addition, the price that is set up will flow into a Requisition or Purchase Order should the Supplier be selected for the Item. To set up the Suppliers, click on the Suppliers link on the Item's Detail Screen.



Company ID	Default Supplier	Contact	Lead Time	Part Number	Order Unit	Price
Accu-Seal	True	Larry DeKalb		20um 10"-5967a		23.50
Amer. Tech. Ceramics	False	Annastasia Boudro				25
Ecliptek	False			EK-304569		25


Figure 9 Inventory Item Suppliers Viewer


Suppliers can be added by clicking on . Select the Company ID and if applicable, a Contact. Click the checkbox for Default Supplier if this Company is the default supplier of the Item.



Supplier: New

General

Company ID: Edwards  Default Supplier: ☐


Contact: Nolan Kleid 

Part Number: EDW-1564 Order Unit: Box

Lead Time: 2 Days Price: 15.25

Figure 10 Inventory Item Supplier Detail Screen

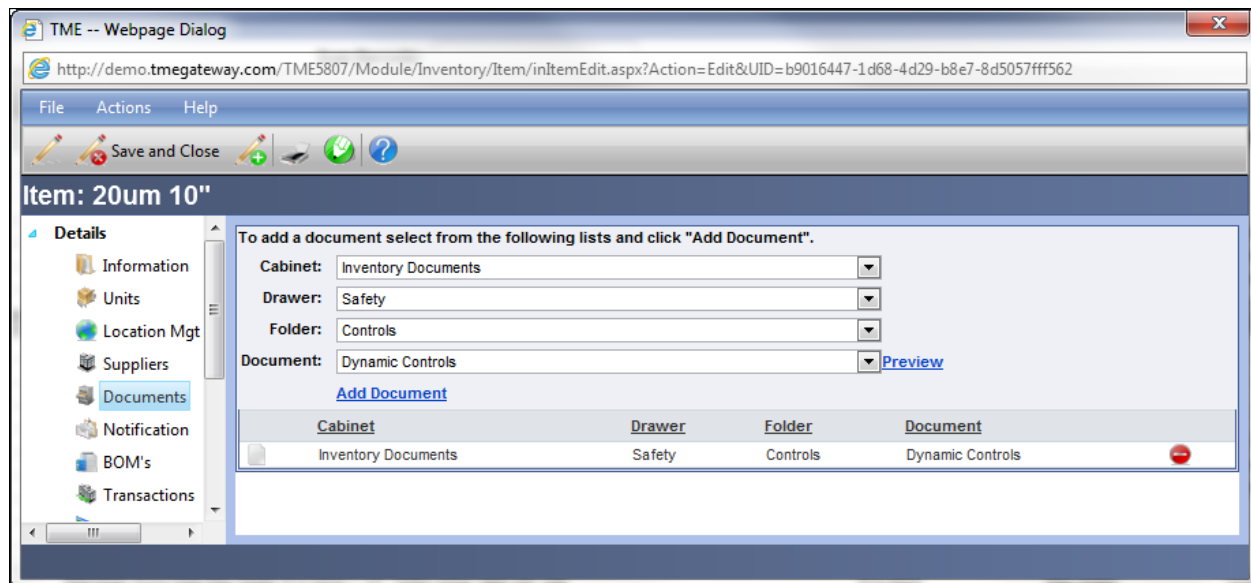
If the Company ID is not available, click on  to the right of the Company ID field and type in the ID of the new Company. To add a Contact to either an established

Company or a new one, click on  to the right of the Contact field and type in a new Contact. Newly added Companies and Contacts from this screen will be added to the Contact module accordingly (but will still need the additional information such as phone, address, etc. added via the Contacts module).

Type in the Part Number and Lead Time as appropriate. Select the Order Unit (the units used to place an order and receive) and type in the price per each of those units and Save.

Documents

Documents such as manuals and warranty information can be attached to an Inventory Item. These documents were added to the system per the process in Chapter 3: Contacts and Documents. To associate Documents, click on the Documents link on the Item's Detail Screen.



The screenshot shows a web browser window titled 'TME -- Webpage Dialog' with the URL 'http://demo.tmegateway.com/TME5807/Module/Inventory/Item/inItemEdit.aspx?Action=Edit&UID=b9016447-1d68-4d29-b8e7-8d5057fff562'. The page has a menu bar with 'File', 'Actions', and 'Help'. Below the menu is a toolbar with icons for 'Save and Close', 'Add', 'Print', and 'Help'. The main content area is titled 'Item: 20um 10\"

Figure 11 Inventory Item - Documents Detail Screen

Exercise 3:



Add three suppliers to the inventory item and attach two documents.

Notification

The Inventory Item Notification is used to send an e-mail to a User when the minimum or maximum level for the overall quantity has been met. If you put yourself in the notification list, you will receive an e-mail every time the quantity hits or goes beyond one of those levels. To set up the Notification, click on the Notification link on the Item's Detail Screen. This screen works the same as with the Asset Notifications.






Make sure the User information contains a valid e-mail address.

Figure 12 Inventory Item Trigger Association Screen

BOM's

A Bill of Materials (BOM) is used to group inventory items with a specific quantity onto a list that is then attached to an Asset, Kit, Work Order (Maintenance or WIP) or Scheduled Work. BOM's may be set up with Inventory Items that are typically consumed for a specific preventive maintenance, type of repair or within an Inventory Kit that is used to make a product. It can also be set up to simply be a list of the spare parts and the quantities used for an Asset overall. BOMs set up and used within the WIP process are discussed in the WIP Chapter of this manual.

To add an item to a BOM from within the Inventory Item details screen, click on the BOM's link on the Item's Detail Screen.

Items can be added to a BOM by clicking on the  at the left side of the Viewer Toolbar. Click on the BOM: [Name] link and select the BOM to add this Item by clicking on  to the left of the BOM name (To add a new BOM, click on  at the left side of the Viewer Toolbar. Newly added BOM's will be added to the BOM submodule accordingly). If a BOM is not to be chosen, click the Cancel button or the X at the top right corner of the Item LookUp screen.



TME -- Webpage Dialog

http://demo.tmegateway.com/TME5807/Module/Inventory/Item/inItemBOMEdit.aspx?Action=Add&ParentUID=b9016447-1d68-4d29-b8e7-8d5057fff562

File Actions Help

Save and Close

BOM Item: New

Details

Information

Item: [Click here to select a BOM.](#)

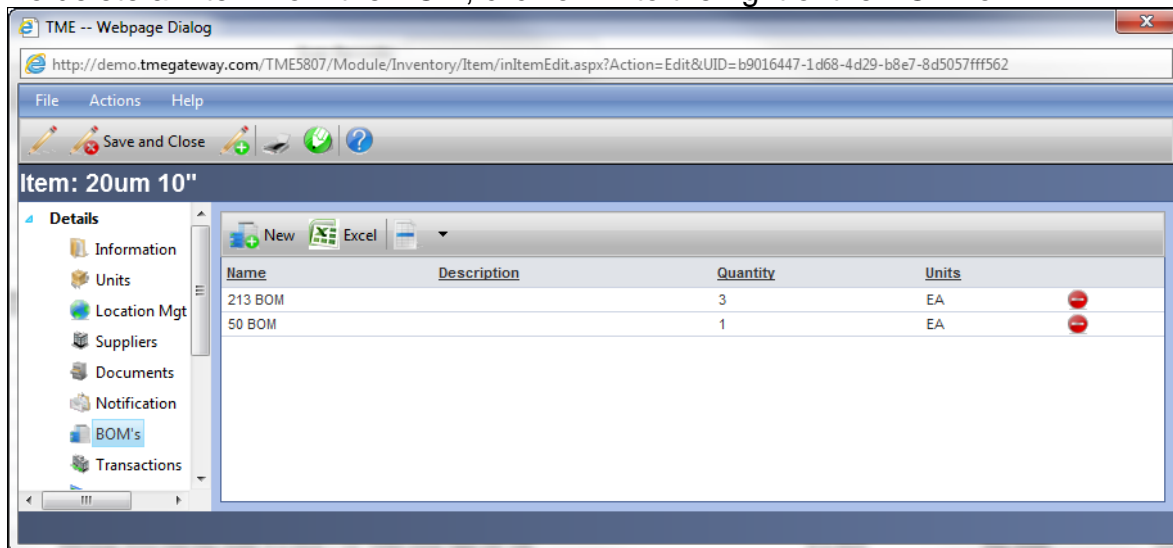
Quantity:

Unit Of Measure: EA

Figure 13 BOM Item Detail Screen

The name of the BOM selected will now appear as the link. Type in the quantity of the Item that is needed for this BOM and Save/Close.

To delete an Item from the BOM, click on  to the right of the BOM row.



TME -- Webpage Dialog

http://demo.tmegateway.com/TME5807/Module/Inventory/Item/inItemEdit.aspx?Action=Edit&UID=b9016447-1d68-4d29-b8e7-8d5057fff562

File Actions Help

Save and Close

Item: 20um 10"

Details

Information

Units

Location Mgt

Suppliers

Documents

Notification

BOM's

Transactions

New Excel



Name	Description	Quantity	Units	
213 BOM		3	EA	
50 BOM		1	EA	

Figure 14 Inventory Item BOM's Viewer

Exercise 4:



Set yourself up for the Notification and include the item in three BOM's (may need to create new ones).

Transactions and Quantities

The Transactions screen displays a viewer with all of the transactions that have taken place for the Inventory Item. To access, click on the Transactions link on the Item's Detail screen.

Date/Time	Trans Type	Trans Qty	Locale	Batch	Username	WIP/WT WO#	Comments
6/9/2015 01:25:55 PM	ReassignFrom	-19.0000000	Main/Bldg 1/Floor 2	20150609130905	Admin		
6/9/2015 01:15:11 PM	Consume	-3.0000000	Main/Bldg 1/Floor 2	20150609130905	Admin	287	
6/9/2015 01:13:51 PM	TransferTo	5.0000000	New York/Perry Square/1st/102	20150609130811	Admin		
6/9/2015 01:13:51 PM	TransferFrom	-5.0000000	Main/Bldg 1/Floor 1/Room 101	20150609130811	Admin		
6/9/2015 01:11:25 PM	Adjust	-3.0000000	Main/Bldg 1/Floor 2	20150609130905	Admin		
6/9/2015 01:11:06 PM	Adjust	3.0000000	Main/Bldg 1/Floor 1/Room 101	20150609130905	Admin		
6/9/2015 01:10:26 PM	Destroy	-1.0000000	Main/Bldg 1/Floor 1/Room 101	20150609130811	Admin		
6/9/2015 01:09:51 PM	Consume	-3.0000000	Main/Bldg 1/Floor 1/Room 101	20150609130905	Admin	306	
6/9/2015 01:09:14 PM	Receive	25.0000000	Main/Bldg 1/Floor 2	20150609130905	Admin		
6/9/2015 01:08:20 PM	Receive	20.0000000	Main/Bldg 1/Floor 1/Room 101	20150609130811	Admin		

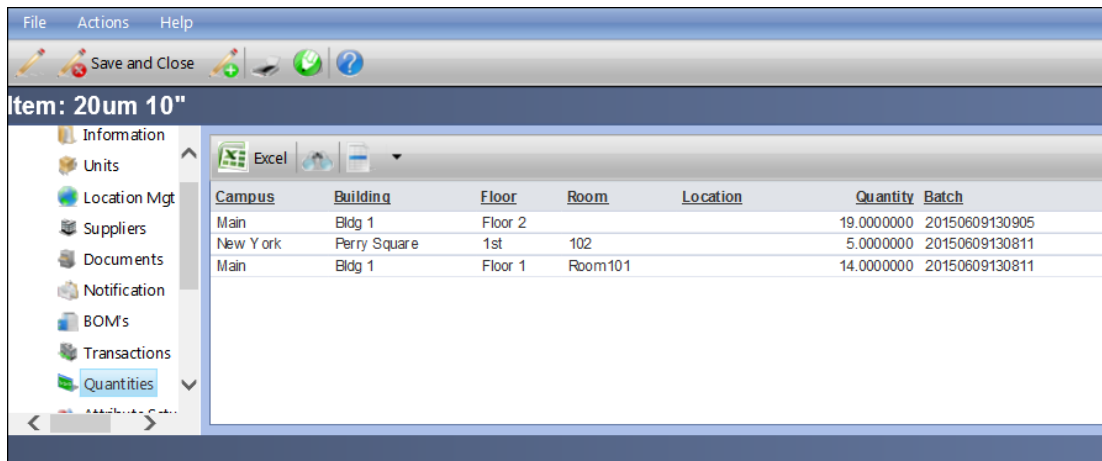
Figure 15 Inventory Item Transactions Viewer

The transaction record can be displayed by double-clicking on it. A User with permission may add/edit/delete Comments by making the changes to the Comments field and clicking on the Save button. A User without the permission will not have the Save button visible. Click the Close button to close the screen.

Name: 20um 10" Date: 6/9/2015 1:25:55 PM
 Description: 20um 10" Water Filter
 Transaction: ReassignFrom Trans Qty: -19.0000000
 Locale: Main/Bldg 1/Floor 2
 User: Admin
 Comments: Was originally received to the wrong item. Save
Close

Figure 16 Transaction Detail Screen

The Quantities screen displays a viewer with all of the quantities at each location that contains the Inventory Item. A User may conduct specific transactions directly against that quantity. However, the Location may list a WIP Work Order ID or a Contact instead of an actual Locale. This means that the Batch #/SN has been “Put” into WIP via the Put Inventory link on the WIP Work Order screen (See Vol. 2 WIP for more details) or checked out to a Contact via the Check In/Out module (serialized inventory only, See Vol. 1, Chapter 4 Check In/Out for more details). To access, click on the Quantities link on the Item's Detail screen.



Campus	Building	Floor	Room	Location	Quantity	Batch
Main	Bldg 1	Floor 2			19.0000000	20150609130905
New York	Perry Square	1st	102		5.0000000	20150609130811
Main	Bldg 1	Floor 1	Room101		14.0000000	20150609130811

Figure 17 Inventory Item Quantities Viewer

To conduct a transaction directly from the screen, open the record against which the transaction is to take place (must be in a locale, not in WIP).



Quantity Transaction

General Attributes Comments

Scan Barcode:

Item: 20um 10" Batch: 20150609130905

Locale: Main\Bldg 1\Floor 2

Qty On Hand: 19.0000000

Trans Type:

Locale To: [New York\Perry Square\1st\102](#)

Trans Qty:

Help Submit

Figure 18 Quantity Transaction Screen

Choose the transaction type, type in the quantity of the transaction and click Submit. If the transaction is to transfer to another locale, then the barcode for that locale can be scanned or the locale can be selected by clicking on the Locale To link.



Consuming or Returning Items against an Asset can be done either via a Work Order or via the Inventory Actions submodule, not with the Quantities transaction screen.

Attribute Setup, Batch Attribute Setup, Serial Number (SN) Attribute Setup

If an Attribute(s) is to be applied to a single Item (or Batch or Serial Number), the attribute is set up on the detail screen via the appropriate Attribute Setup links. The variable groups can be selected and the attribute fields will appear on the Attributes tab on the Information portion of the appropriate detail screen (Item, Batch Number or Serial Number).

Select the Variable Group from the drop-down list. Check the Active box to have the Attributes appear onscreen for the Item. Select the Required Option:

- User Variable Settings: TME will follow the rules set up for the individual variables in the Variable Group; for example, if one or more of the Variables are set up as Required, then entry is required. If they have limits set up, then the entry must be within those limits.
- Data Is Not Required: entry of Attributes is not necessary; for example, if one or more of the Variables are set up as Required, entry is will not required for this Item. If they have limits set up, the entry can still remain blank and the limits ignored.

Run Rules and Notification

Please see the Run Rules Violations Setup portion of Chapter 10: Settings for details.

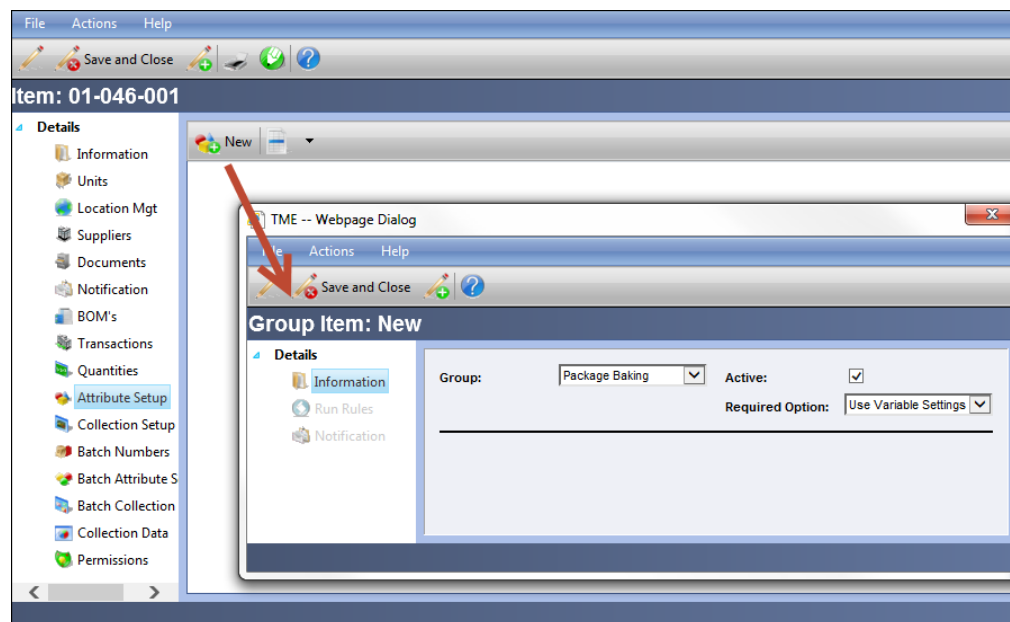



Figure 19 Inventory Item Attribute Setup Screens

Collection Setup

If a Data Collection(s) is to be applied to a single Item (or Batch or Serial Number), the collection is set up on the detail screen via the appropriate Collection Setup link. The variable groups can be selected and the Data Collections will be available for selection for that particular Item. See Chapter 10: Settings for more details.

Batch Numbers


In order to maintain strict genealogy of Inventory Items, batch numbers may be used to track where and when each individual item is received, located and consumed. Batch Numbers are kept in a list with the Inventory Item and are accessed via the various transactions. To access, click on the Batch Numbers link on the Item's Detail screen.

Batch Numbers can be added to the list by clicking on the  at the left side of the Viewer Toolbar. Type in the batch number in the text field and if applicable, select an Expiration Date (this is for information only, there are no notifications within the system other than reports once an expiration date has been reached) by clicking on the Open the Calendar popup icon and clicking on a date. If the Batch is to be placed on hold, click on the On Hold checkbox and select the reason for the hold from the Hold Reason drop-down list. Once the Batch is no longer on hold, deselect the On Hold checkbox.



TME may be set up by the Administrator to automatically place all batched

Items on hold upon receipt. However, they must be manually deselected from On Hold from the detail screen.

TME uses the actual Batch Number as the barcode value upon saving the record if no alternate is provided. To add additional barcode value(s), type in the value in the Barcode Values field and click on the Add  icon.



Creating a Batch Number does not mean that it exists as a quantity. It must still be Received or moved into Inventory from WIP. Most Users will never create a Batch Number outside of Receiving or WIP.

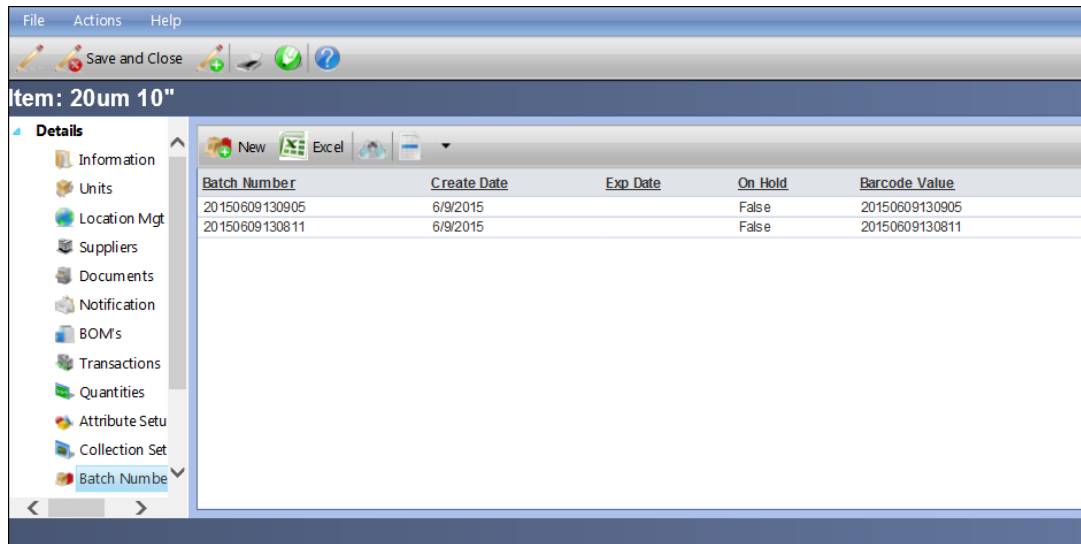


Figure 20 Inventory Item Batch Numbers Viewer

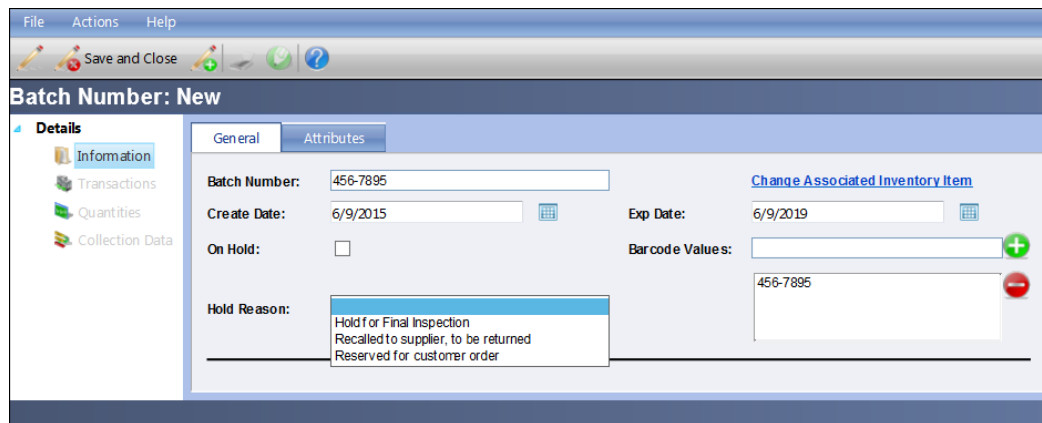


Figure 21 Batch Number Detail Screen

Move Batch Number to Alternate Inventory Item

A Batch Number can be moved from one Inventory Item to another. For example, if a Batch Number was received as the incorrect Item, it can be moved/associated to the correct item rather than scrapped and re-received.

The information (including attributes) for the Batch Number does stay with the original Item—its barcode value(s) is disassociated; there is a transaction “ReassignFrom” in the Batch Number and overall transaction log; and all quantities for the Batch Number are adjusted to zero. The same is true for any Serial Numbers that are associated to the Batch Number—their barcode value(s) is disassociated; there is a transaction “ReassignFrom” in the Serial Number and overall transaction log; and all quantities are adjusted to zero.

The information for the Batch Number and Serial Numbers (if applicable) are replicated to the alternate Inventory Item with the quantities, barcode values, attributes, etc., intact.


The Batch Number is now officially reassigned to the alternate Item and all future transactions are logged as such. There is a transaction “ReassignTo” for the Batch Number and Serial Numbers in the appropriate transaction logs.



The history of all transactions prior to this event do remain with the original Item. It might be necessary to select both Items when running a transaction report in order to capture the full history of a batch from receipt to most recent.

To change the Batch Number from one Inventory Item to another, open the Batch Number detail screen. Click on “Change Associated Inventory Item.”

Figure 22 Batch Number Detail Screen - "Change Associated Inventory Item" Link

Click on the LookUp icon to the right of the Product field. Select the Inventory Item by clicking on the corresponding Select  icon. Enter transaction comments if applicable and click on the Submit button. The Batch Number and associated Serial Numbers will then be moved and associated to the alternate Inventory Item.



The LookUp screen is automatically filtered to show only Inventory Items that are defined as “Batched.” If the current Item is also serialized, then only those Items that are also serialized will be listed.

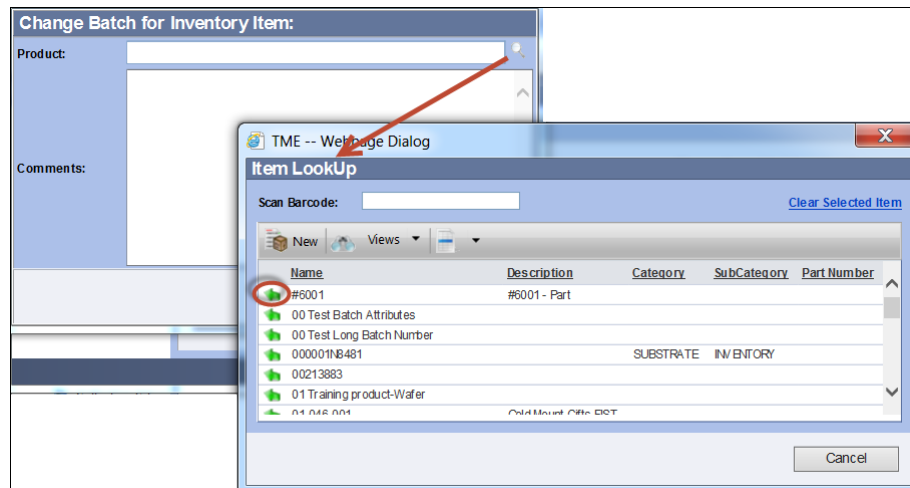


Figure 23 Blank Change Batch for Inventory Item Screen with Item Lookup

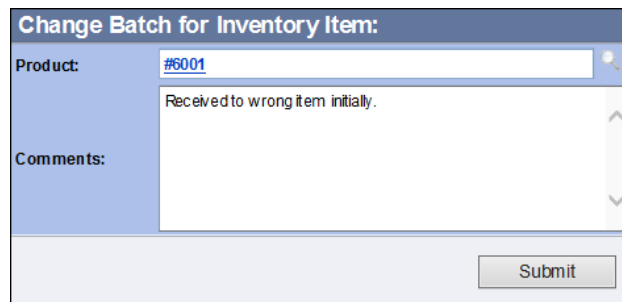


Figure 24 Change Batch for Inventory Items Screen with Entries

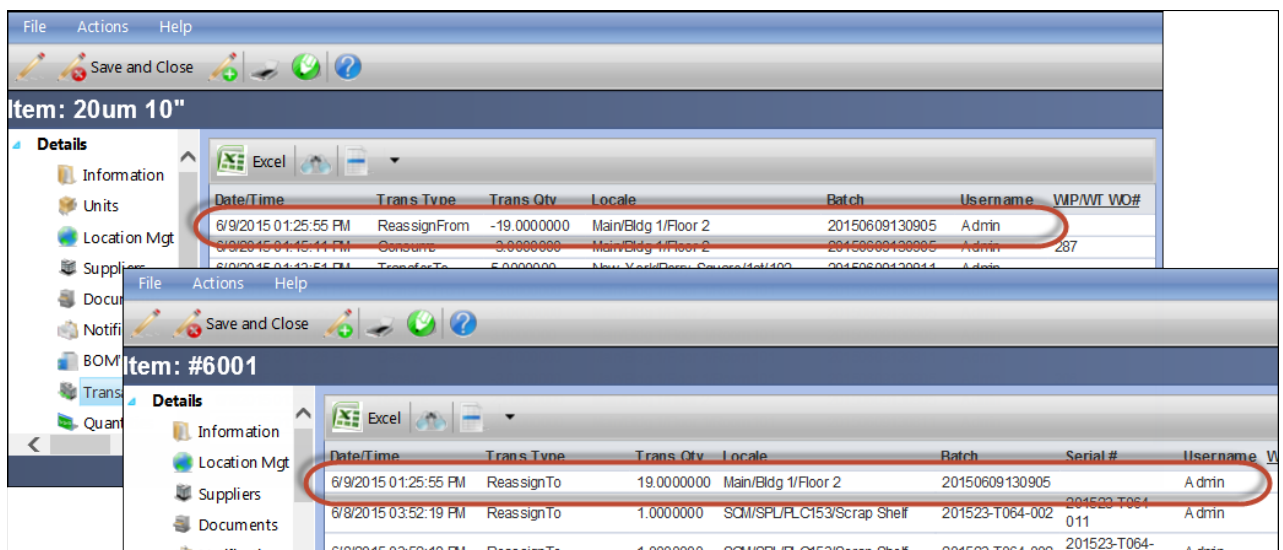





Figure 25 Transaction Screens Showing Reassignment of Batch Number


Serial Numbers

In addition to or instead of utilizing Batch Numbers, serialization may be used to track where and when each individual item is received, located, checked in/out and consumed. To access the list of Serial Numbers, click on the Serial Numbers link on the Item's Detail screen. Serial Numbers can be added to the list by clicking on  at the left side of the Viewer Toolbar. Type in the serial number in the text field (or scan barcode into the field).

The Serial Number may be tied to a Batch Number by clicking on  to the right of the Batch Number field. The Item LookUp screen will appear and contains the list of Batch Numbers already set for the Item. The Search, Views, Records per Page and Add New (if permission has been provided) functions are available at the top of the screen.

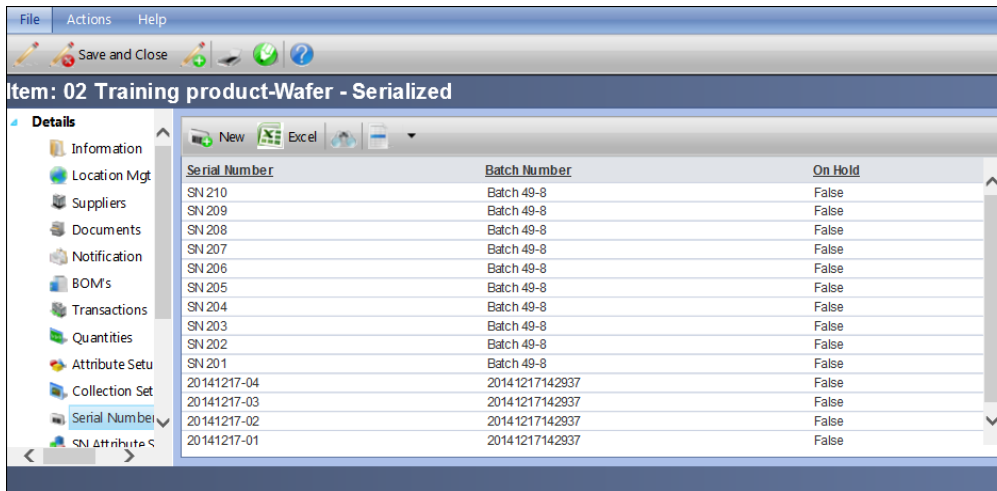
Select the Batch Number (or click within the Scan Barcode field and scan the barcode for the Batch Number; the screen will automatically close and the Batch Number is selected).

If a new Batch Number needs to be created, click on  at the left side of the Viewer Toolbar. Save/Close after entering information. This will return you to the Batch Number LookUp screen for selection of the Batch Number. Select the Batch Number. The screen will close and return you to the Serial Number Detail Screen.

TME uses the actual Serial Number as the barcode value upon saving the record if no alternate is provided. To add additional barcode value(s), type in the value in the Serial Number Values field and click on the Add  icon.



Creating a Serial Number does not mean that it exists as a quantity. It must still be Received or moved into Inventory from WIP. Most Users will never create a Serial Number outside of Receiving or WIP.



Serial Number	Batch Number	On Hold
SN 210	Batch 49-8	False
SN 209	Batch 49-8	False
SN 208	Batch 49-8	False
SN 207	Batch 49-8	False
SN 206	Batch 49-8	False
SN 205	Batch 49-8	False
SN 204	Batch 49-8	False
SN 203	Batch 49-8	False
SN 202	Batch 49-8	False
SN 201	Batch 49-8	False
20141217-04	20141217142937	False
20141217-03	20141217142937	False
20141217-02	20141217142937	False
20141217-01	20141217142937	False

Figure 26 Inventory Item Serial Numbers Viewer



Serial Number: sn051616-3

Details

- Information
- Transactions
- Collection Data
- Check In/Out

General | **Attributes**

Serial Number: Batch:

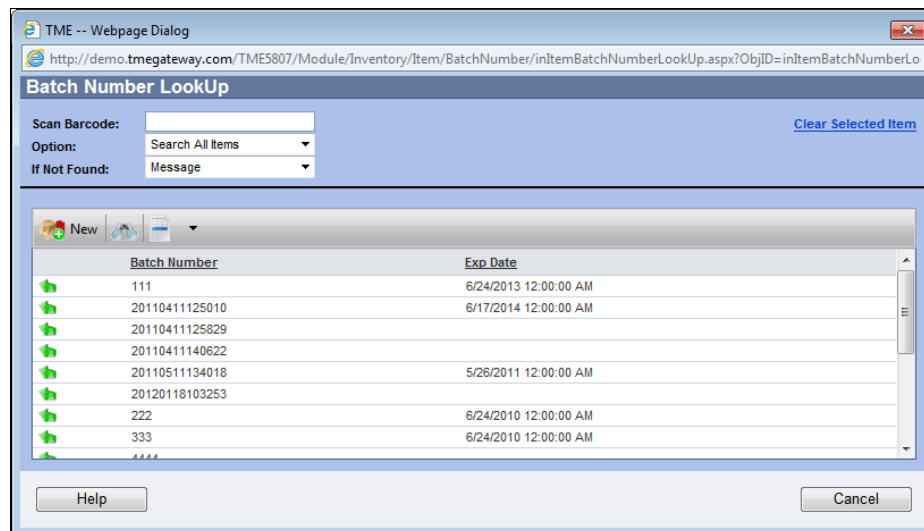
On Hold: ☐ Hold Reason:

Condition: Serial Number Values:

Locale: With User - Gene Ironhill

Comments:

Figure 27 Serial Number Detail Screen



TME -- Webpage Dialog

http://demo.tmegateway.com/TME5807/Module/Inventory/Item/BatchNumber/inItemBatchNumberLookUp.aspx?ObjID=inItemBatchNumberLo

Batch Number LookUp

Scan Barcode:

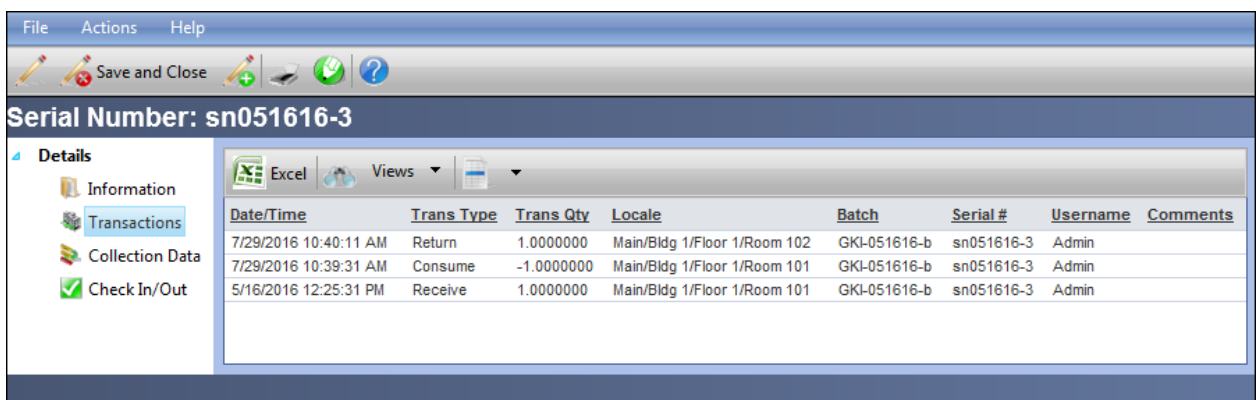
Option: [Clear Selected Item](#)

If Not Found:

Batch Number	Exp Date
111	6/24/2013 12:00:00 AM
20110411125010	6/17/2014 12:00:00 AM
20110411125829	
20110411140622	
20110511134018	5/26/2011 12:00:00 AM
20120118103253	
222	6/24/2010 12:00:00 AM
333	6/24/2010 12:00:00 AM

Help Cancel

Figure 28 Batch Number LookUp



Serial Number: sn051616-3

Details

- Information
- Transactions
- Collection Data
- Check In/Out

Excel Views

Date/Time	Trans Type	Trans Qty	Locale	Batch	Serial #	Username	Comments
7/29/2016 10:40:11 AM	Return	1.0000000	Main/Bldg 1/Floor 1/Room 102	GKI-051616-b	sn051616-3	Admin	
7/29/2016 10:39:31 AM	Consume	-1.0000000	Main/Bldg 1/Floor 1/Room 101	GKI-051616-b	sn051616-3	Admin	
5/16/2016 12:25:31 PM	Receive	1.0000000	Main/Bldg 1/Floor 1/Room 101	GKI-051616-b	sn051616-3	Admin	

Figure 29 Transactions Screen of Serial Number (Does Not Show Check In/Out Records)

Serial Number: sn051616-3

Details

- Information
- Transactions
- Collection Data
- Check In/Out

Submitted 11/22/2016 02:10:00 PM Collection Wet Paste Thickness (DC) User Admin

TME -- Webpage Dialog

Item: 00 Test Move Batch/SN 6; Batch: GKI-051616-b; Serial: sn051616-3 - Collection: Wet Paste Thickness (DC)

Created On: 11/22/2016 2:10:00 PM Created By: Admin

Modified On: 11/22/2016 2:10:00 PM Modified By: Admin

Wet Paste Thickness in MILS:

1:	0.01
2:	0.01
3:	0.01
4:	0.01
5:	0.018
6:	0.01
7:	0.012
8:	0.013
9:	0.01
10:	0.01

Help Submit

Figure 30 Collection Data for Serial Number

Serial Number: sn051616-3

Details

- Information
- Transactions
- Collection Data
- Check In/Out

Checked Out 11/22/2016 02:03:30 PM Checked In Checked Out To Gene Ironhill Return Condition

Figure 31 Check In/Out Transactions for Serial Number

Collection Data

To view the data that has been collected for an Item (or Batch or Serial Number), click on the Collection Data link on the detail screen of the object. The viewer of all data collection records for that object will appear. Double-click on the record in question to open the detail screen and review/edit the data. If the data is edited, the Modified By and Modified Date fields will update accordingly. The original data will not be retained.

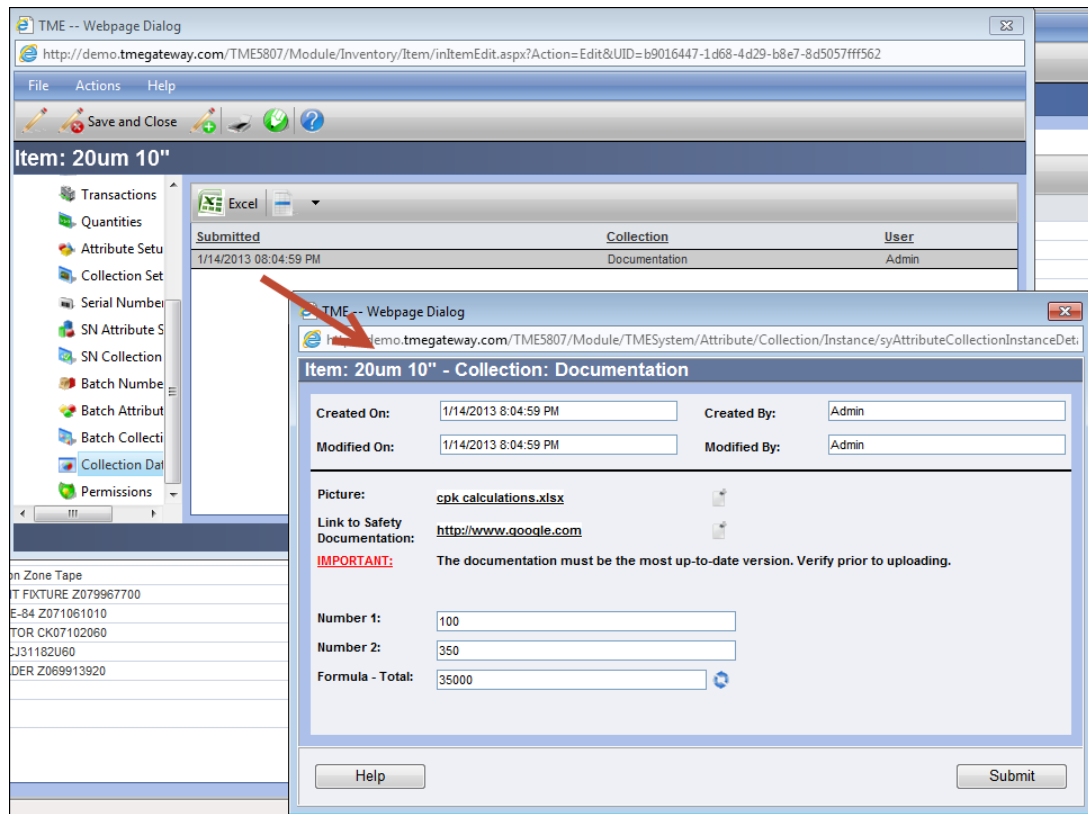


Figure 32 Inventory Item Collection Data Screen

Permissions

Even though you've given permission to Groups to have access to the Inventory Items SubModule, restricted permission may be provided for individual Items. The default is set to allow all Groups with permission to the SubModule to have access to every Item. However, your business model might need to restrict certain Groups from certain Items. To set up the Permissions, click on the Permissions link on the Item's Detail screen.

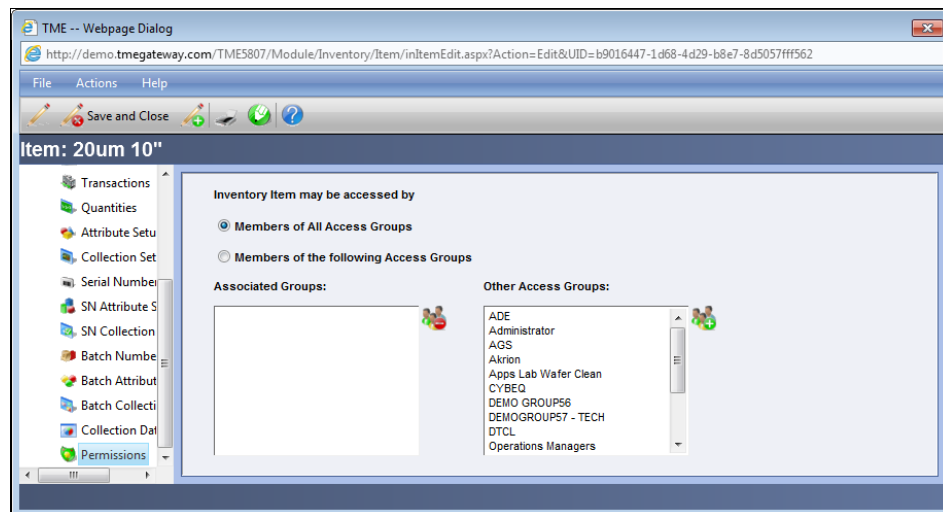


Figure 33 Inventory Item - Permissions Detail Screen

Copying an Inventory Item

Inventory Items can be copied individually by opening the Item's Detail screen, clicking on Actions on the Toolbar and selecting Generate Copy. The screen will refresh and the Item name will have the addition of ".copy" at the end. The screen is now open to the new Item. The identifying information is copied over: General Information, Attributes, Location Management, Suppliers, Documents, Notification, Attribute Setup (Item, Batch Numbers and Serial Numbers), Collection Setup (Item, Batch Numbers and Serial Numbers), and Permissions. Transactional or distinguishing information is not: Barcode Values, BOM's, Transactions, Quantities, Data Collections (Item, Batch Numbers and Serial Numbers), Batch Numbers, and Serial Numbers.

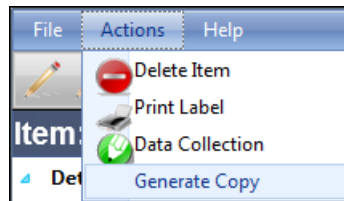


Figure 34 Generate Copy Link

Exercise 5:



Set yourself up for the Permissions of the Item and create two Batch Numbers and three Serial Numbers. Set up one of the Serial Numbers with a Batch Number created via the Batch Number LookUp screen.

Exercise 6:



Print an Inventory Item, Batch Number and Serial Number label for your Item (if printer is not available, save to desktop).

Exercise 7:



Set up a serialized Kit Item with three sets of Units, three locations with minimums and maximums, one supplier, two documents, notification and permissions set for yourself, and five serial numbers each attached to one of two batches.

Quantities

The quantity of items contained in a User's My Inventory or at a particular Locale are displayed in the Quantities submodule. Inventory still in WIP will not be viewable. The screen can be accessed via Go To from the Task Bar or from the Inventory Module within a Menu Group.

Users are able to transfer Inventory Items to and from themselves as if they are Locations. This allows for the tracking of these items while in transit (a vehicle could be set up as a User) or in a User's workspace prior to actual consumption via a Work Order or an Action within the Inventory Module. Kits are built from Items located in the User's My Inventory. The User clicks on the My Inventory radial button at the top of the screen to view the list of Items contained in his/her My Inventory.

To view the quantities of all items at any given location, click on the Locale radial and select the location by clicking on the locale link.

Just as with the Quantities screen on the Item Detail screen, certain transactions can be conducted against a particular quantity by opening the record.



Consuming or Returning Items against an Asset can be done either via a Work Order or via the Inventory Actions submodule, not with the Quantities transaction screen.

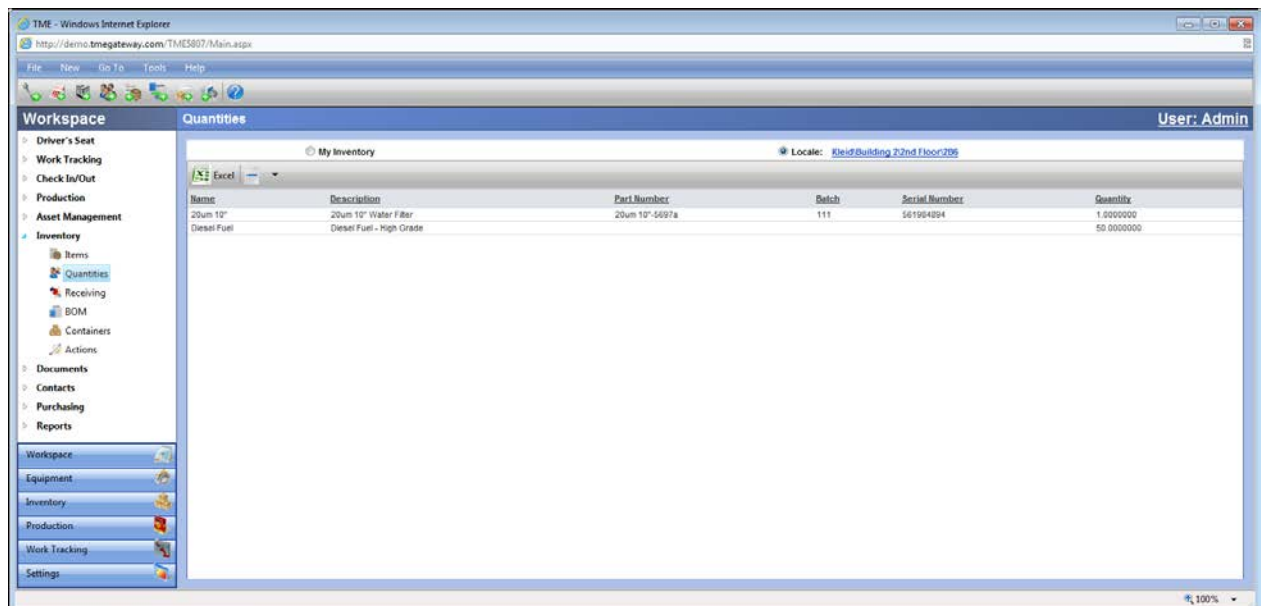
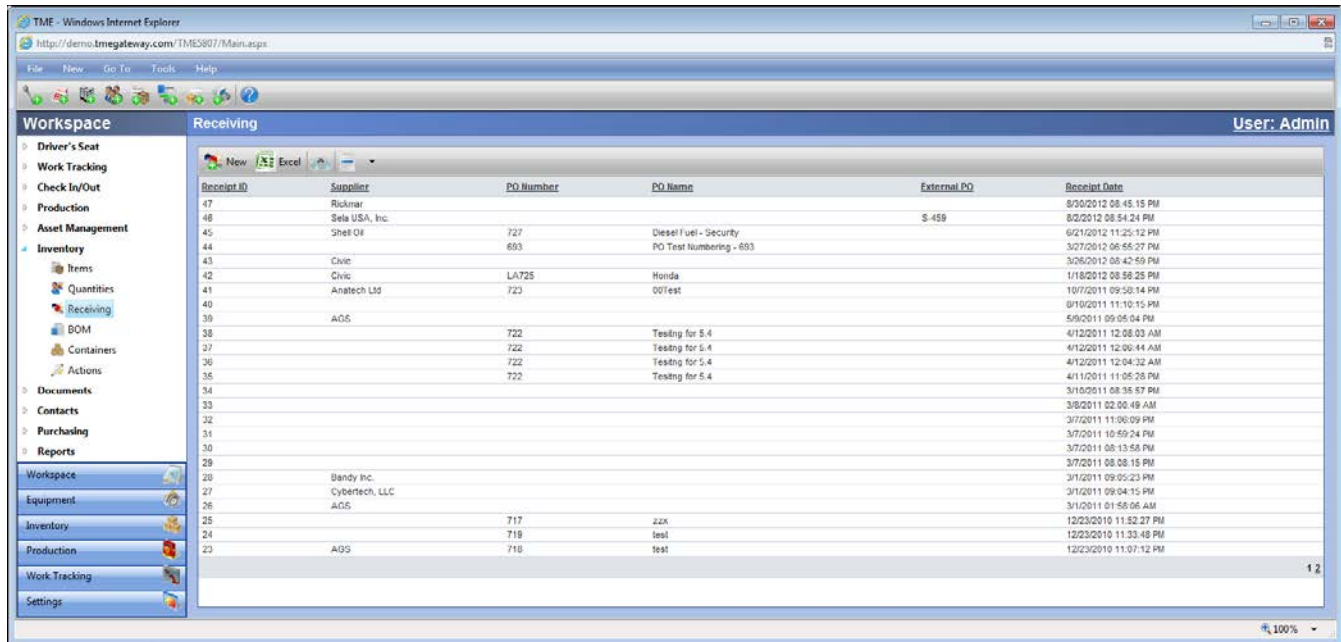


Figure 35 Quantities Viewer

Receiving

The Receiving submodule contains the Receipt Viewer that displays all of the Receiving records for all Inventory Items. It can be accessed via Go To from the Task Bar or from the Inventory Module within a Menu Group. The records are given a Receipt ID and logged by the Location Date (Locations may be in a different time zone than the server where the application is hosted; the date on the viewer is based on the time of the location where the Inventory Items were received) upon being saved the first time.




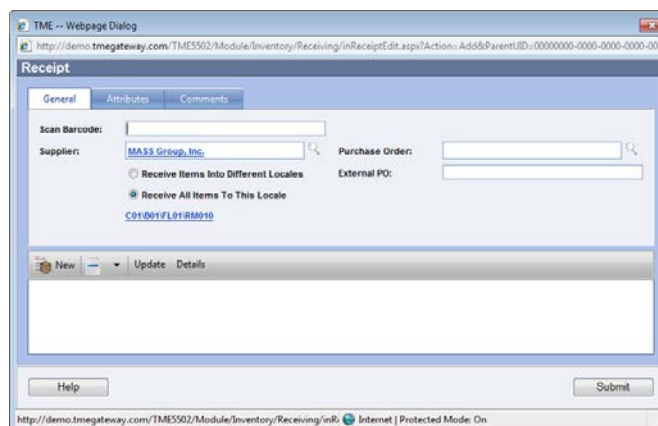
The screenshot shows the 'Receiving' module in the TME application. The left sidebar contains a 'Workspace' menu with options like Driver's Seat, Work Tracking, Check In/Out, Production, Asset Management, Inventory, Items, Quantities, BOM, Containers, Actions, Documents, Contacts, Purchasing, and Reports. The 'Inventory' section is expanded, showing 'Receiving' as the active item. The main area displays a table of receipts with columns: Receipt ID, Supplier, PO Number, PO Name, External PO, and Receipt Date. The table lists various receipts from suppliers like Rickmar, Sela USA, Inc., Shell Oil, Cnic, Anatech Ltd, AGS, and Bandy Inc. The bottom right corner shows a zoom level of 100%.

Receipt ID	Supplier	PO Number	PO Name	External PO	Receipt Date
47	Rickmar				8/30/2012 08:45:15 PM
48	Sela USA, Inc.			S-459	8/2/2012 08:54:24 PM
45	Shell Oil	727	Diesel Fuel - Security		6/21/2012 11:25:12 PM
44		893	PO Test Numbering - 893		3/27/2012 08:45:29 PM
43	Cnic				3/26/2012 08:42:59 PM
42	Cnic	LA725	Honda		1/18/2012 08:58:25 PM
41	Anatech Ltd	723	00Test		10/7/2011 09:50:14 PM
40					8/10/2011 11:10:15 PM
39	AGS				5/9/2011 09:05:04 PM
38		722	Testing for 5.4		4/12/2011 12:08:03 AM
27		722	Testing for 5.4		4/12/2011 12:06:44 AM
26		722	Testing for 5.4		4/12/2011 12:04:32 AM
35		722	Testing for 5.4		4/11/2011 11:05:28 PM
34					3/18/2011 08:38:47 PM
33					3/8/2011 02:00:49 AM
32					3/7/2011 11:00:09 PM
31					3/7/2011 10:59:24 PM
30					3/7/2011 08:13:58 PM
29					3/7/2011 08:08:15 PM
28	Bandy Inc.				3/1/2011 09:05:23 PM
27	Cybertech, LLC				3/1/2011 09:04:15 PM
26	AGS				3/1/2011 01:58:06 AM
25		717	zzk		12/23/2010 11:52:27 PM
24		718	test		12/23/2010 11:33:48 PM
23	AGS	718	test		12/23/2010 11:07:12 PM

Figure 36 Receiving Viewer

Receiving Items Without a Purchase Order




Inventory Items can be received by clicking on  at the left side of the Viewer toolbar.



The screenshot shows the 'Receipt' detail screen in the TME application. It has a 'General' tab selected. The form includes fields for 'Scan Barcode', 'Supplier' (set to 'MASS Group, Inc.'), 'Purchase Order', and 'External PO'. There are two radio buttons: 'Receive Items Into Different Locales' and 'Receive All Items To This Locale' (which is selected). Below the radio buttons is a text field containing 'C01601FL01R010'. At the bottom, there are 'New', 'Update', and 'Details' buttons, and a 'Submit' button.

Figure 37 Receipt Detail Screen

Use the Scan Barcode field to upload the Supplier by scanning the Supplier barcode value (is part of the Companies profile on its detail screen in the Companies submodule).

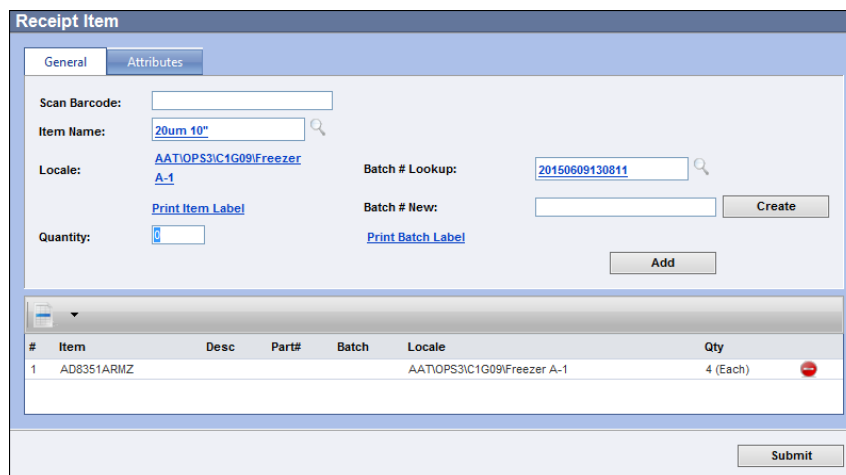
If the barcode value is unknown or doesn't exist, select the Supplier from whom the Inventory Items were received by clicking on  to the right of the Supplier field. A popup screen representing the Company Viewer will appear. Click on  to the left of the Company ID (To add a new Company, click on  **New** at the left side of the Viewer Toolbar. Newly added Companies will be added to the Companies submodule accordingly). Once selected, the Company ID will populate the field as a link. Clicking on the link will bring up the Company Detail screen.

Select either "Receive Items Into Different Locales" or "Receive All Items To This Locale." The Locale link will appear if the Items are to be received into the same locale (otherwise each item upon selection will have the Locale link available). Click on the Locale link and the Select Locale popup will appear. Select the locale accordingly.

If an external Purchase Order Number has been provided, type that number into the External PO field.


Adding Inventory Items to a Receipt

Click on  on the left side of the viewer located at the bottom of the Receipt screen.



#	Item	Desc	Part#	Batch	Locale	Qty
1	AD8351ARMZ				AATOPS3IC1G09IFreezer A-1	4 (Each)

Figure 38 Receipt Item Detail Screen

Use the Scan Barcode field to upload the item. If the barcode is unknown or doesn't exist, select the Item via the Item LookUp screen (click on  to the right of the Item Name field), type in the Quantity and select the proper Unit of measure.

If the Item requires a Batch Number, type in the number in the Batch # New field and click the Create button or click the Batch Number LookUp icon and scan that value via the Scan Barcode field, select an already existing Batch Number, create a new Batch

Number by clicking on the New Batch Number icon, or create an automatically generated number using a date time stamp by clicking on Auto Generate New.

Batch Number LookUp

Scan Barcode:

Option:

If Not Found:

[Clear Selected Item](#)

[Auto Generate New](#)

Batch Number	Exp Date
111	6/24/2013 12:00:00 AM
20110411125010	6/17/2014 12:00:00 AM
20110411125829	
20110411140622	
20110511134018	5/26/2011 12:00:00 AM
20120118103253	
20130114133015	
222	6/24/2010 12:00:00 AM
333	6/24/2010 12:00:00 AM

Figure 39 Batch Number LookUp Screen

If the Batch Number is configured to require the entry of additional information, a popup screen will appear with the fields (Attributes) ready for population. Click Submit when ready.

If the Item is serialized, click on the Serial Numbers link which appears once the Item has been selected. The Serial Numbers screen appears. Type in the first serial number and click enter or on or scan (click within the top field and scan) the serial number. Continue to enter all the serial numbers in the same manner. If a serial number is incorrectly included, select it from the list and click on . Click on the Submit button. The Serial Numbers link will now have the number of serial numbers that were entered in parentheses. If the Serial Numbers are set up to require additional information, a popup screen will appear with the fields (Attributes) ready for population. Click Submit when ready.


Serial Numbers

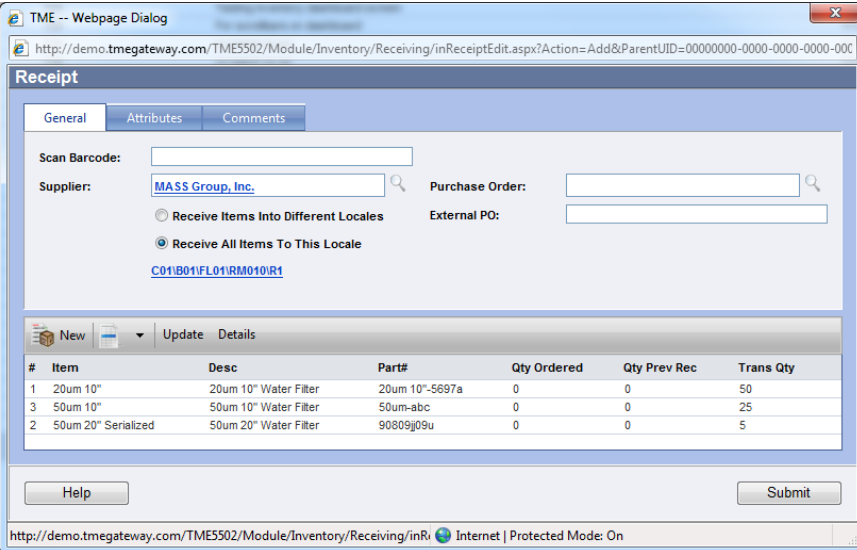
61
62
63
64
65

Internet | Protected Mode: On

Figure 40 Input of Serial Numbers into Receipt Screen

If the Labels for this Receipt Item is needed, click [Print Item Label](#), [Print Batch Label](#) and/or [Print Serial# Labels](#).

Click Submit and this item will be added to the Item Viewer at the bottom of the Receipt screen. Repeat to add additional items. Click on  located on the right side of an Item row to delete that record.



#	Item	Desc	Part#	Qty Ordered	Qty Prev Rec	Trans Qty
1	20um 10"	20um 10" Water Filter	20um 10"-5697a	0	0	50
3	50um 10"	50um 10" Water Filter	50um-abc	0	0	25
2	50um 20" Serialized	50um 20" Water Filter	90809j09u	0	0	5

Figure 41 Receipt Detail Screen with Items Added

Selecting Attributes for a Receipt

Click on the Attributes tab. The attribute fields have been predefined by the TME Administrator. Some of the Attributes may have default values already populated. Enter/edit the Attributes accordingly.

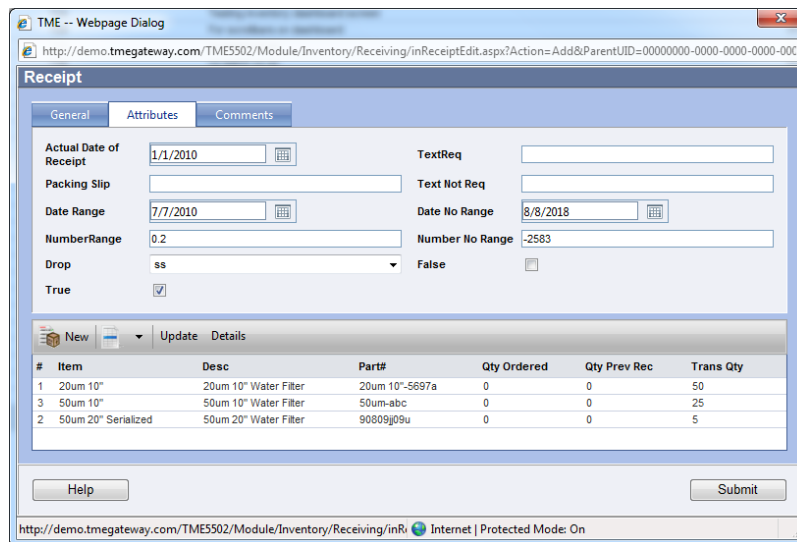


Figure 42 Receipt Attributes

Adding Comments to a Receipt

Click on the Comments tab and type in the Comments into the text field.

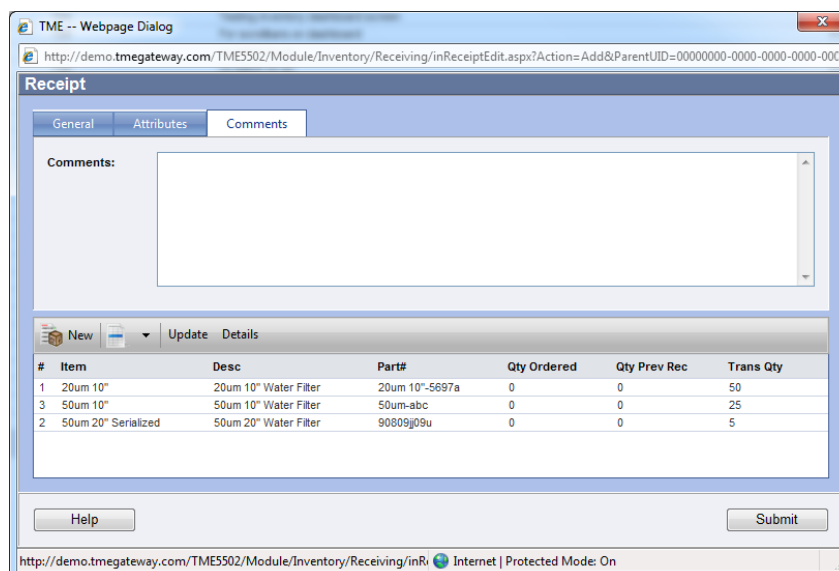


Figure 43 Receipt Comments

Submit a Receipt




From either the General, Attributes or the Comments tab, click on the Submit button after all Inventory Items have been added. The Receipt will be given the next available Receipt ID and added to the Receiving viewer.

Provided the TME Administrator has selected the option for printing receipts, a Receipt will open up as a pdf file for printing. To reprint a receipt at any time, double-click on it to open and then resubmit.


To edit a receipt, double click on it. A popup message appears: "You may edit this receipt for record keeping purposes only. Any changes made to this receipt will not affect inventory quantities and/or locations." Click the OK button to continue. Make any edits as necessary on the General, Attributes or Comments tabs and click the Submit button--as stated with the popup, changes will not affect the transactions or quantities that have been recorded, only the receipt is edited. An audit trail showing updates to the details of the Receipt from the time the record was created is available by returning to the Receipt Detail screen and clicking on the Audit Trail tab.

Receipts cannot be deleted.

Receiving Items With a Purchase Order

The Scan Barcode field utilizes the universal bar-coding feature of TME. Automatically populate the Purchase Order and Supplier fields by scanning the barcode of the Purchase Order. If barcode is not available, select the Purchase Order number by clicking on the "Click here to look up"  icon to the right of the Purchase Order field. A popup screen representing the Purchase Order Viewer will appear. Click on the Select Item icon  to the left of the Purchase Order ID (To add a new Purchase Order, click on the New icon  at the left side of the Viewer Toolbar. Newly added Purchase Orders that have been released to the supplier will be added to the Purchase Orders submodule accordingly). If a Purchase Order is not to be chosen, click the Cancel button or the X at the top right corner of the Item LookUp screen. Once selected, the items from the Purchase Order will populate the Items portion of the receipt and the Purchase Order ID and Supplier will populate the appropriate fields as links to their respective Detail screens.

If an external Purchase Order Number has been provided, type that number into the External PO field.

Items requiring batch or serial numbers will have the  icon visible. The receipt will not submit until the information needed has been provided or the quantity changed to zero.

Receipt

General | Attributes | Comments

Scan Barcode:

Supplier: Purchase Order: External PO:

☐ Receive Items Into Different Locales
☒ Receive All Items To This Locale

[C01B011FL01RM010R1](#)

#	Item	Desc	Part#	Qty Ordered	Qty Prev Rec	Trans Qty
2	20um 10"	20um 10" Water Filter	20um 10"-5697a	10	10	0
3	50um 10"	50um 10" Water Filter	50um-abc	20	0	20
4	50um 20" Serialized	50um 20" Water Filter	90809j09u	30	0	30
5	Coat Rack			2	0	2
1	something			2	2	0

Help Submit

Figure 44 Receipt with Selection of Purchase Order

Update the quantities, Batch Numbers, Serial Numbers and or Locale via either the Update or Details function.

To update utilizing barcode scanning of the Items listed (critical for submitting multiple batches of a single Item or to add additional items not on the Purchase Order): click on the Update button on the toolbar. Utilize the Scan Barcode field as described for adding new items to the list to update the particular item. Update the quantity by typing in the value. Click on the Add button to add to the list. For Items with multiple batch numbers--repeat process for each batch number. The total quantity received will be the sum of the quantity of each batch. To print the Item or Batch labels, click on the appropriate link and the label will appear in a pdf file for printing. Click on the Comments tab to add additional information. Click on Submit when finished. The full list will refresh to include the updates. Not all Items need to be updated--if no batch number, serial number or change to the locale or quantity needs to be made, then they will be received as such.

#	Item	Desc	Part#	Batch	Qty
1	20um 10"	20um 10" Water Filter	20um 10"-5697a	batch567-Y	3 (EA)
2	20um 10"	20um 10" Water Filter	20um 10"-5697a	batch223-H	2 (EA)

Figure 45 Receipt Item Detail Screen

To update by selecting Items from the list as populated by the Purchase Order (or just to view the locales set for each Item): click on the Details link on the toolbar. Double click on the appropriate Item or right click and select View to open the Receipt Item screen. Utilize the Scan Barcode field as described for adding batch numbers or changing the locale for the particular item. Update the quantity by typing in the value. To print the Item or Batch labels, click on the appropriate link and the label will appear in a pdf file for printing. Click on the Comments tab to add additional information.

#	Item	Desc	Part#	Batch	Qty
1	something				0 (each)
3	50um 10"	50um 10" Water Filter	50um-abc		20 (EA)
4	50um 20" Serialized	50um 20" Water Filter	90809j09u		30 (EA)
5	Coat Rack				2 (Each)
5	20um 10"	20um 10" Water Filter	20um 10"-5697a	batch567-Y	3 (EA)
6	20um 10"	20um 10" Water Filter	20um 10"-5697a	batch223-H	2 (EA)

Figure 46 Receipt Details Screens

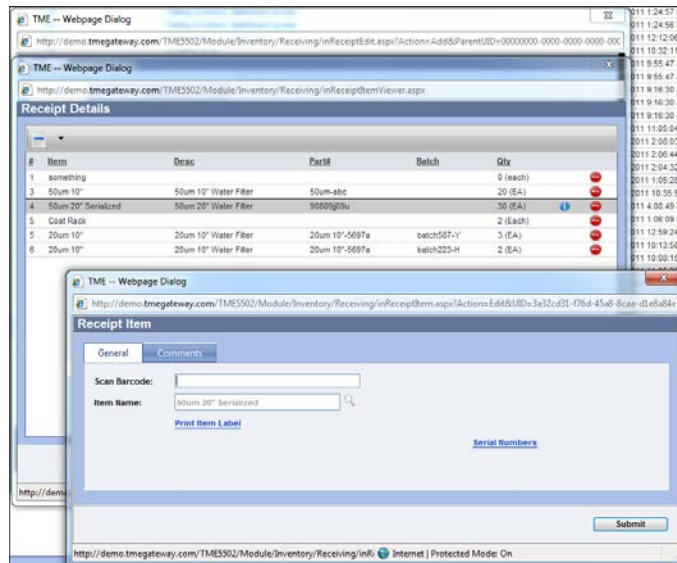



Figure 47 Receipt Item Detail Update Screen

To remove an item from the list (and therefore the receipt), click on the Remove icon  or right click and then Delete for the Item and then click OK on the "Are you sure you want to remove this item?" message. Click on Submit when finished. The full list will refresh to include the updates. Not all Items need to be updated--if no batch number, serial number or change to the locale or quantity needs to be made, then they will be received as such.

Exercise 8:



Receive each of your three inventory items with a single supplier to a single location. Use Batch Numbers for each Item and Serial Numbers accordingly.

Exercise 9:



Receive each of your three inventory items with a single supplier to multiple locations—two locations per item. Use Batch Numbers for each Item and Serial Numbers accordingly.


Exercise 10:



Receive each of your three inventory items with different suppliers to multiple locations—each Item in a different location. Use Batch Numbers for each Item and Serial Numbers accordingly.

Container Definitions

The Container Definitions submodule is used to define Containers that can be created in Inventory Actions and loaded/unloaded with Inventory Items. In turn, the containers (and therefore the contents) can be moved from one locale to another. This submodule can be accessed via Go To from the Task Bar or from the Inventory Module within a Menu Group.

New Container Definitions can be added by clicking  at the left side of the Viewer Toolbar. Type in the details--Name (required) and Description. Check off the checkbox whether the item is Active in the system.

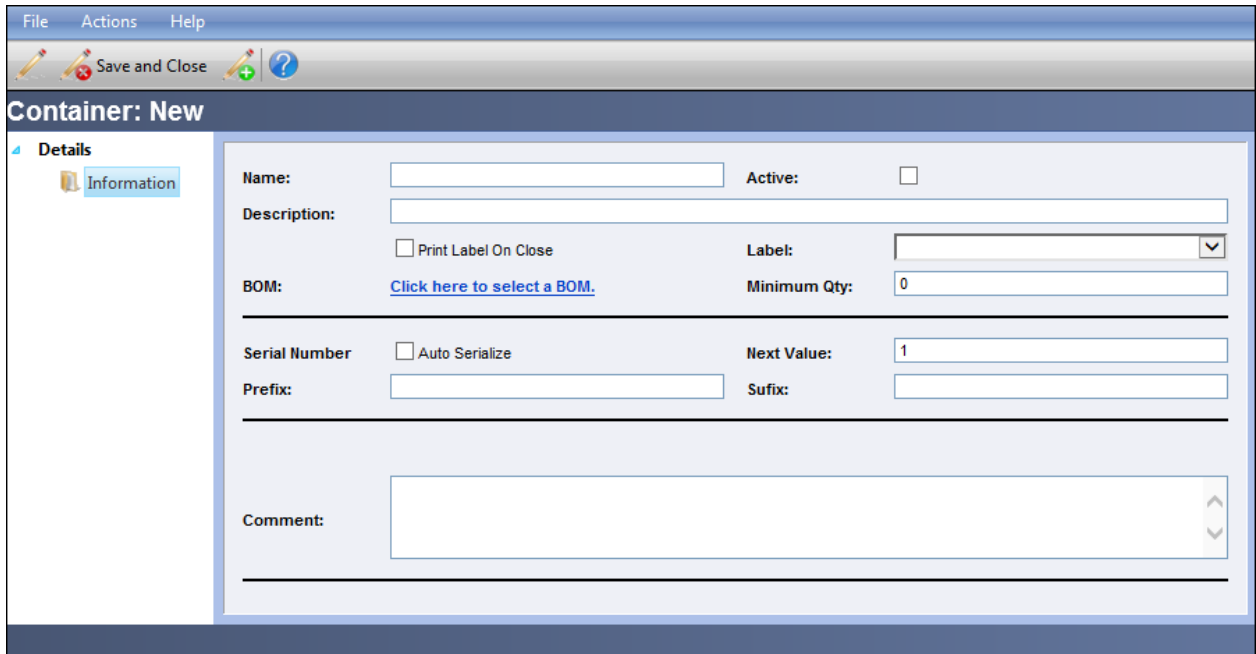


Figure 48 New Container Definition Detail Screen

Click the checkbox for Print Label on Close should a label automatically pop up upon the creation of a Container (not the definition, but the Container itself via Inventory Actions). Choose the label to use from the drop-down list.

If the Container is limited to certain Inventory Items, select a BOM that lists out those Items via the Click here to select a BOM link. If the BOM has not been created, go to Inventory \ BOM submodule and set it up. A Container does not require to have a BOM associated to it and that would mean that any Item in TME to which the User has permission to access can be loaded/unloaded into that Container.

Enter a Minimum Qty of Items that must be loaded in order for a Container status to be listed as Full. If the minimum isn't met, the status will be Partial.

Select the Auto Serialize checkbox to have TME automatically generate a Serial Number for a newly created Container. Change the next value if it is not to be “1”. If a three digit sequence is desired, set the Next Value to “101.”

Enter a prefix and/or suffix for the Serial Number. For example, a prefix of “G-” and suffix of “-B2” will generate the next Serial Numbers of G-1-B2, G-2-B2, G-3-B2, etc.

Enter Comments if applicable.

The screenshot shows the 'Container: Oil Drum' window in the TME software. The window has a menu bar (File, Actions, Help) and a toolbar with icons for Save and Close, a plus sign, and a question mark. The main area is titled 'Container: Oil Drum' and contains a 'Details' section with a sub-tab 'Information'. The form fields are as follows:

Name:	Oil Drum	Active:	<input checked="" type="checkbox"/>
Description:	Oil Drum		
	<input checked="" type="checkbox"/> Print Label On Close	Label:	Oil Drum
BOM:	00 Reg	Minimum Qty:	2
Serial Number	<input checked="" type="checkbox"/> Auto Serialize	Next Value:	1002
Prefix:	OD-	Suffix:	
Comment:	Must use for transport or oil to Bldg 36-M		

Figure 49 Example of Container Definition

Save or Save/Close. The Container Definition (if Active) is available for selection when creating a Container in Inventory \ Actions.

Containers

The Containers submodule is used to show the status and locale of Containers that have been created in Inventory Actions and loaded/unloaded with Inventory Items. No transactions or Actions can be taken against these records. Load Container/Unload Container/Move Container/Deleting Container all take place in the Inventory \ Actions submodule under the heading of Containers.

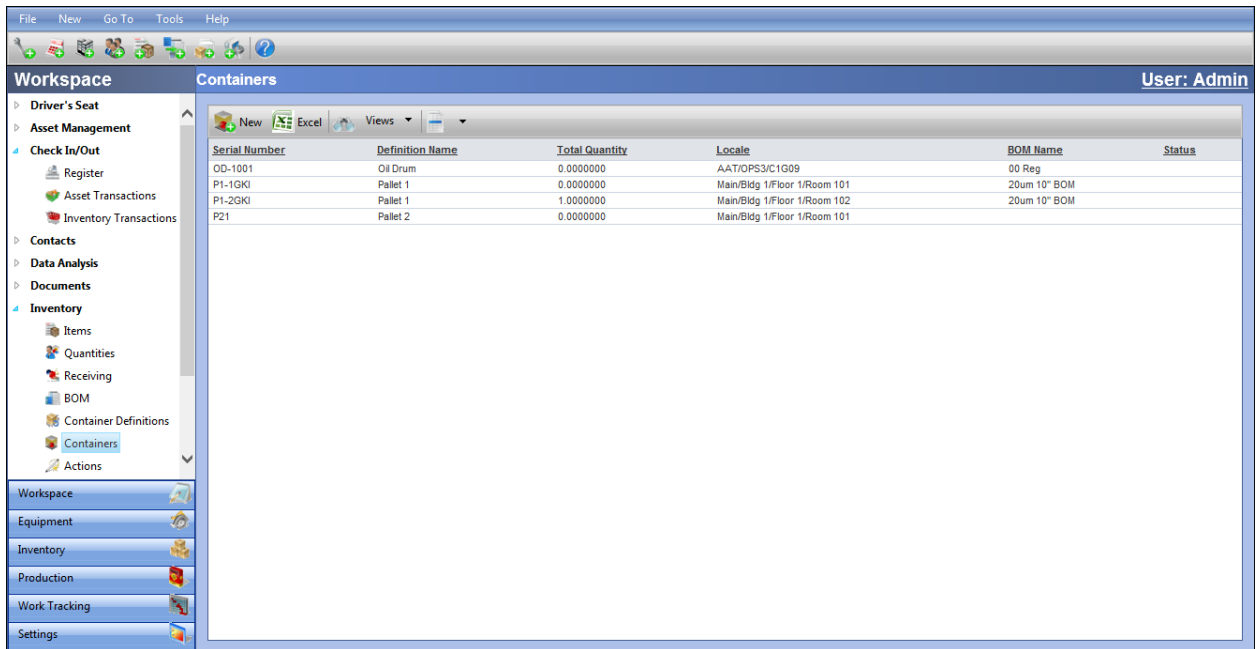


Figure 50 Containers Viewer



However, New Containers can be added by clicking on the  at the top left corner of the viewer toolbar.


Figure 51 New Container Screen

Select the locale via the link and the Container Type from the LookUp screen (click on  to access), type in the number of containers and click Submit.

A Container can also be created in the Actions submodule.

Bill of Materials (BOM)

The BOM Viewer lists the Bills of Material entered into TME. It can be accessed via Go To from the Task Bar or from the Inventory Module within a Menu Group.

New BOM's can be added by clicking  at the left side of the Viewer Toolbar. Type in the details--Name (required), Description, and Notes. Check off the checkbox whether the item is Active in the system. Save.

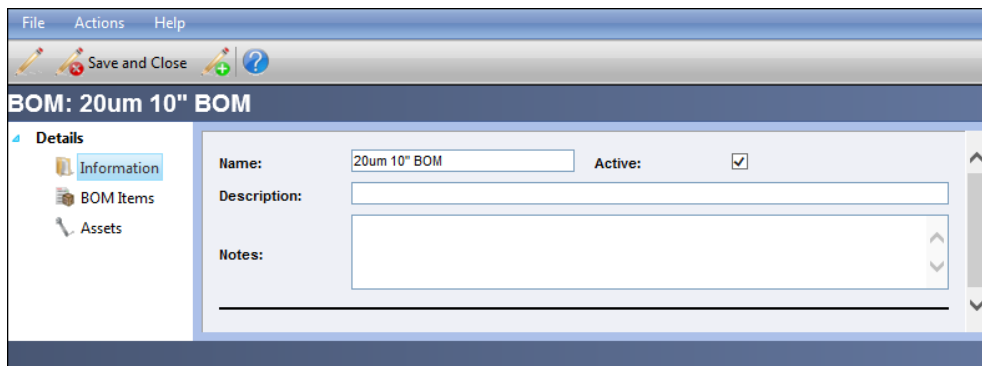



Figure 52 BOM Detail Screen

Items can be added to a BOM by clicking on the BOM Items link on the BOM Detail screen. Click on  on the viewer toolbar. Select the Inventory Item via the Item LookUp. Type in the Quantity that this BOM will need. Check the Required box if this item's use is mandatory for this BOM. Check Can Exceed if more quantity can be consumed than is set on this screen. Select the Unit of Measure.

The next section of the screen is for setting the default Locale and Batch Number from which the User can auto consume when in WIP. Once the quantity of the batch at that locale has been used up, alternate locales and/or Batch Numbers will need to be selected for the next set of WIP Work Orders. Auto consume only works in WIP and is further discussed in the WIP Processing chapter.

Save/Close.

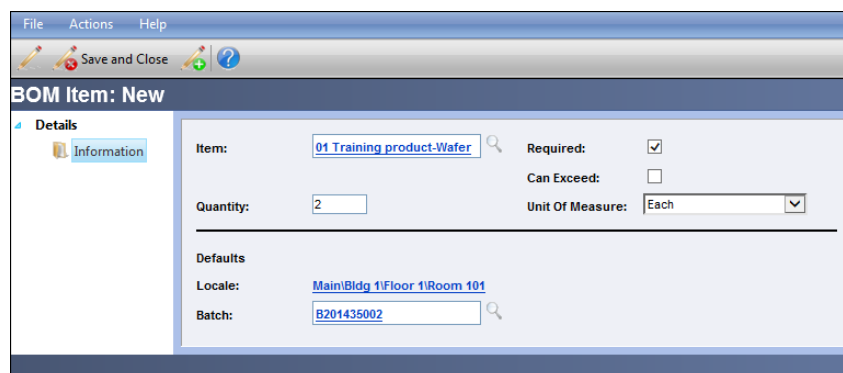


Figure 53 BOM Item Detail Screen

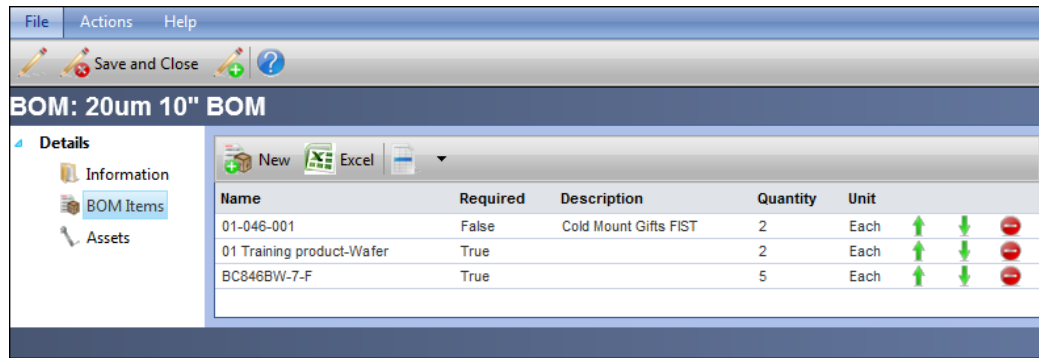


Figure 54 BOM - BOM Items Viewer

Add and delete Inventory Items as needed. The sequence of the Items may be changed by clicking on the ↑ or ↓ accordingly.

Linking a BOM to an Asset

BOM's can be linked to an Asset either via the Asset Details screen or via the BOM detail screen. From the BOM detail screen, click on the Assets additional link.

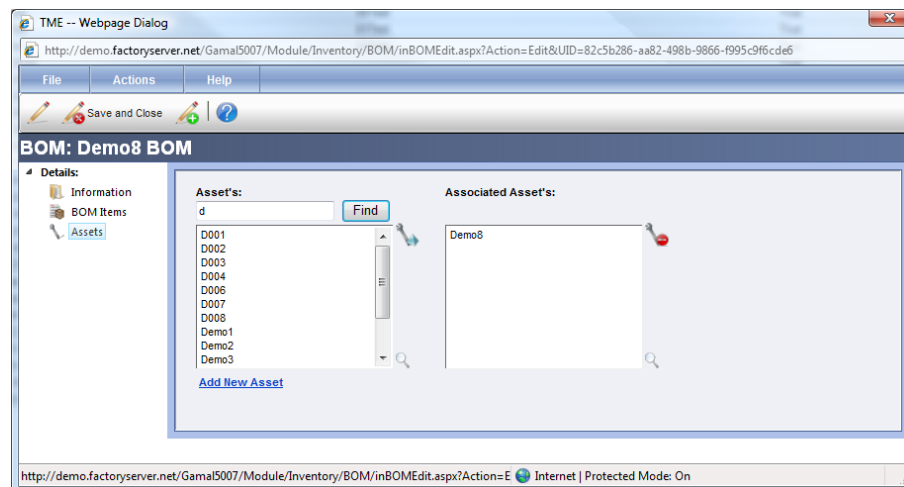





Figure 55 BOM - Asset Association Detail Screen

To search for an Asset, type in the ID (or partial beginning) of the Asset in the blank field and click on the Find button. The list of Assets will populate with the Assets accordingly. Select the Asset (click Ctrl on the keyboard and select additional Assets to make multiple selections) and click on the Add Asset icon . The Assets will be listed in the Associated Assets field. To remove an Asset from the Associated Assets field, select the Asset(s) and click on the Remove Asset icon .

To view the Asset detail screen, select the Asset and click on . The Asset Details screen will appear.

To add a new Asset to be available for selection, click on [Add New Asset](#). Once the new Asset is saved, it will be added to the list of Assets and available for selection.

Exercise 11:



Set up three BOMs utilizing a combination of your three Items and two Items set up by another User. Link each BOM to two Assets. Verify the linkage via the Assets' detail screens.

Actions

Numerous types of transactions can take place with Inventory Items. Items can be consumed, moved, scrapped and built into kits (Items and Products used within WIP are discussed in the WIP Chapter of this manual). These transactions take place in the Actions submodule which can be accessed via Go To from the Task Bar or from the Inventory Module within a Menu Group.



Figure 56 Actions Screen

Inventory by Locale Actions

To adjust (reconcile) the quantity of an item in a particular location, click on [Adjust Quantity In Locale](#).

The screenshot shows the 'Adjust In Locale' window. The 'General' tab is selected. The 'Item' field contains '20um 10"'. The 'Locale' field shows a breadcrumb path: 'MainBldg 1\Floor 1\Room 101'. The 'Batch' field contains '20150609130811'. The 'Qty At Locale' is 14 and 'New Qty' is 15. The 'Add' button is highlighted with a red circle. The 'Auto' checkbox is unchecked. The 'Submit' button is at the bottom right.

Figure 57 Adjust Quantity Transaction Screen

The Adjust Quantity screen will appear. Select the Item, then the Locale (Locale link will be disabled until Item is selected or scanned) and if applicable, the Batch Number to be adjusted. The Batch Number LookUp screen will be filtered to show only those Batch Numbers for the Item at the selected Locale. If a Batch has been found and is not listed on the Batch Number LookUp screen, close the LookUp screen and scan the Batch Number in the Scan Barcode field to populate the Batch field.

Serialized Inventory Items cannot be adjusted as they will always have a quantity of one or zero (can receive to add to quantity and consume or destroy to delete). Type in the Trans Quantity (the new Quantity).

Click on the Attributes tab to enter attribute information for the entire transaction.

Click on the Comments tab to enter comments for the entire transaction.

Click on the Add button to add the Item count to the list. Repeat for all Items counted in the Locale. The Locale can be changed and additional Item counts added to the list.

From any of the tabs, click on the Submit button to process the transaction or click on the X at the top right corner of the screen to cancel. The screen will disappear and the transaction is logged in the Transactions screen accessed via the link on the Item Detail screen.

To verify that the adjustment took place correctly, click on the Quantities link on the Item's Detail screen. The screen will show all of the quantities for the Item for any given location (User name will be listed in the Location column if located in a User's My Inventory) where the quantity is not zero.

Selecting Serial Numbers for Actions other than Adjust

Figure 58 Consume Quantity Transaction Screen

To select the Serial Number(s) on a transaction screen, click on [Serial Numbers](#) or select the All checkbox to select all of the Serial Numbers for the selected Item/Batch Number. The Serial Numbers link will be deactivated until the Locale and Batch Number for the Item have been selected.


Figure 59 Serial Number Selection Screen

The Serial Numbers screen will only show those for the combination of the selected Product and Batch Number for the given Locale.

The numbers can be filtered using the Filter drop-down criteria and the Apply link.

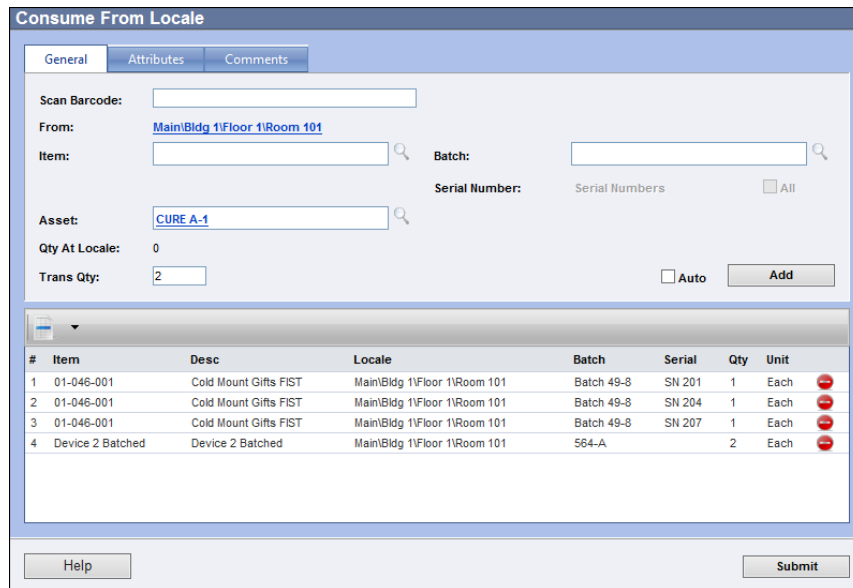
If the serial number barcode is available, click into the Scan field and scan the barcode (or type and hit the Enter key). This will select the serial number and place it into the

Selected SN's column. Repeat as needed.

If not using barcoding, click on the Serial Number (use the Alt key and click on multiple numbers to select more than one; or the shift key to select all between two selected numbers) and then  to move it to the Selected SN's column.

To move all of the Serial Numbers, just click on . The count field will show the quantity of numbers selected. Click Submit when ready. The Items will be ready to add to the list.

Click on the Add button to add the Item count to the list. Repeat for all Items to be Consumed from the Locale. The Locale can be changed and additional Items can be added to the list (they do not all have to have batch and/or serial numbers to be on the same list).



#	Item	Desc	Locale	Batch	Serial	Qty	Unit	
1	01-046-001	Cold Mount Gifts FIST	MainBldg 1\Floor 1\Room 101	Batch 49-8	SN 201	1	Each	-
2	01-046-001	Cold Mount Gifts FIST	MainBldg 1\Floor 1\Room 101	Batch 49-8	SN 204	1	Each	-
3	01-046-001	Cold Mount Gifts FIST	MainBldg 1\Floor 1\Room 101	Batch 49-8	SN 207	1	Each	-
4	Device 2 Batched	Device 2 Batched	MainBldg 1\Floor 1\Room 101	564-A		2	Each	-

Figure 60 Populated Consume from Locale List



If transactions are in quantities of "1," select the Auto checkbox. TME will automatically add a quantity of one Item to the list as it is selected and proper information (Batch and/or Serial Number) is provided.

All of the transactions use the same screen with possible minor differences.

- Adjust from Locale: adjusts the quantities of Items at selected Locale, can have Batch Numbers, but no Serial Numbers as those are always counts of "1."

- Consume from Locale: consumes quantity of Items from a selected Locale; can consume directly from Locale to track overall consumable costs or can consume to an Asset and be able to report on consumable costs for the Asset
- Destroy from Locale: removes quantity of Items from Inventory
- Transfer Locale: transfers quantity of Items from one Locale to another; has additional "To:" field for the selection of the Locale to where the Items are going
- Return Item to Locale: is for returning a quantity of an Item that may have been inadvertently destroyed or consumed and was removed from inventory or a quantity of Item that has simply been found and had never been entered into inventory to a Locale; does have Asset field available if returning an Item that had been Consumed to an Asset (to subtract cost from total consumable cost for the Asset)



The Consume and Return actions are the only transactions that can be done directly against an Asset.

My Inventory Actions

These transactions work in the same manner as those by Locale and the screens are identical, but they are against Inventory Items that are in a User's "My Inventory". On a Quantities screen or in a report, the quantity is not located at a Locale. The entry in the Location field is the name of the User.

Campus	Building	Floor	Room	Location	Serial Number	Batch
Main	Bldg 1	Floor 1	Room 101	Admin	SN 205	Batch 49-8
Main	Bldg 1	Floor 1	Room 101		SN 209	Batch 49-8
Main	Bldg 1	Floor 1	Room 101		SN 208	Batch 49-8
Main	Bldg 1	Floor 1	Room 101		SN 204	Batch 49-8
Main	Bldg 1	Floor 1	Room 101		SN 207	Batch 49-8
Main	Bldg 1	Floor 1	Room 101		SN 203	Batch 49-8
Main	Bldg 1	Floor 1	Room 101		SN 201	Batch 49-8
Main	Bldg 1	Floor 1	Room 101		SN 202	Batch 49-8
Main	Bldg 1	Floor 1	Room 101		SN 206	Batch 49-8
Main	Bldg 1	Floor 1	Room 101		SN 210	Batch 49-8

Figure 61 User Name in Place of Location on Item Quantities Screen



Figure 62 My Inventory Quantities Screen

- Consume from My Inventory: consumes quantity of Items from My Inventory for the logged in User; can consume directly to track overall consumable costs or can consume to an Asset and be able to report on consumable costs for the Asset
- Adjust from My Inventory: adjusts the quantities of Items already in My Inventory for the logged in User, can have Batch Numbers, but no Serial Numbers as those are always counts of “1.”
- Destroy from My Inventory: removes quantity of Items from My Inventory for the logged in User and Inventory entirely
- Return Item to My Inventory: is for returning a quantity of an Item that may have been inadvertently destroyed or consumed and was removed from inventory or a quantity of Item that has simply been found and had never been entered into inventory to My Inventory of the logged in User; does have Asset field available if returning an Item that had been Consumed to an Asset (to subtract cost from total consumable cost for the Asset)
- Take from Locale: takes a quantity of Items from a selected Locale and places it into the My Inventory of the logged in User
- Put Item Into Locale: takes a quantity of Items from My Inventory of the logged in User and places it into a selected Locale

Container Actions

These transactions do not work in the same manner as those by Locale. These are used for the purpose of creating, loading inventory, unloading inventory and moving Containers.

The Create New Container works the same as described earlier in the Containers section.

Load Container is the Action whereby inventory is loaded onto a Container. The locale for the quantities of Items becomes the Container. The Container itself is in a locale that was set upon creation or via the Move Container Action.

To load, click on [Load Container](#).

Figure 63 Load Container Screen – New

Scan the Container barcode in the Scan Barcode field or type it in and hit the Enter key. Alternatively, click on the “Click here to select a container” link and select from the LookUp screen. If the Container is of the type where the definition has a BOM attached, the screen will change to include the list of Items that are to be loaded.

BOM Item	Qty Required	Qty Loaded
01-046-001	2.00	0.00
01 Training product-Wafer	2.00	0.00
BC846BW-7-F	5.00	0.00

Figure 64 Load Container Screen with BOM Items List

As with Inventory Locale Actions, scan/select the Locale from which the first Item is to be taken from, scan/select the Item and if required, the Batch and/or Serial Numbers.

Click Add when ready to load. The Item and its Quantity will drop into the Pending Actions list (the Current Container Items list will be populated if the Container has Items loaded in a previous transaction and is not yet full).

#	Item	Batch	Serial	Qty	Unit
1	BC846BW-7-F	20161122161347		5	Each

Item	Batch Number	Serial Number	Quantity
01 Training product-Wafer	B201436002		2.00
01-046-001	2014356958-A	sn0001	1.00
01-046-001	2014356958-A	sn0005	1.00

BOM Item	Qty Required	Qty Loaded
01-046-001	2.00	2.00
01 Training product-Wafer	2.00	2.00
BC846BW-7-F	5.00	5.00

Figure 65 Load Container Screen – Populated

Upon submittal, the Container's status will update to either Partial (if not full per definition) or Full. The Quantities screen for the Item will update with the Container ID in lieu of the Location.

Serial Number	Definition Name	Total Quantity	Location	BOM Name	Status
P1-1GKI	Pallet 1	9.00000000	Main/Bldg 1/Floor 1/Room 101	20um 10" BOM	Full
P1-2GKI	Pallet 1	1.00000000	Main/Bldg 1/Floor 1/Room 102	20um 10" BOM	Full
P21	Pallet 2	2.00000000	Main/Bldg 1/Floor 1/Room 101	20um 10" BOM	Partial

Figure 66 Container Viewer with Status

Campus	Building	Floor	Room	Location	Quantity	Batch	On Hold
SCM	SPL	PLC153	Scrap Shelf		5.0000000	B201436001-001	False
Main	Bldg 1	Floor 1	Room 101		2.0000000	B201436002	False
				Container #: P1-2GKI	1.0000000	B201436002	False
				Container #: P1-1GKI	2.0000000	B201436002	False

Figure 67 Quantities Screen with Container ID as Location

Unload Container is the Action whereby inventory is unloaded from a Container to a Locale.

To unload, click on [Unload Container](#). The transaction and screen is identical to the Load Container Action with the exception that the Container is listed in the From section and the locale is listed in the To section.

Move Container is that Action whereby a Container is moved from one locale to another.

To move, click on [Move Container](#). Scan/enter the Container and scan/select the Locale that the Container is moving to. Verify that the fields are populated correctly and click Submit. The screen will remain open for the next transaction. The Containers viewer will update with the new locale information.

Move Container

Item

Scan:

Transfer To: [Main/Bldg 1/Floor 1/Room 102](#)

Container ID:

BOM:

Quantity:

Figure 68 Move Container Screen

Kits Actions

Inventory Items can be put together as Kits for consumption within a work order, distribution to different locales, as a final product that is sold (not via WIP), etc. Once Items are built into a kit, the quantities used are no longer included in the Items' quantities. The Items from that point on are tracked as part of the Kit. Instead of a User consuming multiple Items, he/she can consume a single Kit.

To build a Kit, click on [Build Kit](#).

The screenshot shows a web application window titled "TME -- Webpage Dialog" with a sub-header "Action". Below the header are three tabs: "General", "Attributes", and "Comments". The "General" tab is selected. The form contains the following fields and controls:

- Scan Barcode:** A text input field.
- Kit Item:** A text input field with a search icon.
- Kit Desc:** A text input field.
- Locale:** A text input field with a link "Andrews18512Parts Room".
- QtyToBuild:** A text input field with "0" and a dropdown menu with "Each".
- BOM:** A text input field with "00 Non-Batched, Non-SN".
- Item:** A text input field with a search icon.
- Batch:** A text input field with a search icon.
- Item Desc:** A text input field.
- Serial Number:** A text input field with a search icon.
- Locale:** A text input field with a link "Click here to select a locale".
- Qty On Hand:** A text input field with "0.00".
- Trans Qty:** A text input field with "0" and a dropdown menu.
- Buttons:** "Add", "Help", and "Submit".
- Checkboxes:** "Allow Items Qty to Go Below Zero" and "Enforce BOM Required Items & Qty".
- Link:** "Pull BOM Items from Default Locales".

Figure 69 Build Kit Transaction Screen

The Build Kit screen will appear.

The following options are available:


- Allow Items Qty to Go Below Zero – system will not prevent the build if the quantity of Items consumed goes below zero for the selected locale
- Enforce BOM Required Items & Qty – system will prevent build if all Items that have been designated as "Required" on the BOM have not been added to the Build list
- Pull BOM Items from Default Locales – this link will only appear if all Items on the Kit's BOM are not serialized or batched. Click on this link to automatically

populate the Build list with the BOM Items using their default Locales and calculations of the Qty based on number of Kits to build and the number of Items set per BOM.

- Attributes tab – if Attributes are available, enter values accordingly at any time prior to Submittal. These will be linked to the transaction, not the Kit
- Comments tab – add Comments any time before submittal. These will be linked to the transaction, not the Kit

Scan or select the Product (Kit) to be built (same method as selecting an Inventory Item for individual transactions). The Kit Desc will populate with the Kit's Item Description and the Locale will populate with the default locale for the Kit (set up via the Location Management link on the Item Detail screen). If the Locale needs to be changed, click on the locale string link to open the Select Locale screen. If applicable, scan or select the Batch Number and/or Serial Number to be assigned. The BOM will populate with a link to the Bill of Material associated with the Kit. Click on it to view the BOM and access the list of Items. Type in the quantity of Kits to be built. If the Kit is to have a serial number, only one Kit can be built at a time.

If using the Pull BOM Items from Default Locales option:

Click on this link to automatically populate the Build list with the BOM Items using their default Locales and calculations of the Qty based on number of Kits to build and the number of Items set per BOM. Click on  to complete the build.

#	Name	Part Number	Locale	Batch	Serial	Qty	Unit	Qty Still Needed
1	Nano 210		Andrews\8111			8	EA	0
2	50um 10"	50um-abc	Kleid\Building 2\2nd Floor\Metrology Storage\Cabinet 13 - Shelf 1 - Rack			6	EA	0
3	CAR Headlights	467532	Andrews\85\2\Parts Room			4	6	0

Figure 70 Build Kit Screen with BOM Items Automatically Pulled

If not using the Pull BOM Items from Default Locales and not using the Enforce BOM Required Items & Qty options:



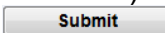
Select each Inventory Item individually. Click on the  to the right of the Item field. The Item LookUp screen will appear. Make the selection. The Locale will populate with the default Locale for the selected Item. Click on the Locale link to change. Input the Batch Number and/or Serial Number if applicable. Enter the Trans Qty and Unit of Measure and click on . As each Item is added to the list, the Qty Still Needed will update. However, since the enforcement of the BOM is not turned on, any Item can be added to the list, the Qty Still Needed will not be enforced and BOM Items (including those designated as Required on the BOM) can be left off. Repeat for all Items needed to build the Kit. Click on  to complete the build.

Figure 71 Build Kit Screen with No Enforcement or Automatic Pulling of Items

If not using the Pull BOM Items from Default Locales and are using the Enforce BOM Required Items & Qty options:

Select each Inventory Item individually. The Item field will convert to a drop down list of only those Items from the BOM. Select an Item from the drop-down list. The Locale will populate with the default Locale for the selected Item. Click on the Locale link to change. Input the Batch Number and/or Serial Number if applicable. As each Item is added to the list, the Qty Still Needed will update. However, since the enforcement of the BOM is turned on, the Build cannot be submitted until all Items designated as Required on the BOM with their designated quantities have been added to the list. Enter the Trans Qty and Unit of Measure and click on **Add**. Repeat for all Items needed to build the Kit. Click on **Submit** to complete the build.

Action

General Attributes Comments

Scan Barcode:

Kit Item:

Kit Desc:

Locale: [Andrews18512/Parts Room](#)

QtyToBuild:

BOM: [00 Non-Batched, Non-SN](#)

☒ Allow Items Qty to Go Below Zero

☒ Enforce BOM Required Items & Qty

[Pull BOM Items from Default Locales](#)

Item:

Item Desc:

Locale: [Cabinet 13 - Shelf 1 - Rack 3](#)

Qty On Hand: 4.0000000

Trans Qty:

#	Name	Part Number	Locale	Batch	Serial	Qty	Unit	Qty Still Needed
1	CAR Headlights	467532	Andrews18512/Parts Room			4	6	0
2	Nano 210	Andrews18111	Andrews18111			1	EA	7

Figure 72 Build Kit Screen with Enforcement Option

Once submitted, the Build Kit screen will close. The Inventory Items and Kit quantities will be updated for their default/selected locales accordingly.

Exercise 12:



Adjust your Inventory Items so that you have at least 10 of each in two different locations. Verify quantities.

Exercise 13:



Place two Items into My Inventory.

Exercise 14:



Build two of your kits and one belonging to another User. Transfer to an alternate locale. Verify transactions.

