September 2021

FootPrint Manufacturing



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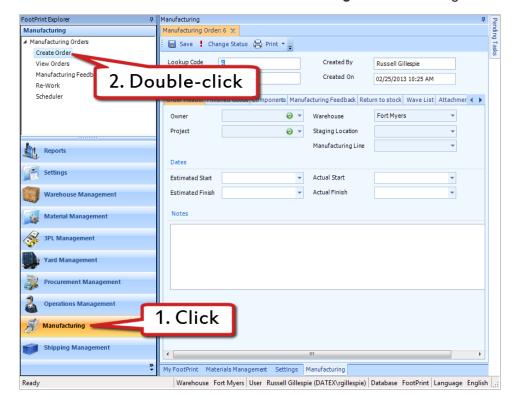
Manufacturing Orders specify who the Order is for, where it will take place, what Material(s) you are creating, and what Material(s) you will be consuming.

Prerequisites

- Owner
- Project
- Manufacturing & Finished Product Locations
- Materials (Components and Finished Products)
- · Inventory in your Warehouse

Step 1. Create a new Manufacturing Order

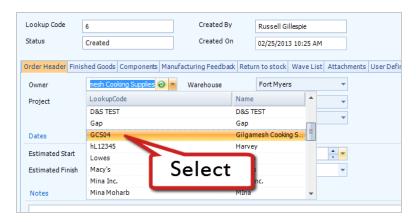
- 1. Click the **Manufacturing** module in the FootPrint Explorer.
- 2. Double-click Create Order under the Manufacturing Orders heading.



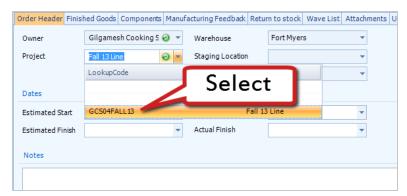
A new Manufacturing Order will automatically be created for you.

Step 2. Fill out Basic Information

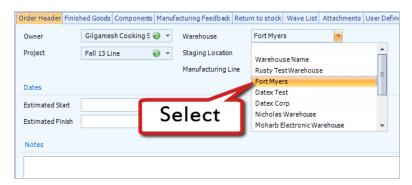
1. Select the Owner for the Order.



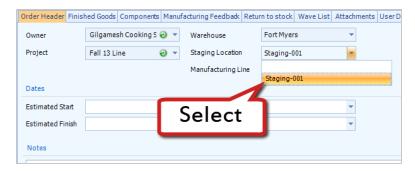
2. Select the **Project** under which the Order is being placed.



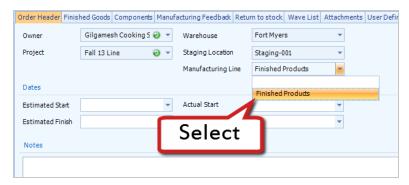
3. Select the Warehouse in which the Manufacturing will occur.



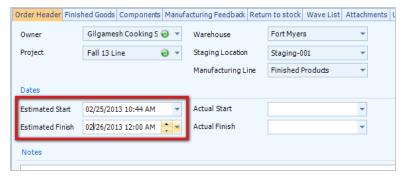
4. Select the **Staging Location**. This is where the Materials will be moved to, and where the Manufacturing will actually take place.



5. Select the **Manufacturing Line Location**. This is where the Finished Products will be placed once the Manufacturing process has been completed.

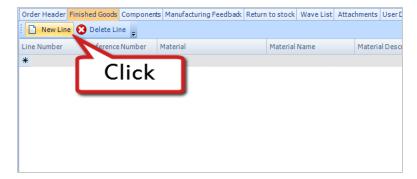


6. (Optional) You can add Estimated Start and Estimated Finish times and dates for the Order. This will be reflected in the Manufacturing Scheduler.



Step 3. Specify Finished Goods

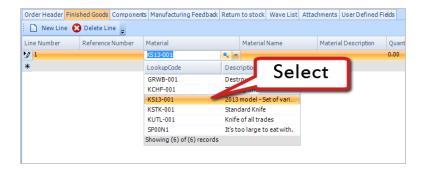
1. Under the **Finished Goods** tab, click the **New Line** button.



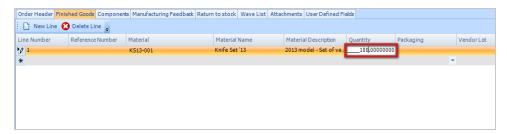
2. Select the Material you will be producing.



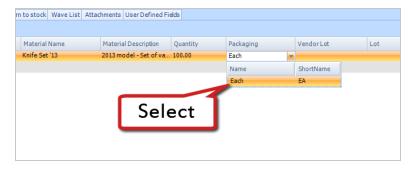
You cannot produce Serial Controlled Materials.



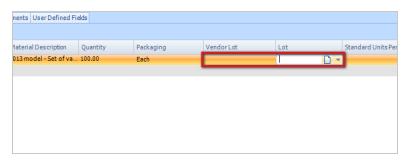
3. Enter Quantity you will expect to produce.



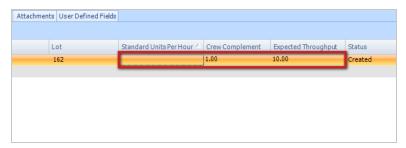
4. Select the Packaging for the Materials you will be producing.



5. If the Finished Product is Lot Controlled, you can select the **Lot** and **Vendor Lot**. You can also click the **small page icon** to have the system create new Lots for you.



6. (Optional) The Standard Units Per Hour is pulled from the Material master file. You can enter the Crew Compliment, and the system will calculate the Expected Throughput for you, based on that information.



You can create multiple Lines this way, lining up additional Materials to be Manufactured.

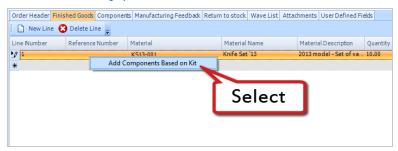
Step 4. Add Components

You can add Components either manually, or based on a Kit.

If the Material you have selected as a Finished Product is set up as a Kit, adding Components to the Order is extremely simple. Just right-click the Manufacturing Line under the Finished Goods tab, and select **Add Components Based on Kit**.

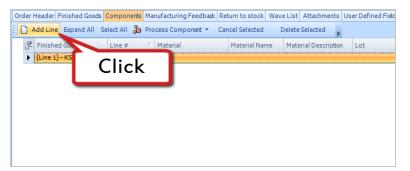
The system will calculate the amount of individual components needed based on the Kit information and the **Quantity** you have set for the Line, and will automatically add the necessary Components to the Order.

For more information on Kits, see the Setting Up a Material tutorial.

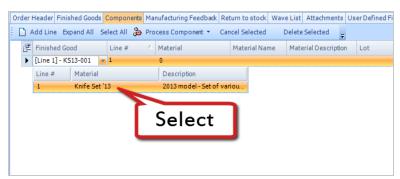


Adding Components manually requires a bit more work.

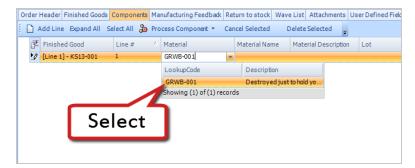
1. Under the **Components** tab, click the **Add Line** button.



2. If you have multiple Finished Goods Lines, select the **Finished Good** that this Component Material will be a part of.



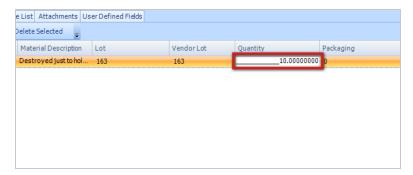
3. Choose a Material as your Component.



4. Select a Lot if necessary.



5. Enter the **Quantity** of this Component required to produce the amount of Finished Goods you've specified.



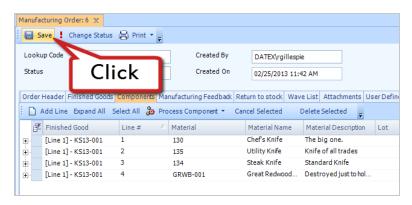
6. Select the Packaging Type the Finished Good requires for the Component.



Continue adding Component Lines this way until you've added all the Components necessary for the Finished Goods Lines in the Order. You may also add Sub-Lines and Sibling Lines by right-clicking the lines you've already added, allowing for more specific organization of your Components for Reporting purposes.

Step 5. Save the Manufacturing Order

Click the Save button to Save the Order.



Schedule a Manufacturing Order

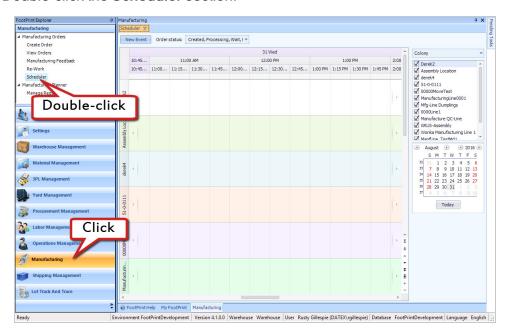
After creating a Manufacturing Order, you are able to associate it with a schedule to help organize and streamline your manufacturing operations.

Prerequisites

- Manufacturing Order
- Warehouse
- Manufacturing & Finished Product Locations

Step 1. Open the Manufacturing Schedule section

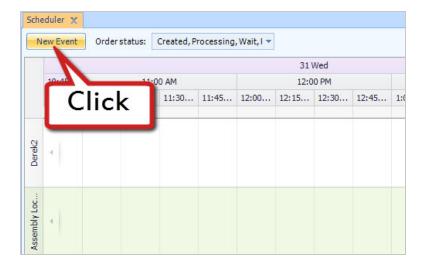
- 1. Click the **Manufacturing** module from the FootPrint Explorer.
- 2. Double-click the **Scheduler** section.



Step 2. Create a new Schedule

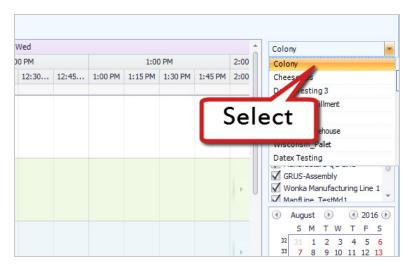
There are two ways to create a new Schedule from the Manufacturing Scheduler section:

Click the New Event button.

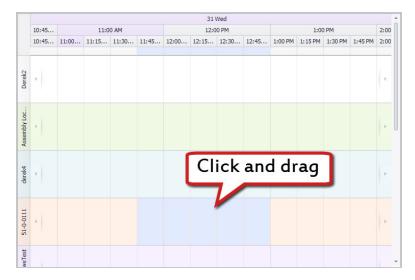


OR

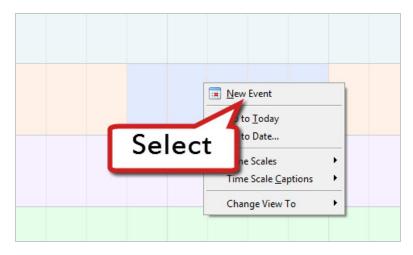
1. Select the **Warehouse** you would like for the Schedule from the drop-down list on the right side of the screen.



2. Highlight the time slot you want the Schedule to be for, along the row corresponding to the **Manufacturing Line** you want for the Schedule, by clicking and dragging the cursor.



3. Right-click the highlighted section, and select **New Event** from the drop-down list.



Step 3. Fill out Manufacturing Schedule Information

Once you've opened the Event Detail pop-up window, you can enter the information for the Manufacturing Schedule. If you created the Schedule from a highlighted selection, some of this information has already been filled out for you.

- 1. Select the **Warehouse** in which the Manufacturing will take place from the drop-down list.
- 2. Select the Manufacturing Line Location at which the Manufacturing will occur.



3. Select the **Manufacturing Order** to associate with the Schedule.

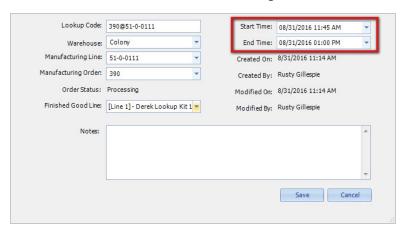


Once you've selected a Manufacturing Line and an Order, the Manufacturing Schedule LookUp Code will be updated to the Order Number @ the Manufacturing Line Location. This can be changed if so desired.

4. Select the Finished Good Line to associate with the Schedule.



5. Set the **Start and End Time** for the Manufacturing Schedule.



Step 4. Save the Schedule

Click the Save button to save the Manufacturing Schedule in your system.





Your Manufacturing Schedule time can be changed by opening it again, or it can be dragged and dropped to a new time slot on the schedule just by clicking and dragging the event block.

Process a Manufacturing Order

Processing a Manufacturing Order prepares it for execution by creating a Manufacturing Wave. Similar to an ordinary Wave, the Manufacturing Wave is an order to move Materials from one Location to another.

Following the Processing of the Order, you will be able to perform a **Manufacturing Move**.

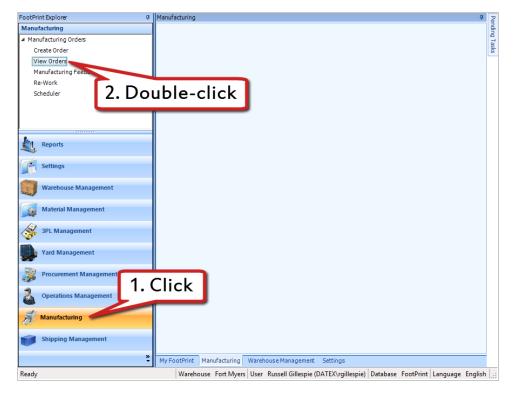
Prerequisites

- Manufacturing Order
- Manufacturing & Finished Product Locations
- Materials
- · Inventory in your Warehouse

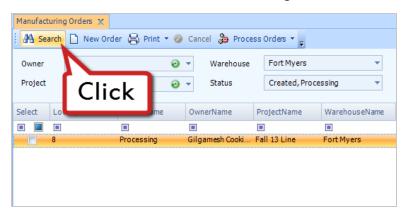
Step 1. Open the Manufacturing Order

- 1. Click the **Manufacturing** module in the FootPrint Explorer.
- 2. Double-click View Orders under the Manufacturing heading.

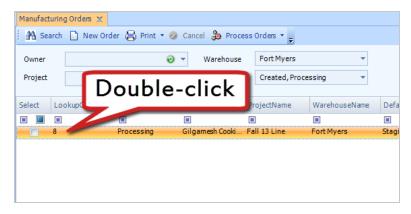
Process a Manufacturing Order



3. Enter an **Owner**, **Project**, and/or **Warehouse** to narrow down your search, and simply click **Search** to show all relevant Manufacturing Orders.



4. Double-click your Order.

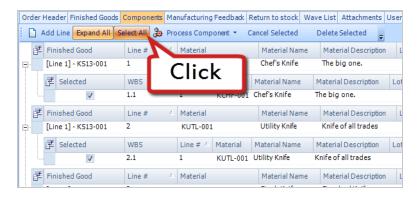


Step 2. Process the Order

Rather Creating a Manufacturing Wave, you can run Inventory Planning, which will determine the best Inventory for use in your Manufacturing Order, taking into consideration such things as Allocation Strategies and Expiration Dates, and searching all Warehouses in the system for its recommendation.

Inventory Planning Tutorial Video

1. Click **Select All** under the **Components** tab. This will automatically **Expand All** as well, creating Sub-Lines based on each Line, which will actually call for the Materials.

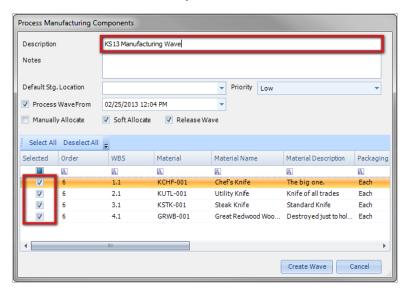


2. Click the **Process Component** button. A drop-down list will open, containing options for Processing the selected Lines. Click **Create Manufacturing Wave**.

Process a Manufacturing Order

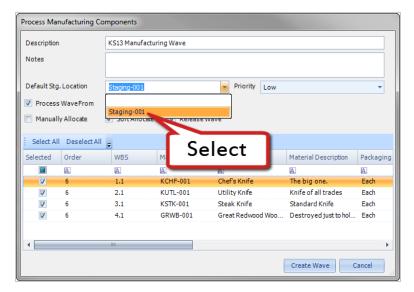


3. A pop-up window will open. Make sure all the Materials you'd like to include in the Wave are selected. Enter a **Description** for the Wave.



4. Select the **Default Staging Location** if you haven't already, or would prefer a different Location than is already set in your Warehouse.

Process a Manufacturing Order



5. Click the Create Wave button.



The Pending Tasks tab will flash, indicating that the Wave is being Created and Processed. Open the Pending Tasks window to confirm the Wave has been Released.

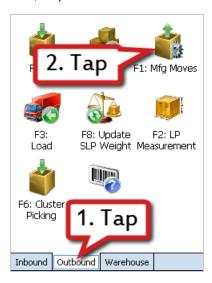
Manufacturing Moves take all Materials required for a Manufacturing Order and relocated them to the Staging Location in order to actually execute the Order.

Prerequisites

- Manufacturing Order
- Released Manufacturing Wave
- Manufacturing & Finished Product Locations
- Materials
- · Inventory in your Warehouse

Step 1. Open the Manufacturing Moves section

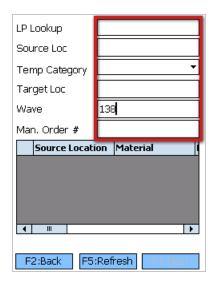
- 1. Tap the Outbound tab.
- 2. Tap the Mfg Moves section, or press F1.



Step 2. Search for Move Tasks

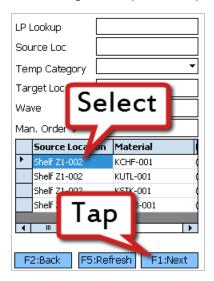
You can search for Move Tasks for the Manufacturing Order in a variety of ways, including by License Plate, Source Location, Target Location, Wave, Manufacturing Order, or even Temperature Category.

Scan or enter the relevant information, and tap or press **F5** if the list does not automatically populate.

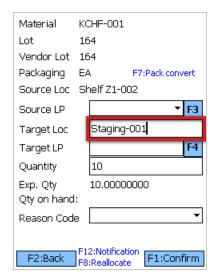


Step 3. Perform Move

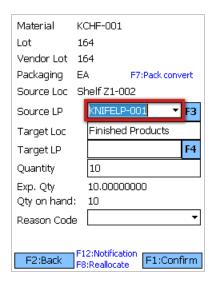
1. Select the Material you are Moving, and tap **Next** or press **F1**.



2. Make sure the correct **Manufacturing Location** is selected for the Move.



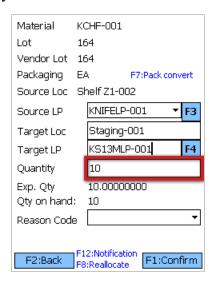
3. Scan, enter, or select the **Source License Plate**.



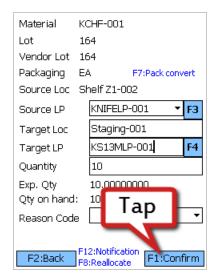
4. Scan or enter the Target License Plate.



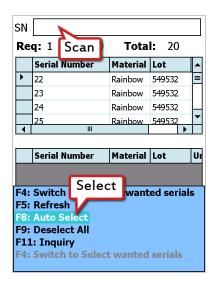
5. Make sure the **Quantity** is correct.



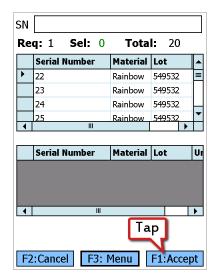
6. Tap Confirm or press F1 to Confirm the Move.



7. If the Material you are Moving is Serial Controlled, scan or enter each **Serial Number** you will be using, or press **F8** to have the system automatically select them for you.



8. Tap Accept, or press F1.



You will be brought back to the Move Tasks list. Repeat the process for each remaining Move Task.

Add Manufacturing Feedback

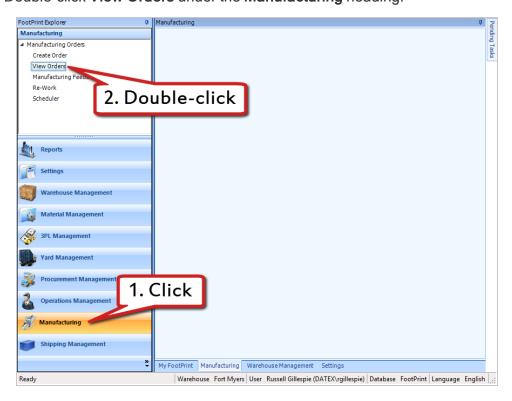
Manufacturing Feedback confirms that Manufacturing has occurred, and instructs the system on which Materials have been consumed, which Materials may have been Scrapped, and what Materials have been created.

Prerequisites

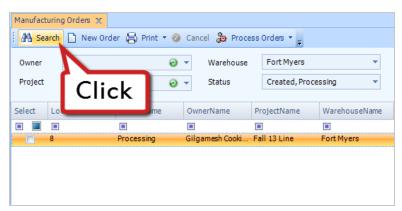
- Manufacturing Order
- Manufacturing Move
- Manufacturing & Finished Product Locations
- Materials
- Inventory in your Warehouse
- Finished Products or Works in Process

Step 1. Open the Manufacturing Order

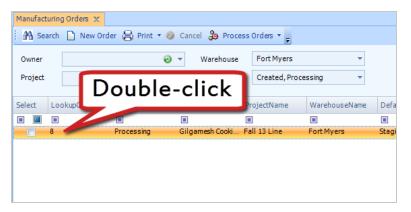
- 1. Click the **Manufacturing** module in the FootPrint Explorer.
- 2. Double-click View Orders under the Manufacturing heading.



3. Enter an **Owner**, **Project**, and/or **Warehouse** to narrow down your search, and simply click **Search** to show all relevant Manufacturing Orders.

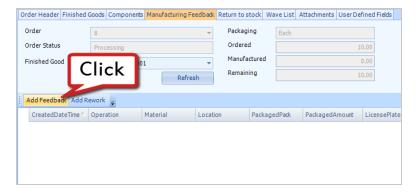


4. Double-click your Order.



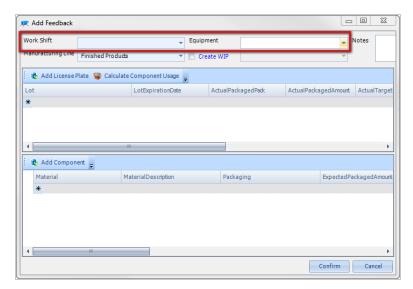
Step 2. Add Feedback

1. On the Desktop, underneath the **Manufacturing Feedback** tab for your Manufacturing Order, click the **Add Feedback** button.

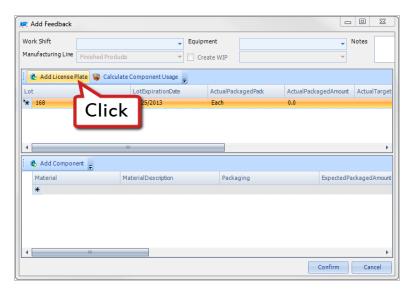


A pop-up window will open, where you can enter your Feedback information.

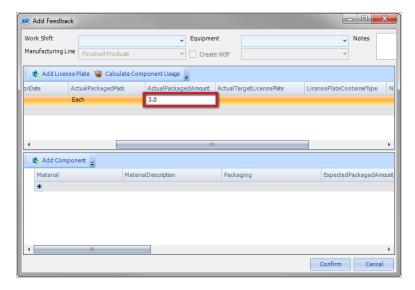
2. (Optional) If you have Work Shifts or Manufacturing Equipment set up, you can select them here.



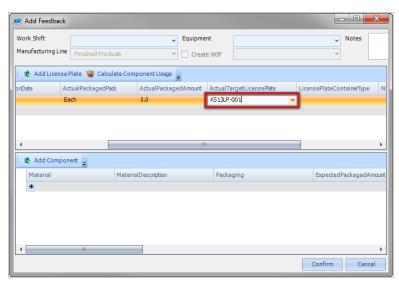
3. Click the Add License Plate button.



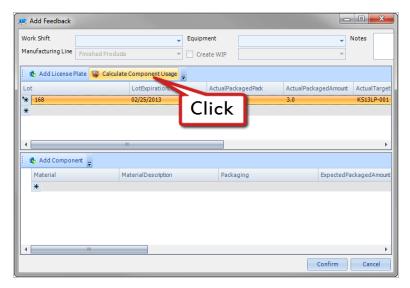
4. Enter the **Actual Packaged Amount**, representing how many successfully manufactured Finished Products you have produced.



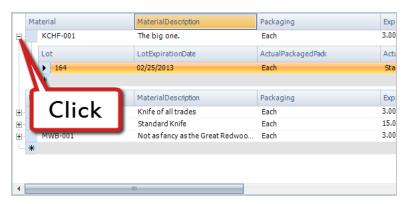
5. Enter the new **Target License Plate** to which the new Materials will be assigned.



6. Click the **Calculate Component Usage** button to have the system automatically calculate the expected amount of Components used in Manufacturing the Actual Packaged Amount of Materials entered above.



7. To edit the values Consumed, or to add Scrapped Components to the Feedback, click the + box to drop down more information about the Material.

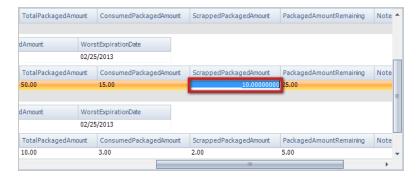


8. (Optional) Enter the new values in their appropriate column.

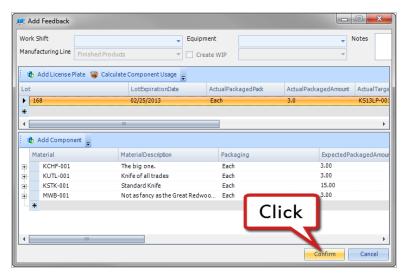
Scrapped Materials represent Materials lost in the process of Manufacturing that are no longer capable of being reused for any purpose. These Materials will be taken out of the system completely.



You must enter a Reason Code if you are Scrapping Materials.



9. Once you've entered all the information you need, click the Confirm button.



This will process the Order, removing the Components from your Inventory and adding the new Finished Products to your Manufacturing Line Location.

You can continue to add Feedback to the Order until you've exhausted all the Allotted Materials.

Work in Process

If you are unable to finish the Manufacturing process, but have involved several Components already, you can select the Work in Process option (check the Create WIP box). You will be required to add a Reason Code to do this. You can then add a License Plate as with Finished Goods, edit the Amount Consumed, and create a new Lot for the WIP. You will have to have set up and selected a Work Shift in order to finish the creation of the WIP for accountability purposes.

Perform a Manufacturing Rework

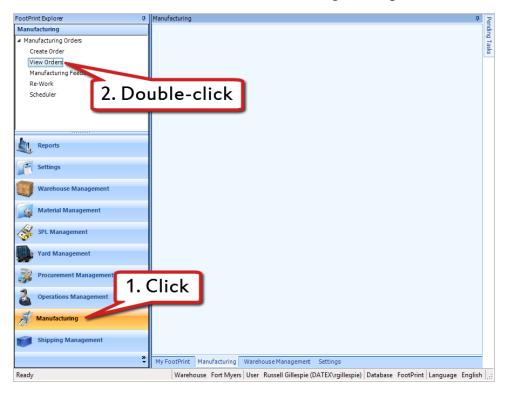
Reworking undoes Finished Goods and returns them to their Components. This process takes place after you've added Feedback to a Manufacturing Order, but while the Order is still in the Processing status.

Prerequisites

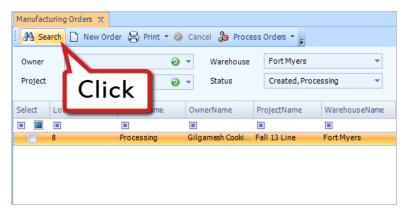
- Manufacturing Order
- Manufacturing & Finished Product Locations
- Materials
- Inventory in your Warehouse
- · Finished Products or Works in Process
- Manufacturing Feedback

Step 1. Open the Manufacturing Order

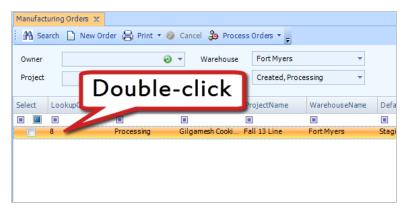
- 1. Click the **Manufacturing** module in the FootPrint Explorer.
- 2. Double-click View Orders under the Manufacturing heading.



3. Enter an **Owner**, **Project**, and/or **Warehouse** to narrow down your search, and simply click **Search** to show all relevant Manufacturing Orders.

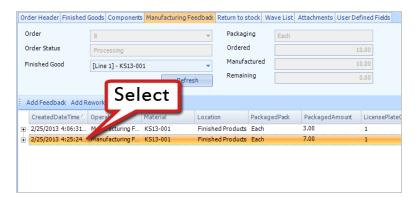


4. Double-click your Order.



Step 2. Add Rework

1. Under the **Manufacturing Feedback** tab, select the Feedback session you'd like to add a Rework to.



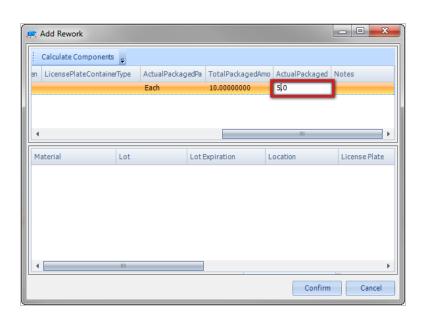
2. Click the Add Rework button.



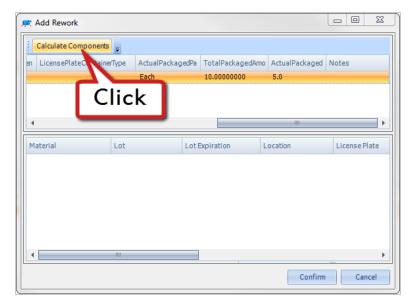
3. A pop-up window will open, containing Finished Goods lines. Enter the number of Finished Goods you'll be unmaking in the **Actual Packaged** column of the Line you're Reworking.



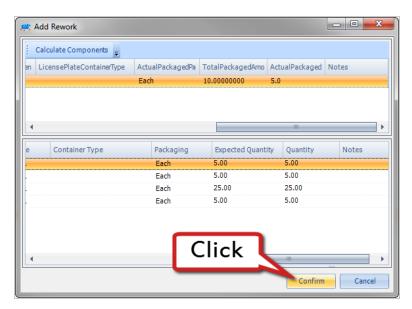
Make sure to change focus from the **Actual Packaged** field you edited by clicking a different field, or else the system will not register the change.



4. Click the **Calculate Components** button. The system will calculate the amount of each Material you'll be regaining.



5. Review the **Quantity** of Reworked Inventory, making sure it is consistent with the amount Reworked in your Warehouse. Click the **Confirm** button to add the Rework.

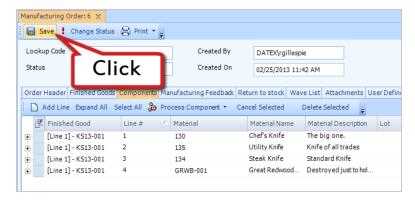


The Feedback session you updated will now have the Rework information available in it, which you can see by clicking the + next to it, dropping down the Feedback information.

Step 3. Save the Manufacturing Order

Click the "Save" button to Save the Order.

Perform a Manufacturing Rework



Return Inventory to Stock

Return to Stock makes Adjustments to the Inventory leftover from the Manufacturing Process, ensuring that the information in the system is consistent with the actual Materials in your Warehouse.

Prerequisites

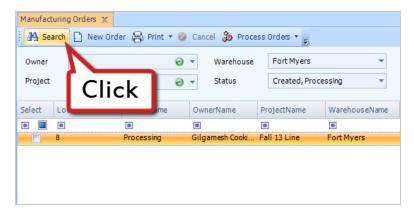
- Manufacturing Order
- Manufacturing & Finished Product Locations
- Materials
- Inventory in your Warehouse
- · Finished Products or Works in Process
- Manufacturing Feedback

Step 1. Open the Manufacturing Order

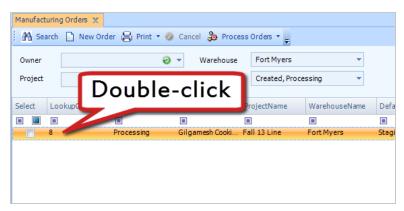
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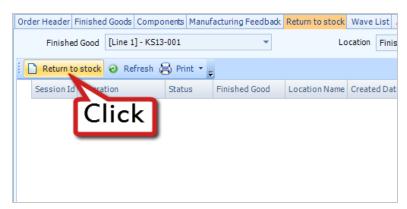


4. Double-click your Order.

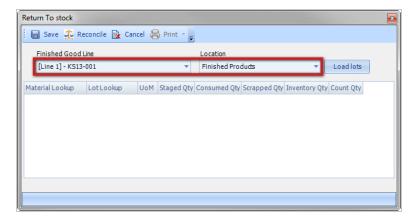


Step 2. Add Return to Stock session

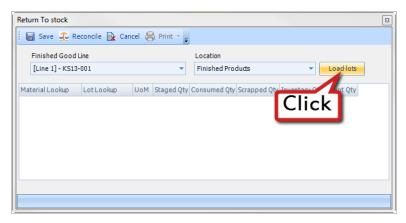
1. Under the Return to Stock tab, click the Return to Stock button.



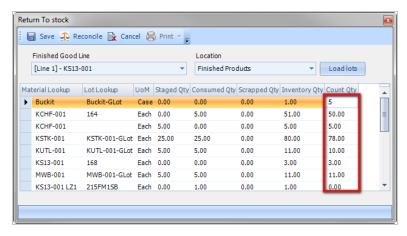
2. In the pop-up window, select the **Finished Good Line** and the **Location** that you'd like to add a Return to Stock session for.



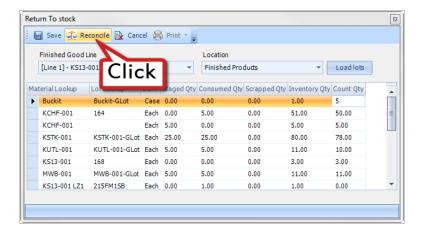
3. Click the **Load Lots** button to display all the Materials in the selected Location, organized by Lot.



4. After doing a physical count of the remaining Inventory, enter the actual number of Packages of each Material in the Location under the **Count Qty** heading.



5. Click the Reconcile button.



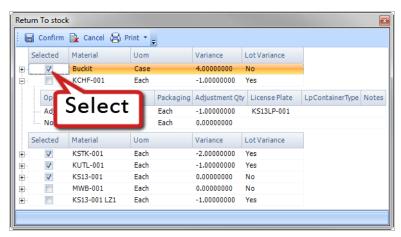
A Note

You will receive a warning pop-up message if any of the Material Lots are separated onto different License Plates; for the Return to Stock function to work, all Materials of the same Lot must be on the same License Plate.

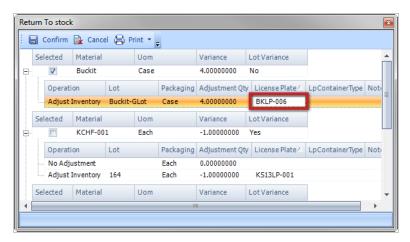
Step 3. Reconcile

A new pop-up window will open, where you can Reconcile the Inventory differences. Each Adjustment Line will display information about the Adjustment being made to the Materials. You can expand the Lines to display more information, including the Operation that will be performed to the Material (either an Inventory Adjustment or an Inventory Creation).

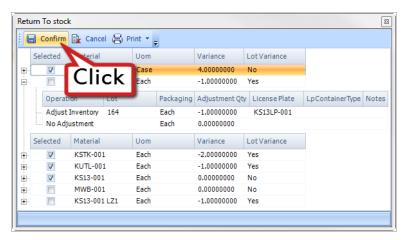
1. Select each Adjustment you'd like to make in the system by clicking the relevant **Selected** boxes and putting a check mark in them.



2. If you are creating new Inventory for a Material that does not already have Materials in the Location, you will need to either select a **License Plate** to add the Materials to, or you can create a new License Plate by typing its name in the **License Plate** field.



3. Click the **Confirm** button to make the Adjustments in the system.



The system will change the Inventory to match the count you made, and the Materials will remain in the Location they are currently in.

Close a Manufacturing Order

Once you've performed a **Manufacturing Move**, finished all the work you will be doing for a Manufacturing Order, and added all the **Feedback** you need, you can Complete the Manufacturing Order. This will close the Order out, no longer allowing work to be done for it, and sending any appropriate information to the **Billing** module.

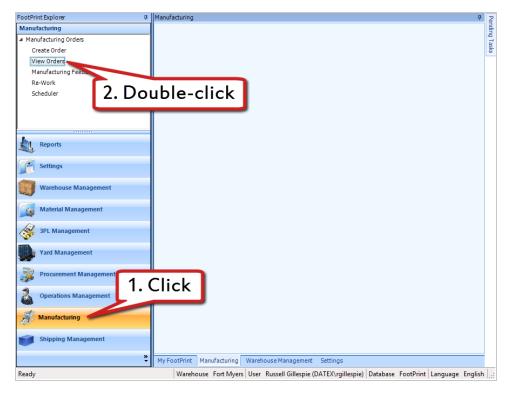
Prerequisites

- Manufacturing Order
- Manufacturing Move
- Manufacturing & Finished Product Locations
- Materials
- Inventory in your Warehouse
- Manufacturing Feedback for the Order

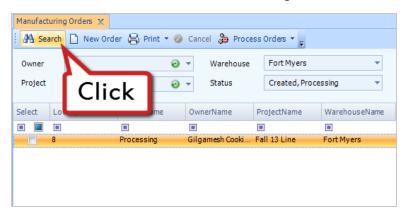
Step 1. Open the Manufacturing Order

- 1. Click the **Manufacturing** module in the FootPrint Explorer.
- 2. Double-click View Orders under the Manufacturing heading.

Close a Manufacturing Order

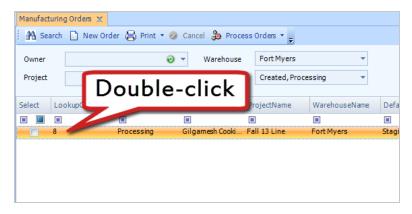


3. Enter an **Owner**, **Project**, and/or **Warehouse** to narrow down your search, and simply click **Search** to show all relevant Manufacturing Orders.



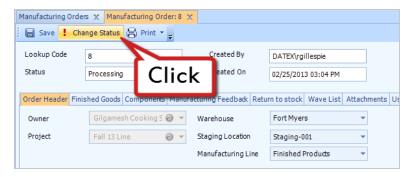
4. Double-click your Order.

Close a Manufacturing Order



Step 2. Complete the Order

1. Click the Change Status button.



2. A Change Status pop-up window will appear. Select **Completed** from the Status drop-down list.

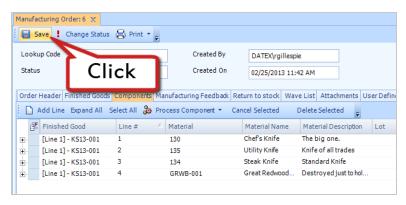


3. Click the Change Status button.

Close a Manufacturing Order



4. Click the Save button to Save your Order, completing it.



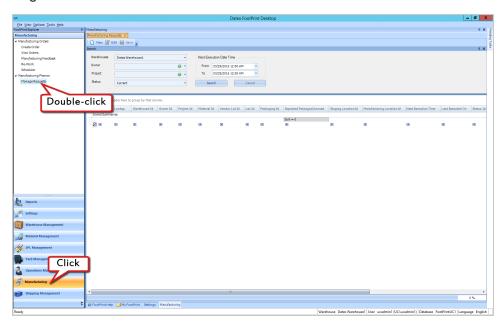
Manufacturing Requests creating new Manufacturing Orders to your specifications on the schedule you want, either once or recurring as often as desired.

Prerequisites

- Owner
- Project
- Manufacturing & Finished Product Locations
- Materials (Set up with Kit Components)

Step 1. Open the Manage Requests section

- 1. Click the **Manufacturing** module in the FootPrint Explorer.
- 2. Double-click the **Manage Requests** section under the **Manufacturing Planner** heading.

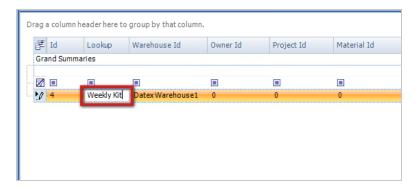


Step 2. Create a new Manufacturing Request

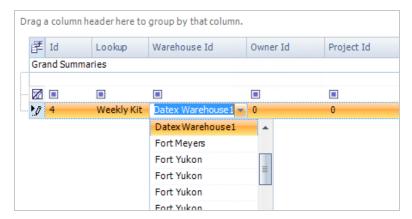
1. Click the **New** button.



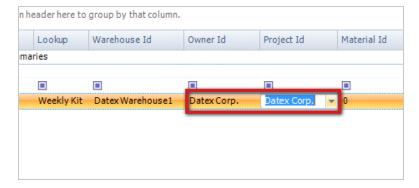
2. Add an appropriate LookUp Code.



3. Ensure the correct Warehouse for the Request is selected.

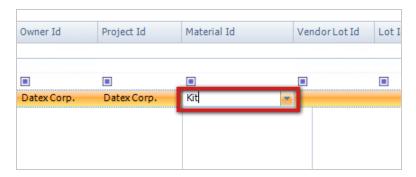


4. Select the **Owner** and **Project** for the item to be Manufactured.

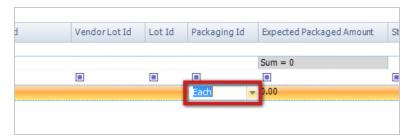


5. Select the Material to be Manufactured.

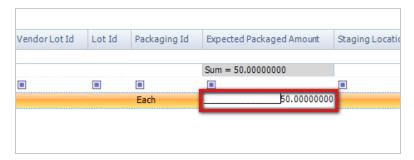
The chose Material MUST have Kit Components defined - see the **Setting Up a Material** tutorial.



6. Choose the **Packaging Type** to Manufacture.



7. Enter the **Quantity** of the Material to Manufacture.



Step 3. Schedule the Manufacturing Request

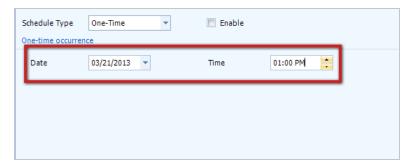
The Manufacturing Request can be set to run just once, or multiple times over an ongoing schedule, for whatever duration you choose. Each time the Request occurs, it will create a Manufacturing Order for the Material specified above, in the Quantity set.

One-Time Event

1. Select One-Time from the Schedule Type list.



2. Set the **Date** and **Time** you would like the Event to occur.



Recurring Count

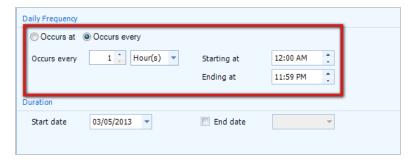
1. Select **Recurring** from the **Schedule Type** drop-down list.



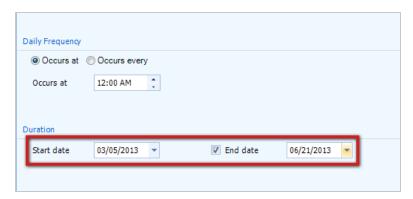
- 2. Select the **Frequency** that the Event will occur from the drop-down list.
 - **Daily**: You can set the amount of days between each occurrence of the Event (recurs every 3 or 4 days, for example).
 - Weekly: You can set the amount of weeks between each occurrence of the Event (recurs every 2 or 3 weeks, for example), and on which day(s) the Event should take place.
 - Monthly: You can set which day of the month the Event will occur on, how
 many months between each instance of the Event (recurs every 1 or 2
 months, for example), and whether to skip the count if the day does not
 occur in the month (Events scheduled for the 31st will not occur in April) or
 reschedule it to the last day of the month (Events scheduled for the 31st will
 occur on the 30th of April).



3. Set the **Daily Frequency** for the Event, to determine at what time of the day it will take place, or how often in its scheduled day it will occur.



4. Set the **Duration** for the recurring Event (over what period of time will the Event continue to recur). If you'd like the Event to continue indefinitely, do not set an **End Date**.



Step 4. Enable and Save the Manufacturing Request

1. Under the **Schedule Details** tab, click to put a check mark in the **Enable** box. This will allow the Manufacturing Request to occur.



2. Click the **Save** button at the top of the screen.

