



ORCHESTRA

**Planning Production
Lab | Beer**



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OnDemand Lab – Production #1

Objective: To be familiar with components of documents that are important for to producing beer

- View item in item master data
- View bill of materials
- Create a bill of materials for wort item already in inventory
- View bill of materials for green beer
- View bill of materials for finished good
- Viewing a production order
- Create relationship maps

Fields will be underlined: followed by what you type (ex. Name: Bill) or execute inside < > (ex. <Enter>)

View item in item master data

Looking at how a beer item (Wort) looks like in the item master data

Navigate to **Modules>Inventory>Item master data**

Important fields to view header area

- Description: wort <Enter>
- **Choose**: wort – pale ale

View a few important fields for wort in the header area

- Item group – set to WIP: wort
- Process type – Set to brewing
- Pack type – UoM – BBL
- Brand – pale ale

General tab

- Additional identifiers: PAL
- Manage item by: always set to batches

PAL is the brand for pale ale (AMA would be for amber, STT would be strout, etc.)

Inventory data tab

- UoM name: Set to BBL for barrels
- Lists the warehouses this wort can be stored in, which is brew house
- Shows what amounts of wort you have in stock, committed, and available

Planning data tab

- Order multiple: Identify how many barrels in one batch of this wort. If you make 100 barrels, then you would enter 100.



- Lead time: If you want to specify how many days, hours, minutes you need to create this wort before using it.

Batches tab

- You need to track each batch you create individually to be able to track it back to production of this item. This lists the date & quantity of each batch.

View bill of materials (BoM)

You want to see recipe for wort- pale ale

There are two ways to view the 'bill of materials'

A. From the 'item master data' view

1. Navigate to **Modules>Inventory>item master data**
2. From the toolbar click the **green left arrow**  to retrieve an Item
3. Right click in the gray area and choose **bill of materials**

B. From **Modules > Production > Bill of materials**

1. Product: < * Enter> to see a list of all recipes
2. Find: wort in the list
3. Choose wort – pale ale

Important fields to view header area

- BOM type: set to production
- X quantity: How many barrels this will create
- To whse: Where the beer is produced (Ex. BH01 is where the wort by default will be made)

Itemized list of components used to make the product (recipe)

- Type: The type of item you're using
- No.: The Orchestrated code associated with the item
- Description: What is the item name
- Quantity: Amount of each item it takes to create the X quantity of this wort
- UoM: The unit of measure for that item
- From whse: warehouse the item is stored in
- Issue method: set to manual when an item is batch managed or variance/loss is likely to occur

You can use the yellow arrow next to the item no. to 'drill down' into the item master data record for this ingredient

Versions button

If you make a change to this BoM by adding, deleting, changing quantities you can save it as a version without disturbing other recipes you created for this same Item



Create a bill of materials for wort item already in inventory

You need to add ingredients to the wort – portlandia porter

Navigate to **Modules > Production > Item master data**

1. Description: *wort <Enter>
2. Find: W
3. **Choose** wort – portlandia porter
4. Right click in the gray area & select **bill of materials**

Bill of materials

Important fields to view header area

- X quantity: This recipe is to make 1 turn of wort to produce the quantity listed here (in BBLs)
 - Warehouse: BH01 (this is the brew house)
 - Item No.: R <Enter>
1. Choose the following ingredients by clicking on the 1st one and then holding down Ctrl and clicking on the remaining items:
 - Brown sugar
 - Hops – fuggle
 - Hops – liberty
 - Malt – amber
 - Malt – chocolate
 2. Click **'Choose'**
 3. Enter a Quantity for each of the items. Any amount will do!
 4. Click **'Update'**
 5. Click **'Okay'** to close out of screen

View bill of materials for green beer

You want to see the wort going into green beer – pale ale

Navigate to **Modules > Inventory > Item master data**

1. Description: Green <Enter>
2. **Choose** Green beer – pale ale
3. Right click in gray area & choose **bill of materials**

Important fields in header area

- BOM type: set to production
- X quantity: 1
- Warehouse: F99 (default)

You will change to the actual fermenter later, right now F99 is a 'place holder' until the actual production date

Important fields item type list

- No.: W1002



- Quantity: 1

This is a 1:1 with the wort since wort is set to produce BBL – one BBL of wort per one BBL of green

This would be very similar to bright beer, so you can do these steps again with the Description: *bright <Enter>

View bill of materials for finished good

You want to see what packaging items go into a keg ½ BBL

Navigate to **Modules > Inventory > Item master data**

1. Description: *keg <Enter>
2. Choose **pale ale – keg ½ BBL**
3. Right click in gray area and choose **bill of materials**

Important fields in header area

- BOM type: production
- X quantity: 1
- Warehouse: A1 (default)

The quantity of each item is a ratio of how much is needed per UoM of this finished good. In this case you are making a ½ keg, so you need .5 BBL, 1 keg shell, 1 keg cap to make this Item.

4. Click '**Cancel**' until you are out of the windows.

Viewing a production order

Navigate to **Modules>Production > Production order**

1. From the toolbar, click the left green arrow 

Important fields in the production order

- Status:
 - **Planned** – Shows BoM Items as committed in inventory but does not take them out of inventory. Also indicates that we are not ready to brew.
 - **Released** – Items still committed in inventory and that we are ready for production.
 - **Closed** – Takes BoM Items are taken out of inventory and puts the produced item into inventory. Indicates production is complete.
- Planned quantity: How many of the items will be produced
- To whse/tank: Where the produced Item will be created/stored
- The list of items comes in from bill of materials (BoM). You can change these items as needed without affecting the original BoM

2. Click '**Cancel**' to exit the production order



Create relationship maps

You want to see how each of the documents are linked, or—in the case of an error—where the link is not made

Navigate to **Modules>Inventory > Item master data**

1. Description: Pale <Enter>
2. Choose Pale Ale – Keg ½ BBL
3. Right click in the gray area and choose **bill of materials**
4. Right click in the gray area and choose **relationship map**

You can see that it took raw materials to make the wort > wort to make green beer > green beer to make bright beer > bright beer, keg shell, keg cap to make pale ale – keg ½ BBL

5. Click '**OK**' and "**Cancel**" on all open windows