Beas Manufacturing Integration

Overview

From product version 19.4, Produmex WMS adds support to the logistical needs of Beas Manufacturing 9.3 PL03 and later. It is recommended to use Beas Manufacturing for production transactions and to use Produmex WMS for stock transactions.

Available features in Produmex WMS:

- Beas-type production lines can be created in the Organizational Structure.
- The Picking for Production and Picklist for Production flows can be used to pick the components of Beas work orders.
- Supporting version control items (I-version) in reception:
  - Reception: No PO Flow
  - Reception: Order Flow
  - Reception: Container
  - Bulk Reception: No PO Flow
  - Bulk Reception: Order Flow
  - ASN Reception Flow (Mobile Client & Open ASN Lines window)
  - Goods Receipt PO window

Additional documentation:

- Beas - WMS integration documentation
- Beas Manufacturing documentation
- Beas Manufacturing release notes
- Beas Manufacturing: version control items

Installation

Produmex WMS

The standards installation process applies to the add-on and the Produmex SB1 Notification Listener must be installed and started as well (see documentation here).

When Beas Manufacturing is installed, Produmex WMS automatically identifies the Beas tables in the database.

Beas Manufacturing

The standard installation process applies to the add-on and the Common Interface must be running (Beas Manage Server > Common Interface). See documentation here.

Important
If you first install Beas Manufacturing and then Produmex WMS and you insert the Produmex Logex Addon Code to the dbo.SBO_SP_TransactionNotification stored procedure manually, make sure that you insert the Produmex code **ABOVE** the Beas Manufacturing code.

Produmex Notification Listener Service

Make sure that you check the configuration file of the Notification Listener Service.

Path: C:\Program Files\Produmex\Produmex SB1 Notification Listener (...)\ File name: Produmex.Foundation.SboNotification.ServiceHost.exe.config

The file must contain the line highlighted in red (see screenshot below). If it is not present in the file, make sure that you add it.

```
<action senderType="BEAS_Request" objectType="*" transactionType="*"
logic="Produmex.Sbo.Logex.SboNotification.Actions.BeasRequests,
Produmex.Sbo.Logex.SboNotification.Actions" />
```

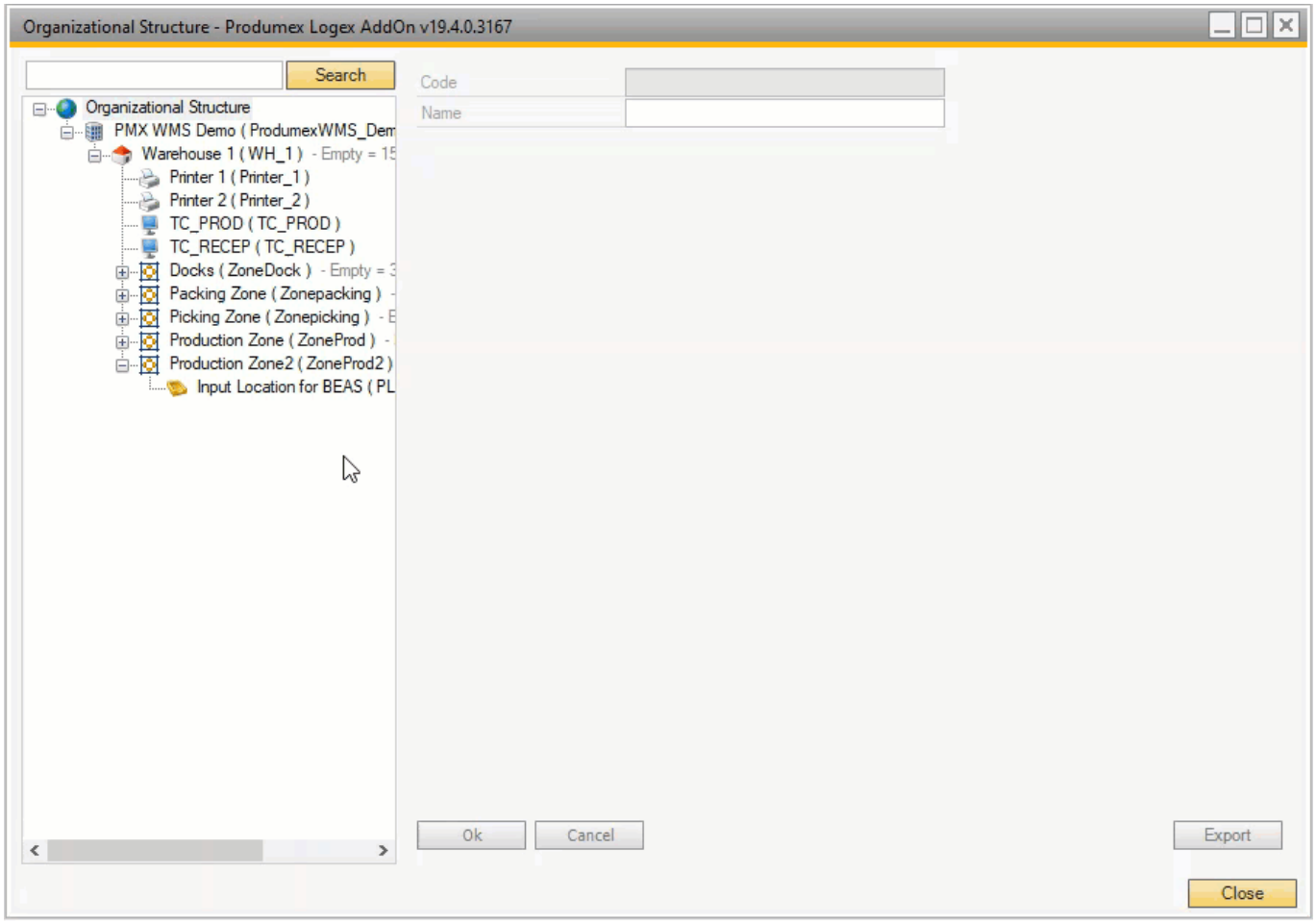


Prerequisites

1. Creating a Beas-type production line

1. Create a new production line in the Organizational Structure.

2. Select *Beas* in the *Type* drop-down menu.



3. Fill in the *Code* and *Name* fields and configure the production line on the *General* tab.

Pick to Location field (optional)
The Pick to Location is the location where the components can be picked to if they are not ready to be used for production and they first must be weighed.

- If the field is filled in, the components are first picked to this location and then they must be moved to the Input Location with the Component Weighing Production flow.
- If the *Pick to Location* field is not filled in, the system uses the Input Location.

Lock Items Picked to this Location?
If the setting is enabled, the system locks the components on the Pick to Location.

Input Location field (mandatory)
The Input Location is the location where the components are picked to or moved to from the Pick to Location. When the components are in the Input Location, they can be moved to the production line with the Move to Production Line flow.

**Active **
Check in the checkbox if the production line is active. A production line can only be active if the Input Location field is filled in.

4. Click OK and the Beas-type production line appears in the Organizational Structure.

2. Selecting an active Beas-type production line

1. Open the (Beas) Work Order Position window.

2. On the Assembly tab select the Extended tab.

3. In the WMS Production Line drop-down menu select the necessary Beas-type production line. The drop-down menu lists only those production lines that have an Active status in the Organizational Structure.

4. Click OK

3. Selecting the warehouse for the material item

1. Open the Bill of Materials window.

2. On the General tab navigate to the Warehouse drop-down menu and select the warehouse in which the production line is located.

3. Click OK.

> It is important which warehouse is selected as the picking process must be performed in the warehouse where the production line is located in your Organizational Structure.

Production picking

The components of Beas work orders can be picked with the Picking for Production and Picklist for Production flows. When the components are moved to the Input Location, Produmex WMS sends a notification to Beas Manufacturing.

Item locking

When an item is reserved for a Beas work order, Produmex WMS converts the Beas reservation into standard locking for the picklist proposal. Then the picklist inherits the locking from the picklist proposal.

Picking for Production Flow

The Picking for Production flow identifies Beas work orders if the work order position is linked to a Beas-type production line.

In this case, when the Picking for Production flow is started on the Mobile Client, the *Select a production order to pick for* screen displays the Beas work orders.



1. The Beas work order document ID and position number.
2. The code of the item to produce.
3. **S** is a status marker indicating that the production has started.
4. The destination location of the picking.
5. The Order date of the Beas work order.

If the selected work order position has Beas reservations, then the reserved stock is proposed for picking. Such stock is marked with a **RESERVED** label.



After the picking is finished, the picked stock is reserved in Beas and locked with Beas type Detail locks on WMS side.

Moving a partially reserved pallet

When picking reserved stock, the maximum quantity to move in one step is the reserved quantity, regardless if there is free stock available from the same item/batch on the logistic unit. The only exception is when moving a full pallet. It is possible to move a full pallet which is only partially reserved in Beas.
On the *Identify Pick Location* screen click the `Other Tasks` button, then click the `Pick Full Logistic Unit` button.



Selecting alternate stock

The reserved stock is not forced, users can pick other available stock after clicking the `Alternate Stock` button. Original reservations are kept when picking alternate stock and has to be removed manually if needed.
On the *Select Alternate Stock* screen the stock is listed in the following order:

- First stock reserved in Beas for the given work order position. Reservations are listed in the order of their creation and are marked with a **RESERVED** label,
- Then the available free stock, listed in the order defined in the *Picking order by* setting on Picking for production controller.



Limitations

- It is not possible to unpick stock that was picked for a Beas work order position.
- Movable locations are not supported when picking for a Beas work order position.
- Only stock located in the same warehouse as the Beas production line can be picked regardless of Beas reservations.
- Serial managed components that are reserved in Beas can only be picked individually.

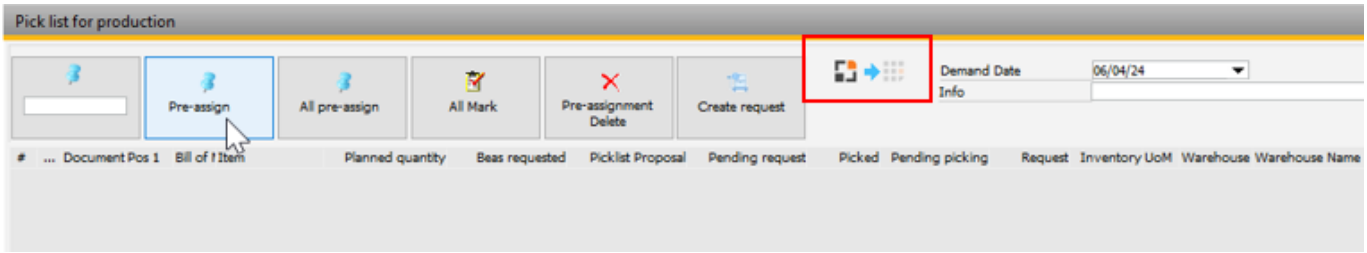
Picklist for Production Flow

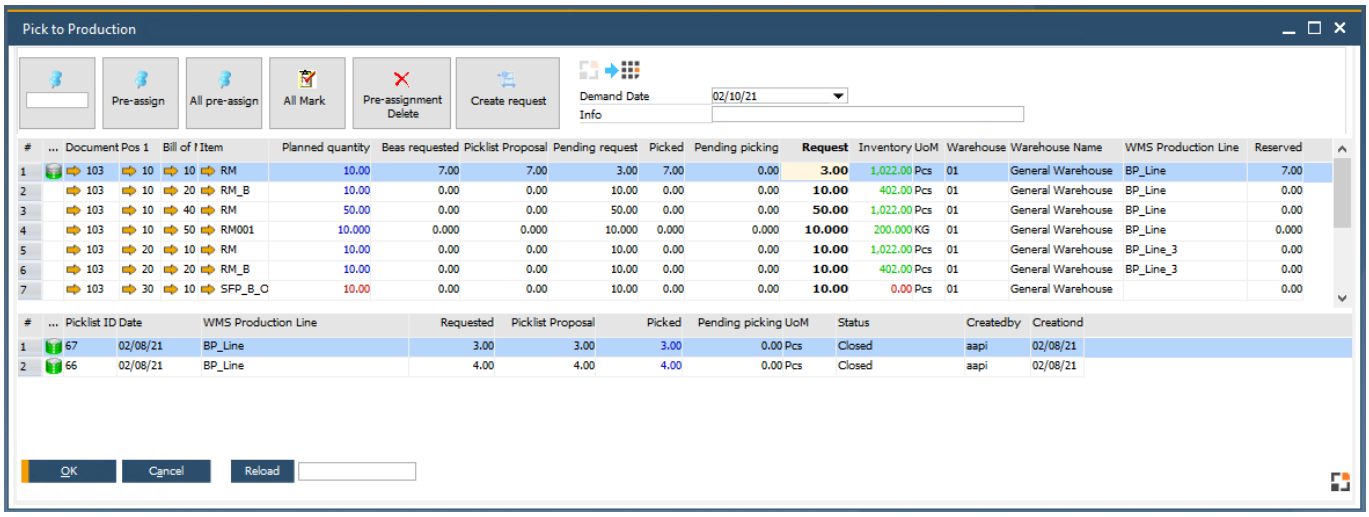
In this workflow, **Beas provides** the material requirements to **Produmex WMS for a work order position to create a WMS Pick List.**

For more information please visit Beas- WMS integration site.

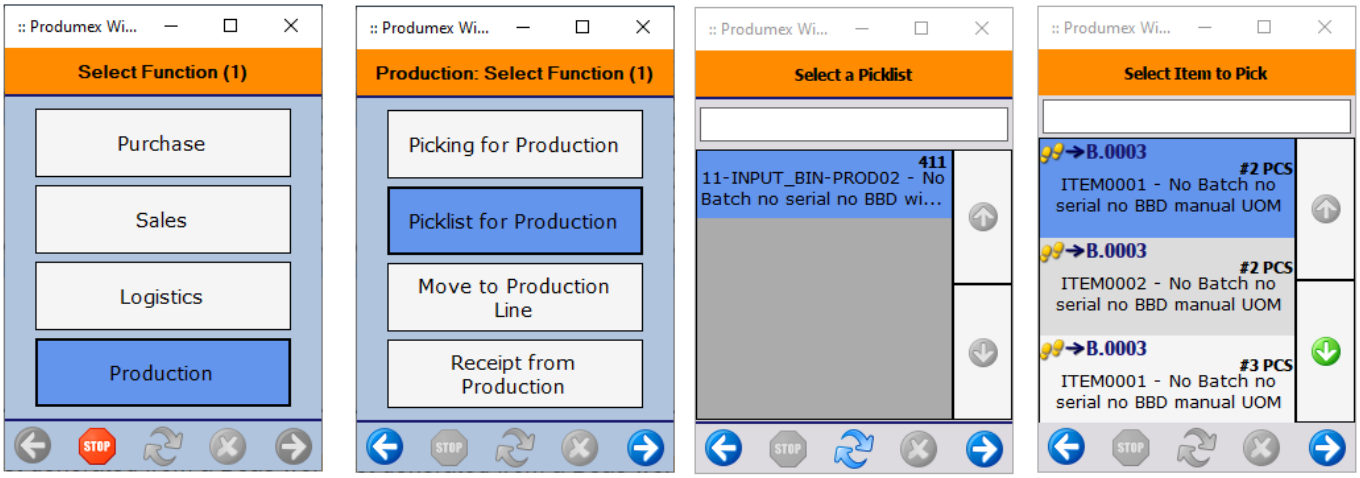
Prerequisite:

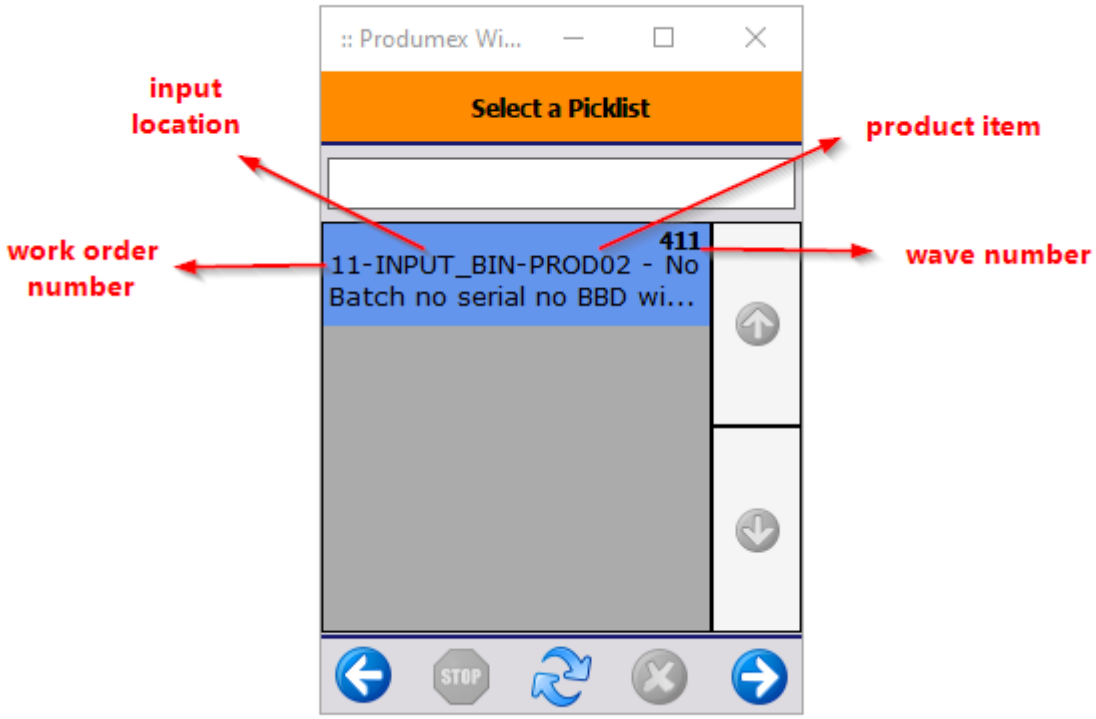
- In Produmex WMS the PMX SBO Notification Listener process must be installed and running.
- In Beas the Common Interface must be running.
- It is recommended to have the Reservation system active.
- It is mandatory to activate “Beas_Commom_Input” and “PMX_NL” in order to make possible the Picklist for Production Flow
- Unordered List ItemBefore starting the flow, make sure that you generate a picklist proposal in the Pick to Production window of Beas Manufacturing.
- Before starting the flow, make sure that you generate a picklist proposal in the Pick to Production window of Beas Manufacturing.





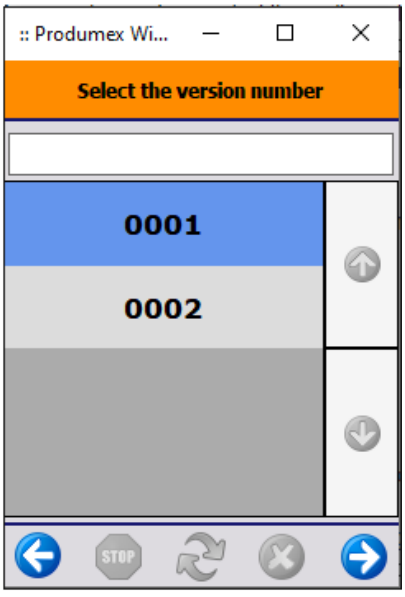
The input of the Picklist for Production flow is a picklist generated from a Beas work order. The flow identifies the picklist generated from the Beas work order.





Supporting version control items in reception

Produmex WMS supports version control items (I-version) during reception flows including items managed by bath number or serial number. During the flows on the Mobile Client a separate *Select the version number screen* is displayed. In Produmex WMS you cannot create new version numbers, the system uses the version numbers specified in Beas Manufacturing.



When the Good Receipt PO document is generated, you can see the version in Batch Number Transactions Report or Serial Number Transactions Report.

1. Reception Flows

The reception flows supporting the version control items are the following:

- Reception: No PO Flow
- Reception: Order Flow
- Reception: Container

Version control items managed by batches:

- After selecting a product, the system asks you to identify batch number and then displays the Select the version number screen.
- If there are other items to be scanned on the logistic unit, you can select the product again and if you identify the same batch number, the system skips the Select the version number screen.
- When the Good Receipt PO document is generated, you can see the version in Batch Number Transactions Report.

Version control items managed by serial numbers:

- After selecting a product, the system displays the Select the version number screen and then you can scan the serial number or define a range. All the serial numbers in the range get the same version number.
- When the Good Receipt PO document is generated, you can see the version in Serial Number Transactions Report.

2. Bulk Reception Flows

The bulk reception flows supporting the version control items are the following:

- Bulk Reception: No PO Flow
- Bulk Reception: Order Flow

Version control items managed by batches:

- After selecting a product, the system asks you to identify batch number and then displays the Select the version number screen.
- If there are other items to be scanned on the logistic unit, you can select the product again and if you identify the same batch number, the system skips the Select the version number screen.
- When the Good Receipt PO document is generated, you can see the version in Batch Number Transactions Report.

Version control items managed by serial numbers:

- After selecting a product, the system displays the Select the version number screen and then you can scan the serial number or define a range. All the serial numbers in the range get the same version number.
- When the Good Receipt PO document is generated, you can see the version in Serial Number

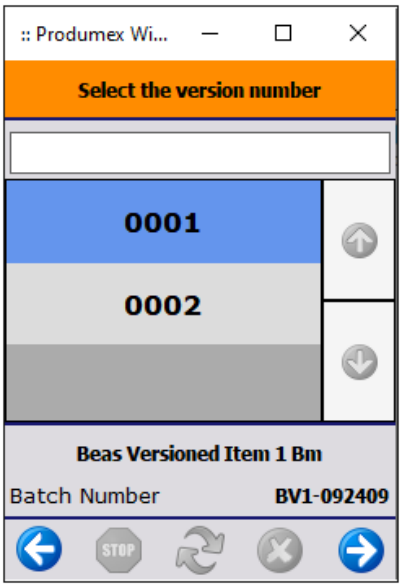
Transactions Report.

3. ASN Reception Flow

From product version 2021.09, the Interfacing Tool handles the BeasItemVersion column of ASN files.

Mobile Client

If the imported ASN file does not contain the item version, the system asks for the version number after selecting the item to receive during the ASN Reception Flow.



If the imported ASN file contains the item version, the system automatically selects the version number and skips the Select the version number screen. The screen is displayed if the wrong item version number has been added to the imported ASN file.

Example of an ASN file with item version number:

```
ObjType;DocNum;LineNum;ItemCode;Quantity;SSCC;MasterSSCC;Batch;Batch2;BBD;Se
rialNumber;UF1;UF2;UF3;BeasItemVersion
22;65;0;BVITEM1;1;00123456000000094;;BV1-092304;;;;;;;0001
22;65;1;BVITEM2;1;00123456000000094;;;;;BV2-0923-05;;;;0001
22;65;2;BVITEM1;2;00123456000000094;;BV1-092305;;;;;;;0005
22;65;3;BVITEM2;1;00123456000000094;;;;;BV2-0923-06;;;;0003
```

When the Good Receipt PO document is generated, you can see the version in the Batch Number Transaction Report or Serial Number Transactions Report.

Open ASN Lines window

In the Open ASN Lines window a separate Beas Item Version column is displayed. The fields of the column can be filled and saved and in this way the Mobile Client does not ask for the version number.

When the Good Receipt PO document is generated, you can see the version in the Batch Number Transaction Report or Serial Number Transactions Report.

Moving stock reserved for Beas

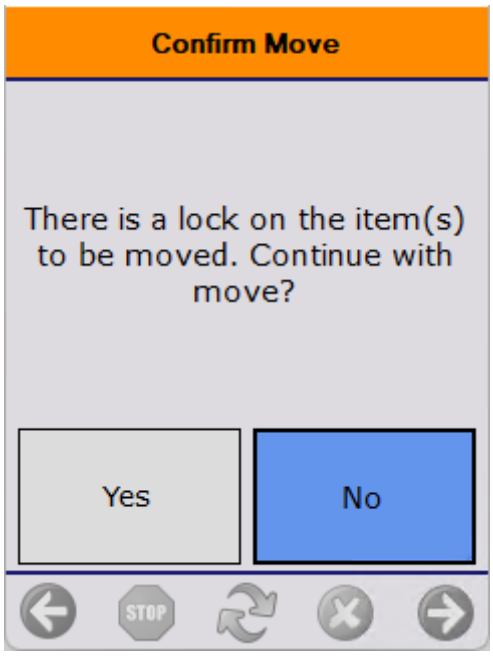
Even though Beas lock are created in Detail level, is possible to move stock reserved in Beas within the warehouse or between PMX managed warehouses. Beas locks are removed before the move and reinstated both in WMS and Beas after the stock is moved.

The reallocation of Beas locked stock is supported in the following functions:

- Mobile client:
  - Ad Hoc Move - Full Logistic Unit
  - Ad Hoc Move - Multiple Logistic Units
  - Ad Hoc Move - Partial Logistic Unit
- Add-on:
  - Inventory Report Ad-Hoc Move

Ad Hoc Move - Full Logistic Unit

After the user identified the destination location, the system checks whether the SSCC has locks. If the logistic unit to move has Beas reservations and no PMX Detail level locks, then an warning message is displayed. The move is performed only after confirmation.



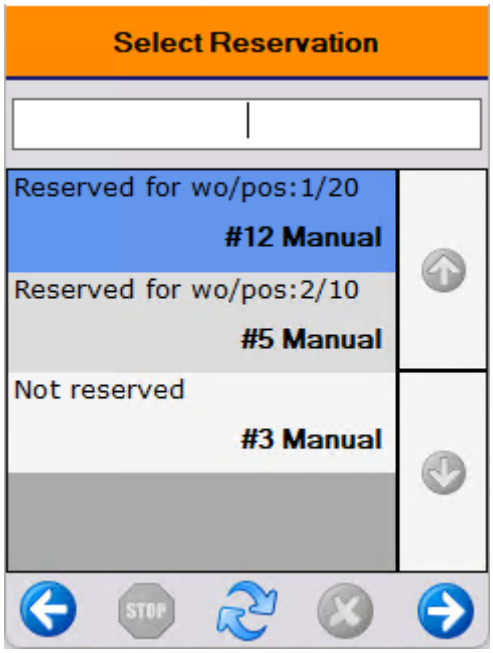
Ad Hoc Move - Multiple Logistic Units

After the user scanned the destination location, the system checks whether the scanned SSCCs have locks. If the logistic units to move have Beas reservations and do not have PMX Detail level locks, an warning message is displayed. The move is performed only after confirmation.

Ad Hoc Move - Partial Logistic Unit

After the product is identified, the system checks if the selected stock has any locks. If the selected stock has Beas reservations, then the following can happen based on the *Partial AdHoc Move Type* setting on the Move Controller:

- If it is set to '*Standard - No Moves Allowed*' then the maximum allowed quantity to move is the free quantity from the given stock. The free quantity is calcualted as the total quantity of the identified product on the selected source location minus the stock locked with Detail level locks (including Beas reservations and WMS Pick List locks for '*Ready*' lines).
  Example: If the selected SSCC has 10 pcs of an item and 6 pcs are reserved in Beas, then only 4 pcs can be moved.
- If it is set to '*Use Default View - Reserved and older base documents first*':
  - If the total quantity is locked for a single work order and position and the product is not managed by serial numbers, then a warning is displayed. The user can proceed with the flow if the move is confirmed.
  - If not the total quantity is reserved in Beas or there are multiple Beas reservations, then the user can select whether to move the free stock or stock reserved for a given work order and work order position.
    Note: Only one reservation line can be moved at once.



- If it is set to '*Use the Defined Custom View*' then only free stock and reservation lines that meet the criteria defined in the *Default Custom View* can be moved.
  - If the total stock is reserved in Beas and it is allowed to move, then a warning is displayed. The user have to confirm the move in to proceed.
  - If there are multiple Beas reservations which can be moved and/or there is free stock, then the *Select Reservations* screen is displayed.

Inventory Report Ad-Hoc Move

See: Performing Move with the Add-On with included WMS/Beas reservations

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