

Ostendo[®]

Container Tracking

Module

(Update 242 July 2021)

Contents

Overview:	1
What is Container Tracking?	1
IMPORTANT POINTS TO NOTE:	2
Container Transactions	2
Pick - Deliveries and Assembly and Job Picks (Issues):	2
Receipt (Purchase Receipting / Assembly Receipting):	2
Container Transfer:	2
Item Rules (New Field)	3
Item Master (New Fields):	3
Item Container Creation Screen (New Screen)	4
Example 1:	4
Example 2:	6
Descriptor Master (New Field):	8
Container Content Groups (New Screen)	8
Content Group Matrix (New Screen)	8
Container Types (New Screen):	8
Container Master (New Screen)	10
Detail Tab:	11
Container Contents Tab:	12
Cleaning Log Tab:	13
Allowable Products Tab:	13
Hold Log Tab:	13
Cross Contamination (New Screen)	13
Detail Tab:	14
Matrix Tab:	15
Container Hierarchy:	15
Picking - Deliveries / Assembly & Job Picks (Issues) / Transfers	15
Job Deliveries:	16
Job Orders Screen (New Button – “Deliveries”)	16
Deliveries Screen (Detail Screen – Close Delivery Button)	16
Receipting (Assembly Order / Assembly Receipts / Purchase Receipting and Shipments):	16
Inventory Change - Amending Container ID’s on Inventory Items	17
Moving Inventory from One Container to Another	17
Freeway:	17

Function Mode Barcode:	17
Container Mode Barcode Report:.....	17
Mode:.....	17
Example Picking Process	18
Chep and Loan Pallets.....	19
Overview:	19
Item Master Setup:	19
Container Types:	19
Inventory Adjustments (New Field- Detail Tab):.....	19
Chep Pallet Procedures:.....	20
Pallet Purchases:	20
Pre-Stocking Customers with your Chep pallets.....	20
Recording Chep Pallet Returns:	20
Recording Damaged Chep Pallets:	20
In-House Damaged Inventory:	20
Customer Damaged Inventory:.....	20
Determining Off Site Customer Chep Inventory (Off Site Containers - New Screen):.....	20
Determining In-House Chep Inventory:	21
Initialisation of Chep Pallet Inventory:.....	21
In-House Inventory:	21
Customer Inventory	21
Container Validation Rules.....	22

Overview:

The Container Tracking Module is included in Update 242 and above. This document provides detailed information of its capabilities. Freeway will be used to scan data recorded to and from Containers. Therefore, this module has been principally designed to work in combination with Freeway rather than solely within Ostendo.

In order to utilise as much of our existing database rules and logic we have decided to use existing logic we already have in place for Item Colour or Grade. This means that you will nominate globally which one of these attributes you intend to use for Container Tracking based upon your Ostendo configuration. Therefore, if the site is already using 'Colour' you would nominate the 'Grade' attribute to be used for Container Tracking or visa-versa. There is a global switch setting that controls this. Once the attribute has been nominated, all screen labels for that attribute will be swapped out to the word 'Container'. **NB: Sites requiring both Colour & Grade will not be able to use this module.**

When viewing Inventory of any item, the attribute of colour or grade will be the actual container ID. Furthermore, the colour or grade label on the screen will display as "Container". Any items that are flagged as container tracked that are not currently containerised will have a Container ID of "--" set in the Grade or Colour attribute.

What is Container Tracking?

Container Tracking for the purposes of Ostendo is the ability to group many individual SKU's into a 'Container'. That Container may itself be within another container and so on. The term 'Container' is a generic term that could refer to Shipping Container / Pallet / Outer Carton etc..

Example:

Let's imagine you have a SKU called '4LWP' representing a 4 Litre tin of White Paint. You have a total stock on hand of 197 cans spread over 2 batches and these are stored on 2 pallets. Further to this, some cans are not palletised. Your Inventory Availability screen would show the following:

90	x	4LWP	Batch: 5354	Container: 24356345
6	x	4LWP	Batch: 9799	Container: 24356345
96	x	4LWP	Batch: 9799	Container: 89676767
5	x	4LWP	Batch: 9799	Container: --

- The above example shows 96 cans consisting of two batches sitting on container 24356345
- 96 cans consisting of one batch sitting on container 89676767
- And 5 cans consisting of one batch that are non containerised ('--' denotes non containerised)

The container module has been designed primarily for Freeway Picking and Receipting, however in the absence of Freeway you can perform picking functions manually within Ostendo, however you will need to select the appropriate "From Container ID" if you are picking stock already containerised and select the "To Container ID" if you are containerising a Sales Delivery / Assembly Pick (Issues) / Job Pick (Issues) / Job Delivery or Transfer.

If you are adding an item TO a container eg: For receipting (either Purchasing or Assemblies) you will need to select the "To Container ID" from a new field on the relevant screen in Ostendo.

IMPORTANT POINTS TO NOTE:

- Not all items may be candidates for container tracking. Just because an item is physically stored on a Container (eg: Pallet), you don't have to indicate it is container tracked. Remember just like any other variant type item, if it is containerised, you will always need to declare, in this case the container number every time you issue it or receipt it. Container tracking for the purpose of inventory is useful for traceability at a Container Level eg: determining which pallet a specific SKU is located on.
- **Any product can be picked TO a container irrespective of that item's container tracking setting. This means any Item / Descriptor / Kitset or Catalogue Code can be picked TO a container for the purposes of transportation. The Container Tracking Flag at an Item level determines whether you intend to track inventory of this item by container, NOT whether you can pick TO a container eg: when picking To a container for Sales Deliveries. Therefore, you may choose not to flag any item as container tracked, but still be able pick it TO a container. (However, you must at least have Container Tracking turned on in the Item Rules)**
- If backflushing is used in Manufacture, you should be aware, that like any other component items that are variant tracked (eg: Batch Number / Serial Number), an "InProgress" Assembly Issue batch will be automatically created in Ostendo, requiring the user to select the appropriate variant (eg: Batch Number) manually within the Assembly Issues screen in Ostendo to allow the Issue batch to be completed. This same logic goes for component items that are container tracked. These will need to be manually selected within Ostendo to complete the batch issue of components, therefore for fully automated backflushing to occur, Container Tracking should not be set for components unless you wish to manually complete the Assembly Issue batch with the appropriate container details.

Container Transactions

Pick - Deliveries and Assembly and Job Picks (Issues):

- Pick product From a container
- Pick product To a container
- Pick product From one container to another container
- Pick a total container as a whole

As each pick is recorded, the items are moved out of stock as is at present. Eg: to the Delivery or WIP etc..

Receipt (Purchase Receipting / Assembly Receipting):

- Receipt product To a container

As each receipt is recorded, the items are moved into stock as is at present, however for containerised items their inventory records will include the Container ID

Container Transfer:

- Transfer stock from a container into stock
- Transfer stock to a container
- Transfer stock from one container to another container

Transfers simply move existing stock from one container ID to another however they still remain in stock though the container ID changes on the product in inventory. For audit purposes, this will result in an inventory transaction reflecting the item container ID changing to another or being set to "--" if the item was decanted back to its lowest form (ie: not containerised).

Item Rules (New Field)

(Inventory -> Settings -> Item Rules):

A new Item Rule has been created to allow Container Tracking to be turned on. This rule globally controls Container tracking in the Database and defines which item attribute (Colour or Grade) field is to be used.

Container Tracking: No Tracking (Default)
 Use Grade for Tracking
 Use Colour for Tracking

NB: When this rule is turned on,

- Ostendo first checks for existence of any current item master records in the database that have a value set for the attribute selected (colour or grade). If any are found, you will not be able to save this setting until all inventory records having that attribute have been replaced without that attribute. (ie: you will need to adjust them out of stock, turn off the attribute at the item master, then adjust them back into stock.)
- The attribute label ("Colour" or "Grade") on all screens will automatically change to the word "Container"

If this rule is changed back to "No Tracking" any containerised products in Stock will have their attribute value (Container ID or "--") removed. All Container and Content history and contents will remain.

Item Master (New Fields):

- **Container (Grade / Colour):** This flag allows you to turn on container tracking at each item level. (Refer [IMPORTANT POINTS TO NOTE](#) section first). When this is turned on, if that item currently has any inventory records, a popup screen will be displayed allowing you to split those inventory records and assign them to specific containers (or not). Containers will automatically be setup based on your defined split of products.
- **Prevent Container Batch Mixing:** This flag prevents the same item being added to a container before that container has been cleaned. There are some environments where you cannot add the same product with a different batch number to a container before that container has been cleaned. This flag compares the containers last clean date / time against the current date and time. Freeway will prevent you adding the item to that container if there have been subsequent picks / receipts for the same item with a different batch number where the container has not been cleaned in between times.
- **Container Content Group:** This allows you to group item codes together for the purposes of allowing or disallowing groups of items being stored on any one container collectively: eg: You may want to prevent explosives from being stored on the same container as flammable products like fuels. ([Refer Container Content Groups](#))
- **Use Virtual Container:** This field is used for Sourced By "Assembly or Custom" items where you wish to track all issues and receipts for this item in a virtual container from the Assembly Order. ([Refer Container Style – Container Types screen](#))

Item Container Creation Screen (New Screen)

This screen is automatically 'popped up' when you turn on Container tracking at an item level and where you have existing Inventory of that item. This screen allows you to split those existing inventory records and link those records to their container respective Containers. (This is a one-off process that occurs when you choose to containerise an item that currently has inventory)

Example 1:

We have existing inventory represented below:

90	x	4LWP	Batch: 5354
107	x	4LWP	Batch: 9799

We wish to split this inventory over 2 containers and leave a remaining quantity un-containerised as follows

90	x	4LWP	Batch: 5354	Container: PL10090
6	x	4LWP	Batch: 9799	Container: PL10090
96	x	4LWP	Batch: 9799	Container: PL10089
5	x	4LWP	Batch: 9799	Container: --

The 'Container Creation' screen shows a top grid with your current inventory records and by default Ostendo will assign a new container to each record on the lower grid for that record. If you wish to group some inventory of differing batches (in this case) together on the same container, you can add records to the lower grid and link one inventory record to another by using the Grouping ID field. (Any character can be used for this)

The screenshot shows the 'Container Creation' interface. The top grid displays inventory records, and the bottom grid shows container allocation. Callouts provide context for the data and actions.

First inventory record selected (points to the first row in the top grid)

Item Code	Site	Warehouse	Location	Unit	Qty	Containerised Qty	Batch No	Non-Containerised Q	Last
→ 4LWP	Company	Main	Primary	Pail	90	90	5354		0
4LWP	Company	Main	Primary	Pail	107	102	9799		5

We have 90 to allocate (points to the 'Qty' column of the first row in the top grid)

Container Type	Container Qty	Inventory Qty	Grouping ID
→ Pallet	1	90	A

Insert any grouping character to group this inventory record with another (points to the 'Grouping ID' field in the bottom grid)

Next inventory record selected

The screenshot shows the 'Container Creation' window with two tables. The top table lists inventory records for item 4LWP. The bottom table shows container allocation for Pallets.

Item Code	Site	Warehouse	Location	Unit	Qty	Containerised Qty	Batch No	Non-Containerised Q	Last
4LWP	Company	Main	Primary	Pail	90	90	5354	0	
→ 4LWP	Company	Main	Primary	Pail	107	102	9799	5	

Container Type	Container Qty	Inventory Qty	Grouping ID
→ Pallet	1	6	A
Pallet	1	96	

6 of this batch 9799 are to be grouped on the same container as those with the same Grouping ID for batch 5354

Non Containerised Qty is the left over qty not allocated to a container for this inventory record

We pressed the Add button to add 96 of batch 9799 to be allocated to a new container

When the Create button is pressed, this will combine any records with the same Grouping ID onto the same container and allocate any un-grouped records on individual containers. By using different Grouping ID's you are able to combine contents together over multiple containers. Any Inventory qty's not defined will be treated as Non-Containerised and will have a corresponding attribute of '--'

Resulting Inventory Records:

The screenshot shows the 'Inventory Availability' window. The 'Inventory Information' and 'Pack Sizes' sections show on-hand quantities. The 'Inventory By location' table at the bottom is highlighted with a red box.

Site Name	Warehouse	Location	OnHand Qty	Unit	Batch No	Container
Company	Main	Primary	5	Pail	9799	--
Company	Main	Primary	6	Pail	9799	PL10090
→ Company	Main	Primary	90	Pail	5354	PL10090
Company	Main	Primary	96	Pail	9799	PL10089

Example 2:

We have a different item 1500-2188 with existing inventory of 600 represented below:

Site Name	Warehouse	Location	OnHand Qty	Unit
Company	Main	Primary	600	Litre

Let's say we want to turn on Containerisation for this item and split the 600 Litres over 5 containers (Pails)

3 x 150 Ltr Pails = 450

and

2 x 75 Ltr Pails = 150

Item Code	Site	Warehouse	Location	Unit	Qty	Containerised Q	Non-Containerised Q
1500-2188	Company	Main	Primary	Litre	600		

Container Type	Container Qty	Inventory Qty	Grouping ID
150L Pail	3	450	
75L Pail	2	150	

Resulting Inventory Records

Inventory Availability

Items Warehouses Locations Details For Assy Issue Demands Customise

List Detail Transaction History

Item Code 1500-2188 **Unit** Litre

Description Yellow Paint

Barcode 1500-2188 **Status** Active

Filtered by Site

Inventory Information

Onhand Qty 600 Supply 0 Demand 0 Available 600

Next Supply Date

Pack Sizes

Onhand Qty 600 Supply 0 Demand 0 Available 600

Show Qty in Pack Size Pack Size

Projected Availability Settings

Period Length Months Include Planned Orders

Inventory By location: Projected Availability Order Details

Site Name	Warehouse	Location	OnHand Qty	Unit	Container
Company	Main	Primary	75	Litre	75L10094
Company	Main	Primary	75	Litre	75L10095
→ Company	Main	Primary	150	Litre	150L10091
Company	Main	Primary	150	Litre	150L10092
Company	Main	Primary	150	Litre	150L10093

Descriptor Master (New Field):

- **Exclude From Container Contents:** This flag prevents this descriptor from being added to the Container Contents when it is picked (eg: Sales Delivery Picking). This setting is relevant to Non-Physical type Descriptors ie: charges that will be picked but do not need to be recorded against the container contents when picked.

Container Content Groups (New Screen)

(Inventory -> Settings -> Container Content Groups)

This allows you to group item codes together for the purposes of allowing or disallowing groups of items being stored on any one container collectively. These rules are evaluated ignoring any Cross Contamination rules or Allowable Product rules for a container which are independent of this.

Example 1: You may want to prevent explosives from being stored on the same container as flammable products like fuels.

Example 2: Food products can only be stored on/in a Food Grade Container.

- **Container Content Group:** Add Group Names as required (100 characters)

Content Group Matrix (New Screen)

(Inventory -> Container Group Matrix)

This screen allows you to define matrix rules between Container Types and Container Content Groups. Essentially, you can 'Either' define **Restrict To** rules **OR Exclude From** rules. (**not both**)

Apart from the List grid which shows all Container Types, this screen has two tabs (Restrict To and Exclude From). Select the appropriate Tab. The Tab you select will depend upon the number of Content Groups involved. ie: It maybe easier to define Exclusions rather than Inclusions as fewer Exclusions maybe required than Inclusions.

Select the appropriate Container Type and click on the relevant *Restrict To* or *Exclude From* tab

- **Content Group:** This is the Container Content Group name that is to be either included or excluded from this Container Type.

Container Types (New Screen):

(Inventory -> Settings -> Container Types)

A new screen will be used to define different container types. A container type allows you to define the following:

- **Container Type Name:** eg: Pallet / Pail / Vat / Silo etc.. You can also define the default type to be use when a container record is first created. (NB: The container Type can then be amended subsequently on the Container Detail screen)
- **Type Description:** This is the name describing this Container Type
- **Prefix:** This 4 character prefix is used as the first four characters of the container ID. This enables you to easily identify whether the item is on a Pallet Vs in an Outer etc when viewing the inventory record via the Inventory Availability screen or selecting a Container.

- **Reusable Style:** (ReUseable or Non Reusable) By default, all containers are ReUsable, however there will be situations when a container is Non Reusable. Eg: A 'one off use' bulk bag off the production line that is decanted into another container later. This bulk bag (container) status will be automatically changed to 'Scrapped' once it has been emptied.
- **Certification Applies:** Indicates whether this container has a Certification Expiry Date applicable.
- **Certification Days:** This is the number of days forward of the container creation date Ostendo will use to determine the Container Certification Expiry Date. Eg: 30 days will mean, when the container is created the Container Expiry Date will default to 30 days beyond the creation date. (This date can be overridden on the container if required)
- **Dimensional Values:** These pieces of information indicate the default capacities of the container and are passed through to the container master on creation of the container where they can be overridden if required.
Zero or Blank means Not Applicable.
The dimensional units of measure will be based upon those specified on the System Master settings.
 - Tare (Unladen) Weight
 - Maximum Weight (The max sum of all items to be stored in the container)
 - Maximum Volume (The max sum of all items to be stored in the container)
 - Maximum Length (The max length of any one item to be stored in the container)
 - Maximum Width (The max width of any one item to be stored in the container)
 - Maximum Height (The max height of any one item to be stored in the container)
- **Container Style:**
 - **Container Contents (Default)** – This reflects a container with contents made up of inventory records. (Stocking Container)
 - **Delivery Contents** – This reflects a container with contents already issued from inventory ie: no inventory records exist (Shipping Container) ie: Job Picking or Deliveries.
 - **Assembly Order** – (Virtual Container) only contains a single Assembly Order contents (ie: both issues and receipts to that same AO.)

This controls whether this container is a virtual storage container for the purposes traceability of manufactured serialised or batched products and their associated component issues. This means that the contents of this virtual container will show all components and their variants (eg: batch / S/N) in one place along with the corresponding receipt of finished product.

Each Serialised Finished Goods Item must be linked to ONE container. Equally in a Batched Finished Goods environment, ONE batch will be associated with ONE container.

This container will automatically be marked as shipped, when the AO is closed however it will remain in the system for historic purposes allowing full component->Finished Product Serialised or Batched Product traceability

In this case the Finished Goods Item must be flagged to 'Use Virtual Container'. ([Refer Item Master – New Fields](#))

This Container style is copied to the Container Master record upon creation of the Container itself. The first issue or receipt to this container will link this container to that AO.

- **Label Report:** A specific Report Layout can be linked to this Container Type. Used when Container Labels are Printed.
- **SSCC (Serial Shipping Container Code):** Used primarily in the Food industry to uniquely identify containers for specific end customers.
 - No SSCC (Default)
 - Manual SSCC (When the container is created, an SSCC field will be available to type or paste in a previously generated SSCC code which will be specific for that container)

Auto SSCC (This option will be built into Ostendo in the future allowing you to generate your own SSCC codes for customer containers)

- **Linked Item Code:** Used for management of Chep Pallet Inventory ([Refer Chep and Loan Pallet Section of this document](#))
- **Adjustment Type:** This is the default Adjustment Type to be used when Chep or Loan Containers are moved in and out of stock. The Default Adjustment Type will be used if this is left blank.
- **Set Default (Button):** This allows you to define this Type as a System Default which is initially populated when new containers are created. (This Type can be amended at the Container Creation stage).

Container Master (New Screen)

(Inventory -> Containers):

A new screen will be used to initially create a single or multiple Containers. When creating a new Container, the defaulted Container Type can be amended. This Type will set the Prefix for the new Container ID. The remaining value of the Container ID will be auto generated with its own unique number.

Global Unique ID (GUID). As the Container ID will only be unique to that Ostendo database, we will also be generating a Global Unique ID (GUID). This is a 40 character ID prefixed with "#TC#" and is unique to ALL Ostendo databases. The reason for this is to eventually forward the container data up to the cloud (Ostendo.Work), thereby making it available to customers to view container content details via a Standalone Freeway solution. These records will be accessible by the GUID being scanned through the Freeway Solution. This field does not need to be displayed on the container screen but does exist in the Container master record.

You will be prompted for a reference and the number of containers (default is 1). This allows you to auto create multiple unique container ID's and also print those associated labels. Each Container record has a Print Status which is updated when labels are printed either en masse or individually as labels are printed.

The Container Label will show both the 2D Barcode of the GUID along with a 1D Barcode for the Container ID. Either of these barcodes may be scanned internally by Freeway in order to link stock to the container. Eg: from Picking / Receipting or Transferring etc.

NB: Even though, internally we are not showing the GUID against our inventory records, Freeway can accept either the GUID 2D Barcode or our internal

Container ID barcode. (both are automatically cross-referenced back in Ostendo in order to interpret each other)

Detail Tab:

- **Container ID:** This ID will be auto generated when the record is saved. It will be a combination of the Container Type Prefix and a unique number
- **Reference:** Enter a relevant reference for this container
- **Status:**
 - Empty (when no content exists for this container – managed by Ostendo)
 - InUse (whenever content exists for this container – managed by Ostendo)
 - Shipped (When the Delivery Status is changed to Shipped – managed by Ostendo) By Default Shipped Containers are not shown on the Container List Grid)
 - OnHold (Managed automatically by the Hold Record Log. Refer Hold Log Tab)
 - Scrapped (When a Non Reusable one time container has been emptied) - managed by Ostendo (These containers are never shown on the Container List Grid)
- **Scrap Container:** This tick box allows you to flag the container as Scrapped. This field is only shown if the Container has a Status of 'Empty'. Scrapped containers are not ever shown in the Container list grid.
- **Print Status:** Indicates whether the container label has already been printed. This is automatically updated by Ostendo upon printing the Container Label
- **Container Type:** This is the Container Type.
- **Last Clean Time:** Automatically updated from the last Cleaning Log entry in the Cleaning Log Tab. This is used when the Cross Contamination Rules are evaluated.
- **Certification Applies:** Yes/No. Indicates whether this container has a Certification Expiry Date applicable.
- **Certification Expiry Date:** When the Certification Applies field is set to 'Yes', this date is used to determine whether goods can be linked to this container up to this date. (The Container Type controls the initial Expiry Date, however this can be changed for this Container if required)
- **Certification Reference:** This is a 100 character reference allowing you to store information relating to the Certification
- **Container Style:** The Container Type defines this Style. (Display only)
- **SSCC Code:** This is only displayed if this Container Type has been set as a Manual SSCC. This field allows you to type or paste in the SSCC code specific to this container.
- **Dimensions:** These pieces of information indicate the default capacities of the container and are based upon the default value of the Container Type. These can be overridden if required.
Zero means Not Applicable.
The dimensional units of measure will be based upon those specified on the System Master settings.
 - Tare (Unladen) Weight
 - Max Weight (The max Weight this Container is rated for)
 - Max Volume (The max Volume able to be stored in this Container)
 - Max Length (The max Length of any one item that can be stored in the container)
 - Max Width (The max Width of any one item that can be stored in the container)
 - Max Height (The max Height of any one item that can be stored in the container)
- **Contents Weight:** This is the calculated aggregate weight of all item weights in the container contents. (Each items weight is held against the Item Dimensions)

- **Contents Volume:** This is the calculated aggregate volume of all item volumes in the container contents. (Each items volume is held against the Item Dimensions)
- **Actual Weight:** This is an override value typically entered once all contents have been recorded from a weigh scale (This would be assumed to include the Tare Weight of the container itself)
(Where this value is not equal to Zero):
 - If the Container Max Weight is not equal to Zero, this value (less the Container Tare Weight) is compared and validated to ensure it is less than or equal to the Max Weight.
- **Actual Volume:** This is an override value typically entered after all contents have been recorded.
(Where this value is not equal to Zero):
 - If the Container Max Volume is not equal to Zero, this value is compared and validated to ensure it is less than or equal to the Max Volume.
- **Upload Status:** (Upcoming Feature) This will be used when we upload Container Contents to Ostendo.Work enabling a Freeway Standalone solution to read the Container Contents.
- **Latest Upload Time:** (Upcoming Feature) This will be used when we upload Container Contents to Ostendo.Work enabling a Freeway Standalone solution to read the Container Contents.
- **Notes:** Used to record any notes associated with this container.

Container Contents Tab:

This screen displays all contents of a container along with associated reference information showing the source of the item (eg: Delivery / Assembly or Job Order) from inventory or the container ID if one container has been loaded into another. The information shown here is populated principally from the Picking or Receipting process to a container. It will also display the contents of Virtual and Inventory Containers.

- **Line Type:** Item Code / Descriptor / Kitset / Catalogue Code / Container ID
- **Code/ID:** This is either the Item etc.. Code or the Container Code (If this container was put into another container)
- **Description:** This is the description applicable to the content
- **Unit:** Unit of Measure associate with the code
- **Qty:** The Picked / Receipted Qty
- **Date:** The Pick / Receipt Date
- **Serial No:** The Serial Number associated with that item
- **Expiry Date:** The Expiry Date of that item
- **Batch No:** The Batch Number of that item
- **Revision No:** The Revision Number of that item
- **Item Grade:** The Grade of that item (Only displayed if Colour is selecting for container tracking in Item Rules)
- **Item Colour:** The Colour of the item (Only displayed if the Grade is selected for container tracking in Item Rules)
- **Item Size:** The Size of the item
- **Transaction Style:** This indicates the Style of transaction used to move the item into the container. Eg: Issue, Receipt
- **Source:** This is the Source of the transaction used to move the item into the container. Eg: Delivery, Change, Adjustment
 - A Source of **Mixed** indicates that multiple Sources were involved in the moving of this item to this container. Eg: two separate Adjustments,
- **Source Reference:** This is the Source Reference of the transaction used to move the item into the container. Eg: Delivery No, Inventory Change, Adjustment No
 - A reference of **Mixed** indicates that multiple References were involved in the moving of this item to this container. Eg: two separate Adjustments,

Cleaning Log Tab:

This screen allows you to manually record cleaning dates / times of this container. The latest record will update the Last Clean Date field on the Container Header.

- **Reference:** Enter a Reference associated with this log entry
- **Cleaning Date/Time:** Enter the actual Clean Date and Time
- **Notes:** Enter any notes you wish to record against this entry

Allowable Products Tab:

This allows you to define specific items to be restricted to this container. In effect you could restrict a container to just one item or a selection of items. (If no records defined here, any item maybe linked to this container).

Hold Log Tab:

This allows you to manually add 'On Hold' or 'Off Hold' records to this container. You may only either Add new records to this screen or Update Reason or Notes field against an existing log record.

If a log record is added to a container with a Container Status not equal to OnHold, the log record will be recorded as 'On Hold' and the Container Status will be updated to 'OnHold'

If a log record is added to a Container that already has a Container Status of OnHold, the log record will be recorded as 'Off Hold' and the Container Status will be updated to Empty or InUse, depending upon whether it has contents or not. A container will be only be returned to a Shipped Status if it was originally Shipped immediately prior to going OnHold.

- **Date/Time:** This is automatically populated with the system date and time and cannot be amended
- **Hold Status:** This is the Log entry status and is dependant upon the status of the container at the time this log record is added.
- **Reason:** This is a 200 character description relating to this entry
- **Notes:** Record any detailed notes relevant to this log entry

Cross Contamination (New Screen)

(Inventory -> Cross Contamination):

This is specific to a Container Type. This matrix defines what mix of products '**cannot**' be used in the same container. Multiple items defined here would mean those products cannot co-exist in the same container.

An example of this might be in the Food industry where a specific container type cannot hold a mixture of Peanut and Non-Peanut type products together. Firstly, you would define the individual Peanut Products, then you would define the individual Non-Peanut Products

Both this rule and the Allowable Products rule on the container work in combination.

The Allowable Products Rule is applied first, then the Cross Contamination Rules. When picking or receipting to a container, Freeway would first check for the Allowable products on the container, then if this passes that condition, the Cross Contamination Rules would be run to check whether that item exists in either the

(List 'A') Peanut OR (List 'B') Non-Peanut lists. If it is not found, then Freeway would allow the stock to be linked to that Container.

Further to this you can define whether the logic runs in a Bidirectional or Unidirectional manner. Simply put, this means the rule either compares the list values in both directions or just in one direction.

The detail screen allows you to define the Matrix header itself, whilst the Matrix tab allows you to define the items in both lists.

Detail Tab:

- **Matrix Name:** This is a user defined name relating to this matrix.
- **Style:** (Never Mix or Since Last Cleaned) Over and above these rules, there is a Cross Contamination Style defined against the Cross Contamination Restriction. This style (*Never Mix or Since Last Cleaned*) is also evaluated when an item is linked to a container.
 - **Never Mix:**
When this Cross Contamination is evaluated, Ostendo will check all current and previous container contents history for that container since inception and prevent any linkage if there has ever been a product in that container stated in the Cross Contamination Restriction list for that Container Type. (This Style would generally be applicable to Temporary containers where **no** cleaning regime is required prior to different types of product being linked to it.) eg: A container for Peanut products may never have Non-Peanut products linked to it irrespective of whether the container has been cleaned or not.
 - **Since Last Cleaned:**
When this Cross Contamination is evaluated, Ostendo will check all current and previous container contents history going back to the "Last Cleaned Date" on the Container Master record for that container and prevent any linkage if there has ever been a product in that container stated in the Cross Contamination Restriction list for that Container Type. (This would apply generally to Temporary containers where a cleaning regime **is** required prior to different types of product being linked to it.) eg: A container for Peanut products may only have Non-Peanut Products linked to it **after** the container has been cleaned.
- **Directional Style** (Bidirectional or Unidirectional): This defines whether the rule should look at item values in both directions or just one.

For the purposes of this document, List A refers to the "First List Caption", whilst List B refers to the "Second List Caption"

Bidirectional- Items compared in List A to List B
 Items compared in List B to List A
Unidirectional – Items compared in List A to List B only

Example of Bidirectional:

Where Peanut SKUs can never be mixed with Non-Peanut SKUs whether they exist in List A or List B

Example of Unidirectional:

Where lighter shaded paints must be linked first before darker shaded paints. In this case the lighter shaded paint SKUs would be specified in List A and the Darker in List B

- **Reference:** Use this to enter any information you wish to store relating to this Matrix.

- **Status:** Active or InActive To control whether the Matrix should be currently Active or not
- **First List Caption:** This is the Heading you wish to give List A. This caption will appear in the Matrix Tab for List A
- **Second List Caption:** This is the Heading you wish to give List B. This caption will appear in the Matrix Tab for List B
- **Notes:** Record any notes specific to this Matrix

Matrix Tab:

This tab is split into Upper and Lower grids. Items defined in the Upper grid refer to List A whilst items defined in the lower grid refer to List B. Clicking in the appropriate grid area (upper or lower) will dictate which grid records you are modifying. The defined First List Caption and Second List Captions are displayed in the respective Grid areas.

- **Item Code:** Select the Item Code for this grid
- **Item Description:** This is the current description for this item

Container Hierarchy:

Containers can be linked to form a hierarchy of containers relating to one another. In other words, an Outer Carton Container could be linked to a Pallet Container. This means that each container's content will be visible at each level.

eg: Determine Container ID for a Pallet, then drill down further to determine Outers within it, and then finally SKU's within each Outer or alternatively, go up from the SKU to determine the pallet it is on. If the item is in stock, the Inventory records will show the container one level up of the SKU is located in from within the Inventory Availability screen.

Picking - Deliveries / Assembly & Job Picks (Issues) / Transfers

The Container Tracking module has been designed principally around Freeway, however you can manually pick **any** stock **TO** a Container (providing Container Tracking is turned on in the Item Rules) in Sales Deliveries / Job Deliveries or Job Issues (for the purposes of transportation) or Assembly Issues in the case of recording contents of a Virtual Container ([Refer Container Type - Style](#))

The following screens now have a new field on the pick (issues) record called "**To Container**"

- Sales Deliveries (Lines Tab)
- Job Deliveries (Lines Tab)
- Job Order (Lines -> Actual Issues Tab)
- Job Transactions (Lines Tab)
- Assembly Order (Lines -> Actual Issues Tab) only used when Virtual Containers are in use for the Item being manufactured.
- Assembly Batch Issues (Lines Tab) only used when Virtual Containers are in use for the Item being manufactured.
- Assembly Order (Header -> Receipts) only used when Virtual Containers are in use for the Item being manufactured.
- Assembly Batch Receipts (Lines Tab) only used when Virtual Containers are in use for the Item being manufactured.
- Transfers (Lines Tab) (Allowing you to move an existing inventory record to another container)
- Quick Transfers) (Allowing you to move an existing inventory record to another container)

You can select the **TO** Container ID into this field in order to link the pick / issue or receipt record to that Container. This process automatically populates the Container Contents.

Job Deliveries:

This is a new process, **NOT** exclusive to Container tracking. ie: You can use this process even if you are not using Container Tracking.

A new process has been developed for dealing with Job Deliveries. We make use of the existing Sales Deliveries process and screens by linking to a Job and Job Task instead of a Sales Order.

Previously the Job Transactions screen was used to process Job Deliveries, however this involved numerous steps (This screen and process will remain for those wishing to continue with this existing process)

A Job Delivery can now instead be initiated from a "Deliveries" button on the Job Screen. This will shortcut you through to the Sales Deliveries screen. In essence, this allows you to manually create a 'Delivery', however in this case the Delivery itself is to be linked to the Job and Job Task (*NB: The Task must be set to "Multiple Job Lines can be linked to this Task"*).

Once the Delivery has been created, you are able to pick the lines against this delivery and optionally record each item picked into a Container. ie Goods for the delivery maybe physically put on a container to be delivered to the customer. This means the Delivery Pick and or Drop Off processes can be handled through Freeway in the same manner as current Sales Deliveries are handled.

Job Orders Screen (New Button – "Deliveries")

This takes you to the Create Deliveries screen where you can create the Delivery and optionally select a Job Task if there are multiple tasks on the job

Deliveries Screen (Detail Screen – Close Delivery Button)

This screen behaves similarly to the current Sales Deliveries screen however after you have picked the lines, and returned to the Detail Tab and pressed the 'Update Delivery Status to Shipped' you can then press the 'Change to Closed' Button to close-out the Job Delivery.

Alternatively you may optionally choose to leave this delivery as 'Shipped', then when either the Job Task or the Job itself is 'Closed', any 'Shipped' deliveries will be automatically closed at that point.

Receipting (Assembly Order / Assembly Receipts / Purchase Receipting and Shipments):

When receipting Items into stock where Container Tracking turned on for the item, the Container field will be available allowing you to record the container the goods are to be stored in/on. (NB: The Container Id must already have been created)

Inventory Change - Amending Container ID's on Inventory Items

There will be occasions within Ostendo where you will need to either swap containerised inventory from one container to another or remove an inventory record from a container in total. Either of these actions can be performed by using the Inventory Change screen.

To move an item from one container to another, simply amend the Container ID by clicking and browsing to a new Container.

If you wish to remove an inventory item from a container, simply delete the Container Reference. This will return the Container Reference to '--' (Un-Containerised)

NB: The inventory change does not allow you to split an existing inventory record ([Refer Moving Inventory from one Container to another](#))

Moving Inventory from One Container to Another

Apart from using the Inventory change to simply amend an existing inventory record linked to a container, you may also require some inventory to be split from one container to another.

For this, process, we suggest you use the Inventory Transfer or Quick Transfer options.

Eg: An existing Inventory record of 30 linked to Container PL1003 is to be split over two containers (one with 20 in container PL1003 and the other with 10 in Container PL1544) you would process a Quick Transfer of 10 from Container PL1003 TO Container PL1544. You will now be left with two separate inventory records associated with different containers.

Freeway:

Function Mode Barcode:

If Container Tracking has been turned on, Freeway will prompt for a mode barcode prior to picking or receipting. This barcode is an internal barcode used by Freeway to denote the subsequent Pick or Receipting or Transfer function (mode) in Freeway. These barcodes define which of the following steps the operator will perform next. Each mode will have its own system mode barcode.

Container Mode Barcode Report:

Mobility -> Reports -> Mobility Barcode Report

This report generates a printout containing the 5 barcodes used to control the Freeway Container Mode when picking and receipt via Freeway as described below.

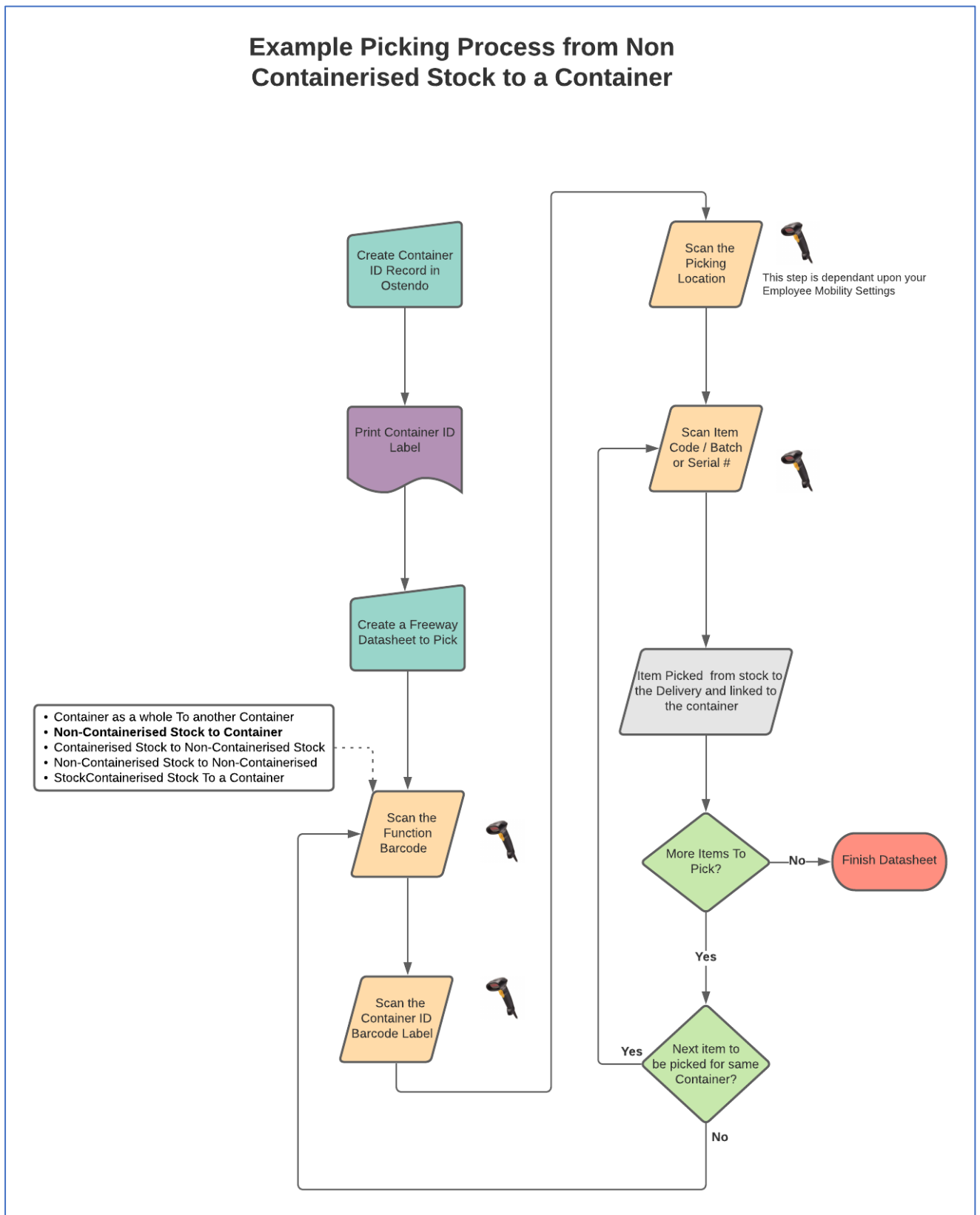
Mode:

- Container as a whole To another Container
- Non-Containerised Stock to Container
- Containerised Stock to Non-Containerised Stock
- Non-Containerised Stock to Non-Containerised Stock
- Containerised Stock To a Container

In practice, the Freeway user would first scan one of the above mode barcodes, then all subsequent picks / receipts for that datasheet behave in that manner, until the user then re-scans another mode barcode, in which case then all subsequent picks / receipts for that datasheet behave in that new manner and so on.

Example Picking Process

Example Picking Process from Non Containerised Stock to a Container



Chep and Loan Pallets

Overview:

(This document refers to the term 'Chep Pallets' however this should be interpreted as a generic phrase referring to a pooling container services item eg: rental or loan shipping container).

Ostendo now allows you to manage Chep Pallet stocks in conjunction with Container Tracking. By Linking an Item Code to a specific Container Type you are able to manage Chep Pallet inventory linked to all containers with this type. Ostendo will then manage your available In-House inventory of these as well as manage inventory of these pallets on-supplied to your customers.

This enables you to determine your current Chep 'In-House' inventory in addition to determining how many pallets are at each customer's site.

When Chep pallets are initially charged to you, they will be receipted into your In-House inventory.

Later, when these pallets are allocated to Container IDs and those pallets are 'Shipped', Ostendo will maintain a special Chep inventory record by Customer. A normal inventory transaction will also be recorded against the Linked Item Code to deduct it from your In-House inventory and add that quantity to a special Chep Inventory record held by customer. As these transactions are not charged to the end customer, there will be no invoicing or COS transactions generated, however an inventory adjustment batch will be created and posted to reflect the deduction of In-House inventory and increase of Customers Offsite Container Inventory. Any financial entries created as a result of the Linked Item Codes cost will be posted based upon the Inventory Adjustment Type used.

IMPORTANT CONSIDERATIONS – CHEP PALLETS:

It should be noted that the recording Chep pallets has been primarily developed for a Distribution process involving a formal Pick -> Pack -> and Despatch, ie: Sales Deliveries only.

When multi sites are in use, you should setup multiple Linked Items Codes to represent each site, however the In-House transaction will be based on the item Site Master record of that linked code.

The Item default warehouse / location will be used where site records are not used.

Item Master Setup:

- Setup a new Item(s) to reflect the different Chep Pallet sizes and types you wish to track.
- We suggest you turn on "Prevent Negative Stock For This Item" if it is not already turned on globally.

Container Types:

- **Linked Item Code:** This is the item code that In-House Chep pallet will be linked to. Any containers with a Linked Item Code will allow Ostendo to maintain In-House and Customer Chep pallet inventory.

Inventory Adjustments (New Field- Detail Tab):

Company Style: (Customer / Supplier / None - default): This allows you to link the Chep pallet transaction to a Customer or Supplier. (Refer [Chep Pallet Procedures](#) for more details)

Company Name: This displays the corresponding lookup for Customers or Suppliers dependant upon the Company Style Selection

Chep Pallet Procedures:

Pallet Purchases:

This can be achieved by one of two methods, depending upon whether a suppliers invoice will follow: Both methods will update the In-House qty on hand.

- 1) Recording a Purchase Receipt for the Linked Item Code or
- 2) Recording a *positive* Inventory adjustment for the Linked Item Code after selecting the company style of *Supplier* and link this Adjustment to the Supplier.

Pre-Stocking Customers with your Chep pallets

There may be circumstances when you wish to simply supply a customer with some of your In-House Chep pallet inventory. This can be recorded by way of a *negative* Inventory adjustment for the Linked Item Code after selecting the company style of *Customer* and link this Adjustment to the Customer. This will deduct from your In-House inventory and add to that customer's Chep Pallet inventory record.

Recording Chep Pallet Returns:

This assumes all returned pallets are in good condition. (Refer to [Customer Damaged Inventory](#) if there are any damaged pallets.)

- 1) Record a *positive* Inventory adjustment for the Linked Item Code after selecting the company style of *Customer* and link this Adjustment to the Customer. This will deduct from your customer's Chep pallet inventory record and increase your In-House inventory

Recording Damaged Chep Pallets:

Essentially **all** Chep Pallet Write Off's must be conducted from your In-House inventory.

In-House Damaged Inventory:

- 1) Create a *negative* Inventory Adjustment for the linked item code, with the company style of *None*. This will deduct from your In-House inventory

Customer Damaged Inventory:

In this case you will need to adjust the Customer Chep Pallet inventory (which will deduct from your customer's Chep Pallet inventory and return that stock back to your In-House inventory). You would then write it off from there.

- 1) Create a *negative* Inventory Adjustment for the Linked Item Code, after selecting a company style of *Customer* and link this Adjustment to the Customer. This will deduct from your Customer's Inventory and increase your In-House inventory
- 2) Create a *negative* Inventory Adjustment for the linked item code, with the company style of *None*. This will deduct from your In-House inventory
- 3) Finally, you may choose to charge your customer for these damaged pallets. Do so by raising an invoice using a Descriptor Code to reflect the damage charge.

Determining Off Site Customer Chep Inventory (Off Site Containers - New Screen): ([Inventory -> Off Site Containers](#))

- This screen displays Chep pallet inventory by Customer by Container Type.
 - The list grid shows the Total Off Site Chep Pallets for all Customers linked to the corresponding Item Code.
 - The Detail screen shows individual customer totals by Container Type.

Determining In-House Chep Inventory:

- The Inventory Availability Screen can be used to determine your current In-House inventory
- The Inventory Availability transactions screen also shows all movements of Chep Pallets including purchases, issues / Return to/from Customers and write offs.

Initialisation of Chep Pallet Inventory:

This procedure allows you to record initial Chep Pallet In-House and Customer inventory when first implementing Chep Pallet Inventory.

In-House Inventory:

- Process a *positive* Inventory Adjustment (include cost if required) for the linked item code after selecting a Company Style of *Supplier* and link this Adjustment to the Supplier

Customer Inventory

- Process a *positive* Inventory Adjustment (include cost if required) for the linked item code and select a Company Style of *supplier* and link this Adjustment to the Supplier. (This will add to your In-House inventory)
- Process a *negative* Inventory adjustment for the linked item code and select a Company Style of *Customer* and link this Adjustment to the Customer. This will deduct from your In-House inventory and add to that customer's Chep Pallet inventory record.

Container Validation Rules

Specific validation rules are run dependant upon whether contents are being added **TO** a Container or being removed **FROM** a Container.

When an Item is **Added TO** a container the following rules are run:

- **Container Status:**
 - If the Container Status is either **Scrapped** or **OnHold**, this will cause this transaction to be rejected.
- **Container Content Group:**
 - If the item has a linked Content Group associated with it, Ostendo will check for **Restrict To** or **Exclude From** rules against the Container Content Group Matrix. Based on this evaluation, the transaction will be accepted or rejected.
- **Certification Expiry:**
 - The Certification Expiry Date on the Container Master is compared to the current date of the transaction. Any date greater than or equal to this Expiry Date will cause the transaction to be rejected.
- **Allowable Products:**
 - Any **Allowable** items found against this Container Master record, are compared to the item for this transaction. If there is no match, the transaction will be rejected.
- **Cross Contamination:**
 - The item being added will be compared to List 'A' or 'List 'B' entries for this Container Type (depending upon the Directional Style, refer below). If an entry with this item is found, Ostendo will check the Contamination Style field value.
 - If that style equals **Never Mix**, all current and previous contents history for that container is checked and the transaction is rejected if a container contents entry is found with this item irrespective of whether that container has ever been cleaned.
 - If that style equals **Since Last Cleaned**, all current and previous contents history going back to the Last Cleaned Date for that container is checked and the transaction is rejected if a container contents entry is found with this item since that clean date.
 - Directional Style: Controls the logic above however if directional style equals:
 - Bidirectional: Both List 'A' and List 'B' are evaluated equally.
 - Unidirectional: If the Item is found in List 'B' ahead of another item already in the contents found in List 'A' the transaction is rejected.
- **Container Max Length (Where this value is not equal to Zero):**
 - The Item Dimension record relating to Length is compared against the Container Max Length. The transaction is rejected if the item length exceeds this.
- **Container Max Width (Where this value is not equal to Zero):**
 - The Item Dimension record relating to Width is compared against the Container Max Width. The transaction is rejected if the item width exceeds this.
- **Container Max Height (Where this value is not equal to Zero):**

- The Item Dimension record relating to Height is compared against the Container Max Height. The transaction is rejected if the item height exceeds this.
- **Container Max Weight (Where this value is not equal to Zero):**
 - The sum of the container contents weights (including this transaction) are determined and compared to the Max Weight defined on the container. The transaction is rejected if the sum content weight exceeds this.
- **Container Max Volume (Where this value is not equal to Zero):**
 - The sum of the container contents volume (including this transaction) is determined and compared to the Max Volume defined on the container. The transaction is rejected if the sum content volume exceeds this.
- **Prevent Container Batch Mixing:**

If the item is batch controlled, Ostendo checks for existence of that item/batch in the container contents. If previous contents exist for this combination, the transaction is accepted, otherwise if the batch number is different and there is no subsequent Cleaning Log entry, the transaction will be rejected.

When an Item is **Removed FROM** a container the following rule is run:

- Container Status:
 - If the Container Status is either **Scrapped** or **OnHold**, this will cause this transaction to be rejected.